

**FINANCING TECHNIQUES, GOVERNMENT POLICY AND FINANCIAL
PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN BARINGO
CENTRAL SUB- COUNTY, KENYA**

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**A THESIS SUBMITTED TO THE BOARD OF POST-GRADUATE STUDIES
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE
CONFIRMATION OF MASTER OF BUSINESS ADMINISTRATION
(FINANCE) OF THE SCHOOL OF BUSINESS AND ECONOMICS,
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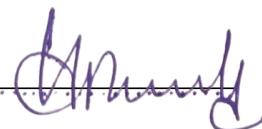
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DEDICATION

I dedicate this work to my beloved husband Mr Samuel Annuh Loktet and my beautiful children; Evans, Ammon, Hildah and Lynne whom I believe this work will be an inspiration in their lives which will propel them to the greater heights of education.

ACKNOWLEDGEMENT

I am indeed grateful to the Almighty Father; the sole source of my health, strength, inspiration, and intellectual ability. It is also a great pleasure to acknowledge my beloved parents and husband for their unwavering support and encouragement throughout the process of completing this thesis. I extend my heartfelt appreciation to my family for their moral support, which was instrumental in achieving this milestone. My sincere gratitude goes to my supervisors, Dr. Francis Nyarombe and Dr. Dennis Nyamasege, for their valuable scholarly advice, guidance, and constructive feedback that greatly contributed to the quality of this work. I also wish to thank all the lecturers who imparted knowledge during my coursework, whose teachings laid the foundation for this research.

Special thanks to my classmates for their positive critiques and peer support, which enriched my understanding and approach to this study. I am also deeply appreciative of the respondents who willingly participated and provided insightful feedback, making this research possible. Lastly, I acknowledge the county government for granting permission to interact with SMEs owners and management, without which this study would not have been feasible.

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ABBREVIATIONS AND ACRONYMS

BIS	Business Innovation and Skills
CBEM	County Business Environment for SMEs
CGB	County Government of Baringo
CIDP	County Integrated Development Plan
CSBFP	Canada Small Business Financing Program
CVI	Content Validity Index
EAFRD	European Agricultural Fund for Rural Development
ESF	European Social Fund
FFS	Formal Financial Sector
GDP	Gross domestic product
ICDC	Industrial and Commercial Development Corporation
IFS	Informal Financial Sector
KNBS	Kenya National Bureau of Statistics
MDG	Millennium Development Goal
MFI	Micro Finance Institutions
MITI	Ministry of International Trade and Industry
NGO	Non-Governmental Organization
OLS	Ordinary Least Squares
ROE	Return on equity
ROSCA	Rotating Savings and Credit Associations
SACCO	Savings and Credit Cooperative Organization
SME	Small and medium enterprise
WEF	Women Enterprise Fund
YEDF	Youth Enterprise Development Fund

ABSTRACT

SMEs' access to financing is important for growth, competitiveness, and sustainability. However, the effectiveness of different financing techniques varies across firms, particularly in rural areas where access to formal financial services remains limited. This study examined the influence of financing techniques and government policy on SMEs financial performance in Baringo Central Sub-County, Kenya. The study assessed the effects of traditional bank loans, crowdfunding, fintech solutions, government programs and development bank initiatives on SME performance. The study was anchored on Financial Capital Theory, Signalling Theory and Pecking Order Theory. A descriptive research design was approved, and stratified random sampling was used to select 317 sample size from a population of 498 owners /managers in key sectors. Data were collected using structured questionnaires and analysed using both descriptive statistics (mean, standard deviation, kurtosis and skewness) and inferential statistics (simple regression and multiple regression analysis). Ethical standards including informed consent, confidentiality, voluntary participation and ethical approval, were observed throughout the study. The findings revealed that crowdfunding and fintech solutions had significant positive effects on SMEs financial performance. Crowdfunding had a coefficient of $\beta=0.675$, $p<0.001$) and explained 48.5 % of the variance in performance. Fintech solutions had the strongest effect, the $\beta=0.801$, $p<0.001$), explaining 63.1 % of performance variance. The study concluded that traditional bank loans were less preferred by SMEs due to their perceived rigidity and limited returns. Crowdfunding, fintech solutions, and government programs provide greater benefits. Fintech solutions emerged as the most influential financing technique. The study recommends promoting flexible financial products, strengthening digital infrastructure, increasing SMEs awareness of alternative financing options, and developing supportive government policies. These measures improves access to finance, enhance SME financial performance, and promote sustainable growth in Baringo Central Sub-County.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Financial results refer to the measure of a firm financial performance and its ability to generate profits over time, assets, and equity. It is an indicator of the organization's success and future, reflecting how effectively it utilizes its resources to achieve its financial goals. Common metrics used to evaluate financial performance include profitability ratios, liquidity ratios, and efficiency ratios (Sharma & Kumar, 2022). These metrics offer information on firms' operational efficiency, financial stability, and profitability potential. Financial performance significantly enhances SMEs' profitability and stability by improving budgeting and planning as reflected in improved net profit margins and current ratios (Wambua and Mutua, 2022). Robust corporate governance practices as measured by return on equity and debt-to-equity ratios positively influence SME financial outcomes (Odhiambo (2023). Financial management practices in driving profitability and asset utilization, reinforcing the relevance of return on assets (ROA) and inventory

Financial performance is strongly influenced by internal financing preferences, with SMEs favouring retained earnings, bank overdrafts, and government funds, while increasingly tapping into internal digital finance options (Bohrium, 2017; Colab, 2023). External pressures have been introduced to encourage SME lending, but there are concerns over middle-class debt (Reuters, 2025; FT.com, 2025). According to the studies, profitability ratios and liquidity ratios are the two financial ratios that are used to measure the financial performance of SMEs (Razak et al., 2021; Ramdan et al., 2022). Rwandan research stated that SME performance within resource accessibility and institutional environments. Habineza (2023) observed that access to finance measured through bank borrowing, collateral availability and interest rates had a significant positive effect on SME profitability and liquidity ratios in Kigali's industrial sector. Mutandwa et al. (2015) emphasized that entrepreneurial skills, infrastructure quality, and marketing practices significantly influenced SMEs, measured via ROA and sales growth. (Jean Bosco et al,2020) in Musanze District found that borrowing and interest rates significantly influence SME financial

outcomes, highlighting the importance of capital structure profitability and market ratios in performance assessments.

Studies revealed that both internal factors and external variables significantly affect SME financial outcomes. The study in Mitooma District reported that equity and debt capital, and retained earnings each significantly predicted SME performance, with adjusted $R^2=0.459$, using net profit margin and ROA as key indicators (Obed et al., 2023). Nakiranda and Onsiro 2022 conducted a study which revealed that liquidity ratios and sales growth were salient indicators of financial performance among the companies in Jinja. The working capital management was found to be important because it is able to explain around 31 % of the variance in profitability (ROA, ROE) among Kampala SMEs, as indicated by Mayanja (2020). This means that cash, receivables, and inventory management strategies are important considerations. Financial performance of SMEs is often expressed in terms of profitability and cash-flow measures. It was found that a positive business environment was positively and strongly related to SME financial performance while operational efficiency and market conditions were not (Okwu, 2015). Enoch, Digil, and Arabo (2021) conducted studies on the effect of microfinance and credit policies on portfolio quality and operational productivity in Nigerian microfinance institutions and found that strict credit appraisal policies have a significant positive effect on the quality of a microfinance institution's portfolio.

Empirical studies on the subject of Lagos State MSMEs showed that accounting controls have the ability to explain up to 65% of the variation in the profitability of MSMEs (studies found $r = 0.758$, $p < .01$), hence meticulous accounting controls are the ones that influence the profitability of MSMEs. Return on sale, return on assets and operating cash flow ratios are major metrics and key drivers are governance in credit practices, accounting rigor and enabling regulatory environments. Working-capital management, which is considered one of the most important management areas in SMEs, is identified. The randomized controlled trial on SMEs in Accra showed that these improvements in financial literacy and better inventory, receivables, and payables practices resulted in an increase of ~26% in the profit of these SMEs, resulting from shorter cash conversion cycles, higher sales, and better liquidity management. The panel analysis of listed non-financial firms revealed that there is a positive relationship

between cash flow ratio and ROCE ($\beta = 0.105$, $p < .05$) but no significant relationship between cash flow ratio and excess liquidity. Key influencing factors include financial literacy levels, working capital efficiency, and credit access, with financial performance measured via ROCE, ROA, net profit margin, and cash flow ratios.

A recent study on Ethiopian commercial banks using loan-to-deposit, deposit-to-total asset, and capital adequacy ratios as predictors found these positively affect return on assets (ROA), though rapid asset growth negatively influence performance. Earlier studies by Teshome, Debela, and Sultan (2018) identified bank size, operational efficiency, non-performing loan ratios, and credit interest income as significant determinants of bank ROA. Within the SME sector, emerging literature suggests factors such as access to credit, owner financial decision-making capacity, and accounting practices influence firm performance. Standard performance metrics include ROA, ROE, net profit margin, and non-performing loan ratios, with influencing factors spanning capital structure, liquidity management, and financial strategy framework. GDP and employment contribution by SME stimulated attention to financial inclusion and digital financing. SMEs are quantified using traditional financial ratios, but performance is increasingly defined by access to finance and digital financing platforms (OECD, 2023). Digital lenders like Funding Societies provide alternative lending solutions, and financial performance metrics such as technology adoption and speed of capital access (OECD, 2023).

1.1.1 Financing Techniques

Financing techniques refers to the various ways through which Small and Medium Enterprises, raise funds to finance their operations and growth. These include the standard financing options such as bank loans or equity financing. They include new options such as crowd funding, fintech products and governmental/Development bank schemes. Every method has its own unique features, advantages, and drawbacks that can significantly affect SMEs' financial performance and operational capabilities (Chen et al., 2022).

One of the most frequently used financing technique is traditional bank loan, which is used to provide business capital to SMEs for their day to day business running. Bank loans were, however, a hurdle for many SMEs (Kira & He, 2023) owing to their rigid

requirement, high interest rates and collateral requirements. Equity financing is a method of capital raising whereby the owners offer a portion of their business to investors, thus allowing the owners to access the capital without actually borrowing it, but ownership of the business is diluted (Morrissette & Lebeau, 2023). The traditional lending model within banks is still one of the main pillars of SME financing, with its use, nature and assessment criteria differing significantly between countries around the world. In the USA, banks provide long-term fixed-rate loans and variable-rate loans, typically with a government-backed guarantee schemes; the performance of these loans is measured by loan-to-value ratio, repayment ratio and SME credit scoring (Ardic, Mylenko & Saltane, 2011).

Lenders provided traditional loans, which dominated the financing of SMEs, accounting for approximately 24 % of their capital; measurement methods commonly used included the share of inclusive MSE loans in the bank loan portfolio and loan growth rates (12.9 %–16.4 % CAGR for 2017–2021). Brazil employs collateralized term loans and overdrafts, evaluated by default ratios and access rates, while detailed subsidy or guarantee schemes vary (OECD, 2006). In Singapore, commercial bank loans are tightly integrated with digital credit assessment and personalized SME credit scoring models, with metrics such as percentage share in total bank lending and NPL ratios (The Asian Banker, Weng, 2022). Across India, bank lending to SMEs is tracked through credit deposits and guaranteed schemes like SIDBI, with analysis focusing on loan volume, loan-to-deposit ratios, and non-performing loans. In Nigeria commercial banks increased SME lending through credit guarantee funds and digital loan products, measured by loan uptake rates, default levels, and subjective welfare improvements post-disbursement. Uganda and Kenya report lower formal loan access with Kenyan commercial banks' lending to SMEs constrained by bank size and liquidity, and assessed through lending volumes and institutional readiness while Uganda faces similar access issues, tracked using loan account penetration and collateral requirements (World Bank, 2017) .

Crowdfunding gained traction as an innovative financing technique that enables SMEs to attract small amounts of capital from a large number of individuals through online platforms. This method not only provides financial support but also fosters community engagement and validates business ideas in the market (Belleflamme et al., 2014).

Fintech solutions are designed to make it easier for people to access financing, and include specialized functions for SMEs such as peer-to-peer lending and online invoicing (Chen et al., 2022). Equity- and Islamic-based crowdfunding are the main models adopted by Malaysian SMEs, such as Nusa Kapital, which is one of the first platforms in Malaysia to provide crowd investment based on Mudharabah (Ramli et al., 2022; Thas Thaker, 2018). The usage is reported using uptake statistics, campaign amounts and surveys on behavioral intention (Al Edrus et al., 2023) and suggests that perceived usefulness and ease of use are good indicators of usage. As traditional bank lending dropped, the use of the crowdfunding phenomenon saw a surge, with a quantifiable measure of its usage based on the number of campaigns and cash flow indicators such as Days to Cash (DTC) (Tan et al., 2020). There is empirical evidence that crowdfunding increases credit allocation to SMEs by decreasing the amount of DTC and signal bank lending.

Indian SMEs are among the World's largest rising economies which are adopting reward, equity, and debt-based crowdfunding. Research analysing 9,024 MSMEs indicates usage measured by funding raised, campaign success rates, and operational outcomes (Colab, 2023). Formal crowdfunding is limited in Tanzania, SMEs benefit from mobile-money-driven micro-financing, especially via M-Pesa, which provides informal crowdfunding support for SMEs in the region (Safaricom data). Proxy-based volume of M-Pesa loans, and frequency of transactions.

Microfinance is an indispensable instrument, especially in developing countries, that offers micro-credit and other financial services designed for the needs of unserved businesses. It is intended to provide an opportunity for the empowerment of the entrepreneurs who do not have access to traditional banking services to promote financial inclusion and economic development (Wambua & Mutua, 2022). The financing technique significantly affects the growth, innovation and competitiveness capabilities of an SME in the marketplace.

The preceding research has examined the link between financing methods and different performance indicators of Small and Medium Enterprises (SMEs) in various nations, with both positive and negative impacts. In Nigeria, for example, traditional bank financing was found to significantly influence the growth and profitability of SMEs, with those who accessed loans from traditional banks attributing their growth to an

increase in their revenue by about 30% compared to those who took loans from informal sources (Kira & He, 2023). A study done in India showed that equity financing can not only improve the financial results of SMEs, but can also help them innovate, allowing them to expand their product portfolios and market reach (Morrisette & Lebeau, 2023). There are some studies that emphasize the difficulties of some financing practices. A report by the Kenya National Bureau of Statistics (KNBS) revealed that many SMEs in Kenya had issues repaying their loans, especially the ones they got from traditional banks, which caused liquidity crisis and at times the business was forced to shut down (Wambua & Mutua, 2022). A research conducted in South Africa found that, although microfinance provides assistance for underserved SMEs, the high interest rate and the short repayment period places financial pressure, which has a negative impact on SMEs' performance (Chen et al., 2022).

Crowdfunding proved to be a double-edged sword in several contexts. In the United States, the successful crowdfunding campaigns clearly enhanced SMEs visibility and customer interaction, which resulted in increased sales growth (Belleflamme et al., 2014). According to the study, not all crowdfunding initiatives succeed, and this leads to reputational losses and financial losses for the SMEs involved.

The emergence of fintech - the infusion of technology into financial services - quickly transformed the funding and functioning of SMEs, and in many cases, in ways that were hard to measure or quantify. Lewis, (2023) reports that only approximately 13% of Canadian banking consumers (including SMEs) are actively using fintech services, like data aggregation and real-time payments. According to the 2023 Canadian SME Financing Survey, 26% of businesses took out loans, increasing in favour of leasing and government financing (Innovation, Science and Economic Development Canada [ISED], 2023). The key metrics for fintech usage are adoption rates, fintech-originated revenue and satisfaction scores obtained from national surveys (EY, 2023, Lewis, 2023).

The primary enabler of financial inclusion of SMEs is Pakistan mobile money platforms like JazzCash and Easypaisa. Although there is limited granular SME-specific fintech data, Khan and Blumenstock (2017) found that the adoption of mobile-money in Pakistan is most strongly related to the mobility of users, which implies that transaction frequency and geographic coverage are likely to provide good indicators of

fintech penetration. There are a variety of metrics used in fintech measurement, such as top mobile wallet users and mobile transaction value (Khan & Blumenstock, 2017; Lewis, 2023). Brazil was a leader in the use of fintech in SME credit growth via P2P lending platforms and invoice financing platforms. These payment-to-payment channels provide speedier and lender-friendly options to traditional credit from banks. There is limited academic literature available, but global reviews show that Brazil's fintechs are primarily specialised in the area of supply chain finance, digital lending and short term invoice based lending. Generally, key indicators for fintech adoption among SMEs are the volume of loans, default rates, and the number of fintech borrowers (Fintech Times, 2023).

Fintech is the technology that transformed access to credit for SMEs in India, where 87% of them have adopted the technology, putting India second globally after China (Lewis, 2023). Some of the popular digital payments platforms that are widely used by the SMEs in India are Unified Payments Interface (UPI) and lending platforms like LendingKart, Faircent etc. In India, fintech performance can be gauged through the number of transactions, the amount of credit extended and the number of active digital borrowers. The digital lending market in India has grown from US\$9 billion to more than US\$270 billion between 2012 and 2022, highlighting the scale of fintech integration (Lewis, 2023).

Platforms like Hubtel and Nsano are offering fintech solutions that enable SMEs to access a range of services including mobile payments, digital invoicing, and cross-border remittances. Volume of transactions, number of registrations, and values of payments processed through merchant networks are common metrics used for measuring the volume of transactions. These indicators are used to measure the extent of penetration and impact of fintech usage among SMEs in the Ghanaian context (Nsano, 2023). Mobile money services, such as M-Pesa and Airtel Money, are a game-changer in SME financing in Tanzania. World Bank and national data show that the mobile account ownership rate increased from 11% in 2006 to more than 60% in 2022 (EY, 2023). Mobile wallets are commonly used by Tanzanians for savings, credit, and payments, especially in the case of SMEs. The usage of Fintech is generally measured through the proportion of SMEs adopting mobile money and the value of mobile financial services transactions conducted by the SMEs (Times of India, 2023).

Fintech is synonymous with M-Pesa and their microloans platforms M-Shwari and Fuliza. These services provided SMEs the ability to conduct transactions, save and borrow digitally (Khan & Blumenstock, 2017). The success of the Fintech in Kenya is being checked by the credit penetration rate which is estimated to be 6%, digital loan volume and registered fintech users amongst SMEs. The rise of mobile-based financial platforms further fuels the inclusive finance and efficiency of small businesses (ArXiv, 2017; EY, 2023). In these countries, the fintech for SMEs encompasses a wide array of services including digital money, individual-to-individual loans, buy-now-pay-later (BNPL) and digital invoicing. Common metrics include adoption rate, number of transactions, total credit disbursement value and fintech penetration according to fintech platform data and national surveys, such as the ones provided by Lewis in 2023, EY in 2023 and ISED in 2023. The common view provides a comprehensive understanding of how fintech can drive financial access and financial management for MSMEs all over the world.

SME widening was enhanced by government and development programs, which provided: financing, capacity building, and market access support. The SBA offers support to a variety of programs, including the Small Business Innovation Research (SBIR) program and the Loan Program. Small Business Development Centers (SBDCs) are a vehicle for business development, and in 2023, they helped provide some \$6.9 billion in financing and helped create more than 80,000 jobs, according to the U.S. Small Business Administration [SBA] (2023). The projects are usually quantified by the number of loans, jobs created, and sales achieved. Enterprise support is available in the form of schemes like Enterprise Finance Guarantee and Innovate UK grants. The programmes are assessed based on the number of loans issued, jobs supported, R&D investments made and the survival rate of businesses, according to the Department of Business and Trade and Innovate UK (UK Department of Business and Trade, 2023). Financing and guarantees for exports are provided for SMEs in France. The performance assessment of the financing volumes, the number of businesses supported and export-driven growth is done on an annual basis and regional impact is particularly taken into consideration (Bpifrance, 2023). There are some government programs in Ethiopia, which involve scaled microfinance and rural credit schemes, in collaboration with international institutions. The formal metrics are not released very often and

effectiveness of the program is typically evaluated by loan access, loan repayment, and rural outreach (World Bank, 2023).

The Ministry of Entrepreneur and Cooperative Development (MECD) Malaysia promotes SMEs growth through entrepreneurship training, low interest loans and grants. The outcomes of these programs can be assessed based on the number of SMEs reached, the amount of funding disbursed, and the uptake of business development services (OECD, 2023). There are programs being implemented in South Africa, like the Small Enterprise Finance Agency, Department of Small Business Development and Broad Based Black Economic Empowerment programs that promote the growth of SMEs. The indicators of success are the number of loans disbursed, the level of B-BBEE compliance and the percentage of SME being engaged in public procurement contracts (Department of Small Business Development, 2022). The Micro, Small and Medium Enterprise Development Agency offers financial assistance, innovation incentives and incubator programs within Egypt. (OECD, 2023).

Services offered under the programmes include business registration assistance, SMEs training, export facilitation among others under the Rwanda Development Board (RDB). Rwanda's key performance indicators are the number of new businesses registered, foreign investments, jobs generated and export growth (Rwanda Development Board, 2023). The Kenyan government has launched a number of development programmes, such as credit guarantee schemes, Women Enterprise Funds, the Youth Enterprise Funds and large scale infrastructure like Konza Technopolis. Measuring indicators are disbursed loan value, borrower characteristics, loan repayment and SME growth (Government of Kenya, 2023). In all these countries, government and development schemes have a similar interest in enhancing access to low cost finance, skills and inclusion in the marketplace. They are generally evaluated with quantitative metrics, like the number of loans, businesses established, jobs created, program participation, and policy compliance scores.

1.1.2 Government Policies related to SMEs

Government policies are guidelines, laws or regulations, or actions that are taken by the government with the aim of influencing or directing how individuals, businesses or sectors behave within the country. These policies are aimed at achieving specific social, economic, or political objectives such as economic growth, employment creation, and equitable distribution of resources (Dye,2013).

Government policy refers to the set of regulatory frameworks, fiscal measures, legal guidelines, and institutional interventions established by the state to support or regulate economic activities. In the context of SMEs, government policy encompasses tax incentives, credit guarantee schemes, financial literacy programs and access to state backed funds such as Youth Enterprise Development Fund and Uwezo Fund, which directly or indirectly influence business outcomes (Nguyen et al., 2022). Various important government policies in Kenya, enacted over the years, shape the operations of SMEs and have a direct impact on financing techniques and financial performance. These policies play a critical role in understanding the regulatory framework within which SMEs in Kenya, including those in Baringo Central, operate. The common policies include; Credit guarantee scheme and Hustler fund policies, Government training and coaching policies and Market access policies

The Credit Guarantee Scheme for SMEs (2020) was introduced in 2020. This is a step in the government's efforts to tackle the financing gap of SMEs, which involves providing partial guarantees to financial institutions to incentivize loans to SMEs with low collateral coverage. The initiative is part of the government's solution to the problem of funding SMEs, which includes providing financial institutions with partial guarantees to encourage increased provision of loans to SMEs with limited collateral. It helps to mitigate banks' lending risks, enabling SMEs in rural and semi-urban areas such as Baringo Central to access credit even when they have difficulty accessing collateral. Public Procurement and Asset Disposal Act of 2015 requires the government to reserve 30% of government contracts for people with disabilities, women and youth under the Access to Government Procurement Opportunities initiative. This presents a great market opportunity for SMEs with the eligibility requirements (Muchira & Njoroge, 2024). As a result of this program, SMEs in Baringo Central enjoy improved cash flow, increased business visibility and improved financial returns. The AGPO

initiatives are closely related to financial performance as it enables the SMEs to have a reliable customer base in government, making the process of securing financing easier based on future earnings from contracts.

Small and Medium Enterprises Policy (2020) is a policy launched to solve different issues that SMEs encounter. It provides an overarching approach to increase financial access, ease regulatory burdens, and broaden market opportunities. The policy calls for streamlining regulatory processes, fostering innovation and improving financial inclusion (Mwangi & Otieno, 2023). It points out the link between financing methods and SME financial performance. Various policies were adopted to stimulate SME financing and performance, including tax policies and credit guarantee schemes. The policies have an impact on SME access to financing and the SME financial performance.

It was introduced in the year 2012 when Parliament enacted the Micro and Small Enterprises Act 2012 which lays a legislative framework for the development, promotion and regulation of micro and small enterprises in Kenya. The Act led to the formation of the Micro and Small Enterprises Authority which was charged with providing a conducive environment for the development of SMEs by providing finance, infrastructure and markets (Mwarari & Ngugi, 2022). It is a focus on supporting SMEs, which is achieved through financial linkages for SMEs. The policy encourages cooperation among SMEs and banks, microfinance institutions, and other financial institutions for increased access to credit.

The Finance Act (2019) was enacted in 2019. The Act brought in important tax changes that directly impact SMEs. There was one major amendment where businesses with annual turnover of up to KES 5M were to be affected by the turnover tax (TOT), which reduced tax burden on small businesses (Muriithi & Wamuyu, 2023). The policy has helped to make SME operation more formalised and access to financial services better, because formal registration and tax compliance are usually necessary for accessing credit from banks. What makes this Act attractive for SMEs is that the tax benefits it offers go hand in hand with the performance of the business; the fewer taxes paid the more money is available to invest in the business, which in turn makes it more profitable. The establishment of the Youth Enterprise Development Fund and the Women Enterprise Fund, which was initiated in 2006, is part of the Vision 2030 and

SME Financing Initiatives. They provide low-cost loans to female and young entrepreneurs who lack access to credit (Odongo & Otieno, 2022). Funds are important for this research because of their emphasis on the neglected rural population.

1.1.3 Small and Medium Enterprises

Micro, Small and Medium Enterprises is defined by the Kenya National Bureau of Statistics as follows: Micro Enterprises (up to 10 employees and up to Ksh 1 Million per annum); Small Enterprises (11 to 50 employees and between Ksh 1 Million and Ksh 100 Million per annum); and Medium Enterprises (from 51 employees and between Ksh 100 Million and Ksh 500 Million per annum). This classification offers the basis for creating customized economic policies and support measures that address the needs of each enterprise size (KNBS 2023). The size and scope of the SMEs are measured by their total assets, annual turnover and staff size. These businesses help to promote innovation, stimulate economic development and create job opportunities. This is because the definition of SMEs is different depending on the countries applied due to the different economic conditions and regulation structure of the countries. SMEs can be segmented into various categories based on employee numbers and turnover figures in Kenya.

According to European Union (EU), micro, small, and medium enterprises (MSMEs) are classified based on the number of employees and the company's annual revenue or balance sheet total. Micro enterprises have fewer than 10 employees and a turnover or balance sheet total of no more than €2 million. Small businesses employ fewer than 50 people with an annual revenue or balance sheet total not exceeding €10 million. According to the European Commission (2023), medium-sized enterprises employ fewer than 250 employees with annual sales of up to €50 million or a balance sheet total of no more than €43 million.

In the United States, the Small Business Administration (SBA) employs industry-specific criteria, such as annual revenue and workforce size, to define SMEs. According to SBA (2023), a retail business is considered an SME with annual receipts under \$41.5 million. A manufacturing business qualifies if it employs fewer than 500 people.

Malaysian Ministry of International Trade and Industry categorizes SMEs as micro, small, and medium enterprises. Micro manufacturing enterprises have fewer than five employees, with an annual turnover of less than RM 300,000. Small manufacturing enterprises employ fewer than 75 staff, with an annual turnover of less than RM 50 million. Medium-sized manufacturing companies have fewer than 200 employees, and the annual turnover of the companies is less than RM 100 million (SME Corporation Malaysia, 2023). Different countries exhibit diverse economic conditions and policy needs, reflected in their definitions and measurements of SMEs. In Kenya, SMEs are defined by their size (in terms of number of employees or sales) and take into account the local economic environment. There are countries like the US, Malaysia and the EU that have their own framework with criteria based on their respective economic conditions. These measurement standards are vital to the development of support systems and policies to meet the unique needs of SMEs in different regions around the world.

Better financing techniques for the SMEs boost the performance and productivity of businesses in the country (World Bank 2014). The research on microcredit costs and financial performance of micro, small and medium-sized businesses which is conducted in Baringo Central includes several of the studies by Toromo and Njangiru (2020) from different angles. The studies didn't pinpoint the main factors that influence financing methods in SMEs. The current study brings about this gap in research, by concentrating on financial performance and access to finance of SME. The main objective of this study is to study the financial performance and financing strategy of SMEs in Baringo Central Sub-County, Kenya.

1.1.4 Overall Relationship between Financing Techniques, Government Policies and Financial Performance of SMEs

The study perceives that financing techniques have a direct positive relationship with the financial performance of SMEs in Baringo Central Sub-County. Financing techniques comprise traditional bank loans, crowdfunding, fintech solutions, and government and development-bank programmes. These sources provide financial resources needed to purchase stock, pay suppliers and employees, acquire productive assets, adopt technology, manage cash-flow shortages and expand business operations. Where financing is adequate, affordable and timely, SMEs are expected to achieve

improved profitability, liquidity, sales growth, operational efficiency and business sustainability (Sharma & Kumar, 2022; Mwangi & Muriithi, 2024).

Traditional bank loans are expected to positively influence financial performance because they provide structured capital for working capital, equipment acquisition and expansion. SMEs that obtain bank credit may increase inventory levels, meet operating expenses and exploit profitable business opportunities that would otherwise be missed. Prior studies indicate that access to formal bank credit is associated with improved profitability, liquidity and growth among SMEs (Habineza, 2023; Namara & Tumwine, 2022). However, high interest rates, collateral requirements, inflexible repayment conditions and lengthy loan-approval procedures may reduce the financial benefits of bank loans, particularly for rural SMEs with limited assets and weak financial records (Kira & He, 2023; Khan et al., 2021).

Crowdfunding is also expected to improve financial performance by enabling SMEs to mobilise funds from many contributors through online platforms. It may reduce overdependence on collateral-based bank financing and provide funds for new products, business expansion and working-capital requirements. In addition, successful crowdfunding can increase enterprise visibility, validate business ideas and attract potential customers and investors. Bradley and Cowling (2022) found that crowdfunding improved SME liquidity, market share and financial outcomes. Nevertheless, its contribution may be limited in Baringo Central where inadequate internet access, low digital literacy, limited awareness and weak investor networks may constrain its adoption.

Fintech solutions are expected to positively affect SME financial performance through mobile money, digital credit, electronic payments, digital accounting applications, online invoicing and peer-to-peer lending. These services can minimize transaction costs, financial record keeping, payment speed, and provide enterprises the short-term finance. Digital financial platforms can also boost the number of SME customers, through enabling remote payments and business transactions. The evidence suggests fintech adoption and the regulated digital lending can enhance access to credit, improve operational efficiency and the financial performance of SMEs (Chen et al., 2022; Obeng & Ochieng, 2023). But their effectiveness may be undermined by high-cost of digital loans, cyber-security threats, limited network reach and inadequate user competency.

Government and development bank programmes are expected to boost SME financial performance by providing financial support such as subsidised loans and grants, public funding, credit guarantees, support for entrepreneurship and business capacity building. This kind of programmes is especially meaningful to SMEs that are unable to meet the collateral requirements of commercial banks. Government funds can enhance liquidity, help acquire assets, bolster livelihoods and foster employment.

Kipkorir, Cherono, and Wekesa (2024) found that government-supported funds and credit-guarantee schemes improved credit uptake, growth and sustainability among rural SMEs. However, delayed fund disbursement, limited programme awareness, bureaucracy and weak monitoring may limit the ability of SMEs to benefit from public programmes (Mwangi & Ngari, 2023).

Government policies are expected to have both a direct and moderating relationship with financial performance. Directly, policies such as the Credit Guarantee Scheme, Hustler Fund, government training and coaching programmes, market-access initiatives and tax incentives can improve SME access to resources and business opportunities. Credit-guarantee policies reduce lender risk and may enable SMEs without adequate collateral to qualify for formal loans. Similarly, the Hustler Fund and related public-finance policies can provide accessible working capital for stock purchase and day-to-day operations (Karanja & Mwangi, 2023; Odongo & Otieno, 2022).

Government training policies are expected to strengthen financial performance by improving financial literacy, budgeting, bookkeeping, investment appraisal and loan-management skills. SMEs may fail to realise the benefits of available finance if owners lack the capacity to manage cash flows, evaluate investment opportunities and comply with repayment requirements. Training can therefore improve the productive use of bank loans, crowdfunding proceeds, fintech credit and public funds. Wambua and Mutua (2022) observed that financial literacy contributes to improved financial planning, profitability and liquidity among SMEs. Similarly, Mwangi and Cherono (2024) found that government-supported training improved managerial capability and strengthened the performance benefits of financial access.

Market-access policies are also expected to improve financial outcomes by creating reliable demand for SME products and services. Policies such as the Access to Government Procurement Opportunities initiative can enable eligible SMEs to obtain public contracts, improve sales, build business credibility and generate predictable cash flows. A reliable market can help SMEs convert borrowed or raised funds into revenue, profitability and growth. Muchira and Njoroge (2024) noted that procurement opportunities may improve cash flow and business visibility among youth-, women- and disability-owned enterprises. Thus, market-access policies are likely to enhance the value that SMEs obtain from financing techniques.

As a moderator, government policy is expected to change the strength of the relationship between financing techniques and financial performance. Supportive and well-implemented policies are expected to strengthen the positive effect of finance by reducing borrowing constraints, lowering transaction costs, improving entrepreneurial skills and expanding markets. For example, a credit guarantee may make bank financing more accessible, training may help an entrepreneur use digital or borrowed funds efficiently, and market-access support may ensure that financed stock is converted into sales. Studies have found that public support and regulatory reforms can significantly strengthen the relationship between financial resources and SME sustainability or performance (Gutiérrez et al., 2022; Adenutsi et al., 2025).

On the other hand, bad policies could lead to a less strong relationship between financing and performance. The complex application process, timeliness of loan disbursement, limited outreach to rural areas, low policy awareness, differing policy and weak infrastructure could hinder SMEs from accessing and efficiently utilizing financing options. Thus the study expects that financing methods will have a positive impact on the financial performance with the level of impact dependent on the effectiveness of the Government policies in Baringo Central Sub-County.

1.2 Statement of the Problem

Ideally, Baringo Central SMEs should access capital for inventory, technology investment, working capital and investment from traditional banks at affordable rates with timely delivery, along with the capital from crowdfunding, fintech finance, and governments/development banks. Together with appropriate financial decisions and internal control, these techniques should enhance cash flows, profit, resilience and long-term sustainability. The national government's MSME credit-guarantee policy has resulted in 4,121 facilities worth KSh 6.29 billion being granted as guaranteed credit facilities by June 2024, and approximately 87% of these facilities are performing (National Treasury, 2025). The Baringo County Annual Development Plan (County Government of Baringo, 2025) highlights SME development, value addition, youth empowerment and access to finance as four instruments for inclusive local growth at county level. Current evidence shows a mixed and concerning performance pattern. Nationally, active MSME loan accounts fell by 24.7%, from 1.18 million in 2022 to 0.89 million in 2024, even though the value of MSME loans marginally increased to KSh 784.4 billion; the decline was associated with high lending rates, subdued demand, and competition from alternative lenders (CBK, 2025). However, the study in Baringo (2025), which examined 104 youth entrepreneurship ventures, showed that source of financing had a significant impact on financial performance of the ventures ($p = .012$) while firm size ($p = .093$), firm age ($p = .428$) and business sector ($p = .977$) were not significant, suggesting that obtaining finance from sources was not directly linked to the profitability or sustainability of the ventures. This outcome is consistent with county policy concerns regarding coordination, capacity building, monitoring, and effective use of resources among vulnerable and youth groups (CGB, 2025).

These contrasting results imply that financing techniques alone may be insufficient to improve SME financing performance in Baringo Central Sub-County. Government policy may moderate this relationship by setting supportive regulations, expanding financial-management training, strengthening beneficiary selection and post-financing monitoring, promoting digital financial inclusion, and improving accountability in public enterprise-finance programmes. Such intervention is important because the national MSME financing system recorded restructuring of 12,500 loan facilities worth KSh 38.2 billion in 2024, signalling continuing repayment and cash-flow pressures

among borrowers (CBK, 2025). Therefore, this study will examine the moderating influence of government policy on the relationship between financing techniques and SME financing performance in Baringo Central Sub-County.

1.3 Purpose of the Study

The purpose of the study was to examine the effect of Financing Techniques on financial performance of SMEs in Baringo Central Sub-County, Kenya under the moderating influence of government policy.

1.3.1 Objectives of the Study

The study accomplished the following research objectives,

- i. To determine the effect of traditional bank loans on financial performance of SMEs in Baringo Central Sub-County.
- ii. To assess the influence of crowdfunding on financial performance of SMEs in Baringo Central Sub-County.
- iii. To determine the effect of Fintech Solutions on financial performance of SMEs in Baringo Central Sub-County.
- iv. To assess the influence of Government and Development Bank Programs on financial performance of SMEs in Baringo Central Sub-County.
- v. To determine the moderating effect of government policies on the effect on the relationship between financing techniques on financial performance of SMEs in Baringo Central Sub-County.

1.4 Research Hypothesis

The following research hypothesis was tested by the study:

- H₀₁:** Traditional bank loans have no statistically significant effect on financial performance of SMEs operating in Baringo central sub county.
- H₀₂:** Crowdfunding have no statistically significant effect on financial performance of SMEs in Baringo central sub county.
- H₀₃:** Fintech solutions have no statistically significant effect on financial performance of SMEs operating in Baringo central sub county.

H₀₄: Government and Development Bank Programs have no statistically significant effect on financial performance of SMEs operating in Baringo central sub county.

H₀₅: Government policies have no statistically significant moderating effect on the relationship between financing techniques and financial performance of SMEs operating in Baringo central sub county.

1.5 Significance of the Study

For a number of reasons, the study of Financing Techniques will assist owners and managers to understand financing techniques and how they affect SMEs' financial performance is very important. Firstly, SMEs are key players in economic growth, job creation and innovation thus their success is essential to the development of the economy as a whole. To the extent that these businesses may realise their full potential, it is imperative that they have sufficient access to capital.

It will help many economies to underscore the importance of SMEs in economic development. According to a World Bank report from 2023, SMEs account for over 50% of employment globally and almost 90% of all enterprises. More SMEs may expand their businesses, hire more staff, and invest in profitable assets thanks to improved Financing Techniques, which boosts economic growth and lowers poverty rates.

It will help SMEs to invest in Research and Development, embrace new technologies, and enhance their goods and services. Financially strapped SMEs are less likely to invest in innovation, which impair their competitiveness and long-term sustainability (OECD,2022). More access to financing supports SMEs' ability to innovate, maintain their competitiveness, and adjust to shifting market dynamics. Hence, improving SMEs' financial performance will promote greater financial inclusion and stability among different stakeholders of the economy.

SMEs that have more access to financing are better equipped to withstand shocks to the economy and continue running smoothly even during downturns. Due to the fact that SMEs account for a sizable share of many economies, this stability is essential to the general health of the financial system (The International Finance Corporation, 2021).

Moreso, knowing how Financing Techniques and SME performance will help policymakers create financial inclusion plans that work. In order to close the financing gap and advance sustainable economic development, targeted policies that specifically address the financial requirements of SMEs can be helpful. The European Investment Bank (2023) highlights that better financial performance and economic consequences can result from well-designed financial regulations, which can greatly increase SMEs' access to financing.

1.6 Assumptions of the Study

This Research relies on the following fundamental presumptions. One of the main presumptions is that SMEs' financial performance is directly improved by increased access to financing. SMEs are thought to be in a better position to invest in growth possibilities, increase operational efficiency, and realize higher profitability when they are able to obtain sufficient capital (OECD, 2022).

Another supposition is that one of the biggest obstacles to the expansion and effectiveness of SMEs is money. This view suggests that the ability of SMEs to expand, grow and gain a successful market position is limited due to their restricted access to external funding resources (World Bank, 2023).

Many studies consider SMEs as a fairly homogeneous segment based on the assumption of the uniformity of their financial requirement. This facilitates the study but may fail to capture the variety of the SME sector, with a range of funding needs among SMEs depending on their size, sector and stage of development (IFC, 2021).

The optimist is that measures and policies can be implemented to improve access of SMEs to financing through financial inclusion, which will improve their performance. This involves measures such as reducing interest rates, relaxing credit criteria and extending credit through subsidiary financing (European Investment Bank, 2023).

A common premise of research is that the performance of SMEs and Financing Techniques are causally related. Although correlation is frequently demonstrated, establishing causation can be difficult because of the impact of outside variables like

the state of the market, the regulatory framework, and firm-specific traits (OECD, 2022).

1.7 Scope of the Study

This study is conducted in Baringo Central Sub County, Kenya which comprises of five Wards namely Kabarnet, Kapropita, Ewalel Chapchap, Sacho and Tenges Wards, highlighting the unique nature of the study between the semi-rural environments. This is done in April 2025, and gives a snapshot of the status of the local economy and financial system, which can then be analyzed to assess the impact of current financial technologies, policies and economic conditions on SMEs in the region. The context facilitates the analysis of innovations in financial access such as traditional bank loans, crowdfunding, fintech innovations and the impact of government and development bank programs. The study is centered on the performance of the SMEs and use of various funding sources in Baringo Central Sub County. There is a focus on assessing the feasibility and impact of financial options such as crowdfunding, government grants, subsidized loans and fintech. The study is designed to examine the effects of these financial strategies on the SME growth, profitability, capital structure and sustainability.

A descriptive quantitative method was used in the study and the data collection instrument was structured questionnaires administered to the owners and managers of SMEs. SME highlights entail accessed to various types of financing illustrated practical experiences and outcomes. The thorough analysis shows the kind of financing that was used, obstacles encountered and how the funding affected the financial performance measures. It also offers region specific suggestions to enhance the financial performance of SMEs.

1.8 Limitation of the Study

The study was limited to the school and its immediate surroundings.

The research reveals that the SMEs have a small market in Baringo Central Sub-County because of their location in the semi-rural areas, which presents a disadvantage in terms of access to finance. The results are limited by local conditions affecting SME performance and financial access, and their applicability to other areas may be limited by other legislative, cultural or economic contexts. The limited availability of detailed financial records resulted in dependence on information as responded in the questionnaire which consequently affected the reliability of the results. Careful sampling was used to select a diverse and representative sample of SMEs in Baringo Central's wards. To minimize response bias, results were validated more than once using multiple data and training enumerators to ask unbiased questions seeking information. However, given the limitations and difficulties associated with data collection and reporting within the local context, these measures were taken to enhance the findings' robustness and credibility.

The study is a snapshot in time – it was completed in the month of April 2025. Political, economic and seasonality shifts in the business environment could affect the performance and financing results of SMEs and could lead to misjudgements. In order to overcome this, the researcher supervised the data collection exercise and in cases of resistance, she personally explains that the study is merely academic.

The analysis of different financing models, such as crowdfunding, government initiatives, bank loans, and fintech, added complexity because of the varying terms and effects they have, and this could limit the ability to draw generalizable conclusions. Other macro-economic conditions such as inflation or market movements can also affect SME financing and performance, but this is not examined in this study. Rapid fintech developments also have an impact on SME financing and performance, but are not the focus of this study. To address this, the study classified financial products as to type, evaluated them individually, and accounted for new developments in the regulatory and market contexts.

1.9 Operational Definition of Terms

Financing techniques

It is a general term for a number of different ways in which people and businesses obtain money for specific reasons. They can be bank loans, fintech solutions, crowdfunding and government bank and development programs.

Financial performance

It involves evaluating the financial health and performance of SMEs using metrics such as profitability, revenue growth and debt ratios.

Small and Medium-Sized Enterprises

In this study it means, businesses that fall below certain thresholds in terms of employee count, revenue, or assets, spanning various industries including Manufacturing, Retail & Trade, Agriculture, Financial services, Ecotourism and service Based.

Traditional Bank Loans

In this study it means the type of financing offered by banks or financial institutions has a fixed repayment period, interest rates and an application procedure.

Fintech Solutions

In this study it means, digital financial services, like mobile money and peer-to-peer lending, offering alternative funding options for SMEs.

Crowdfunding

In this study it refers to a way of raising capital from a multitude of people through online platforms in order to fund business projects or business start-ups.

Government and development bank programs

This study involves loans, grants and technical help provided by the government to encourage SME development and financial inclusion. This study encompasses loans, grants and technical assistance provided by the government to foster SME development and financial inclusion.

Government policies

In this research, the regulatory system, fiscal policies, legal directions, and institutional actions put in place by the state to facilitate or control economic activities.

CHAPTER TWO

LITERATURE REVIEW

2.1 Theoretical Review

Theories explaining how access to financial resources affects SME operational and financial outcomes underpin the research on the relationship between financing techniques and SME financial performance.

2.1.1 Financial Capital Theory

Financial Capital Theory is founded on Irving Fisher's (1906) distinction between capital and income and on the later financial-capital-maintenance concept developed in accounting frameworks. The theory views capital as the money, financial assets, and investment value available to an enterprise. It holds that a business can improve its wealth and continuity when it obtains, preserves, allocates, and utilises financial resources efficiently. In the SME context, adequate capital enables the purchase of inventory and assets, payment of operating costs, investment in innovation, and absorption of cash-flow shocks.

Financial Capital Theory is the main theory supporting SME financing performance, which is the dependent variable in this study. It explains why SMEs with adequate and well-managed financial capital are more likely to attain stronger cash flows, profitability, investment efficiency, loan-repayment capacity, growth, and sustainability. Recent evidence confirms that MSME finance is central to enterprise survival and economic contribution; however, access remains constrained in Kenya, where active MSME loan accounts declined from 1.18 million in 2022 to 0.89 million in 2024 (CBK, 2025). Thus, the theory is appropriate because it links the availability and productive use of capital to the financial performance of SMEs in Baringo Central Sub-County.

The theory is also relevant because financial resources may be obtained from traditional loans, fintech credit, crowdfunding, microfinance, government funds, and development-finance institutions. These resources can improve performance only where SMEs allocate them to productive activities and maintain effective financial

controls. The World Bank (2024) similarly identifies access to appropriate finance, alongside supportive financial-sector policies, as essential for SME growth and resilience. In this study, therefore, Financial Capital Theory explains the expected improvement in SME financing performance arising from the effective mobilisation and utilisation of financial resources.

Nevertheless, the theory has weaknesses. It places substantial emphasis on capital availability and utilisation but does not adequately explain how SMEs prioritise particular financing techniques or how they communicate creditworthiness to lenders. It also gives limited attention to information asymmetry, collateral constraints, financial records, business reputation, and the regulatory environment that may affect access to capital. These limitations necessitate the use of Pecking Order Theory to support the financing techniques variable by explaining SMEs' preference for internal funds, debt, and then equity. Signalling Theory will complement the main theory by supporting government policy as the moderating variable, explaining how policy, financial records, digital-credit regulation, and credit-information systems can reduce information asymmetry and strengthen the financing techniques–SME financing performance relationship (CBK, 2025; Djabang et al., 2025).

2.1.2 Pecking Order Theory

Pecking Order Theory was developed by Myers (1984) and Myers and Majluf (1984). The theory explains that firms select financing sources according to a preference hierarchy created by information asymmetry between business owners and external financiers. It proposes that firms first prefer internal funds, such as retained earnings, personal savings, and profits; secondly, they use debt finance, including bank loans, microfinance loans, government loans, and digital credit; and lastly, they consider external equity. The theory assumes that internal funds are cheaper, more readily available, and less likely to expose confidential business information to outsiders.

Pecking Order Theory directly supports the financing techniques variable in this study. It explains why SMEs in Baringo Central Sub-County may choose traditional bank loans, crowdfunding, fintech finance, or government and development-bank financing only after assessing the adequacy of their internal resources. SMEs with sufficient retained earnings may finance stock, operating expenses, and small investments

internally, while those facing funding deficits may seek debt from banks, SACCOs, microfinance institutions, mobile lenders, or public enterprise-finance programmes. Recent evidence indicates that financing choices among SMEs are influenced by access, cost, business growth requirements, and the availability of internal funds (Djabang et al., 2025; Singh, 2025).

The theory is particularly relevant because many SMEs may avoid external finance where it carries high interest rates, collateral requirements, restrictive repayment terms, or risk of losing business control. However, when internal finance is insufficient, appropriate external financing techniques can enable SMEs to purchase assets, expand inventory, adopt technology, and stabilise cash flows. In Kenya, access to formal MSME credit remains challenging, with active MSME loan accounts declining from 1.18 million in 2022 to 0.89 million in 2024, partly due to high lending rates and lower credit demand (CBK, 2025). This makes alternative techniques, including fintech credit, crowdfunding, and government-backed finance, important to SMEs that cannot depend solely on internal funds.

Nevertheless, the theory has limitations because SMEs do not always follow the proposed hierarchy. Enterprises may prioritise grants, subsidised government funds, crowdfunding, or digital loans even where some internal funds are available, particularly when such finance is affordable, urgent, collateral-free, or accompanied by training and business-support services. Therefore, Pecking Order Theory will guide this study in explaining how SMEs prioritise and utilise financing techniques, while recognising that institutional conditions, fintech innovations, and government interventions may influence their actual financing choices.

2.1.3 Signalling Theory

Signalling Theory was introduced by Michael Spence (1973) to explain how an informed party communicates credible information to a less-informed party, thereby reducing information asymmetry. In an SME-finance setting, entrepreneurs can signal creditworthiness through reliable financial records, tax compliance, collateral, repayment history, mobile-money transactions, business registration, and membership in recognised business associations. Recent evidence shows that credible business networks and financial information improve SMEs' access to finance and performance

because lenders perceive such firms as less risky (Hussain et al., 2024). Therefore, Signalling Theory supports the financing techniques variable, since the ability of an SME to obtain bank loans, fintech credit, crowdfunding, or public finance partly depends on the quality and credibility of the information it signals to financiers.

The theory also supports SME financing performance, measured through improved cash flow, profitability, investment efficiency, loan repayment capacity, and business sustainability. Effective financing techniques generate positive signals when SMEs utilise funds productively and maintain proper repayment and financial records; this can strengthen future credit access and improve financial outcomes. In Kenya, digital credit and fintech platforms increasingly use alternative data, including transaction histories and repayment behaviour, to assess borrowers who may lack conventional collateral or audited accounts (CBK, 2025). Similarly, Bwire (2025) found that access to and use of digital credit significantly influenced MSME growth, illustrating how digital financial behaviour can signal enterprise capacity and enhance financing performance.

Signalling Theory supports government policy as a moderating variable because policy can improve the credibility, availability, and usefulness of SME signals. Government regulations on digital lenders, financial-literacy programmes, credit-information sharing, business registration, reporting requirements, and loan-monitoring mechanisms can reduce information asymmetry between SMEs and financiers. Supportive policy may therefore strengthen the positive effect of financing techniques on SME financing performance, whereas weak oversight may allow costly, unreliable, or poorly utilised finance to undermine sustainability. Current research similarly indicates that government support and effective fintech regulation help reduce SME financing constraints and improve enterprise outcomes (Abu et al., 2025; CBK, 2025). However, the theory is limited where SMEs operate informally, lack reliable records, or cannot afford formal compliance; under such conditions, signals may be weak, inaccurate, or costly to produce.

2.2 Empirical literature Review

2.2.1 Traditional Bank Loans and Financial Performance of SMEs

Afolabi, Wong, and Dyer (2021) examined traditional bank lending and financial performance among SMEs in Ontario and Quebec, Canada. The study was broadly guided by the financial intermediation and information-asymmetry perspective, which holds that banks reduce financing constraints by screening borrowers and monitoring loan use. Using five years of longitudinal financial data and regression analysis, the authors measured loan access, liquidity, profitability and firm growth. The findings showed that SMEs with access to traditional bank loans recorded improved liquidity and profitability. However, the study also established that rural enterprises in provinces such as Manitoba and Saskatchewan faced high collateral requirements and limited banking outreach. This suggests that the benefits of formal bank lending may not be equally available to SMEs in geographically underserved areas.

Berger and Udell (2006) analysed SME financing and firm performance in the United States. The study was underpinned by relationship-lending theory and information-asymmetry theory, which explain the role of banks in reducing information gaps between lenders and small firms. A quantitative regression methodology was applied to SME financial statements. The main metrics included access to bank credit, profitability, operational efficiency and firm characteristics. The results indicated that SMEs that accessed traditional bank loans generally experienced higher profitability and improved operational efficiency. Nevertheless, the study concentrated mainly on urban SMEs, making it difficult to generalise its findings to rural enterprises that operate in areas with weak banking infrastructure and fewer formal financing opportunities.

Cole et al. (2016) investigated the effect of flexible bank loan terms on SME stability. The study was informed by credit-rationing theory, which argues that loan conditions, collateral requirements and information problems can restrict the ability of small firms to obtain finance. The authors adopted a mixed-methods methodology combining financial-performance indicators with interviews of SME owners. Loan flexibility, repayment conditions, liquidity position, profitability and business stability were used as the major metrics. The findings showed that flexible repayment terms and affordable lending conditions improved SME financial stability. However, because the study

relied on urban firms, its conclusions may not adequately represent rural SMEs, which often face higher transaction costs, limited financial literacy and more restrictive lending conditions.

Eikelenboom and de Jong (2018) assessed access to loans and SME growth in The Hague, Netherlands. The study was anchored on financial constraint theory, which explains how limited access to external finance may prevent small firms from undertaking profitable investments. Quantitative data were analysed using regression techniques. The major measures included loan accessibility, sales growth, employment growth and financial performance. The findings revealed a statistically significant positive relationship between access to formal loans and SME growth. The study implied that bank credit enables enterprises to acquire productive assets, finance working capital and pursue expansion opportunities. However, its urban setting limits its relevance to rural SMEs, where loan availability may be affected by low branch density and limited collateral assets.

Cosh et al. (2020) examined traditional bank loans and SME liquidity management in Germany. The study drew on the pecking-order theory, which suggests that firms prefer internally generated funds but turn to debt financing when internal resources are inadequate. The researchers used a mixed-methods approach involving financial data and qualitative evidence from SMEs. The main metrics were bank-loan access, liquidity management, survival during economic downturns and business continuity. The results showed that traditional bank loans enabled SMEs to sustain liquidity and meet operational obligations during periods of economic uncertainty. However, the predominantly urban sample restricted the applicability of the findings to rural German regions, where small firms may face different credit-market conditions.

Brixy et al. (2018) studied long-term bank financing and financial improvement among SMEs in Frankfurt, Germany. The research was informed by financial intermediation theory, which recognises banks as important providers of capital to firms that cannot easily access capital markets. A five-year longitudinal design was used to track SMEs that received loans. The variables included loan receipt, profitability, liquidity, revenue growth and survival. The findings indicated sustained financial improvement among SMEs that accessed bank loans over the study period. Nonetheless, rural firms from areas such as Saxony and Bavaria were excluded from the sample. The exclusion limits

the generalisability of the results because rural SMEs may experience more severe credit constraints than urban firms.

Kallio et al. (2020) investigated bank loans and SME profitability in Tallinn, Estonia. The study was supported by the resource-based view, which considers financial capital as a strategic resource that can support competitive advantage and firm performance. Regression models were used to examine the association between formal loan access and profitability. The authors measured loan accessibility, interest costs, profitability and growth indicators. The results showed a positive association between bank loans and SME profitability. However, SMEs located in rural areas continued to face restrictive lending policies, indicating that the performance benefits of formal finance were unevenly distributed. The study therefore highlights the need for more inclusive lending arrangements for smaller and rural enterprises.

Bañados et al. (2022) analysed traditional credit access and SME growth in Chile. The study was guided by financial inclusion theory, which emphasises that access to affordable and appropriate financial services is essential for enterprise development. The researchers used five-year longitudinal financial datasets and applied quantitative analysis. Loan access, sales growth, asset growth, profitability and business expansion were measured. The findings demonstrated that SMEs with formal bank loans achieved higher growth rates than firms without such credit. However, rural enterprises reported lower loan access because of underdeveloped credit systems and weak financial-service coverage. The study suggests that improving rural financial infrastructure can strengthen SME growth and reduce geographical financing inequalities.

Kauffmann et al. (2021) examined formal financing and SME performance in India. The study was grounded in information-asymmetry theory and financial inclusion theory. The authors used a quantitative approach to compare enterprises in major urban centres, including Mumbai and Bangalore, with those in rural areas of Maharashtra. The metrics included access to formal loans, profitability, growth, financial literacy and transaction costs. The study found that urban SMEs benefited from formal financing through improved investment capacity and business performance. In contrast, rural SMEs experienced limited financial literacy, high transaction costs and constrained access to bank services. These findings show that access to loans alone may be

insufficient unless accompanied by borrower education and accessible banking systems.

Liu, Zhang, and Li (2020) assessed the liquidity effects of bank loans among SMEs in China. The study applied the working-capital management perspective, which views external finance as important for supporting short-term operating needs. A mixed-methods design was adopted. Quantitative analysis compared SME liquidity before and after obtaining bank loans, while qualitative interviews captured owners' experiences. The principal measures were loan acquisition, cash flow, current ratio, interest rates and repayment schedules. The quantitative findings showed improved cash flow after SMEs obtained bank loans. However, the qualitative findings revealed dissatisfaction with high interest charges and inflexible repayment terms. The study therefore suggests that the usefulness of bank credit depends not only on availability but also on affordability and suitability of loan conditions.

Chan et al. (2022) investigated commercial-bank loans and SME outcomes in Malaysia and Indonesia. The study was informed by financial inclusion theory, particularly the argument that access to formal finance promotes business continuity and growth. The researchers used comparative quantitative evidence from SMEs in the two countries. Bank-loan access, profitability, liquidity, employment and sales growth were the key metrics. The study established that SMEs that accessed traditional bank loans generally performed better financially than those without such access. Yet, rural firms in Sabah and Sumatra remained underserved because banks adopted risk-averse lending policies. The study recommends lending models that incorporate local conditions and alternative methods of assessing rural SME creditworthiness.

Khan et al. (2021) examined access to traditional bank loans and financial performance among SMEs in Lahore, Pakistan. The study was guided by credit-rationing theory, which explains how strict collateral demands and administrative procedures can limit credit access among small businesses. A quantitative cross-sectional survey was conducted among 350 SMEs using structured questionnaires. Multiple regression analysis was used to evaluate the relationship between loan access and financial performance. The metrics included loan accessibility, profitability, operational efficiency, collateral requirements and bureaucratic lending processes. The results revealed that reliable access to bank loans was associated with higher profitability and

operational efficiency. Nevertheless, the researchers found that bureaucratic procedures and stringent collateral requirements discouraged many SMEs from applying for credit, thereby limiting their growth opportunities.

Ahmad and Mansor (2022) investigated commercial-bank lending, profitability and sustainability among SMEs in Malaysia. The study was supported by the resource-based view and financial inclusion theory. The authors used a mixed-methods design involving surveys from 420 SMEs in Selangor and Johor and 20 semi-structured interviews with SME owners. Structural equation modelling was applied to assess direct and indirect effects of bank financing. Major metrics included loan access, profitability, sustainability, business size, export orientation and loan-application experiences. The findings showed a positive association between traditional bank financing and financial performance, especially among manufacturing and export-oriented SMEs. However, participants reported rigid loan procedures and perceived bias towards larger businesses. The study recommended tailored loan packages that reflect the risk profiles and financing needs of micro and small enterprises.

Lee and Tan (2021) analysed commercial bank loans and short-term financial performance of SMEs. The study was informed by the pecking-order theory, which explains SMEs' use of debt when internal finances are insufficient. Panel-data regression was applied to 300 SMEs that obtained commercial bank loans between 2017 and 2020. Loan size, repayment period and interest rate were measured as financing variables, whereas revenue growth, liquidity ratio and net income were used as financial-performance indicators. The findings confirmed a statistically significant positive relationship between traditional bank loans and short-term financial performance. However, the results also showed diminishing marginal returns, meaning that excessive borrowing could weaken financial stability. The study recommended loan-monitoring mechanisms to help SMEs avoid over-borrowing.

Dlamini and Khumalo (2023) assessed bank-loan accessibility and SME financial performance in Gauteng Province, South Africa. The study was guided by relationship-lending theory, which argues that strong interactions between SMEs and banks can reduce lending risk and improve access to credit. A cross-sectional survey of 280 SMEs was undertaken, and data were analysed using descriptive statistics and logistic regression. The variables included accessibility of bank loans, banking relationships,

profitability, operational performance and post-pandemic business recovery. The study found that SMEs with established banking relationships recorded better financial performance than firms with weak links to formal lenders. The authors concluded that inclusive banking practices were important for financial inclusion and SME sustainability during post-pandemic recovery.

Namara and Tumwine (2022) explored traditional bank loans and SME financial performance in Kampala, Uganda. The study was based on financial intermediation theory, which views formal lenders as institutions that mobilise funds and allocate credit to productive enterprises. Using a quantitative approach, the researchers sampled 250 SMEs and employed Pearson correlation and multiple regression analysis. The key measures were access to formal loans, profitability, liquidity, interest rates and repayment terms. The findings demonstrated a significant positive association between access to bank loans and higher profitability. However, high interest rates and rigid repayment terms reduced the positive effect of loans on SME growth. The researchers recommended reforms to lending rates and improved financial-literacy programmes for SME owners.

Mwangi and Muriithi (2024) examined access to traditional bank loans and the financial performance of SMEs in Nairobi and Kisumu, Kenya. The study was guided by the resource-based view, which treats financial resources as important inputs for improving enterprise competitiveness and performance. A descriptive-correlational design was adopted, involving 400 SMEs, while regression analysis was used to test the relationship between loan access and performance. The main indicators were access to bank loans, fixed-asset investment, working capital, profitability and business growth. The findings showed a strong positive relationship between bank loans and financial performance, particularly among manufacturing and agribusiness SMEs that used credit for working capital and asset acquisition. However, rural and women-owned enterprises encountered greater barriers to bank credit. The study recommended targeted credit schemes and credit-guarantee programmes.

Ochieng and Okwiri (2021) investigated loan access and operational efficiency among SMEs in Nairobi and Mombasa, Kenya. The study was informed by financial constraint theory. A quantitative research design was used to assess the relationship between formal loan access and operational outcomes among SMEs in the two cities. The

metrics included availability of loans, business cash flow, operating efficiency and profitability. The study found a positive relationship between access to formal bank loans and improved operational efficiency. The findings imply that bank credit enables SMEs to purchase stock, finance production and meet operating expenses. However, the urban orientation of the study leaves a geographical gap concerning SMEs operating in rural counties and sub-counties.

Karanja and Waweru (2021) analysed formal loans and long-term SME financial performance in Kisumu and Nairobi, Kenya. The study was guided by the pecking-order theory and used a five-year longitudinal design. Loan access, profitability, liquidity, sales growth and business survival were the main measures. The findings showed that access to formal loans was associated with improved SME financial performance over time. Nonetheless, the study observed that rural SMEs, especially those in areas such as Baringo Central Sub-County, faced substantial credit-access difficulties. This evidence is important because it shows that the relationship between bank loans and financial performance may differ across urban and rural locations.

Mwangi and Cheronno (2024) assessed short-term and long-term loan use among SMEs in Kabartonjo and Kabarnet, Kenya. The study was anchored on working-capital management theory, which explains the importance of short-term financing in maintaining day-to-day business operations. Structured questionnaires were administered to SME owners, and regression analysis was used for data analysis. The main variables were short-term loan access, cash flow, operational continuity, repayment period and profitability. The findings showed that short-term loans were particularly important for maintaining cash flow and uninterrupted operations. The study suggests that banks should design affordable short-term credit facilities for rural SMEs whose financing needs are mainly operational and seasonal.

Kipkorir, Ruto, and Koskei (2024) investigated medium-term loans, capital investment and asset acquisition among SMEs in Eldama Ravine and Mogotio, Kenya. The study was based on the resource-based view because it considered credit as a financial resource that enables firms to acquire productive assets. A cross-sectional design and self-reported questionnaire data were used. Medium-term loan access, capital investment, asset acquisition and business performance were the principal metrics. The findings indicated that medium-term loans enhanced capital investment and enabled

SMEs to acquire business assets. However, the use of cross-sectional and self-reported data limited the ability to make long-term causal conclusions. Future studies should therefore use longitudinal financial records to establish whether loan-funded assets produce sustained profitability and growth.

The reviewed studies indicate that traditional bank loans generally improve SME liquidity, profitability, operational efficiency, asset acquisition and growth. Nevertheless, the positive effect depends on loan affordability, interest rates, repayment flexibility, collateral requirements, banking relationships and the purpose for which credit is used. A consistent gap is evident in the limited attention given to rural SMEs, women-owned enterprises and firms in underserved regions. Further research should therefore examine how access to different categories of traditional bank loans affects the financial performance of SMEs in rural contexts, while considering loan conditions and enterprise characteristics as important contextual factors (Afolabi, Wong, and Dyer, 2021; Kallio et al. 2020; Bañados et al. 2022; Kauffmann et al. 2021; Ahmad and Mansor, 2022; Dlamini and Khumalo, 2023; Mwangi and Muriithi, 2024 and Mwangi and Cherono, 2024).

2.2.2 Crowdfunding and Financial Performance of SMEs

Bradley and Cowling (2022) investigated debt crowdfunding and long-term financial performance of SMEs in the United Kingdom. The study was guided by signalling theory and resource-based theory. Signalling theory explains that a successful crowdfunding campaign communicates venture quality to potential investors, while resource-based theory views externally obtained funds as resources that can support firm competitiveness. The authors adopted a longitudinal mixed-methods design involving 300 SMEs that secured debt crowdfunding between 2016 and 2020. Panel regression was used to analyse quantitative data, while thematic analysis was applied to interviews. The main metrics were crowdfunding amount, liquidity, market share, post-campaign investor engagement and financial-management practices. The findings showed that crowdfunding generated short-term improvements in liquidity and market share. However, the sustainability of these improvements depended on effective post-campaign governance, investor relations and sound financial management. Technology and manufacturing SMEs benefited more consistently than service-based enterprises, whose results were relatively volatile.

Dupont and Lefebvre (2021) examined donation- and reward-based crowdfunding, financial sustainability and sales growth among SMEs in France. The study was underpinned by stakeholder theory and signalling theory. Stakeholder theory explains that crowdfunding enables SMEs to build relationships with customers, supporters and other stakeholders, whereas signalling theory suggests that campaign success can communicate business credibility to the market. The researchers used a cross-sectional survey of 180 SMEs that used French crowdfunding platforms and analysed the data using structural equation modelling. Campaign success, financial sustainability, sales growth, customer loyalty and environmental mission were used as the principal measures. The findings revealed that SMEs with clear environmental missions achieved stronger post-campaign revenue growth and customer loyalty than other businesses. Nevertheless, the study identified challenges relating to fulfilment of backer expectations and limited opportunities for repeat funding. It recommended integrating crowdfunding with broader marketing and customer-engagement strategies.

Mollick (2014) analysed crowdfunding success, venture credibility and long-term firm growth in the United States. The study was primarily guided by signalling theory, which proposes that successful crowdfunding campaigns provide observable evidence of a venture's quality and market acceptance. Using a large-scale quantitative design, the study analysed more than 48,000 Kickstarter campaigns. The main metrics included campaign success, amount raised, subsequent access to capital, venture credibility and long-term financial growth. The results showed that successful crowdfunding campaigns enhanced firms' subsequent ability to attract additional investors and enter markets. The study further found that well-funded campaigns served as a credible market signal. However, the study focused predominantly on urban and digitally literate regions, reducing its applicability to rural SMEs with weak internet connectivity and limited digital-finance capabilities.

Belleflamme, Lambert, and Schwienbacher (2014) assessed crowdfunding as a complementary financing source for SMEs in Europe. The study was supported by pecking-order theory, which explains why firms combine internal funds, debt and alternative financing sources when conventional finance is insufficient. The authors used a mixed-methods design that integrated survey evidence with case-study interviews. Their measures included crowdfunding use, funding outcomes, financial

needs, backer expectations and campaign-management complexity. The findings showed that crowdfunding could complement traditional finance by helping SMEs mobilise capital, test products and engage potential customers. However, backer expectations, campaign complexity and the costs of maintaining visibility were important challenges. The study also lacked strong rural representation, meaning that its conclusions may not fully apply to SMEs in digitally underserved areas.

Burtch, Ghose, and Wattal (2013) examined social influence, campaign visibility and fundraising success in crowdfunding markets in Canada. The study was based on social capital theory and signalling theory. Social capital theory explains how networks, online interactions and crowd participation can improve access to resources, while signalling theory explains how campaign visibility may strengthen perceived venture credibility. The researchers adopted a quantitative design and analysed more than 5,000 crowdfunding campaigns. The major metrics were social influence, campaign visibility, crowd engagement and fundraising success. The findings indicated that high social interaction, campaign visibility and strong crowd engagement significantly increased the probability of successful funding. However, the data were concentrated in major urban centres such as Toronto and Vancouver. Therefore, the findings provide limited evidence on the feasibility of crowdfunding among rural SMEs with low digital participation.

Tesch, Liesch, and Buckley (2019) investigated crowdfunding use, cash-flow performance and customer engagement among Canadian SMEs. The study was informed by resource-based theory because crowdfunding was treated as a financial and relational resource that can improve firm performance. A mixed-methods approach was employed, combining quantitative financial indicators with qualitative experiences of SME owners. The metrics included crowdfunding success, cash flow, customer engagement, sales activity and financial performance. The study found that successful campaigns improved cash-flow availability and strengthened customer engagement. The findings suggest that crowdfunding can provide not only capital but also market feedback and customer support. However, the study's focus on relatively digitalised firms means that less technologically equipped SMEs may not achieve similar outcomes.

Colombo, Franzoni, and Rossi-Lamastra (2015) analysed crowdfunding and financial sustainability among technology-oriented SMEs in Canada. The study was guided by signalling theory, which suggests that successful funding may signal business quality to investors and customers. A longitudinal research design was used to monitor SMEs that obtained crowdfunding over a 24-month period. Financial sustainability, profitability, campaign success, investor interest and business continuity were the key metrics. The findings showed that SMEs securing crowdfunding had improved financial sustainability and profitability over the study period. However, the research mainly focused on technology-driven urban enterprises. As a result, the study did not sufficiently address whether crowdfunding can be scaled effectively among traditional SMEs in rural regions that may have limited internet access and digital-marketing capacity.

Gajda and Sidorowicz (2020) investigated the financial and operational effects of crowdfunding among SMEs in Poland. The study was anchored on financial inclusion theory and resource-based theory. Financial inclusion theory explains the role of alternative finance in expanding access to capital for businesses excluded from conventional lending, while resource-based theory treats crowdfunded capital as a productive business resource. The authors adopted a mixed-methods design, combining financial data with qualitative evidence from SME owners. Liquidity, brand recognition, operational performance and crowdfunding participation were the principal metrics. The results showed that crowdfunding improved liquidity and enhanced brand recognition among participating firms. However, the qualitative sample was heavily drawn from metropolitan areas, particularly Warsaw and Kraków. This urban bias limits understanding of crowdfunding among rural SMEs that may lack reliable digital infrastructure.

Lehner (2013) assessed crowdfunding success and SME revenue growth in Germany. The study was informed by signalling theory because crowdfunding success was viewed as evidence of venture attractiveness and market potential. Quantitative panel data were used to examine the relationship between crowdfunding success and SME revenue. Campaign performance, revenue growth, funding amount and investor participation were measured. The findings revealed a statistically significant relationship between successful crowdfunding campaigns and increased SME revenue.

Nonetheless, the sample largely comprised digitally mature SMEs. This limits the relevance of the findings for rural enterprises and firms operating in areas with weak internet penetration, limited online-payment systems and low digital literacy.

Hernández and Ortega (2021) examined reward-based and equity crowdfunding and financial performance among SMEs in Mexico. The study was guided by financial inclusion theory and signalling theory. A quantitative methodology was adopted using data from 220 SMEs in Mexico City and Monterrey that utilised reward-based and equity-crowdfunding platforms. Multiple regression analysis was used to establish the relationship between crowdfunding and performance. The key metrics were return on investment, revenue growth, customer acquisition, market visibility, platform fees and marketing costs. The findings showed a strong positive association between successful crowdfunding and revenue performance. Crowdfunding enabled firms to obtain capital, improve market visibility and acquire new customers. However, platform fees and campaign-marketing costs reduced the net benefits for some SMEs. The study emphasised the importance of digital literacy, campaign preparation and effective communication with potential funders.

Gómez and Herrera (2022) analysed the effect of equity and reward crowdfunding on SME expansion in Colombia. The study was informed by entrepreneurship theory and financial inclusion theory. The researchers adopted a qualitative case-study design supported by quantitative performance data from 150 SMEs in Bogotá and Medellín. Content analysis was used for interview data, while descriptive statistics were used for revenue growth, asset accumulation and employment. The study found that equity crowdfunding enabled SMEs to expand operations and hire additional employees. Reward-based crowdfunding also assisted firms to test new products with relatively low financial risk. The findings further indicated positive effects on cash flow and brand development. However, crowdfunding alone was not sufficient to sustain long-term profitability without complementary traditional finance, grants or internal capital. The study recommended stronger regulations and investor-protection mechanisms.

Mensah and Asare (2023) investigated crowdfunding and financial performance among SMEs in Ghana. The study was grounded in financial inclusion theory because crowdfunding was viewed as an alternative mechanism for broadening SME access to finance. A quantitative research approach was adopted using a sample of 200 SMEs in

Accra. Regression analysis was used to assess the effect of crowdfunding on financial outcomes. The study measured reward-based crowdfunding, net income, liquidity ratios, business expansion and type of enterprise. The findings showed that reward-based crowdfunding had a stronger positive effect on product-based SMEs, especially those in agribusiness and retail. However, inadequate internet access and mistrust of digital platforms limited wider adoption. The researchers recommended government-supported awareness programmes, improved digital infrastructure and policy interventions to enhance the crowdfunding ecosystem.

Mwakalinga and Kimaro (2021) assessed the potential of crowdfunding to improve financial outcomes among SMEs in Tanzania. The study was underpinned by financial inclusion theory and women-entrepreneurship theory. The authors applied a mixed-methods approach in Dar es Salaam, using correlation analysis for quantitative data and thematic analysis for qualitative responses. The main metrics were crowdfunding access, working capital, financial performance, enterprise ownership and perceptions of digital-finance platforms. The results showed that crowdfunding significantly improved access to working capital, particularly among women- and youth-led enterprises. The study concluded that crowdfunding could reduce financing exclusion where traditional bank-credit requirements are difficult for small firms to meet. It recommended public-private partnerships to establish Tanzania-specific crowdfunding platforms and strengthen trust in digital financial systems.

Bekele and Tadesse (2023) examined digital crowdfunding and financial performance of SMEs in Ethiopia. The study was guided by financial inclusion theory and the technology-acceptance perspective. Financial inclusion theory explains the role of digital finance in widening access to capital, while technology acceptance explains how ease of use, trust and perceived usefulness influence adoption. A mixed-methods design was used, comprising a survey of 140 SMEs in Addis Ababa and in-depth interviews. Quantitative data were analysed using SPSS, while qualitative data explored funding challenges. The metrics included crowdfunding use, financial performance, product-market fit, internet access, digital payments and financing barriers. The findings showed that crowdfunding enabled early-stage businesses to bypass rigid banking requirements and test product-market fit. Nevertheless, inadequate internet penetration

and limited digital-payment facilities constrained broader adoption. The study recommended infrastructure investment and a clear legal framework for crowdfunding.

Arrieta, Saavedra, and González (2021) investigated crowdfunding and SME growth in Brazil. The study was guided by resource-based theory, which considers crowdfunding proceeds and investor networks as resources that support business development. A mixed-methods methodology was used, combining crowdfunding campaign data with interviews of SME founders. The measures included campaign success, SME growth, operational performance, logistical capability, digital marketing and internet accessibility. The authors found that crowdfunding supported SME growth by providing capital and market exposure. However, the findings also identified logistical difficulties, campaign-management demands and the need for effective digital marketing. Rural SMEs were excluded from the sample, which is a major limitation because rural enterprises may face more severe obstacles related to internet access and online marketing.

Taffler et al. (2019) studied long-term crowdfunding outcomes and market presence among SMEs in Argentina. The study was informed by signalling theory and entrepreneurship-growth theory. The authors used a five-year longitudinal approach to monitor SME outcomes after crowdfunding campaigns. The primary measures were crowdfunding success, market presence, financial growth, business expansion and investor attention. The findings indicated a strong relationship between successful campaigns and increased market presence. However, the study was conducted mainly in technology hubs such as Buenos Aires. Consequently, it did not adequately represent rural businesses, whose low level of crowdfunding adoption may be caused by poor internet connectivity, limited awareness and inadequate digital financial services.

Kshetri (2021) analysed crowdfunding and revenue performance among manufacturing and service SMEs in India. The study was based on financial inclusion theory and digital entrepreneurship theory. A longitudinal design was used to determine whether crowdfunding influenced SME revenue over time. Campaign success, revenue, sector of operation, digital capability and financial literacy were the major metrics. The findings showed that crowdfunding significantly improved revenue among manufacturing and service SMEs. However, the research focused mainly on urban enterprises, overlooking rural SMEs that face low financial literacy and limited internet

access. The study therefore indicates that the financial benefits of crowdfunding may be concentrated among firms with stronger digital readiness.

Lin and Su (2020) examined crowdfunding-platform performance, liquidity and investor interest among SMEs in China. The study was underpinned by signalling theory because campaign success and visibility were viewed as signals that attract investor participation. A quantitative methodology was used to evaluate campaign performance on crowdfunding platforms. The key metrics were campaign success, funding amount, liquidity, investor interest and platform participation. The findings established that crowdfunding improved SME liquidity and attracted investor interest. The study nevertheless suggests that firms need effective campaign design, transparent information and reliable platforms to secure positive funding outcomes. SMEs with limited online visibility may therefore derive fewer benefits from crowdfunding.

Zhang, Liu, and Tran (2021) investigated crowdfunding success and operational growth among SMEs in Vietnam. The study was guided by resource-based theory and signalling theory. The researchers used a mixed-methods design, combining quantitative performance evidence with qualitative experiences of SME owners. The variables included crowdfunding success, operational growth, campaign visibility, logistics, digital engagement and business performance. The findings confirmed a positive relationship between crowdfunding success and operational growth. However, logistical constraints and inadequate campaign visibility reduced success among some SMEs. Since the study concentrated on urban businesses with relatively higher digital engagement, the findings may not be fully applicable to rural SMEs with limited access to digital platforms.

Osei-Assibey and Doku (2020) assessed crowdfunding and SME financial capacity in Ghana. The study was guided by financial inclusion theory. A mixed-methods approach was adopted, combining quantitative financial information with qualitative interviews. Financial capacity, crowdfunding participation, campaign execution, reward management and platform navigation were used as the main measures. The findings showed that crowdfunding enhanced the financial capacity of participating SMEs. However, interviews revealed weaknesses in campaign implementation, including poor reward management and limited ability to navigate crowdfunding platforms. The study implies that access to a platform alone may not improve performance unless SME

owners have adequate skills in campaign design, communication and post-funding accountability.

Tuffour and Adjei (2022) analysed crowdfunding and five-year revenue growth among SMEs in Nigeria. The study was supported by entrepreneurship-growth theory, which links access to growth capital with expansion in business activity and financial outcomes. A longitudinal approach was used to track SME performance after crowdfunding campaigns. The primary metrics included campaign success, revenue growth, market expansion and geographical location. The results revealed that SMEs with successful crowdfunding campaigns achieved higher revenue growth over the five-year period. However, the study concentrated mostly on SMEs in Lagos and Abuja, leaving out rural enterprises in areas such as Benue and Ekiti. This geographical bias limits the generalisability of the findings because rural SMEs often operate within underdeveloped digital and financial ecosystems.

Otieno and Kiarie (2024) examined crowdfunding and financial performance of SMEs in Kenya. The study was guided by financial inclusion theory and signalling theory. A national-level survey of 300 SMEs in Nairobi, Mombasa and Kisumu that had participated in equity or reward crowdfunding was conducted. Regression and analysis of variance were used to analyse the data. The metrics included crowdfunding type, amount raised, profitability, liquidity, sales growth, investor confidence and platform trust. The findings revealed a statistically significant improvement in financial performance among SMEs that successfully raised funds through crowdfunding. However, limited investor confidence, weak legal protection and trust concerns regarding crowdfunding platforms continued to restrict adoption. The study recommended government-regulated platforms and tax incentives to encourage wider use of crowdfunding by Kenyan SMEs.

Wamuyu and Mbugua (2021) investigated crowdfunding outcomes, liquidity and market reach among SMEs in Kenya. The study was grounded in resource-based theory because crowdfunding was considered an external resource that supports liquidity and market expansion. A quantitative analysis of campaign-level data was undertaken. The key measures were crowdfunding success, liquidity, market reach, campaign competition and platform fees. The findings showed that successful campaigns enhanced liquidity and expanded the market reach of SMEs. However, intense

competition among campaigns and high platform fees constrained the benefits for some businesses. The study shows that crowdfunding performance depends on both the ability to attract funders and the cost of accessing digital-finance platforms.

Mungai, Kihoro, and Gathenya (2021) assessed crowdfunding, sales growth and profitability among urban SMEs in Nairobi, Kenya. The study was informed by financial inclusion theory and stakeholder theory. A mixed-methods approach was used to collect both quantitative performance data and qualitative experiences from SME owners. The metrics were crowdfunding participation, sales growth, profitability, customer engagement and campaign-management practices. The findings established a strong positive influence of crowdfunding on sales growth and profitability among urban SMEs. The study suggests that crowdfunding can improve both capital availability and customer awareness. However, its Nairobi-based sample limits the applicability of the results to rural SMEs, which may have weaker access to digital platforms and investor networks.

Njoroge et al. (2020) examined crowdfunding adoption barriers among SMEs in Kenya. The study was guided by technology-acceptance theory and financial inclusion theory. A quantitative survey of 150 SMEs was used to establish the barriers affecting crowdfunding participation. The major metrics included platform accessibility, donor fatigue, digital literacy, campaign success and geographical location. The findings identified inaccessible platforms and donor fatigue as major challenges that limited crowdfunding uptake. The results further suggested that geographical disparities influence crowdfunding adoption because SMEs in areas with poor internet coverage are less able to prepare, market and manage online campaigns. The study calls for user-friendly platforms, improved digital training and broader regional access to online financial services.

Mwangi and Cheronno (2024) investigated equity crowdfunding, asset acquisition and profitability among SMEs in Baringo Central Sub-County, Kenya. The study was underpinned by resource-based theory because equity crowdfunding was viewed as a financing resource that supports asset acquisition and innovation without increasing debt obligations. The researchers used structured questionnaires and regression analysis. The principal measures were equity-crowdfunding success, asset acquisition, innovation and profitability. The study found a statistically significant positive

relationship between crowdfunding success and profitability. The findings suggest that equity crowdfunding can reduce reliance on conventional debt and enable SMEs to invest in productive assets. However, the cross-sectional nature of the research and reliance on self-reported data limited the ability to establish long-term causal effects.

Kipkorir, Ruto, and Koskei (2024) assessed peer-to-peer lending, operational capital and liquidity among SMEs in Elgeyo Marakwet and Baringo, Kenya. The study was guided by financial inclusion theory because peer-to-peer lending was considered an alternative source of finance for SMEs that may not qualify for formal bank loans. The researchers used quantitative and mixed-method approaches to collect evidence from SMEs. The metrics included peer-to-peer loan access, operational capital, liquidity, default risk and borrower verification. The findings showed that debt-crowdfunding mechanisms increased operational capital and improved liquidity among participating SMEs. However, high default risk and weak borrower-verification procedures remained significant challenges. The study indicates that stronger credit-assessment processes and consumer-protection frameworks are necessary for peer-to-peer lending to support sustainable SME performance.

The reviewed studies show that crowdfunding generally improves SME liquidity, profitability, revenue growth, asset acquisition, market reach and customer engagement. The strongest benefits are commonly reported among digitally capable, product-oriented, manufacturing and technology-based SMEs. However, the studies consistently identify barriers including poor internet infrastructure, weak digital literacy, platform fees, inadequate legal protection, investor mistrust, poor campaign visibility and weak post-campaign governance. A major empirical gap remains because most studies focus on urban SMEs in capital cities and technology hubs. There is therefore a need for further research on how crowdfunding affects financial performance among rural SMEs, particularly in areas such as Baringo County, where digital infrastructure, investor networks and financial-training opportunities remain limited (Bradley and Cowling, 2022; Gajda and Sidorowicz, 2020; Gómez and Herrera, 2022; Mensah and Asare, 2023; Bekele and Tadesse, 2023; Zhang, Liu, and Tran, 2021; Otieno and Kiarie, 2024 and Wamuyu and Mbugua, 2021).

2.2.3 Fintech Solutions and Financial Performance of SMEs

Desai and Chug (2021) investigated fintech adoption and financial outcomes among SMEs in India. The study was guided by technology acceptance theory and financial inclusion theory. Technology acceptance theory explains that firms adopt digital tools when they perceive them as useful and easy to use, whereas financial inclusion theory explains how fintech may expand access to affordable financial services. The authors used a cross-sectional quantitative survey involving 350 SMEs located in major Indian cities. Regression analysis was applied to determine the relationship between fintech engagement and financial performance. The key metrics were fintech adoption, cash-flow management, credit accessibility and profitability. The findings showed that fintech adoption significantly improved cash-flow management and access to credit, while regression results revealed a positive association between fintech engagement and profitability. However, the urban concentration of the sample limited the study's applicability to rural SMEs, which may encounter lower digital connectivity and weaker technological capacity.

Sutherland and Jacques (2022) examined mobile-payment applications, accounting applications and SME performance in Canada. The study was underpinned by technology acceptance theory and transaction-cost theory. Transaction-cost theory explains that digital financial tools can reduce the time and cost of processing payments, maintaining records and communicating with customers. The authors adopted a mixed-methods methodology combining financial-performance data with qualitative interviews among Canadian SMEs. The major metrics included mobile-payment use, accounting-app adoption, transaction costs, customer satisfaction, broadband access and fintech literacy. The findings indicated that urban SMEs experienced improved customer satisfaction and reduced transaction costs after adopting mobile-payment and accounting applications. In contrast, SMEs in remote areas reported poor broadband coverage and low fintech literacy as important barriers. The study concluded that the benefits of fintech were unevenly distributed, with rural SMEs lagging in both adoption and financial outcomes.

Li and Zhang (2021) analysed digital lending, payment systems and SME financial performance in China. The study was guided by financial intermediation theory and financial inclusion theory. Financial intermediation theory explains the role of digital platforms in connecting SMEs with lenders and payment providers, while financial

inclusion theory focuses on improved access to financing. The researchers adopted a large-scale quantitative design involving more than 500 SMEs. Regression analysis was used to assess the effects of digital lending and payment-system adoption on liquidity and profitability. The study measured fintech adoption, access to digital loans, liquidity, profitability and payment efficiency. The findings revealed that adoption of digital lending and payment systems improved SME liquidity and profitability. The study therefore demonstrated that fintech can strengthen short-term financial capacity by accelerating access to credit and reducing payment delays.

Chen, Bloom, and Rothstein (2022) assessed fintech adoption, access to capital and financial challenges among SMEs in China. The study was informed by technology acceptance theory and perceived-risk theory. Perceived-risk theory explains that users may resist digital financial platforms where they fear cybercrime, data loss or system complexity. The researchers employed a mixed-methods approach, combining quantitative financial evidence with interviews of SME owners. The main metrics included fintech usage, access to capital, financing speed, platform complexity, cybersecurity concerns and technological expertise. The quantitative findings showed that fintech significantly improved SMEs' access to capital. However, qualitative interviews revealed that platform complexity and cybersecurity risks discouraged some small-business owners, particularly those with limited technological skills. The study concluded that fintech providers should simplify platforms, improve data protection and provide user training to sustain the financial benefits of digital finance.

Arner et al. (2020) investigated fintech adoption and operational efficiency among SMEs in the United Kingdom. The study was guided by technology acceptance theory and transaction-cost theory. The authors adopted a mixed-methods survey involving 600 SMEs located in urban and semi-urban areas of the United Kingdom. The measures included digital-tool adoption, loan-processing time, operational costs, payment reconciliation, cloud-based service use and geographical location. The findings revealed that digital financial tools reduced loan-processing time, lowered operating costs and accelerated payment reconciliation. Nevertheless, the study identified a major digital divide, whereby rural SMEs had reduced access to cloud-based tools and fintech services. Regulatory frameworks also influenced adoption patterns outside London.

The findings imply that policy support and infrastructure development are necessary to ensure that rural SMEs benefit equally from fintech innovation.

Gomber et al. (2018) examined peer-to-peer lending, financial stability and alternative credit among SMEs in Germany. The study was based on financial intermediation theory and financial innovation theory. Financial innovation theory explains how new financial technologies and platforms create alternatives to conventional bank financing. The authors investigated peer-to-peer lending among German SMEs using quantitative and qualitative evidence. The key metrics included alternative-credit access, financial stability, loan-processing efficiency, regulatory consistency and fintech adoption. The findings indicated that peer-to-peer lending enhanced SME access to alternative credit and improved financial stability for participating enterprises. However, the study identified sustainability risks and inconsistent regulations across European Union countries as constraints. These issues were more pronounced in less digitally developed regions, suggesting that a supportive regulatory environment is essential for wider and safer fintech adoption.

Legrand and Marchand (2021) analysed fintech use and financial performance among SMEs in France. The study was underpinned by resource-based theory and technology acceptance theory. Resource-based theory considers fintech capability as an organisational resource that can improve efficiency and competitiveness. The researchers conducted a quantitative study involving 240 SMEs in Paris and Lyon. Regression analysis and financial data were used to establish the relationship between fintech usage and financial outcomes. The metrics included fintech adoption, profitability, cash-flow efficiency, IT capacity and digital maturity. The findings revealed a significant positive relationship between fintech usage and SME financial performance. The effect was stronger among digitally mature SMEs, whereas smaller firms with limited IT capacity achieved only marginal gains. The study therefore suggests that the financial benefits of fintech depend partly on the enterprise's internal technological resources and staff capabilities.

Müller and Schaefer (2022) investigated fintech integration, financial flexibility and operating costs among SMEs in Germany. The study was guided by resource-based theory and transaction-cost theory. A mixed-methods design was adopted among 300 SMEs in Berlin, Frankfurt and Munich. The study used panel-data analysis for

quantitative information and thematic content analysis for interviews with SME managers. The main measures were use of real-time payments, alternative lending, artificial-intelligence budgeting tools, financial flexibility, operating costs, cybersecurity concerns and regulatory barriers. The findings revealed that fintech platforms improved financial flexibility and reduced operating costs by enabling rapid payments, alternative credit and improved budgeting decisions. However, cybersecurity concerns and General Data Protection Regulation requirements constrained wider adoption. The study recommended secure digital infrastructure and fintech-literacy training to enable SMEs to maintain the performance gains associated with digital financial services.

Khan and Farooq (2023) assessed fintech credit platforms and SME financial performance in Pakistan. The study was informed by financial inclusion theory and credit-rationing theory. Credit-rationing theory explains why SMEs may seek fintech credit when conventional banks impose restrictive collateral requirements and lengthy lending procedures. The authors surveyed 250 SMEs in Lahore and Karachi using platforms such as Finja and UBL Omni. Multiple linear regression analysis was used to assess the effect of fintech lending on performance. Liquidity, short-term solvency, access to credit, interest-rate volatility and customer-protection mechanisms were the key metrics. The findings showed that fintech lending improved liquidity and short-term solvency. However, interest-rate fluctuations and weak consumer-protection mechanisms reduced the sustainability of these gains. The study recommended stronger regulatory oversight and locally responsive fintech models to protect Pakistani SMEs.

Rahman et al. (2021) examined mobile wallets, digital microloans, peer-to-peer lending and financial performance among SMEs in Malaysia. The study was grounded in financial inclusion theory and transaction-cost theory. The authors analysed panel data from 350 SMEs in Kuala Lumpur and Penang. The major metrics included use of mobile wallets, digital microloans, peer-to-peer lending, return on investment, transaction costs, profitability and integration with conventional banks. The findings revealed that SMEs using peer-to-peer lending and e-payment platforms achieved higher returns on investment and lower transaction costs. The regression results further showed a positive influence on profitability among service-oriented SMEs. Nevertheless, poor interoperability between fintech platforms and traditional banks

limited the scalability of fintech services in rural regions. The study recommended stronger integration between conventional financial institutions and digital platforms.

Tan and Ng (2022) investigated fintech adoption, operational efficiency and profitability among SMEs in Singapore. The study was guided by technology acceptance theory and resource-based theory. A quantitative cross-sectional design involving 280 SMEs was used, and structural equation modelling was applied to analyse the data. The measures included fintech use in inventory management, payroll automation, customer invoicing, operational efficiency, profitability and sector of operation. The study found that SMEs using fintech tools for inventory control, payroll processing and invoicing achieved improved operational efficiency and profitability. Fintech-adopting SMEs in the logistics and retail sectors reported approximately 15–20% higher profit margins than non-adopting firms. The study recommended government subsidies to promote fintech use and highlighted the importance of Singapore's regulatory sandbox in supporting low-risk experimentation with financial technologies.

Zhang et al. (2021) analysed mobile-payment systems and profitability among SMEs in China. The study was based on transaction-cost theory and customer-relationship theory. Transaction-cost theory explains that mobile payments reduce the cost and time required to complete transactions, while customer-relationship theory suggests that convenient payment systems can improve customer retention. The researchers conducted a quantitative survey of more than 800 firms using mobile-payment systems such as WeChat Pay and Alipay. The metrics included mobile-payment adoption, cash flow, customer engagement, sales activity and profitability. The findings showed that fintech users experienced significant improvements in cash flow and customer engagement. However, the data were largely collected from urban enterprises and did not capture the realities of SMEs in inland rural provinces. The study therefore provides limited evidence on whether mobile payments produce similar outcomes where internet access and digital literacy are low.

Kumar and Singh (2022) assessed fintech platforms, SME financing and operating costs in India. The study was informed by financial inclusion theory and technology acceptance theory. The researchers adopted a mixed-methods approach to investigate the role of platforms such as Razorpay and Paytm in SME financing and payments. The

metrics included speed of capital acquisition, operational costs, fintech awareness, data-privacy concerns, regulatory understanding and rural location. The findings showed that fintech platforms enabled SMEs to obtain capital more quickly and reduce operating costs. However, rural respondents reported low awareness, scepticism about platform reliability, concern over data privacy and uncertainty about regulatory frameworks. The study recommended targeted awareness campaigns and customised fintech-literacy programmes to increase adoption among rural SMEs.

Diniz, Bello, and Ogunleye (2022) examined fintech adoption, revenues and transaction costs among SMEs in Nigeria. The study was guided by financial inclusion theory and digital-divide theory. Digital-divide theory explains why differences in device ownership, internet connectivity and digital skills lead to unequal benefits from technology. A mixed-methods design was used among SMEs in Lagos and Abuja. The study measured fintech use, revenue, transaction costs, smartphone penetration, internet infrastructure and rural access. The quantitative findings linked fintech adoption with increased revenue and lower transaction costs. However, rural SMEs remained underserved because of low smartphone penetration and inadequate infrastructure. The researchers concluded that Nigeria requires fintech policies that improve rural connectivity and encourage the development of inclusive digital-finance ecosystems.

Kiva and Florestan (2023) investigated fintech access, loan approval and SME revenue growth in South Africa. The study was grounded in financial intermediation theory and financial inclusion theory. The authors conducted a survey of 500 SMEs and analysed the influence of fintech access on loan-processing speed, revenue growth, broadband availability and financial awareness. The results showed that fintech access facilitated faster loan approvals and was positively associated with revenue growth. Nonetheless, inadequate broadband access and low awareness of fintech services limited rural uptake. The study concluded that fintech can transform SME financing in South Africa, but its impact will remain unequal unless rural connectivity and financial awareness are improved.

Musa and Abdelrahman (2024) examined mobile-money use and SME financial performance in Sudan. The study was guided by financial inclusion theory and contingency theory. Contingency theory explains that the effects of fintech may vary depending on contextual factors such as macroeconomic stability, regulations and

infrastructure. The authors adopted a mixed-methods case-study design involving 120 SMEs in Khartoum that used mobile money for transactions and working capital. SPSS was used to analyse transaction-cost reduction, monthly sales and customer retention, while interviews generated qualitative insights. The findings showed that fintech improved operational efficiency and expanded customer reach. However, currency instability and regulatory gaps limited the overall financial benefits. The study recommended strengthening fintech infrastructure and promoting financial literacy to improve the contribution of mobile-money services to SME sustainability.

Dintwe and Molefhe (2023) assessed mobile-based fintech platforms and SME financial performance in Botswana. The study was informed by transaction-cost theory and financial inclusion theory. The researchers examined mobile platforms such as Orange Money and Mascom MyZaka among 150 SMEs in Gaborone and Francistown. Survey data were analysed using regression and descriptive statistics. The principal metrics were cash flow, transaction volume, customer engagement, repeat business, monthly revenue, service fees and technical downtime. The study found that mobile-based fintech improved cash flow, increased transaction volumes and strengthened customer engagement, which contributed to repeat business and higher monthly revenue. However, high service charges and frequent technical disruptions prevented some SMEs from obtaining consistent benefits. The study concluded that fintech has substantial transformative potential where service reliability and cost structures are improved.

Otieno and Cherono (2023) investigated digital lending platforms and SME financial performance in Kenya. The study was based on financial inclusion theory and working-capital management theory. Working-capital management theory explains the importance of short-term finance in supporting inventory purchases, operating expenses and business continuity. The authors surveyed 300 SMEs in Nairobi and Kisumu that used platforms such as Tala, Branch and M-Shwari. Multivariate regression analysis was used to determine the effect of fintech lending on performance. The metrics included fintech-loan access, short-term liquidity, inventory restocking, profitability, working-capital cycle, interest rates and repayment period. The findings showed that fintech loans improved short-term liquidity, supported inventory restocking and enhanced profitability. However, high interest rates and short repayment periods

created a risk of over-indebtedness. The study recommended stronger regulation and borrower education to protect SME sustainability.

Njeri, Wambua, and Omondi (2023) analysed mobile-fintech tools and revenue growth among SMEs in Kenya. The study was guided by financial inclusion theory and resource-based theory. The researchers conducted a three-year longitudinal study examining the effect of M-Pesa, M-Shwari and KopoKopo on SME outcomes. The measures included mobile-money use, mobile credit, revenue growth, liquidity, inventory purchases, short-term debt management and sector of operation. The findings indicated that mobile-fintech tools positively influenced revenue growth, particularly among retail and agribusiness enterprises. Mobile credit enabled SMEs to meet immediate liquidity needs, purchase inventory and manage short-term debt. The longitudinal design strengthened the evidence that fintech can support continuing SME financial performance, although further research is required to establish whether the gains are sustained over longer periods.

Muli and Ngari (2023) examined mobile-money solutions, operational efficiency and profitability among SMEs in Kenya. The study was underpinned by transaction-cost theory and technology acceptance theory. A mixed-methods approach was used to assess SMEs in Nairobi and Nakuru. The study measured mobile-money adoption, operating friction, transaction time, payment efficiency, profitability, 4G coverage and digital literacy. The results showed that mobile-money solutions reduced operational friction and improved profitability by facilitating faster payments and simpler financial transactions. However, the urban focus was a limitation because rural SMEs in Baringo and Kakamega were reported to face poor 4G coverage and low digital literacy. The study therefore calls for rural-focused evidence on the relationship between fintech and SME financial performance.

Ogalo and Ochieng (2023) assessed fintech platforms, credit access and SME growth in Kenya. The study was informed by financial inclusion theory because fintech platforms were viewed as mechanisms that broaden access to financial services beyond conventional banking channels. A quantitative approach was employed, and regression analysis was used to determine the relationship between fintech use and business expansion. The main measures were usage of peer-to-peer and digital-credit platforms such as Tala, Branch and Fuliza, access to credit, growth in business operations and

fintech adoption. The findings revealed a positive correlation between fintech usage and SME expansion. The study concluded that digital credit platforms can support growth by reducing barriers to short-term financing. However, the ability of SMEs to benefit may depend on responsible borrowing and the affordability of digital-loan products.

Mwangi and Cheron (2024) investigated fintech financing, emergency funding and stock acquisition among rural SMEs in Kenya. The study was guided by financial inclusion theory and working-capital management theory. The researchers surveyed SMEs in Baringo Central and Eldama Ravine to establish whether fintech loans provided flexible finance that was unavailable through conventional banks. The major metrics included fintech-loan use, access to emergency finance, stock acquisition, liquidity, repayment structure and interest rates. The findings showed that fintech financing enabled rural SMEs to meet emergency expenses and acquire stock, thereby improving short-term business continuity. Nevertheless, irregular repayment arrangements and high interest rates remained serious challenges. The study implies that digital lenders should provide transparent loan terms and appropriately structured repayment schedules for rural SME borrowers.

The reviewed studies demonstrate that fintech adoption generally improves SME cash flow, liquidity, access to credit, payment efficiency, profitability, sales growth and customer engagement. Digital lending, mobile money, electronic payments, accounting applications, peer-to-peer lending and automated financial-management tools are the most frequently associated fintech services. However, the results also show that benefits are conditional on digital infrastructure, affordability, cyber-security protection, regulatory clarity, financial literacy, service reliability and responsible borrowing. A clear empirical gap remains because many studies concentrate on urban SMEs, while rural enterprises continue to face inadequate internet access, low digital literacy, weak consumer protection and limited knowledge of digital financial products. Further research should therefore investigate how fintech adoption affects the financial performance of rural SMEs, particularly within counties where digital and financial infrastructure remains underdeveloped (Ogalo and Ochieng 2023; Muli and Ngari 2023; Bradley and Cowling, 2022; Gajda and Sidorowicz, 2020; Gómez and Herrera,

2022; Mensah and Asare, 2023; Zhang, Liu, and Tran, 2021; Wamuyu and Mbugua, 2021; and Kipkorir, Ruto, and Koskei, 2024).

2.2.4 Government and Development Bank Programs and Financial Performance of SMEs

Ghosh and Sarker (2021) investigated Small Business Administration loans and financial performance of SMEs in the United States. The study was guided by financial intermediation theory and financial inclusion theory. Financial intermediation theory explains how government-backed lending institutions reduce financing constraints by channelling funds to enterprises, while financial inclusion theory focuses on access to affordable credit for underserved businesses. The authors used a quantitative methodology involving 1,200 SMEs that received Small Business Administration loans. Profitability, revenue growth, loan access, business location and financing conditions were the principal metrics. The findings showed a statistically significant improvement in profitability and revenue growth among SMEs that accessed SBA loans. However, the study concentrated on urban enterprises, limiting its applicability to rural SMEs that often face infrastructure deficits, low awareness of public programmes and difficulties accessing information about credit facilities.

Timmons and Spinelli (2022) examined government-supported finance, bureaucratic barriers and SME performance in the United States. The study was anchored on institutional theory and financial inclusion theory. Institutional theory explains how government procedures, regulations and administrative systems influence access to financial programmes. The researchers employed a mixed-methods approach involving financial-performance indicators and qualitative interviews with 150 SMEs. The main metrics included access to public finance, profitability, liquidity, application procedures, bureaucratic delays and financing bottlenecks. The study found that government-supported financing could improve SME financial outcomes, but administrative requirements and slow approval processes limited programme effectiveness. The qualitative results revealed that many SMEs struggled to navigate loan procedures and obtain timely funds. The relatively small sample and urban focus limited representation of rural businesses, which may face more severe informational, geographical and administrative barriers.

Parker and Lichtenstein (2023) analysed long-term financial outcomes of SMEs participating in government-support programmes in the United States. The study was informed by resource-based theory, which treats government finance as an external resource that enables firms to invest, grow and improve competitiveness. A longitudinal research design covering ten years was adopted. The main measures were programme participation, profitability, revenue growth, business survival, investment capacity and long-term financial outcomes. The findings demonstrated that SMEs participating in government-financing programmes achieved improved financial performance over time. The study provided important evidence that public support may create lasting enterprise benefits rather than only short-term liquidity relief. However, rural SMEs were excluded from the study. This omission leaves a gap because remote enterprises may experience different outcomes due to weak programme outreach, inadequate infrastructure and limited access to financial institutions.

Mazzarol et al. (2021) assessed the Canada Small Business Financing Program and SME profitability in Canada. The study was guided by financial inclusion theory and resource-based theory. The authors used data from 500 SMEs to examine whether participation in the Canada Small Business Financing Program improved financial outcomes. The major metrics included programme-loan access, capital investment, profitability, operational sustainability and business location. The findings established that programme beneficiaries recorded improved capital investment and enhanced operational sustainability. Government-backed finance enabled SMEs to acquire productive assets and maintain business operations. Nevertheless, the study mainly focused on urban businesses and did not adequately address rural-specific barriers, including low awareness of government programmes, weak financial infrastructure and low participation rates. The findings may therefore overstate the effectiveness of the programme among geographically underserved SMEs.

Wilton and DeMarco (2020) investigated provincial government-financing programmes and return on investment among Canadian SMEs. The study was underpinned by programme theory and financial intermediation theory. Programme theory explains that the success of public interventions depends on appropriate targeting, implementation and beneficiary support. The researchers adopted a mixed-methods design that combined interviews with SME owners and financial data. Return

on investment, programme participation, capital access, business performance and location were used as the main metrics. The findings showed that SMEs participating in provincial programmes achieved improved return on investment. However, the sample was dominated by urban SMEs, making it unclear whether similar benefits would be achieved by enterprises outside major cities. The study emphasised the need for future research to include rural SMEs, which may have limited access to public-finance information and programme-delivery centres.

González, Costa, and Silva (2022) examined Brazil's Programa de Acesso ao Crédito and financial performance of SMEs in Brazil. The study was guided by financial inclusion theory and credit-rationing theory. Credit-rationing theory explains how small enterprises may be denied conventional loans because of limited collateral, information asymmetry and perceived risk. The authors conducted a quantitative assessment involving 700 SMEs. The key metrics were programme-supported credit access, profitability, business growth, liquidity and geographical location. The study reported improved profitability and expanded credit access among SMEs that participated in the programme. These benefits were particularly visible in major urban business centres. However, rural SMEs were underrepresented, despite their need for affordable finance. The study therefore revealed an important geographical gap because rural businesses may continue to face limited financial-service coverage, lower programme awareness and weaker capacity to complete administrative loan requirements.

Rodríguez et al. (2021) investigated development-bank loans and operational capacity of SMEs in Argentina. The study was informed by development-finance theory, which argues that public financial institutions can correct market failures by providing capital to enterprises excluded from commercial lending. A mixed-methods research design was adopted, combining quantitative performance indicators with qualitative information from SME owners. The principal metrics were development-bank loan access, operational capacity, liquidity, investment, financial management and access barriers. The findings confirmed that development-bank loans improved operational capacity among participating SMEs. Businesses used the funds to finance working capital, purchase inputs and maintain operations. However, rural SMEs were excluded from the sample despite their greater exposure to poor financial infrastructure and

limited bureaucratic literacy. The study recommended more inclusive programme design and decentralised service delivery to reach remote enterprises.

López and Pinto (2023) analysed state-supported SME initiatives and long-term financial benefits in Colombia. The study was based on resource-based theory and financial inclusion theory. The researchers assessed state-supported programmes targeting SMEs in agriculture and technology-oriented sectors. The main metrics were access to state finance, profitability, long-term financial sustainability, capital investment, sector and firm location. The findings showed that state-supported initiatives generated long-term financial benefits, particularly for SMEs operating in agriculture and technology. The programmes improved investment capacity and enabled firms to undertake productive projects. However, rural SMEs remained underrepresented despite their substantial contribution to Colombia's economy. The authors implied that public programmes should adopt more deliberate rural-targeting strategies, including simplified applications, regional awareness programmes and locally accessible support centres.

Xu, Wang, and Hu (2021) examined government-backed SME finance, liquidity and business continuity in China. The study was guided by financial intermediation theory and crisis-management theory. Crisis-management theory explains how emergency or supported finance can help enterprises withstand financial shocks and maintain operations. The researchers analysed programme beneficiaries located mainly in Beijing and Shanghai. The key measures were government-finance access, liquidity, business continuity, working-capital availability and geographical location. The findings revealed that beneficiaries experienced improved liquidity and stronger business continuity after receiving government-backed financing. However, the urban orientation of the study excluded rural SMEs that frequently lack access to financial institutions and government-service providers. Consequently, the findings cannot be fully generalised to rural regions where awareness, physical access and digital connectivity may affect programme participation.

Dutta and Mukherjee (2022) assessed Small Industries Development Bank of India loans and SME financial performance in India. The study was underpinned by development-finance theory and financial inclusion theory. The researchers used a mixed-methods framework to examine loans provided through the Small Industries

Development Bank of India. Quantitative performance data were supplemented with qualitative insights from SME owners. The metrics included development-bank loan access, revenue, credit uptake, liquidity, enterprise growth and location. The findings confirmed that SIDBI financing improved revenue and credit uptake among participating SMEs. The loans enabled firms to increase working capital and invest in business operations. Nevertheless, the findings were generated largely from urban centres, including Mumbai, and did not adequately represent SMEs in rural Bihar and Odisha. The authors therefore highlighted the need for more inclusive development-finance programmes that address rural credit constraints.

Kim and Lee (2023) investigated technology-centred SME subsidies, employment and profitability in South Korea. The study was guided by innovation theory and resource-based theory. Innovation theory explains that public support can enable SMEs to adopt new technologies, improve productivity and create employment. The authors examined technology-oriented SME subsidies provided through the Korean Development Bank. The study measured subsidy access, employment growth, profitability, sector, innovation capacity and firm location. The findings demonstrated that beneficiaries in fintech and manufacturing sectors achieved higher employment growth and profitability. The subsidies enabled firms to invest in technology, improve processes and expand production. However, rural enterprises were not included in the sample. This limitation reduces the relevance of the findings to non-urban SMEs, which may have fewer technological resources and limited ability to access innovation-support programmes.

Tchamyou (2021) analysed government grants, low-interest loans and SME financial performance in Nigeria. The study was based on financial inclusion theory and development-finance theory. The author examined the effect of government credit schemes and development-bank interventions among 350 SMEs in Lagos and Abuja. A mixed-methods design was used, combining regression analysis with thematic content analysis of interviews. The metrics included access to government grants, low-interest loans, profitability, operational efficiency, financing gaps, administrative processes and programme outreach. The findings showed significant improvements in operational efficiency and profitability among SMEs that accessed government-backed loans and grants. However, bureaucratic inefficiencies and limited outreach to rural

areas restricted the overall impact. The study recommended decentralising programme implementation, simplifying administrative procedures and increasing awareness among SMEs about available financing opportunities.

Mensah et al. (2023) investigated development-bank support, SME growth and sustainability in Ghana. The study was guided by resource-based theory and development-finance theory. The researchers conducted a five-year longitudinal study involving financial data from 400 SMEs. Time-series regression was used to analyse the relationship between development-bank support and financial performance. The metrics included development-bank financing, profitability, growth, sustainability, revenue, sector of operation, disbursement speed and borrowing cost. The results indicated sustained financial-performance improvements among SMEs in agribusiness and export sectors that received development-bank support. However, delayed disbursements and high interest rates limited programme scalability and reduced the ability of some firms to fully exploit financing opportunities. The authors recommended reforms to lower borrowing costs, streamline application procedures and improve the timely release of funds.

Mutasa, Mugambiwa, and Nyamukondiwa (2023) assessed the Support Programme for Industrial Innovation and financial performance of technology-driven SMEs in South Africa. The study was informed by innovation theory and resource-based theory. The researchers used quantitative methods and SPSS regression analysis involving 500 SMEs that participated in the Support Programme for Industrial Innovation and related government schemes. The measures included programme access, innovation capacity, profit margins, technological investment, regional location and fund utilisation. The study found that beneficiaries recorded higher innovation capacity and improved profit margins compared with non-beneficiaries. However, regional disparities were evident because SMEs in remote areas faced greater difficulty accessing programme support. The authors recommended strengthening support infrastructure in underserved areas and improving monitoring mechanisms to ensure that funds are used productively.

Chikapa and Tembo (2022) examined the Malawi Enterprise Development Fund, cash flow and SME expansion in Malawi. The study was guided by financial inclusion theory and human-capital theory. Human-capital theory explains that financing is more effective when entrepreneurs possess the knowledge and skills needed to manage funds

efficiently. The researchers used a mixed-methods approach involving 200 SMEs. Structured questionnaires generated quantitative data that were analysed using multiple regression, while interviews provided qualitative evidence. The key metrics were access to Enterprise Development Fund support, cash flow, business expansion, financial knowledge, utilisation of funds and profitability. The findings showed that government support improved cash flow and facilitated business expansion. Qualitative evidence further emphasised the importance of combining financing with financial education. The study recommended integrating training and business-development services into public SME-financing programmes.

Shifiona and Amadhila (2021) investigated the Namibia Industrial Development Agency and SME financial performance in Namibia. The study was underpinned by development-finance theory and programme theory. The authors conducted a cross-sectional survey of 180 SMEs and applied correlation and regression analysis to assess the relationship between government loans and financial outcomes. The major metrics were NIDA loan support, capital investment, sales performance, financial performance, policy targeting and performance monitoring. The findings showed that SMEs supported by NIDA achieved better capital investment and stronger sales performance than unsupported firms. The study concluded that government lending can improve SME financial outcomes when it is adequately targeted. It recommended better policy targeting and follow-up mechanisms to monitor fund use and ensure that supported SMEs achieve intended performance outcomes.

Uwizeye and Ndayishimiye (2023) assessed the Business Development Fund, credit guarantees and SME performance in Rwanda. The study was guided by financial intermediation theory and financial inclusion theory. The researchers used a mixed-methods evaluation involving 220 SMEs. Descriptive statistics and regression analysis were applied to assess the influence of Business Development Fund support on financial outcomes. The key measures included partial credit guarantees, commercial-bank loan access, liquidity, profitability, awareness, administrative complexity and firm size. The findings showed that partial credit guarantees enabled SMEs to access commercial-bank loans that may otherwise have been unavailable. However, low programme awareness and bureaucratic requirements restricted participation by rural micro-enterprises. The study recommended simplified application processes, targeted

awareness campaigns and improved outreach to strengthen inclusion among smaller and remote enterprises.

Kintu and Atwine (2022) examined the Agricultural Credit Facility, Youth Livelihood Programme and SME performance in Uganda. The study was based on financial inclusion theory and working-capital management theory. The authors adopted a mixed-methods approach involving 300 SMEs, and the quantitative data were analysed using STATA. The metrics included participation in the Agricultural Credit Facility and Youth Livelihood Programme, liquidity, revenue, working capital, allocation consistency, training support and enterprise growth. The findings showed that programme participants achieved improved liquidity and increased revenues. However, inconsistent allocation of funds and inadequate training support weakened programme effectiveness. The authors recommended integrating capacity-building initiatives, financial-management training and broader rural outreach into government-finance programmes.

Mwangi and Cheronno (2024) investigated the Hustler Fund, Credit Guarantee Scheme and Kenya Development Corporation loans and SME financial performance in Kenya. The study was guided by financial inclusion theory and development-finance theory. A survey of 400 SMEs was undertaken, and multiple regression analysis was used to assess the effect of participation in public-finance programmes on financial outcomes. The principal metrics were access to the Hustler Fund, Credit Guarantee Scheme, Kenya Development Corporation loans, cash flow, profitability, awareness and disbursement time. The results showed a strong positive relationship between access to these programmes and improved cash flow among SMEs. Nevertheless, slow disbursement processes and limited awareness were major barriers. The study recommended improved information dissemination, faster processing of applications and strengthened institutional coordination.

Kipkorir et al. (2024) assessed Uwezo Fund, Youth Enterprise Development Fund and SME growth in rural Kenya. The study was informed by financial inclusion theory and resource-based theory. The researchers used a mixed-methods approach to determine how public funds affected SME liquidity and business growth in rural counties. The measures included access to Uwezo Fund and Youth Enterprise Development Fund financing, liquidity, revenue growth, business expansion, location and training support.

The findings revealed that SMEs accessing the funds experienced improved liquidity and business growth. The study demonstrated that public funds can contribute to rural enterprise development where financial institutions and conventional lenders may be inaccessible. However, limited information, difficulties in navigating loan procedures and inadequate training on fund utilisation reduced the full benefits available to some SMEs.

Kipkorir, Chebet, and Wekesa (2024) analysed the Youth Enterprise Development Fund, Uwezo Fund and Kenya Development Corporation support for youth- and women-owned SMEs in Kenya. The study was guided by gender-inclusive finance theory, financial inclusion theory and development-finance theory. The authors examined youth- and women-owned rural SMEs using a quantitative and qualitative research approach. The main metrics included access to public funds, liquidity, profitability, agribusiness investment, small-scale manufacturing performance, programme awareness, training and loan-procedure challenges. The findings showed that Youth Enterprise Development Fund and Uwezo Fund support strengthened liquidity among youth- and women-owned enterprises. Kenya Development Corporation financing also improved profitability among agribusiness and small-scale manufacturing SMEs. However, inadequate access to information, complex loan procedures and insufficient training on fund management continued to hinder rural SMEs from fully benefiting from the programmes.

The reviewed studies indicate that government and development-bank programmes generally improve SME liquidity, profitability, revenue growth, capital investment, innovation capacity, operational efficiency and business sustainability. The studies further show that grants, subsidised loans, credit guarantees, youth funds, women-enterprise funds and development-bank credit can reduce financing gaps where commercial banks impose strict collateral and credit requirements. However, the effectiveness of these programmes is constrained by slow disbursement, high interest rates, bureaucratic procedures, inadequate awareness, poor follow-up, weak training and limited rural outreach. A major empirical gap is that many studies focus on urban SMEs, while rural enterprises remain underrepresented despite facing more serious financing and information barriers. Further research should therefore examine how government and development-bank programmes influence the financial performance of

rural SMEs, particularly by considering access procedures, programme awareness, training and geographical location (Timmons and Spinelli, 2022; Parker and Lichtenstein, 2023; González, Costa, and Silva, 2022; López and Pinto, 2023; Dutta and Mukherjee, 2022; Kim and Lee, 2023; Mensah et al. 2023; Mutasa, Mugambiwa, and Nyamukondiwa, 2023; Chikapa and Tembo, 2022; Uwizeye and Ndayishimiye, 2023 Kipkorir, Chebet, and Wekesa, 2024).

2.2.5 Moderation Role of Government Policies on SME Financial Relationships

Radaelli, D'Angelo, and Warren (2020) examined federal loan guarantees and SME financial performance in the United States. The study was guided by financial intermediation theory and credit-rationing theory. Financial intermediation theory explains how public guarantees reduce lender risk and improve SMEs' access to external finance, while credit-rationing theory explains why small firms may be denied credit without such guarantees. The researchers used a mixed-methods design involving more than 400 SMEs. The main metrics included access to guaranteed loans, loan approval, liquidity, profitability, financial infrastructure and policy awareness. The findings suggested that federal loan guarantees improved access to financing and supported financial performance. However, the sample focused mainly on metropolitan SMEs. The study did not adequately address rural enterprises that experience inadequate banking penetration, low awareness of public-finance policies and weak financial infrastructure.

Lee (2020) analysed Small Business Administration support, tax incentives and financial performance of SMEs in the United States. The study was informed by resource-based theory and institutional theory. Resource-based theory views SBA-backed loans and tax incentives as external resources that facilitate enterprise investment and growth, while institutional theory explains how government structures influence SME financing opportunities. The author used a longitudinal panel design covering SMEs in all 50 states between 2010 and 2019. Hierarchical linear modelling was used to account for variation at firm and state levels. The metrics included SBA-backed loan volume, return on assets, return on investment, survival rate, firm size and tax incentives. The results showed that SBA-supported firms achieved approximately 12% higher loan volumes and improved financial performance. However, possible self-

selection into SBA programmes and omitted-variable bias may have affected the causal interpretation of the findings.

D'Adamo, Lévesque, and Samson (2022) investigated federal tax incentives, the Strategic Innovation Fund and SME financing in Canada. The study was guided by innovation theory and financial inclusion theory. Innovation theory explains how state incentives can support investment in productivity-enhancing activities, whereas financial inclusion theory emphasises improved access to formal financing. The authors employed a mixed-methods approach involving a survey of 600 SMEs and interviews with business leaders. Financing accessibility, firm growth, tax incentives, Strategic Innovation Fund participation, business location and digital infrastructure were the principal measures. The findings showed that tax incentives and innovation-fund support improved access to finance and stimulated firm growth. Nevertheless, the study concentrated on Toronto and Montreal. Rural SMEs were inadequately represented despite facing logistical constraints, poor digital infrastructure and limited use of government funding portals.

Tremblay et al. (2021) assessed the Canada Small Business Financing Program and SME financial stability in Canada. The study was based on financial intermediation theory and risk-sharing theory. Risk-sharing theory explains how public guarantees reduce the collateral and default-risk burden borne by private lenders. The researchers adopted a case-study methodology involving eight SMEs that participated in the Canada Small Business Financing Program between 2015 and 2020. Financial statements and semi-structured interviews with business owners and bank officers were analysed. Loan approval rates, revenue stability, debt ratios, current ratio, collateral requirements and investment decisions were measured. The findings showed a 25% increase in loan approvals, a 35% reduction in revenue volatility and a 0.8-point improvement in current ratios. Interviews indicated that government guarantees reduced collateral requirements and enabled investment expansion. However, the small sample limited generalisation to the broader Canadian SME population.

Jiménez-Martínez et al. (2020) examined public credit guarantees and SME financing stability in Mexico. The study was guided by institutional theory and policy uncertainty theory. Policy uncertainty theory explains how frequent political and regulatory changes can affect business confidence and financing decisions. The researchers used

qualitative policy analysis involving policy-document reviews, interviews and descriptive financial indicators in Puebla. The main metrics were access to low-interest loans, application volume, interest rates, liquidity ratios, policy changes and programme continuity. The findings indicated that public guarantee schemes could enhance credit uptake among SMEs. However, political shifts produced inconsistent financing support, resulting in fluctuating access to low-interest loans. The study concluded that policy instability undermined SME confidence and reduced the long-term effectiveness of guarantee programmes across different regions.

López-García and Rodríguez (2022) investigated government fiscal policies, loan guarantees and SME profitability in Mexico. The study was underpinned by financial inclusion theory and mediation theory. Financial inclusion theory explains how tax relief and guarantees expand access to finance, while mediation theory explains how financing access transmits policy effects to profitability. A mixed-methods design was adopted, comprising survey data from 350 SMEs and interviews with financial managers. Structural equation modelling was used to test mediation effects. Return on investment, liquidity ratios, working-capital turnover, tax-relief access, loan guarantees and profitability were the main metrics. The findings showed that tax incentives improved financial access, which subsequently enhanced SME profitability. Nevertheless, bureaucratic delays and inconsistent policy implementation weakened the long-term effectiveness of fiscal interventions. The study recommended predictable implementation systems and simplified procedures.

Martínez and Herrera (2023) analysed government credit facilitation, entrepreneurship training and SME growth in Colombia. The study was guided by human-capital theory and resource-based theory. Human-capital theory explains how entrepreneurship training equips SME owners with financial-management and investment skills, while resource-based theory treats subsidised credit as a productive resource. The authors used a longitudinal panel dataset of 500 SMEs across four Colombian departments. Panel regression with interaction terms was employed to assess the joint influence of training and subsidised credit. The metrics included access to external finance, participation in training, subsidised credit, profitability, revenue growth, firm location and business expansion. The findings demonstrated that both entrepreneurship training and subsidised credit enhanced SME financial performance. However, the effect was

significantly stronger among urban firms, revealing geographical disparities in policy reach and effectiveness.

Lascelles, Freitas, and Morales (2021) assessed tax-credit programmes, subsidised credit and SME profitability in Brazil. The study was informed by financial inclusion theory and institutional theory. The authors applied a mixed-methods approach involving 400 SMEs. The measures included participation in tax-credit programmes, subsidised-credit access, profitability, awareness of public programmes, infrastructure and enterprise location. The study found that urban SMEs that accessed tax rebates and subsidised credit recorded increased profitability. However, rural firms were less aware of the programmes and experienced lower participation because of inadequate information dissemination and weak infrastructure. The study concluded that the effectiveness of tax-credit programmes depends on equitable access to information, reliable regional service infrastructure and inclusive programme delivery.

Santos and Páez (2023) examined government-backed entrepreneurship funds and long-term SME performance in Colombia. The study was guided by development-finance theory and entrepreneurship-growth theory. Development-finance theory explains the role of public funds in correcting credit-market failures, while entrepreneurship-growth theory links access to capital with business expansion and financial sustainability. The authors used a five-year longitudinal dataset of 500 SMEs. The key metrics were fund access, profitability, financing availability, business growth, regulation, geographical location and sector. The findings indicated that entrepreneurship-fund beneficiaries achieved improved profitability and greater access to finance over time. However, excessive regulation and bureaucratic requirements continued to constrain participation by SMEs in underserved rural areas. The study recommended policy evaluations that incorporate sectoral and geographical diversity.

Gutiérrez et al. (2022) investigated development-bank loans, bank-credit access and SME sustainability in Argentina. The study was based on financial intermediation theory and moderation theory. Moderation theory explains how government-backed development-bank loans can strengthen the effect of commercial-credit access on SME performance. The researchers surveyed 400 SMEs and used SPSS regression moderation analysis. The major measures were development-bank loan access, commercial-bank credit, SME sustainability, profitability, inflation, policy

predictability and political stability. The findings showed that government policy support strengthened the positive relationship between bank-credit access and SME performance. However, inflationary pressure and political instability reduced policy predictability and occasionally weakened programme effectiveness. The study suggests that a stable macroeconomic and regulatory environment is necessary for development-bank interventions to generate sustained SME benefits.

Rahman, Aziz, and Mahmud (2022) assessed Malaysia's SME Masterplan and financial access among SMEs in Malaysia. The study was guided by institutional theory and financial inclusion theory. The researchers used survey data and interviews involving 350 SMEs to evaluate the SME Masterplan 2012–2025, including TEKUN Nasional and SME Corporation financing schemes. The metrics included capital access, financing-scheme participation, profitability, business growth, programme awareness, logistical access and firm location. The findings showed that the programmes improved capital access, particularly among urban SMEs. However, rural enterprises were frequently excluded because of logistical barriers and insufficient awareness of the available schemes. The study recommended more decentralised programme delivery, increased rural sensitisation and simplified information channels for small businesses outside major towns.

Gupta and Srivastava (2023) analysed the Make in India initiative, productivity and revenue among manufacturing SMEs in India. The study was underpinned by industrial-development theory and resource-based theory. Industrial-development theory explains how government policies can stimulate manufacturing capacity, productivity and industrial growth. The authors used a quantitative design involving 500 manufacturing SMEs. The main metrics included participation in Make in India interventions, productivity, revenue, investment, state location and infrastructure availability. The findings showed that policy interventions contributed to improved productivity and revenue among participating enterprises. However, SMEs in less industrialised states such as Bihar and Assam realised fewer benefits because of weak infrastructure and limited institutional reach. The absence of qualitative data also restricted a detailed understanding of the specific rural constraints that affected programme performance.

Chen and Liu (2023) examined China Development Bank lending and SME profitability in China. The study was guided by development-finance theory and financial inclusion theory. A longitudinal panel methodology was used to evaluate the influence of state-backed lending schemes on SME profitability. The metrics included state-backed loan access, profitability, loan application capacity, firm location, knowledge of loan procedures and provincial differences. The findings revealed that China Development Bank lending significantly enhanced SME profitability in urban centres. However, SMEs in inland provinces and rural areas often lacked the knowledge and administrative capacity needed to apply successfully. The study identified a gap between policy design and grassroots implementation. Its lack of qualitative evidence limited deeper examination of the barriers faced by rural applicants.

Park and Kim (2021) analysed state-controlled support for cooperatives and financial growth of strategic SMEs in North Korea. The study was guided by state-led development theory and institutional theory. The authors compiled secondary evidence and expert interviews and applied qualitative content analysis. The metrics included central resource allocation, financial growth, enterprise sector, market competition, availability of private banking and production capacity. The findings showed that central allocation of resources to light-industry cooperatives facilitated limited financial growth among strategic SMEs. However, the absence of market competition and private banking systems constrained the scale and sustainability of performance improvements. The study demonstrated that government intervention may support selected enterprises but cannot fully substitute for competitive financial markets and diverse financing channels.

Charoensuk and Vongsinsirikul (2023) investigated credit guarantees, digital subsidies and fintech-related SME financial performance in Thailand. The study was informed by financial innovation theory and moderation theory. Financial innovation theory explains how digital-finance tools improve financial efficiency, while moderation theory explains how government policies can strengthen the relationship between fintech adoption and financial performance. The researchers collected data from 450 SMEs and used path analysis through AMOS software. Revenue per employee, cash-conversion cycle, operating-profit margin, fintech adoption, credit guarantees and digital subsidies were the key metrics. The findings showed that government policy

instruments, particularly digital-finance grants, significantly amplified the financial benefits of fintech adoption. The effect was especially strong among micro-SMEs, indicating that targeted public support can help smaller businesses exploit digital-finance opportunities.

Chin and Lim (2018) assessed Malaysia's SME Masterplan and structural SME performance in Malaysia. The study was underpinned by institutional theory and policy-coherence theory. Policy-coherence theory explains that public support produces better results when programmes, definitions and implementation mechanisms are consistent. The researchers applied content analysis to government documents relating to Malaysia's SME Masterplan 2001–2020. The analytical framework considered GDP contribution, export contribution, employment and policy coherence rather than direct firm-level financial statements. The findings showed that government policies supported structural SME development and resilience. However, weak monitoring systems and changing definitions of SMEs weakened alignment between public-support programmes and actual firm financial performance. The study therefore called for stronger monitoring and clearer outcome indicators.

Dzuljastri et al. (2021) investigated government incentives, financial knowledge and profitability among SMEs in Malaysia. The study was guided by human-capital theory and financial-literacy theory. The authors used regression and factor analysis on survey data from 300 SMEs. The key measures were government-incentive access, profitability, financial knowledge, financial attitude, financial-management practices and programme participation. The findings revealed that government incentives were positively associated with profitability. However, financial knowledge and financial attitude were more influential than the mere availability of policy support. The study implies that public-finance programmes should be combined with financial-literacy interventions to ensure that SME owners use funds productively and sustain the financial benefits of policy support.

He and Ausloos (2017) analysed government intervention, capital structure and profitability among listed SMEs in China. The study was grounded in capital-structure theory and counter-cyclical policy theory. Counter-cyclical policy theory explains how governments use tax relief and lending support to reduce financial pressure during economic downturns. The authors used regression analysis on 158 listed SMEs in

Shenzhen and Shanghai between 2004 and 2014. The metrics were return on assets, leverage, working capital, macroeconomic pressure, tax relief, counter-cyclical lending and financial risk. The findings indicated that government interventions moderated the effects of adverse macroeconomic conditions on profitability and leverage. During crisis periods, GDP-supportive policies helped sustain working capital and reduced financial risk. Although the study is older, it provides useful foundational evidence on the stabilising role of public policy.

Cowling, Liu, Yang, and Wilson (2025) examined the Enterprise Finance Guarantee Scheme, credit risk and SME profitability in the United Kingdom. The study was based on credit-rationing theory and moderation theory. The authors adopted a sequential mixed-methods design involving SMEs with annual turnover below £41 million. Fixed-effects and dynamic Generalised Method of Moments regressions were used for quantitative analysis, followed by qualitative interviews. The main metrics included high-risk profile, credit access, loan approval, profitability, Enterprise Finance Guarantee participation, firm size and industrial sector. The findings showed that the guarantee scheme reduced the negative effect of high-risk status on access to credit, increasing approval rates by 29 percentage points and improving profitability among smaller firms. Interview evidence indicated particularly strong benefits for knowledge-intensive service and manufacturing SMEs.

Hadjibeyli and Maadini (2022) assessed government support, creditworthiness and financial risk among SMEs in France. The study was guided by crisis-intervention theory and financial-risk theory. The researchers applied a quasi-experimental difference-in-differences design to French SMEs in retail, manufacturing and service sectors. Secondary financial records and structured surveys from 2,500 micro-enterprises were used. The analysis incorporated firm and time fixed effects, falsification tests and event-study analysis. The metrics included government support, net debt, predicted default probability, creditworthiness, sector and period of economic turbulence. The results showed that supported firms had a 0.3% lower rise in net debt and a 2.1% lower predicted default probability than the control firms. The study confirms that public intervention can buffer SMEs against deteriorating creditworthiness during economic shocks.

Johansson et al. (2022) investigated government innovation subsidies and financial performance of biotech and cleantech SMEs in Sweden. The study was underpinned by innovation theory and resource-based theory. A longitudinal mixed-methods design was used among 250 SMEs operating between 2016 and 2021. National subsidy records, annual financial statements and semi-structured interviews with firm leaders were utilised. Structural equation modelling tested direct and moderating effects of subsidies. Revenue growth, profit margin, return on assets, innovation subsidies, risk-capital access and product-development speed were measured. The findings showed that subsidised SMEs achieved 20% higher revenue growth and profit margins that were 3–5 percentage points higher than those of non-recipients. Interviews revealed that subsidies improved access to risk capital and accelerated product development. The small, sector-specific sample nevertheless limited broader generalisation.

Adenutsi et al. (2025) analysed government support, regulatory reform and financial sustainability of SMEs in Ghana. The study was guided by institutional theory and financial sustainability theory. The authors used a quantitative design targeting 4,764 SME owner-managers from urban and rural areas. Structured questionnaires were administered, while confirmatory factor analysis and structural equation modelling were used for data analysis. The key metrics were government support, regulatory reforms, financial sustainability, export performance, operational stress and contextual financial pressure. The findings showed that government support and regulatory reforms had significant direct and moderating effects on SME financial sustainability, with coefficients above .30 and significance levels below .01. The large national sample provided strong evidence that well-designed policy frameworks can protect SMEs against operational and environmental financial pressures.

Chilambwe (2019) examined government policy, financial interventions and SME performance in Zambia. The study was guided by institutional theory and financial inclusion theory. A quantitative correlational design was applied among 408 micro, small and medium enterprises in Lusaka. Structured questionnaires were used, and regression analysis tested the moderating influence of government-policy variables. The metrics included regulatory support, financial interventions, leverage, liquidity, return on assets and government policy. The findings revealed that a supportive regulatory environment and active financial interventions were positively related to

liquidity, leverage and return on assets. Government policy significantly moderated the relationship between financing conditions and financial outcomes. Although the study provides valuable evidence, its Lusaka focus may limit the applicability of its findings to rural Zambian SMEs.

Phiri (2025) assessed government subsidies, grants and SME financial sustainability in Zambia. The study was grounded in development-finance theory and institutional theory. A concurrent mixed-methods design was adopted among approximately 250 SMEs in Lusaka and Chipata. Survey data captured revenue, employment and subsidy receipt, while semi-structured interviews explored institutional influences. Panel-data regression was used to test subsidy effects on revenue growth, profitability and loan uptake, while thematic analysis was used for interview evidence. The findings showed that subsidies significantly moderated revenue growth and financial sustainability. Institutional factors, including bureaucracy and organisational culture, influenced subsidy effectiveness. The study highlights the need to pair public financing with simplified administrative structures and transparent programme governance.

Mbuya, Meyer, and Kalitanyi (2025) investigated government policy support, internal capabilities and SME financial performance in the Democratic Republic of Congo. The study was guided by resource-based theory and moderation theory. The authors employed a quantitative design involving 464 SMEs in urban and peri-urban areas. Cluster sampling and structured questionnaires were used, and multiple regression analysis was conducted through SPSS Version 28. The metrics included profit margin, return on assets, ICT adoption, market orientation, management competency and participation in government initiatives such as the Guarantee Fund for Entrepreneurship. The findings showed that policy support positively moderated the relationship between internal capabilities and financial performance, with coefficients ranging from .32 to .45. This means that firms with strong capabilities derived greater benefits when government support was available.

Kipkorir et al. (2024) examined government policy, fintech adoption and financial growth of SMEs in Kenya. The study was based on financial innovation theory, financial inclusion theory and moderation theory. The researchers used a mixed-methods design involving 400 SMEs. Hierarchical linear regression and moderation-mediation analysis were applied. The key metrics included access to the Credit

Guarantee Scheme, Hustler Fund, youth-enterprise training, digital-finance adoption, net revenue, cost efficiency and digital-loan uptake. The findings showed that government policy instruments strengthened the positive relationship between fintech adoption and SME financial performance. However, awareness gaps and access difficulties, particularly in rural areas, persisted. The study recommended enhanced rural outreach and programme information dissemination.

Mwangi and Cherono (2024) assessed government training, managerial capability and financial access among SMEs in Kenya. The study was guided by human-capital theory and resource-based theory. The researchers examined whether government-supported entrepreneurship and financial-management training improved the benefits that SMEs obtain from financial access. The key measures included training participation, managerial capability, financial access, cash-flow management, profitability and business sustainability. The findings indicated that government training programmes significantly strengthened managerial capability and enhanced the positive effect of financial access on SME performance. The study therefore suggests that public finance should not be delivered in isolation; it should be accompanied by practical training in budgeting, credit management and investment appraisal.

Mwangi and Ngari (2023) investigated the Youth Enterprise Development Fund, liquidity and SME expansion in Kenya. The study was informed by financial inclusion theory and youth-entrepreneurship theory. Survey data were collected from 400 SMEs in Nairobi and Mombasa. The metrics included Youth Enterprise Development Fund access, liquidity, expansion potential, business growth, application efficiency and bureaucracy. The findings revealed that participation in the Youth Enterprise Development Fund improved liquidity and created opportunities for business expansion. However, the researchers identified bureaucratic inefficiencies in application processes that delayed access to funds. The study recommended simplified approval systems and more transparent application procedures to enable youth-owned SMEs to receive support when it is most needed.

Obeng and Ochieng (2023) analysed digital-credit regulation, fintech lending and SME efficiency in Kenya. The study was guided by institutional theory and consumer-protection theory. A longitudinal design was adopted to assess the influence of the Digital Credit Regulation Bill and digital-lending platforms on SME performance. The

measures included digital-loan uptake, operational efficiency, regulatory protection, network coverage, credit access and exposure to unregulated lenders. The findings showed that regulated digital lending improved credit uptake and operational efficiency among SMEs. However, rural SMEs continued to face network-coverage constraints and risk of exploitation by unregulated lenders. The study recommended stronger enforcement of digital-credit regulations, improved rural connectivity and borrower-protection mechanisms.

Kipkorir, Cherono, and Wekesa (2024) assessed the Credit Guarantee Scheme, Hustler Fund and rural SME growth in Kenya. The study was based on financial inclusion theory, development-finance theory and human-capital theory. The authors employed a mixed-methods approach among SMEs in Baringo and Kericho counties. The metrics included Credit Guarantee Scheme access, Hustler Fund participation, credit uptake, business growth, managerial skills, financial practices and enterprise sustainability. The findings revealed substantial credit uptake and business growth among rural SMEs accessing government-supported funds. Government-sponsored training also improved managerial skills and financial practices, thereby enhancing sustainability. The study concluded that rural enterprises can benefit significantly from public finance when programmes combine affordable credit, guarantee mechanisms and skills development.

Moseti, Chesoli, and Muya (2020) investigated government policy, microfinance services and SME financial performance in Kisii Town, Kenya. The study was guided by institutional theory and moderation theory. A causal explanatory research design was adopted among 575 registered SMEs. Structured questionnaires measured entrepreneurial training, savings mobilisation, microfinance-service use, governance-policy awareness, liquidity, profitability and solvency. Multiple regression and correlation analysis were used to test the moderating role of government policy. The findings revealed a negative relationship between entrepreneurial training and financial performance, while the relationship between savings mobilisation and financial performance was positive but statistically insignificant. Government policy was a significant moderator, demonstrating that regulatory and governance frameworks influence how microfinance services affect profitability and liquidity.

Wanyama and Aluoch (2024) examined mobile microfinance services, entrepreneurial training and SME performance in Trans-Nzoia County, Kenya. The study was guided

by financial inclusion theory, human-capital theory and moderation theory. A descriptive research design was used among 197 SME owners. Semi-structured questionnaires with five-point Likert-scale items were administered, and reliability was confirmed with construct scores above .70. Descriptive statistics, correlation and multiple regression analysis were applied. The metrics included mobile credit, savings services, remittance application-programming interfaces, revenue growth, return on sales, entrepreneurial training and SME performance. The findings confirmed that mobile microfinance services positively affected financial performance, while entrepreneurial training significantly strengthened these effects. The study demonstrates the importance of pairing digital finance with enterprise-management skills.

Musyoki, Jagongo, and Bula (2022) analysed microfinance services and financial outcomes among mid-sized SMEs in Nairobi, Kenya. The study was guided by financial intermediation theory and resource-based theory. The researchers used a descriptive census of general managers from the Top-100 mid-sized SMEs in Nairobi. Audited financial statements and semi-structured questionnaires from 42 respondents were analysed using descriptive statistics, regression and analysis of variance. The key metrics were microfinance-service use, profitability, liquidity, revenue growth, variation in financial outcomes and firm performance. The findings showed that microfinance services explained 82.5% of variation in financial outcomes. This indicates that access to suitable financial services can substantially influence SME performance. However, the Nairobi-based sample limits the generalisation of the findings to small and rural enterprises.

The reviewed evidence shows that government policies including credit guarantees, development-bank loans, tax incentives, innovation subsidies, entrepreneurial training, digital-finance grants and regulatory reforms generally strengthen SME financial performance. These policies improve credit access, revenue growth, profitability, liquidity, return on assets, debt management, investment capacity and business survival. The moderating effect is especially evident where government support reduces lender risk, improves SME managerial capability or complements digital and microfinance services. Nevertheless, programme effectiveness is often weakened by bureaucracy, delayed disbursement, low awareness, regulatory inconsistency, inadequate rural

infrastructure and unequal geographical reach. A clear research gap remains on how government policy moderates financial access and SME performance among rural enterprises, which are frequently excluded from large urban-based studies (D’Adamo, Lévesque, and Samson, 2022; López-García and Rodríguez, 2022; Martínez and Herrera, 2023; Santos and Páez, 2023; Gupta and Srivastava, 2023; Chen and Liu, 2023; Charoensuk and Vongsinsirikul, 2023; Cowling, Liu, Yang, and Wilson, 2025; Adenutsi et al, 2025; Mbuya, Meyer, and Kalitanyi, 2025; Mwangi and Ngari, 2023; Obeng and Ochieng, 2023).

2.3 Summary of Knowledge Gap

Previous studies have largely examined individual financing sources in isolation, particularly traditional bank loans, fintech adoption, crowdfunding or government support. For example, Mwangi and Muriithi (2024) examined traditional bank-loan access and SME performance, while Kipkorir et al. (2024) focused on government policy and fintech adoption. Such studies provide useful evidence, but they do not sufficiently explain the combined contribution of diverse financing options to the financial performance of rural SMEs. The current study will address this conceptual gap by examining traditional bank loans, crowdfunding, fintech solutions, and government and development-bank programmes as complementary sources of finance. Financial performance will be assessed through indicators such as profitability, liquidity, sales growth, operational efficiency and business sustainability.

A further conceptual gap concerns the treatment of government policy. Most studies conceptualise government policy as a direct source of support, measured through grants, subsidies, guarantees, tax incentives or training. However, government policy may do more than directly improve performance; it may determine whether SMEs can effectively obtain, use and benefit from finance. Credit guarantees can reduce collateral constraints, digital-finance regulations can increase the safety of fintech use, and training programmes can improve owners’ ability to manage borrowed funds. Therefore, the present study conceptualises government policy as a moderating variable that changes the strength or direction of the relationship between financing sources and financial performance (Gutiérrez et al., 2022; Kipkorir et al., 2024).

Existing studies are guided by several theories, including financial intermediation theory, credit-rationing theory, financial inclusion theory, resource-based theory and institutional theory. Financial intermediation theory explains how lenders mobilise and allocate funds to enterprises, whereas credit-rationing theory explains why SMEs may fail to access credit because of collateral requirements, information asymmetry and perceived lending risk (Dlamini & Khumalo, 2023; Namara & Tumwine, 2022). However, these theories mainly explain access to finance and do not adequately explain why similar financing opportunities may produce different performance outcomes across SMEs.

Resource-based theory considers finance as a strategic resource that can facilitate investment, innovation and competitive advantage. Nevertheless, the theory does not fully explain the external institutional conditions that influence the productive use of financial resources. In rural areas, access to credit may be weakened by poor infrastructure, low programme awareness, limited digital connectivity and complex administrative procedures. Institutional theory is therefore relevant because it explains how government regulations, policy frameworks, credit guarantees and public-support institutions influence SME behaviour and outcomes (Adenutsi et al., 2025; Moseti et al., 2020). The current study will integrate financial inclusion, resource-based and institutional perspectives to explain both financing access and the policy environment within which rural SMEs operate.

There is also a moderation-theory gap because only a limited number of studies have explicitly tested whether government policy changes the relationship between financing and SME financial performance. Gutiérrez et al. (2022) found that development-bank support strengthened the effect of commercial credit on SME sustainability in Argentina, while Charoensuk and Vongsinsirikul (2023) established that credit guarantees and digital subsidies amplified the financial benefits of fintech adoption in Thailand. In Kenya, Kipkorir et al. (2024) similarly reported that policy instruments strengthened the relationship between fintech adoption and SME performance. However, these studies did not jointly assess the moderating role of government policy across bank loans, crowdfunding, fintech solutions and government/development-bank programmes among rural SMEs. This study will fill that theoretical gap.

Many previous studies employed cross-sectional survey designs and relied heavily on self-reported data from SME owners. For example, Dlamini and Khumalo (2023) used a cross-sectional survey and logistic regression, while Khan et al. (2021) used structured questionnaires and multiple regression analysis. Although these methods establish associations, they may not adequately capture changes in financial performance over time or distinguish short-term financing effects from sustained business outcomes. Self-reported profitability and growth may also be affected by recall errors, social-desirability bias and inconsistent financial record keeping.

Other studies used descriptive statistics, correlation analysis or ordinary regression models without adequately testing interaction effects. This limits their ability to establish whether policy support significantly alters the relationship between financial access and performance. The current study will use an explanatory design and hierarchical multiple regression analysis to estimate both direct effects and interaction effects. The moderation effect will be tested by introducing interaction terms between government policy and each financing source. This approach will establish whether government policy strengthens, weakens or has no significant influence on the relationship between financing sources and financial performance.

A further methodological gap is that some studies concentrated on a single source of finance or a single performance indicator. For instance, some studies measured only loan access and profitability, while others focused on mobile credit and revenue growth. Such narrow measurement may overlook the multidimensional nature of SME financing and performance. The present study will employ multiple indicators of financing access and financial performance, including profitability, liquidity, revenue growth, operational continuity and business sustainability. This will provide a broader assessment of how financing affects rural SMEs.

Empirical findings on the relationship between financing and financial performance are not fully consistent. Several studies report positive effects. For example, Mwangi and Muriithi (2024) found that bank-loan access improved SME profitability and growth, while Kipkorir, Cherono, and Wekesa (2024) established that government-supported funds enhanced rural SME growth and sustainability. Similarly, Cowling et al. (2025) found that the Enterprise Finance Guarantee Scheme improved loan approval and profitability among smaller firms in the United Kingdom.

However, other findings indicate that access to finance does not automatically produce improved financial performance. Liu et al. (2020) found that bank loans improved cash flow but that high interest rates and inflexible repayment terms reduced their usefulness. Lee and Tan (2021) further reported diminishing financial benefits where SMEs borrowed excessively. Moseti et al. (2020) found that entrepreneurial training had a negative relationship with financial performance, while savings mobilisation had a positive but insignificant effect. These mixed findings suggest that financing outcomes depend on contextual factors such as policy implementation, interest rates, financial literacy, loan conditions, awareness and institutional support.

The empirical gap is therefore the limited evidence on whether government policy explains these varying outcomes. Government credit guarantees, tax incentives, entrepreneurship training, digital-finance regulations, subsidised credit and programme awareness may enable SMEs to access finance at affordable terms and use it productively. The current study will test whether government policy significantly moderates the effects of traditional bank loans, crowdfunding, fintech solutions, and government/development-bank programmes on the financial performance of rural SMEs.

Most previous studies were undertaken in large cities and developed business centres. In Kenya, studies have focused mainly on Nairobi, Mombasa, Kisumu and other urban locations (Mwangi & Muriithi, 2024; Ochieng & Okwiri, 2021; Musyoki et al., 2022). International evidence similarly concentrates on urban enterprises in countries such as Canada, Malaysia, South Africa, China and the United Kingdom. Findings from urban SMEs may not be generalised to rural enterprises because rural firms experience different financing conditions, including low bank-branch coverage, weaker internet connectivity, inadequate collateral, seasonal incomes, limited financial literacy and low awareness of government programmes.

Although Kipkorir et al. (2024) examined rural SMEs in Baringo and Kericho counties, rural Kenyan SMEs remain inadequately studied, particularly regarding the interaction between multiple financing sources and government policy. Rural enterprises often depend on informal financial arrangements, mobile money, digital loans and public support programmes because formal bank finance may be inaccessible or expensive. The current study will therefore generate context-specific evidence on rural SMEs,

whose financial constraints and institutional environment differ substantially from those of urban enterprises.

Government policy is introduced as a moderator because the financial benefits of bank loans, crowdfunding, fintech solutions and development programmes are unlikely to be uniform across SMEs. Supportive policies can reduce information asymmetry, lower lenders' risk through credit guarantees, provide subsidised loans, simplify registration requirements, expand rural digital infrastructure and improve financial-management capability through entrepreneurship training. These interventions can increase both access to finance and the capacity of SMEs to convert finance into improved profitability, liquidity and growth (Adenutsi et al., 2025; Mwangi & Cherono, 2024).

Government policy may also weaken financing-performance relationships when programmes are characterised by delayed disbursement, bureaucracy, low awareness, inconsistent regulations or unequal rural outreach. Evidence from Kenya shows that rural SMEs may remain excluded from financing programmes because of limited information, digital barriers and complex application procedures (Kipkorir et al., 2024; Obeng & Ochieng, 2023). Consequently, introducing government policy as a moderator will enable the study to determine the conditions under which financing sources produce stronger or weaker financial-performance outcomes. The moderator will therefore provide a more realistic explanation of SME performance in rural settings and offer evidence for improving inclusive financial and enterprise-development policies.

Table 2.1

Summary of Knowledge gap

Authors and Title	Methodology and Key Findings	Identified Gaps	Proposed Solution in the Current Study
Mwangi and Muriithi (2024): Access to Traditional Bank Loans and Financial Performance of SMEs in Nairobi and Kisumu, Kenya	The study used a descriptive-correlational design involving 400 SMEs and regression analysis. Access to bank loans was positively associated with working capital, fixed-asset investment, profitability and business growth.	The study concentrated on urban enterprises and examined bank loans as a single source of finance. It did not test the role of government policy in influencing the loan–	The current study will examine rural SMEs and assess bank loans alongside crowdfunding, fintech solutions, and government/development-bank programmes. Government policy will be tested as a moderator.

	However, rural and women-owned SMEs experienced greater barriers to formal credit.	performance relationship.	
Khan et al. (2021): Access to Traditional Bank Loans and Financial Performance among SMEs in Lahore, Pakistan	A cross-sectional survey of 350 SMEs was analysed using multiple regression. Reliable loan access improved profitability and operational efficiency, but collateral demands and bureaucracy discouraged loan applications.	The use of cross-sectional, self-reported data limited causal interpretation. The study did not examine whether public guarantees, training or policy reforms reduce borrowing barriers.	The present study will assess financing outcomes within the policy environment, including credit guarantees, training, regulations and awareness programmes that may improve access and productive use of finance.
Liu, Zhang, and Li (2020): Liquidity Effects of Bank Loans among SMEs in China	The researchers used mixed methods by comparing liquidity before and after loan acquisition and conducting owner interviews. Loans improved cash flow, although high interest rates and inflexible repayment terms reduced their usefulness.	The study focused mainly on liquidity and bank lending, without considering other financing alternatives or public policies that could reduce borrowing costs.	The current study will use multidimensional financial-performance measures, including profitability, liquidity, growth, operational efficiency and sustainability, while considering several financing sources.
Bradley and Cowling (2022): Debt Crowdfunding and Long-Term Financial Performance of SMEs in the United Kingdom	A longitudinal mixed-methods design involving 300 SMEs was used. Panel regression and interviews showed that debt crowdfunding improved liquidity, market share and post-campaign financial performance.	The study was conducted in a developed financial market and did not establish whether crowdfunding is effective for rural SMEs with limited digital access, investor networks and policy awareness.	The present study will investigate crowdfunding in a rural Kenyan context and assess whether government policy, digital infrastructure and regulatory support influence its contribution to SME performance.
Kipkorir et al. (2024): Government Policy, Fintech Adoption and Financial Growth of SMEs in Kenya	The study used mixed methods among 400 SMEs and applied hierarchical regression and moderation-mediation analysis. Government policy strengthened the positive relationship between fintech adoption, cost efficiency and financial performance.	The study focused mainly on fintech and did not assess the joint effects of fintech, bank loans, crowdfunding and development-finance programmes. Rural access difficulties persisted.	The current study will examine government policy as a moderator across several financing sources rather than fintech alone, thereby providing a broader explanation of rural SME performance.
Obeng and Ochieng (2023): Digital-Credit Regulation, Fintech Lending and SME	A longitudinal design assessed digital-loan uptake, regulatory protection, network coverage and operational efficiency. Regulated	The study emphasised regulation and digital lending but did not examine profitability, sustainability or the interaction between	The present study will include fintech solutions as one financing dimension and use financial performance indicators covering liquidity,

Efficiency in Kenya	digital lending improved credit uptake and efficiency, but rural SMEs faced network constraints and exposure to unregulated lenders.	fintech and other financing channels.	profitability, sales growth, operational continuity and sustainability.
Gutiérrez et al. (2022): Development-Bank Loans, Bank-Credit Access and SME Sustainability in Argentina	The study surveyed 400 SMEs and applied moderation regression analysis. Development-bank loans strengthened the positive relationship between commercial-bank credit and SME profitability and sustainability.	Although it tested moderation, the study was undertaken in Argentina and did not assess rural Kenyan SMEs or include crowdfunding and fintech financing.	The current study will test whether government policy moderates the relationship between multiple financing sources and financial performance among rural SMEs in Kenya.
Charoensuk and Vongsinsirikul (2023): Credit Guarantees, Digital Subsidies and Fintech-Related SME Financial Performance in Thailand	Survey data from 450 SMEs were analysed using path analysis. Credit guarantees and digital subsidies strengthened the positive effect of fintech adoption on revenue per employee, cash-conversion cycle and operating-profit margin.	The study examined policy moderation only in relation to fintech adoption. Its findings may not apply to rural SMEs facing low connectivity, limited financial literacy and weak programme awareness.	The current study will determine whether policy support moderates not only fintech effects but also bank-loan, crowdfunding, and government/development-bank programme effects on rural SME performance.
Kipkorir, Cherono, and Wekesa (2024): Credit Guarantee Scheme, Hustler Fund and Rural SME Growth in Kenya.	A mixed-methods approach was used among SMEs in Baringo and Kericho counties. Credit guarantees, public funds and government-sponsored training improved credit uptake, managerial skills, growth and sustainability.	The study concentrated on government-supported funds and did not compare them with commercial loans, crowdfunding and fintech solutions. It also did not explicitly estimate an interaction model for government policy.	The present study will compare complementary financing sources and apply moderation analysis to establish whether government policy significantly changes their effects on financial performance.
Moseti, Chesoli, and Muya (2020): Government Policy, Microfinance Services and SME Financial Performance in Kisii Town, Kenya	A causal explanatory design involving 575 SMEs was analysed using correlation and multiple regression. Government policy significantly moderated microfinance-service effects, although entrepreneurial training had a negative relationship with performance.	The study focused on an urban town and microfinance services. The mixed results indicate that government support may not automatically improve performance.	The current study will focus on rural SMEs and test how policy implementation, awareness, affordability, credit guarantees and training shape the benefits of different financing sources.
Adenutsi et al. (2025): Government	The researchers used questionnaires from 4,764 SME owner-managers and	Despite a large sample, the Ghanaian context may differ	The current study will provide Kenyan evidence on government-policy

Support, Regulatory Reform and Financial Sustainability of SMEs in Ghana	applied confirmatory factor analysis and structural equation modelling. Government support and regulatory reforms had significant direct and moderating effects on financial sustainability.	from Kenya in regulatory structures, programme design, financial inclusion and rural enterprise conditions.	moderation, thereby generating findings relevant to rural SMEs, county governments, development agencies and financial institutions.
Cowling, Liu, Yang, and Wilson (2025): Enterprise Finance Guarantee Scheme, Credit Risk and SME Profitability in the United Kingdom	A sequential mixed-methods design used fixed-effects and dynamic GMM regressions, followed by interviews. The guarantee scheme reduced the negative effect of high-risk status on loan approval and improved profitability.	The study was conducted in the United Kingdom, where SMEs operate within a more developed financial and guarantee-system environment. Its findings cannot be directly generalised to rural Kenyan enterprises.	The current study will establish whether Kenyan government policies, including guarantees, training, public funds and regulatory support, improve the performance returns from available financing sources.

Source: Author's synthesis from reviewed Empirical Literature (2020–2025).

2.4 Conceptual Framework

The conceptual framework that this study used lists Financing Techniques as an independent variable, financial performance as a dependent variable, and government policy as an intervening variable. Figure 2.1 further breaks down Financing Techniques into categories such as government and development bank programs, crowdfunding, fintech solutions, traditional bank loans and government policies as the moderator.

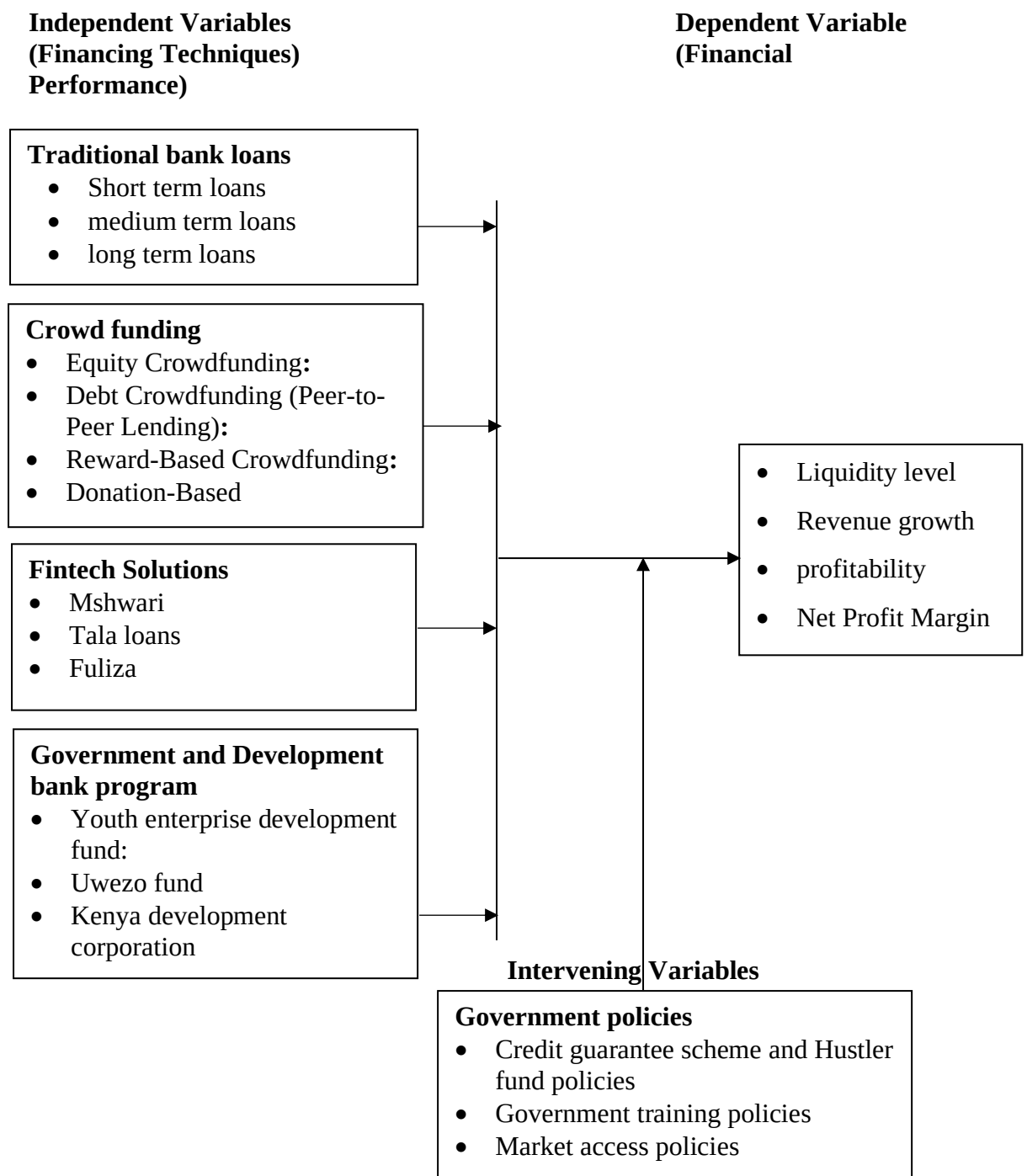


Figure 2.1: The Financing Techniques and Performance of SMEs

The study perceives that financing sources positively influence the financial performance of rural SMEs. Adequate finance enables SMEs to purchase stock, acquire assets, meet operating expenses, adopt technology and expand markets. Consequently, affordable and timely financing is expected to improve profitability, liquidity, sales growth, operational efficiency and sustainability (Mwangi & Muriithi, 2024; Liu et al., 2020).

Traditional bank loans are expected to improve performance by providing funds for working capital, asset acquisition and business expansion. SMEs with accessible and affordable loans can avoid cash-flow interruptions and improve production capacity. However, high interest rates, collateral requirements and rigid repayment terms may weaken these benefits among rural SMEs (Khan et al., 2021; Namara & Tumwine, 2022).

Crowdfunding is expected to improve performance by enabling SMEs to raise funds through digital platforms without relying entirely on collateral-based lending. It can support innovation, working capital and market visibility. However, poor internet connectivity, limited digital skills and low public awareness may restrict its effectiveness among rural enterprises (Bradley & Cowling, 2022).

Fintech solutions, including mobile money, digital credit, electronic payments and online accounting applications, are expected to improve cash management, reduce transaction costs and expand customer reach. Nevertheless, high digital-loan charges, cyber-security risks, weak networks and limited digital literacy may reduce their positive effect on financial performance (Obeng & Ochieng, 2023; Kipkorir et al., 2024).

Government and development-bank programmes are expected to improve SME financial performance through subsidised loans, grants, entrepreneurship funds and credit guarantees. Such support can increase liquidity, investment capacity and business survival, although delayed disbursement, bureaucracy and low programme awareness may limit its benefits (Kipkorir, Cherono, & Wekesa, 2024; Mwangi & Ngari, 2023).

Government policies are expected to moderate the relationship between financing sources and financial performance by changing the strength of the relationship. Credit-guarantee and Hustler Fund policies may reduce collateral constraints and improve access to affordable finance. Government training and coaching may strengthen financial literacy, budgeting, record keeping and productive use of borrowed funds. Market-access policies may create sales opportunities that enable SMEs to convert finance into revenue, profitability and growth (Gutiérrez et al., 2022; Mwangi & Cherono, 2024).

Therefore, supportive government policies are expected to strengthen the positive effects of bank loans, crowdfunding, fintech solutions and development-bank programmes on SME financial performance. Conversely, poor implementation, delays, inadequate awareness and weak rural infrastructure may weaken the relationship (Adenutsi et al., 2025; Kipkorir et al., 2024).

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Design

This study adopted a descriptive research design because it enabled the researcher to systematically describe the existing financing techniques, government-policy support and financial-performance conditions among SMEs in Baringo Central Sub-County. The design was appropriate because the study sought to establish the characteristics, patterns and relationships among variables as they naturally occurred, without manipulating them (Creswell & Creswell, 2018; Saunders et al., 2019). It facilitated the collection of information on traditional bank loans, crowdfunding, fintech solutions, government and development-bank programmes, and government policies concerning credit guarantees, the Hustler Fund, training, coaching and market access.

The descriptive research design was also adopted because the study examined the relationship between financing techniques and SME financial performance and determined whether government policies influenced that relationship. The data collected from the SME owners/managers were obtained through structured questionnaires, and analyzed through descriptive statistics, correlation and regression analysis. This method helped the researcher in summarizing the respondents' experiences and testing the relationship between the financing techniques, government policies and financial performance without disrupting the SMEs (Kothari, 2004; Sekaran & Bougie, 2016).

3.2 Study Area

The research was carried out in Baringo Central Sub-County in Baringo County, Kenya, which has five wards namely Kabarnet, Sacho, Tenges, Kapropita and Ewalel Chapchap. The sub-county has an appropriate context for the study of SME financing as it covers commercial, semi-urban and rural economic activities. Baringo's current County plan prioritizes economic and commercial development, trade and market infrastructure, enterprise development and wealth creation as key economic development activities. The current five year development plan (2023-2027) for

Baringo County (CIDP) focuses on enhancing productivity, wealth creation and sustainable development, with the county also investing in markets, sales yards, roads and other infrastructure that will enhance the business environment and productivity (CGB, 2023).

Baringo Central provides an important context for this study as the small and medium scale enterprise sector is increasingly operating in a rapidly evolving financial landscape, where traditional bank financing often co-exists with SACCOs, mobile money, digital credit and other fintech-based financial services. The 2024 FinAccess Household Survey found that the share of households with formal financial access rose from 83.7% in 2021 to 84.8% in 2024, mainly due to the use of digital technology. However, 9.9% of adults in Kenya were still financially excluded, reflecting that efforts to improve financial inclusion have failed to remove constraints to access financial services, including for vulnerable and rural groups (KNBS, 2024). The evolving financial environment is significant for exploring the impact of financing methods on the financial performance of SMEs.

The study area is also suitable to explore the mediation effect of government policy. The government is still intervening in economic development, infrastructure and markets and local enterprise development as reflected in current planning and implementation documents in Baringo County. As of now, the CIDP 2023–2027 and subsequent annual development plans are integrated into the county’s financial and economic planning framework, indicating that the government is still influencing the local context of the business environment (CGB, 2023–2027). Thus, Baringo Central provides a relevant localized context to evaluate the impact of financing techniques on the financial performance of SMEs, and how government policies and interventions either enhance or reduce this impact.

The selection of Baringo Central was consequently based on its rural–semi-urban economic character, diverse SME activities, evolving financial-access environment and continuing government interventions. Unlike studies concentrated in major urban centres, the present study provides evidence from SMEs operating in the five wards of Baringo Central, thereby addressing the need for geographically specific evidence on traditional bank loans, crowdfunding, fintech solutions, and government and development bank programmes. The study therefore provides contemporary evidence

on how access to and use of different financing techniques relate to SME financial performance within a localized Kenyan context, while also examining the moderating role of government policy. The use of the current CIDP 2023–2027 and the 2024 FinAccess evidence makes the study-area justification more relevant to the present financing and policy environment than reliance on the earlier 2016–2017 Baringo Central Sub-CADP alone.

3.3 Target Population

The target population comprised 498 owners or managers representing 498 SMEs operating in Kabarnet, Sacho, Tenges, Kapropita and Ewalel Chapchap wards of Baringo Central Sub-County. The SMEs and their sectors were identified from the Sub-County business-register/licensing records, after which the enterprises were classified into agriculture, trade and retail, manufacturing, services, financial services, tourism and ecotourism using their principal business activity, consistent with national enterprise-sector classifications (KNBS, 2024). The study variables were derived from the study objectives, relevant theories and empirical literature: financing techniques were operationalised as traditional bank loans, crowdfunding, fintech solutions and government/development-bank financing; financial performance was measured through profitability, liquidity, sales growth and business sustainability; while government policy was measured through regulations, training, incentives and oversight. One owner or manager from each enterprise was selected because such persons make or influence financing, investment, expenditure and repayment decisions and are therefore well placed to provide reliable information on financing practices and business performance (Saunders et al., 2023; Creswell & Creswell, 2023).

Table 3.1*Target population*

Sector	Population In Each Ward					Total Target Population
	Kapropita	Kabarnet	Sacho	Tenges	Ewalel chapchap	
Trade and	14	48	15	30	13	120
Retail SMEs	13	39	10	25	7	94
Agriculture						
Manufacturing	9	12	10	7	14	52
SMEs						
Service-Based	26	49	25	30	20	150
SMEs						
Financial	11	26	8	2	8	55
Services						
Tourism	5	10	4	6	2	27
Ecotourism						
SMEs						
Total	78	184	72	100	64	498

Source: (County Government of Baringo (2025))

3.4 Sample Size, Sample Frame and Sampling Procedure

3.4.1 Sampling Procedure

The study used proportionate stratified random sampling to select SME owners and managers from the 498 registered SMEs in Baringo Central Sub-County. First, the SMEs were grouped into relatively homogeneous strata according to their main economic sector agriculture, trade and retail, manufacturing, service-based activities, financial services, tourism and ecotourism and respondents were then selected randomly from each stratum in proportion to its population size. This technique was appropriate because SME financing opportunities, financing constraints and financial-performance conditions may differ across sectors; thus, stratification ensured that smaller but relevant sectors were not excluded while improving the representativeness and precision of the sample (Saunders et al., 2023; Creswell & Creswell, 2023). Similar SME-financing studies by Namara and Tumwine (2022), Kipkorir et al. (2024) and Mwangi and Muriithi (2024) used stratified sampling to capture enterprise diversity and obtain sectorally representative evidence on financing access and business outcomes.

3.4.2 Sampling Frame

The sampling frame for the study on financing techniques, financial performance of SMEs comprises 498 SME owners, managers drawn from various sectors including Trade, Retail, Manufacturing, Service-Based enterprises, Financial Services, Tourism, Ecotourism, Agriculture. A stratified sampling approach was employed to ensure each sector was adequately represented, facilitating sector-specific comparisons analyses. This method offers a comprehensive overview of unique challenges, financing methods across different sectors, ultimately contributing to a thorough understanding of financial performance, obstacles faced by SMEs in the region.

3.4.3 Sampling Size

Selecting an appropriate sample size is essential to ensure the validity of research outcomes. For the smaller population in this study, the Yamane formula (Yamane, 1967) was applied to determine the sample size. Using a margin of error of 5%, a confidence level of 95%, the sample size was calculated as follows:

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

Where:

- n is the sample size,
- N is the Total population of SMEs in Baringo Central Sub-County,
- e is the margin error (0.05 or a 95% confidence level).

$$N = 498 / (1 + 498(0.05^2))$$

$$N = 498 / 2.245 = 222$$

This formula helped ensure the sample size is large enough to yield statistically significant results, while remaining manageable within the study's resource constraints.

Table 3.2*Sample Size*

Sector	Kapropit a	Kabarne t	Sach o	Tenge s	Ewalel Chapcha p	Total Sampl e	Addition to cater for non- response rate	Sample size inclusiv e of respons e rate
Trade and Retail SMEs	6	21	7	13	6	53	53*1.4279	76
Agriculture SMEs	6	17	4	11	3	42	42*1.4279	60
Manufacturin g SMEs	4	5	4	3	6	23	23*1.4279	33
Service-Based SMEs	12	22	11	13	9	67	67*1.4279	95
Financial Services SMEs	5	11	4	1	4	25	25*1.4279	36
Tourism and Ecotourism SMEs	2	4	2	3	1	12	12*1.4279	17
Total	35	80	32	44	29	222	222*1.427 9	317

Source: Researcher (2025)

The calculated sample size is approximately 222 respondents ($498 \times 0.44578 = 222$).

Many researchers increased the sample size by 10% or by whatever the proportion they can justify, to cover for expected non-participation, incomplete records and any other study-related problems. Bujang (2021) recommends that increasing the calculated minimum sample size by a margin typically 20% to 30%, ensures the study still meets its target power and reliability despite some participants not responding.

To cater for non-response an additional 30% of the questionnaires were added to the sample size, therefore the total sample size is $317(222*1)/.7$ respondends (Bujang,2021).

$$222/0.7 = 317$$

$$317/222 = 1.4279$$

3.5 Data Collection Instruments

The study used a structured questionnaire as the primary data-collection instrument. A questionnaire is a written set of standardised questions designed to obtain information from respondents in a consistent and measurable manner. It was administered to the selected SME owners and managers after the sample had been established to obtain data on financing techniques, including traditional bank loans, fintech solutions, crowdfunding, government programmes and development-bank programmes, as well as financial-performance indicators such as profitability, revenue growth and asset-based growth. The questionnaire contained closed-ended items measured on a five-point Likert scale, where 5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree and 1 = Strongly Disagree, allowing respondents to indicate their level of agreement with statements concerning the study variables. This instrument was appropriate because it enabled the collection of uniform quantitative data from many respondents within a short period, safeguarded participants' privacy, reduced interviewer bias and generated data suitable for statistical description, correlation and regression analysis (Saunders et al., 2019; Creswell & Clark, 2010). The predefined Likert-scale categories further enabled the measurement of respondents' perceptions from strongly positive to strongly negative positions (Picardi & Masick, 2014).

3.5 Data collection Instrumentations

3.5.1 Pilot study

Before undertaking the main study, a pilot study was conducted to access the suitability and effectiveness of the research instruments and procedures. The pilot study provided an opportunity to identify and address potential weaknesses in the questionnaire, data collection procedures, and research methodology before the actual study was carried out.

Pilot study is a small scale, preliminary investigation conducted before the main research project to test the reliability of the research instruments (Teijlingen & Hurndley, 2001). It helps researchers refine their research instruments, procedures, and methodologies and identify potential challenges that could affect the main study. In this, the pilot study was conducted in the adjacent Ribkwo ward in Tiaty Sub County

by administering 32 questionnaires, representing 10% of the sample size. Using an adequate sample for the pilot study allowed for effective testing of data collection tools and methods, thereby enhancing validity, reliability and overall quality of the final research.

3.5.2 Validity

Validity refers to the extent to which a research instrument accurately measures the concepts it was designed to measure and supports sound conclusions from the collected data (Mugenda & Mugenda, 2003; Creswell & Creswell, 2023). In this study, validity concerned whether the questionnaire adequately measured financing techniques traditional bank loans, crowdfunding, fintech solutions, and government/development-bank financing together with SME financial performance and government policy as a moderator in Baringo Central Sub-County. The items were derived from relevant literature and established measures of finance access, profitability, liquidity, sales growth and business sustainability to ensure adequate conceptual and content coverage (Saunders et al., 2023).

The questionnaire was subjected to content and face validation by relevant experts in SME finance, research methodology and entrepreneurship, who assessed each item for clarity, relevance and adequacy. Their recommendations were used to revise unclear or irrelevant questions before the main data collection. Validity was determined using the Content Validity Index (CVI), computed as the number of items rated relevant divided by the total number of items assessed. The instrument obtained a validity score of 93.75% ($CVI = 0.9375$), indicating that the items were highly relevant and sufficiently represented the study constructs, since a CVI of 0.80 and above is generally considered acceptable (Polit & Beck, 2021).

3.5.3 Reliability

Reliability refers to the consistency and dependability of a research instrument in producing similar results when it is administered to respondents under comparable conditions. In this study, reliability assessed whether questionnaire items measuring financing techniques, SME financial performance and government policy consistently measured their respective constructs among SMEs in Baringo Central Sub-County.

Internal-consistency reliability was tested through a pilot study using Cronbach's alpha, which examines the extent to which items within the same scale are interrelated and measure the same underlying concept (Creswell & Creswell, 2023; Saunders et al., 2023).

The rule of thumb was that a Cronbach's alpha coefficient of 0.70 or above indicates acceptable reliability, while coefficients of 0.80 and above indicate good internal consistency (DeVellis & Thorpe, 2021). The study obtained an overall Cronbach's alpha of 0.82, demonstrating good reliability of the questionnaire. Therefore, the items were sufficiently consistent and the instrument was considered suitable for collecting dependable data on the relationship between financing techniques and the financial performance of SMEs, with government policy as the moderating variable. The rule of thumb was that a Cronbach's alpha coefficient of 0.70 or above indicates acceptable reliability, while coefficients of 0.80 and above indicate good internal consistency (DeVellis & Thorpe, 2021). The study obtained an overall Cronbach's alpha of 0.82, demonstrating good reliability of the questionnaire. Therefore, the items were sufficiently consistent and the instrument was considered suitable for collecting dependable data on the relationship between financing techniques and the financial performance of SMEs, with government policy as the moderating variable

3.5.4 Pilot study Results

Pilot study was carried out in Ribkwo ward in Tiaty West Sub County to establish the reliability and validity of data collection instruments. Table 3.3 shows the results.

Table 3.3*Pilot Study Findings*

Variables	Cronbach's Alpha	No of Items
Traditional bank loan	.885	5
Crowdfunding	.891	5
Fintech solution	.789	5
Government and development bank	.774	5
Government policy	.734	3
Financial performance of SMEs	.902	5

Source: Researcher (2025)

The study findings shown in Table 4.1 shows the Cronbach's Alpha values for the internal consistency reliability of the study's constructs. The variables presented on the questionnaires showed coefficient alpha as follows Traditional bank loan (.885), Crowdfunding (.891), Fintech solution (.789), Government and development bank (.774), Government policy (.734) and financial performance SMEs (.902). All recorded alpha coefficient of the above variables were above 0.7 which implies that the instruments were reliable and will elicit the expected responses.

3.5.5 Data Collection Procedure

Thorough planning, preparation at start of data collection process ensured all logistical aspects addressed. This involved setting clear objectives for data collection, specifying type of data to be gathered, target audience, geographic scope. The scope covered wards of Tenges, Kabarnet, Sacho, Kapropita, Ewalel Chapchap in Baringo Central Sub-County. Securing necessary permissions, approvals from ethics committees, local authorities also a key step. The data collection team was trained on ethical issues, questionnaire administration, objectives of the study. Local environment and local culture have been emphasized to enhance effective communication and to help in data collection (Bryman, 2016).

The next step was the selection of sample of SMEs within the designated ward. Stratified random sampling technique used to represent from each of the industries and business types. The SMEs in each ward that were selected at random are each treated

as a stratum. Eligible SMEs were identified and selected from a sampling frame from local business registries (Kothari, 2004). Responses solicited through direct contact, invitations. Local business climate, culture instilled trust, engagement. Community leaders consulted (Saunders, Lewis, & Thornhill, 2019) local contacts.

The information is collected mostly by using a structured questionnaire with the aim of obtaining data on financial performance and access to financing. Closed ended questions were used in the enquiry to enable quantitative data to be collected. For clarity and comprehensiveness the questionnaire that was administered in person was used (Mugenda & Mugenda, 2013). A pilot test has been carried out in one ward (Ribkwo) of Tiaty West Sub-County with various SME sample before the full deployment. The goal was to see if there were any problems with the questions, the way they were being entered and correct these problems (Saunders, Lewis, & Thornhill, 2019).

Feedback from pilot to be used to improve data collection methods, tools, to make necessary adjustments to improve effectiveness, reliability. Data was systematically collected in the five wards. Research assistants deployed in respective locations in each ward to ensure robust coverage of selected SMEs. To enhance reliability, prevent missed respondents, team worked in small groups, pairs (Bryman, 2016). Quality control measures included daily reviews of completed questionnaires by field supervisors, detecting errors, missing data. Any issues promptly addressed through re-contacting respondents, seeking clarification from data collectors (Trochim & Donnelly, 2008). Data entered into secure database, regularly backed up to prevent loss. Electronic data collection tools enabled real-time data entry, validation, reducing processing time after fieldwork completion (Creswell & Creswell, 2018).

3.6 Data Analysis

The study used both descriptive and inferential statistics. Descriptive statistics, including the mean, standard deviation, skewness and kurtosis, were used to summarise the central tendency, dispersion and distributional characteristics of responses on financing techniques and financial performance among SMEs in the selected wards. Inferential analysis employed multiple regression because it enabled the study to estimate the individual effect of traditional bank loans, crowdfunding, fintech

solutions, and government and development-bank financing on SME financial performance while controlling for firm age and size (Hair et al., 2022; Tabachnick & Fidell, 2019).

The multiple regression model. $FP_i = \beta_0 + \beta_1 TBL_i + \beta_2 CF_i + \beta_3 FS_i + \beta_4 GDP_i + \beta_5 AGE_i + \beta_6 SIZE_i + \epsilon_i$

The regression equation. $FP_i = \beta_0 + \beta_1 TBL_i + \beta_2 CF_i + \beta_3 FS_i + \beta_4 GDP_i + \epsilon_i$

- **FP_i**: Financial performance of SMEs (dependent variable)
- **β₀**: Constant/intercept
- **TBL_i**: Traditional Bank Loan
- **CF_i**: Crowdfunding
- **FT_i**: Fintech solutions
- **GDBP_i**: Government and Development Bank programs
- **β₁- β₄**: Regression Coefficients for the effect of explanatory variable on financial performance
- **ε**: Error term

1. Direct Effects Models:

The direct effect models were specified to examine the individual and combined effects of the identified financing techniques on financial performance of SMEs in Baringo Central Sub County. Financial performance was specified as the direct variable, while traditional bank loans, crowdfunding, fintech solutions, and government and development bank programmes were specified as the independent variables. The models were expressed as follows

a) Traditional Bank Loans and Financial Performance

$$FP_i = \beta_0 + \beta_1 TBL_i + \epsilon_i$$

Where:

- **FP_i**: Financial Performance of SME i
- **TBL_i**: Traditional Bank Loan usage by SME i
- **β₀**: constant/Intercept
- **β₁**: Regression Coefficient measuring the effect of traditional bank loans on financial performance

- ϵ : Error term

b) Crowdfunding usage and Financial Performance

$$FP_i = \beta_0 + \beta_2 CF_i + \epsilon_i$$

where

- **FP_i**: Financial Performance of SME i
- **CF_i**: Crowdfunding usage by SME i
- **β_2** : Regression Coefficient measuring the effect of crowdfunding on financial performance
- ϵ : Error term

c) Fintech Solutions usage and Financial Performance

$$FP_i = \beta_0 + \beta_3 FS^i + \epsilon_i$$

Where:

- **FP_i**: Financial Performance of SME i
- **FS_i**: Fintech solutions usage by SME i
- **β_3** : Regression Coefficient measuring the effect of fintech solutions on financial performance
- ϵ : Error term

d) Government and Development Bank Programs usage and Financial Performance

$$FP_i = \beta_0 + \beta_4 GDBP_i + \epsilon_i$$

Where:

- **FP_i**: Financial Performance of SME i
- **GDBP_i**: Government and Development Bank programs participation by SME i
- **β_4** : Regression Coefficient measuring the effect of government and development bank programs on financial performance

- ϵ : Error term

2. Combined Direct -Effects Model

To determine the joint effect of all financing techniques on financial performance, the study employed a multiple regression model specified as:

$$FP_i = \beta_0 + \beta_1 TBL_i + \beta_2 CF_i + \beta_3 FS_i + \beta_4 GDBP_i + \epsilon_i$$

Where:

- **FP_i**: Financial Performance of SME i
- **TBL_i**: Traditional Bank Loan usage by SME i
- **CF_i**: Crowdfunding usage by SME i
- **FS_i**: Fintech solutions usage by SME i
- **GDBP_i**: Government and Development Bank programs participation by SME i
- **β_0** : constant/Intercept
- **β_1** : Regression Coefficient representing the respective the effects of the financing techniques on financial performance
- ϵ : Error term

3. Moderating effect of Government Policy

The model can therefore be specified as.

$$FP_i = \beta_0 + \beta_1 FT + \beta_2 GP + \beta_3 FT*GP + \epsilon_i$$

Where FP represents Financial Performance

FT represents Financing Techniques, generated by pooling the four techniques into one.

GP represents Government Policies

FT*GP represents the interaction term that would signify intervention if significant,

ϵ represents the error term accounting for the unexplained effects in financial performance after the moderation test.

3.7 Data Diagnostic Tests

Data diagnostics were essential to guarantee the validity and reliability of research findings, especially when the study was looking at how Financing Techniques affects the financial performance of small and medium-sized enterprises in Baringo Central Sub-County.

3.7.1. Test for Normality Tests

The assumption of normality was crucial for many parametric statistical tests. To assess whether the data was normally distributed, skewness and kurtosis statistics was employed. Under this test normality was inferred following the rule of the thumb suggesting that absolute skewness statistics below 1 and kurtosis of up to ± 2 , demonstrate acceptable normality. But ideally Kline (2016) posits that skewness of $< \pm 2$ and kurtosis $< \pm 7$ is practically acceptable.

3.7.2 Test for Multicollinearity

High levels of collinearity between independent variables are associated with poorly estimated parameters (Sarstedt et al., 2022). To assess presence of multicollinearity, Variance Inflation Factors (VIFs) were used on the basis that VIF values above 3.3 indicated collinearity issues involving the variables in question. In the context of this study, it's essential to check for multicollinearity among various financing techniques to ensure that their effects on financial performance are distinctly evaluated.

3.7.3 Test for Homogeneity

Homogeneity of variances was tested using Lavene statistics. Variables achieve homogeneity of variances when they have the same variance. Under the test, non-significant Lavene statistics ($p > 0.05$) signalled homogeneity among variances.

3.7.4 Test for Missing Data Analysis

Missing value analysis targeted cases with missing values, sorted by missing value patterns. All cases with missing data in the excess of 5% were dropped from further analysis as suggested by other scholars (Rahman & Muktadir, 2021). The pattern and

mechanism of the missing data was analyzed, and appropriate methods for handling missing data, such as imputation techniques, was employed (Schafer & Graham, 2002).

3.7.5 Test for Linearity

The relationship between independent variables and the dependent variable should be linear. Scatter plots can be utilized to visually assess this relationship. If the relationship is nonlinear, it may necessitate the use of polynomial regression or transformations of the variables (Field, 2018). Multiple regressions were conducted with the assumption that the independent variables have a linear relationship with the dependent variable. In other words, regression works if the dependent variable is a linear combination of the independent variables. Therefore, testing the linearity assumption was conducted by running the compared means statistics. Under the test, significant deviations from linearity ($p < 0.05$) suggested non-linear relationships. In particular, when test of linearity reflected lack of linearity ($p > 0.05$).

3.8 Ethical Considerations

Ethical considerations were observed throughout the study to protect SME owners and ensure responsible handling of information. Permission to conduct the study was sought from the National Commission for Science, Technology and Innovation (NACOSTI) before data collection. Participation was voluntary, and informed consent was obtained after respondents were informed about the study purpose, procedures, confidentiality measures and their right to withdraw at any time. Participants were also allowed to decline any question they considered uncomfortable.

Confidentiality and anonymity were maintained by using codes instead of respondents' or businesses' names. The study avoided intrusive questions, respected local cultural values and scheduled data collection at convenient times across the five wards of Baringo Central Sub-County. In addition, the study was subjected to plagiarism checking to ensure originality, proper acknowledgement of sources and academic integrity.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Data Screening and Cleaning

Consequently, the chapter reports results on data screening and cleaning, socio-demographic profile of SME owners/managers, descriptive statistics of the study variables, results of regression assumptions, the simple linear regression results indicating the influence of each financial technique on SMEs financial performance, results of the multiple regression analysis that culminated in the preferred model; and the results of the moderation analysis showing the intervention of government policies on the relationship between financing techniques and financial performance of SMEs in the Sub-county. The gathered data were first screened and cleaned to show the response rate, cases with missing data, and presence of univariate outliers.

4.2.1 Response Rate

Table 4.0

Questionnaire Response rate

Category	Frequency	Percentage of issued questionnaires
Questionnaires issue	317	100.0
Questionnaires returned	212	66.9
Questionnaires not returned	105	33.1
Questionnaires usable for analysis	212	66.9
Questionnaires unusable	0	0.0
Total	317	100.0

Source: Field Data (2025)

A total of 317 questionnaires were issued to the owners and managers of SMEs in Baringo Central Sub-County in accordance with the computed sample size. Of the 317 questionnaires distributed, 212 were successfully returned, representing a response rate of 66.9%. All the 212 returned questionnaires were adequately completed and considered usable for subsequent data analysis. Consequently, 105 questionnaires, representing 33.1% of the questionnaires issued, were not returned. The response rate of 66.9% was considered adequate for the study, as response rates of 60% and above are generally regarded as acceptable in survey research (Richardson, 2005; Sataloff &

Vontela, 2021; Wu, Zhao, & Fils-Aime, 2022). The details of the questionnaire distribution and response are presented in Table 4.0.

4.2.2 Pilot study Results

Pilot study was carried out in Tiaty West Sub County to establish the reliability of data collection instruments. Table 4.1 shows the results.

Table 4.1

Pilot Study Findings

Variables	Cronbach's Alpha	No of Items
Traditional bank loan	.885	5
Crowdfunding	.891	5
Fintech solution	.789	5
Government and development bank	.774	5
Government policy	.734	3
Financial performance of SMEs	.902	5

Source: Field Data (2025)

The study findings shown in Table 4.1 shows the Cronbach's Alpha values for the internal consistency reliability of the study's constructs. The variables presented on the questionnaires showed coefficient alpha as follows Traditional bank loan (.885), Crowdfunding (.891), Fintech solution (.789), Government and development bank (.774), Government policy (.734) and financial performance SMEs (.902). All recorded alpha coefficient of the above variables were above 0.7 which implies that the instruments were reliable and will elicit the expected responses.

4.2.2.1 Validity Index Test Results

Validity index = $\frac{\text{number of valid questionnaires}}{\text{number of questionnaires administered}}$

$$= 30/32 * 100 = 93.75\%$$

Table 4.1.1

Validity of Questionnaires used in Pilot Study

Category	Frequency(n)	percentage
Questionnaires administered	32	100.0
Valid questionnaires	30	93.75
Invalid/incompletely filled questionnaires	2	6.25
Total	32	100.0

Source: Field Data (2025)

The study findings shown in Table 4.1.1 shows that pilot study involved 32 administered questionnaires, of which 30 (93.75%) were considered valid and 2 (6.25%) were invalid or incompletely completed. The resulting validity index of 93.75% indicates a high level of questionnaire validity and suggest that the instruments was generally suitable for collecting data for the main study.

Table 4.1.2

Reliability Test Results of the Pilot Study

Variables/scale	Number of items	Pilot sample(n)	Cronbach's Alpha	Interpretation
Knowledge	8	32	.82	Reliable
attitudes	7	32	.79	Reliable
practices	10	32	.85	Highly reliable
Overall questionnaire	25	32	.82	Reliable

Source: Field Data (2025)

The study findings shown in Table 4.1.2 shows that the reliability of the research instruments was assessed using Cronbach's Alpha coefficient based on the pilot study involving 32 respondents in Ribkwo ward in Tiaty Sub County. The overall Cronbach's Alpha coefficient was 0.82. since a Cronbach's Alpha value of 0.70 or higher is generally considered acceptable for research purposes, the questionnaires demonstrated good internal consistency and reliability. The instrument was therefore considered suitable for use in the main study.

4.2.3 Missing Data

The returned questionnaires were next edited and screened for missing data. Data were screened for missing values following research showing that the pattern of missing data could be critical to data analysis (Sharifnia et al., 2025). Missing value analysis targeted cases with missing values, sorted by missing value patterns. All cases with missing data in the excess of 5% were dropped from further analysis as suggested by other scholars (Rahman & Muktadir, 2021). As presented in Table 4.2, Seven cases (42, 41, 97, 176, 31, 167, and 126) had missing data in the excess of 5%. These cases were dropped from further analysis. Cases with missing values below 5% had the missing data replaced using series means. Therefore, after screening and cleaning data for missing data, only 212 usable questionnaires (cases) were retained.

Table 4.2

Missing Patterns (cases with missing values)

Case	# Missing	% Missing
39	1	3.1
40	1	3.1
42	2	6.3
61	1	3.1
62	1	3.1
205	1	3.1
118	1	3.1
134	1	3.1
193	1	3.1
206	1	3.1
41	2	6.3
97	5	15.6
176	4	12.5
31	4	12.5
167	4	12.5
126	23	71.9

Source: Field Data (2025)

4.2.3.1 Screening data for Outliers

The Z-score approach was used to screen data for univariate outliers. Scholars have shown that outliers are extreme values in a data set, whose presence may distort the study parameters leading to wrong interpretation of results (Domanski, 2020; Emborg, 2023). In using the Z-Score approach, all constructed items were first generated, and

the Z-Scores with absolute scores beyond 3 were deemed to be outliers. Having computed and saved the Z-scores results indicated that none of the absolute Z-scores had values above 3, showing lack of univariate outliers in the data set. Therefore, the subsequent analyses in this study employed 212 cases.

4.3 Socio-demographic Profile of SME Owners/ Managers

The socio-demographic characteristics of SME owners/managers were assessed in terms of ward, age, gender, type of business and years in business. The assessment was important because previous studies have associated demographic and business characteristics with financial performance. Kumar et al. (2025), for instance, linked demographic characteristics to financial outcomes, while Huang et al. (2025) associated business type and years in operation with strategic resources and performance. Therefore, understanding these characteristics was necessary for interpreting the findings on the relationship between financing techniques and financial performance of SMEs.

Table 4.3

Respondents Socio-Demographic Profile

Demographic characteristic	Category	n	%
Ward	Kabarnet	14	6.6
	Sacho	79	37.3
	Tenges	15	7.1
	Kapropita	92	43.3
	Ewalel Chapchap	12	5.7
Age of Respondents	15-25 years	17	8.0
	26-35years	39	18.4
	36-45years	66	31.1
	46-55years	48	22.6
	55 and above	42	19.8
Gender	Male	120	56.6
	Female	92	43.4
Types of Business	Sole proprietorship	148	69.8
	Partnership	33	15.6
	Company	19	9.0
	Co-operative	12	5.7
Years in Business	Less than 1 year	22	10.4
	1-3 years	62	29.2
	4-6years	51	24.1
	More than 6 years	77	36.3

Source: Field Data (2025)

As presented in Table 4.3, the respondents were distributed across the five wards, with Kapropita recording the highest proportion (43.3%), followed by Sacho (37.3%), Tenges (7.1%), Kabarnet (6.6%) and Ewalel Chapchap (5.7%). Regarding age, the majority of SME owners/managers (73.5%) were aged 36 years and above. Specifically, 31.1% were aged 36–45 years, 22.6% were aged 46–55 years and 19.8% were aged 55 years and above. Male respondents constituted 56.6%, compared with 43.4% females. In terms of business ownership, sole proprietorship was dominant at 69.8%, followed by partnerships (15.6%), companies (9.0%) and co-operatives (5.7%). Concerning years in business, 36.3% had operated for more than six years, while 24.1% had operated for between four and six years. Thus, 60.4% of the SMEs had been in operation for at least four years.

To complement the descriptive analysis, a chi-square goodness-of-fit test was conducted to establish whether the observed distributions across the socio-demographic categories differed significantly from an equal distribution. The results are summarized in Table 4.3.1

Table 4.3.1

Chi-square Test of Socio-demographic Characteristics

Socio- demographic				
characteristic	χ^2	df	Sig.(p)	Decision
Ward	110.45	4	<.001	significant
Age	40.13	4	<.001	significant
Gender	3.70	1	.054	Not significant
Type of business	176.26	3	<.001	significant
Years in business	37.55	3	<.001	significant

Source: Field Data (2025)

The results in Table 4.3.1 indicate that there were statistically significant differences in the distribution of respondents by ward, $\chi^2(4) = 110.45$, $p < .001$; age, $\chi^2(4) = 40.13$, $p < .001$; type of business, $\chi^2(3) = 176.26$, $p < .001$; and years in business, $\chi^2(3) = 37.55$, $p < .001$. However, the distribution by gender was not statistically significant, $\chi^2(1) = 3.70$, $p = .054$. Consequently, the null hypothesis of equal distribution was rejected

forward, age, type of business and years in business, but retained for gender at the 5% significance level.

4.4 Descriptive Analysis of Study Variables

Study variables were explored descriptively to establish their prevailing status in the study context prior to examining desired relationships. Specifically, financial techniques were explored to gauge how they were being put into use across the SMEs. In contrast financial performance was examined to establish how SMEs were performing financially in the study context. Meanwhile, descriptive statistics regarding government policies sought to establish the existing policy framework that may potentially intervene in the desired relationship. Descriptive statistics such as means, standard deviations, skewness and kurtosis were employed. Mean scores were interpreted on the continuum $0 \leq \text{mean} < 1.5$ depicting strongly disagree; $1.5 \leq \text{mean} < 2.5$ reflecting disagree; $2.5 \leq \text{mean} < 3.5$ representing neutral; $3.5 \leq \text{mean} < 4.5$ depicting agree and $\text{mean} \geq 4.5$ reflecting strongly agree. These means scores were used to indicate the typical responses on specific items. Meanwhile, standard deviation scores reflected the variation in responses among owners/managers, with scores below 1.5 signifying consistency in responses. Skewness and Kurtosis scores were used to show whether respective variables depicted a normal distribution reminiscent of distributions that support regression analysis.

4.4.1 Financial Performance

Financial performance measured using five items was conceptualized as the dependent variable in this study. The descriptive analysis results (Table 4.4) revealed mean response scores in the interval $3.5 \leq \text{mean} < 4.5$ representing agreements with all the items. The standard deviation scores were below 1.5, showing consistent agreement among respondents. The skewness and kurtosis values were in the closed interval $[-3, 3]$ showing a relatively normal distribution.

Table 4.4*Descriptive Statistics for the Financial Performance Variable*

Questionnaire Item	M	SD.	Skewness		Kurtosis	
			Statistic	SE	Statistic	SE
FP1. My business maintains sufficient liquidity to meet short-term obligations	3.76	.990	-.863	.167	.504	.333
FP2. My business has experienced steady revenue /sales growth over the past three years	3.73	.987	-.691	.167	.186	.333
FP3. My business consistently generates a profit	3.69	1.006	-.641	.167	-.250	.333
FP4. My business has a manageable level of debt	3.66	1.053	-.626	.167	-.236	.333
FP5. The profit margins in my business are satisfactory	3.63	1.029	-.716	.167	.017	.333

Source: Field Data (2025)

The descriptive results probing financial performance among SMEs suggest that the participating SME owners/managers showed consistent agreement on the sound financial performance of their businesses, particularly in maintaining liquidity, showing growth in revenue, generating profits, paying off debts and realizing satisfactory profit margins. In revealing that SMEs in Baringo central sub-county enjoy some satisfactory measure of financial performance, this study adds to other studies in the Kenyan context that have reported positive financial fortunes among SMEs. For instance, Nasimiyu (2023) reported that SMEs that tended to put emphasis on liquidity, timely bill payment, and internal funding had a strong share of financial outcomes. Similarly, Chasha et al. (2022) confirmed that SMEs practising prudent management of liquidity and sound inventory turnover enjoy better profitability culminating in enhanced financial performance.

4.4.2 Traditional Bank Loans

Utilization of traditional bank loans as a financing technique was examined through owners/managers perceptions. Respondents were asked to show their level of agreement with the five items earlier identified to measure traditional bank loans usage among SMEs in the sub-county. Overall (Table 4.5), respondents elicited consistent disagreement with several aspects of traditional bank loans relative to their businesses ($M=2.32$, $SD=1.05$). Specifically, they consistently disagreed that they applied

traditional bank loans within the last one year ($M=2.49$, $SD=1.011$); they also consistently disagreed that the traditional bank loan approval process is efficient and straight forward ($M=2.34$, $SD=1.124$); moreover, they disagreed that the interest rates on traditional bank loans are affordable for their business ($M=2.30$, $SD=1.058$); that their business have been impacted positively by access to traditional loans ($M=2.30$, $SD=1.008$); and that their business growth prospects have been improved by traditional bank loans ($M=2.18$, $SD=1.055$).

Table 4.5

Descriptive Statistics for the Traditional Bank Loans Variable

Questionnaire Item	M	SD	Skewness		Kurtosis	
			Statistic	SE	Statistic	SE
TBL1. I have applied for traditional bank loans in the last 12 months	2.49	1.011	.870	.167	.066	.333
TBL2. The approval process for traditional bank loans is straightforward and efficient	2.34	1.124	.737	.167	-.294	.333
TBL3. The interest rates on traditional bank loans are affordable for my SME	2.30	1.058	.908	.167	.289	.333
TBL4. Access to traditional bank loans has positively impacted my SMEs financial performance	2.30	1.008	.918	.167	.438	.333
TBL5. Traditional bank loans have significantly improved my SMEs growth prospects	2.18	1.055	.925	.167	.237	.333
Overall response score	2.32	1.050	.869	.167	.225	.333

Source: Field Data (2025)

These findings imply that SME owners / managers in Baringo Central sub-county perceive traditional bank loans negatively regarding aspects, such as accessibility, affordability, SME financial performance impacts, and contribution to business growth. The essence of these results is that SME owners / managers find traditional bank loans to possess rigid application processes, often put in place lending terms that do not favour them, and have poor returns on debt financing. However, it is also important to note that prudent use of bank loans could be informed by some of the socio-demographic profile of the SME owners/managers.

These findings reflect the challenges and barriers that SMEs experience in seeking traditional bank loans as earlier reported by other scholars. For instance, the findings showing rigid application processes and stringent lending terms are reflective of

finding by Chan et al. (2022) who highlighted challenges such as stricter lending criteria and lower access to financial products faced by SMEs when seeking traditional banking loans in South East Asia. Still, research has pointed to the stringent requirements and collateral demands associated with bank loans as barriers for many SMEs desiring to seek traditional bank loans (Kira & He, 2023). Using the Ghanaian context, Abey and Quartey (2010) also acknowledged that less favourable traditional bank loan terms limit SMEs access to such loans.

These descriptive results also embolden previous studies conducted in Kenya targeting traditional bank loans and SME performance, and yielding similar results. For instance, Njeru and Morangi (2018) pointed to the high cost of borrowing and stringent loan conditions as deterrents to SMEs quest for traditional bank loans. Similarly, Owino et al. (2020) employed a mixed-methods approach to highlight challenges such as high interest rates and inflexible repayment terms that could negatively affect financial performance among SMEs. Meanwhile, Karanja and Waweru (2021) conducted a longitudinal study to track the long-term effects of traditional bank loans on the growth of SMEs in Kenya, and highlighted that many rural SMEs struggled to obtain financing, pointing to a disparity in access to credit between urban and rural enterprises. Therefore, this study was spot on in reflecting the poor usage of traditional bank loans among SMEs in Baringo Central sub-county. Despite offering an avenue for liquidity, such loans are ultimately not only difficult to access, but may end up being expensive.

4.4.3 Crowd Funding

The second financing technique conceptualized in this study as the second independent variable was crowdfunding. As a financing strategy, crowdfunding was measured using five questionnaire items. Respondents were asked to show their agreements or disagreements on these items, reflecting their perceptions on crowdfunding use in their businesses.

Descriptive exploration of crowdfunding as practiced among SMEs in Baringo central sub-count (Table 4.6) depict a normal distribution suitable for linear models, as demonstrated through skewness and kurtosis statistics in the desired closed interval [-3,3]. The overall mean response score of 3.48, together with the associated standard

deviation score of 1.136 reflected a non-committal stance among the participating owners/managers. Specific results revealed that while respondents tended to agree that businesses had been impacted positively through crowdfunding ($M=3.53$, $SD=1.141$) and that crowdfunding funds had largely improved their businesses ($M=3.50$, $SD=1.133$), they remained, largely neutral regarding the other items.

Table 4.6

Descriptive Statistics for the Crowdfunding Variable

Questionnaire Item	M	SD	Skewness		Kurtosis	
			Statistic	SE	Statistic	SE
CF1. Networking opportunities through crowdfunding have positively affected my business	3.53	1.141	-.710	.167	-.295	.333
CF2. The funds raised through crowdfunding have significantly contributed to my SMEs financial performance	3.50	1.133	-.613	.167	-.318	.333
CF3. I have considered crowdfunding as a source of funding for my SME	3.48	1.121	-.524	.167	-.658	.333
CF4. Crowdfunding platforms are easy to navigate for raising funds	3.45	1.136	-.555	.167	-.529	.333
CF5. Crowdfunding is a viable alternative to traditional financing for my SME.	3.44	1.148	-.503	.167	-.606	.333
Overall response score	3.48	1.136	-.576	.167	-.456	.333

Source: Field Data (2025)

These findings showing a noncommittal stance among SME owners/managers regarding the use of crowdfunding as a financing technique reflects the novelty of crowdfunding as a business funding technique – some respondents may have simply failed to comprehend the notion of crowdfunding even if they may have already been using it. Previous studies have demonstrated that some SMEs lack an understanding of the crowdfunding concept even though some are using or may have utilized the approach before (Olafusi et al., 2022).

Perhaps this lack in comprehending the crowdfunding technique could be attributed to the largely rural nature of the sub-county under study. This assertion is supported by prior studies poking holes at rural SMEs in relation to crowdfunding. For instance, Mollick (2014) regretted the fact that rural enterprises often lacked technological

capacity, limiting their access to such an approach. Colombo et al. (2020) added that rural SMEs often struggle to leverage benefits that accrue from crowdfunding for the simple fact that they are limited in infrastructure and the digital outreach. All in all, choosing to largely remain neutral manifests the thinking that a good proportion was vividly aware of crowdfunding and employed it more than traditional bank loans.

4.4.4 Fintech Solutions

Fintech solutions in SMEs as a financing technique were explored using five items. The skewness and kurtosis statistics confirmed that data measuring Fintech solution used in SMEs in Baringo central sub-county were drawn from a normal population (Table 4.7). The overall mean response score ($M=3.66$) and the associated standard deviation ($SD = 1.018$) showed that respondents were consistent in agreeing with the items on Fintech solutions. In particular, results showed that use of Fintech solutions has streamlined financial operations of most of the SMEs ($M=3.72$, $SD=0.980$); that Fintech solutions have impacted financial performance of the SMEs positively ($M=3.71$, $SD=1.010$); that most owners/managers use Fintech solutions to manage their finances ($M=3.65$, $SD=1.017$), that they have faith in fintech to continue playing a significant role in their SMEs in the future ($M=3.64$, $SD=1.055$) and that Fintech solutions have improved their access to financial resources ($M=3.60$, $SD = 1.028$).

Table 4.7*Descriptive Statistics for the Fintech Solutions Variable*

Questionnaire Item	M	SD	Skewness		Kurtosis	
			Statistic	SE	Statistic	SE
FS1. The use of fintech solutions has streamlined my financial operations	3.72	.980	-.576	.167	-.137	.333
FS2. Fintech solutions have had a positive impact on my SMEs financial performance	3.71	1.010	-.733	.167	.056	.333
FS3. I currently use fintech solutions to manage my SME's finances	3.65	1.017	-.594	.167	-.384	.333
FS4. I believe that Fintech will continue to play a significant role in the future of financing for my SME	3.64	1.055	-.562	.167	-.396	.333
FS5. Fintech solutions have improved my access to financial resources	3.60	1.028	-.693	.167	-.053	.333
Overall Response Score	3.66	1.018	-.628	.167	-.144	.333

Source: Field Data (2025)

The message portrayed in these results is that Fintech solutions founded in digital financial services such as mobile money are finding favour among SME owners and managers in Baringo central sub-county. Through these solutions, SMEs are enjoying streamlined financial operations and better management of their finances ultimately seeing them grow.

These results are not isolated, but follow a pattern that has been growing in contemporary businesses as highlighted in recent literature. For example, scholars Kauffman and Tavi (2020) demonstrated in a recent study that SMEs are fast adopting Fintech services and are enjoying benefits such as improved cashflow management and access to credit. Similarly, Sutherland et al. (2021) determined that uptake of Fintech services in Canadian SMEs was on the rise and with it, SMEs are able to improve sales, customer satisfaction and of course enhance their liquidity.

These results showing a satisfactory uptake of Fintech solutions among SMEs in Baringo central, especially the use of mobile money and online lending, mirrors a trend that is sweeping across businesses in Kenya. Several studies recently undertaken in Kenya have confirmed the rising use of Fintech platforms among SMEs in Kenya, with mobile payments and online banking gaining traction (Muriuki & Mbuva, 2024, Tiony, 2024).

4.4.5 Government and Development Bank Programs

The fourth and last independent variable in this study was government and development bank programmes. Through questionnaire items seeking respondents' perceptions, five Likert-like items were presented to respondents to show their agreement or disagreement. Data gathered to measure government and development bank program initiatives had a normal distribution as highlighted in the skewness and kurtosis statistics in the closed interval $[-3,3]$. The overall mean response score of 3.43 (Table 4.8) was in the interval $2.5 \leq \text{mean} < 3.5$, indicating that respondents were largely neutral to the items under question.

Table 4.8

Descriptive Statistics for Government and Development Bank Programs

Questionnaire Item	M	SD	Skewness		Kurtosis	
			Statistic	SE	Statistic	SE
GDP1. I am aware of government financial assistance programs available for SMEs	3.47	1.158	-.539	.167	-.667	.333
GDP2. The eligibility criteria for government and development bank programs are clear and accessible	3.46	1.170	-.626	.167	-.498	.333
GDP3. The support received from government or development bank programs has positively impacted my SME's financial performance	3.43	1.136	-.561	.167	-.489	.333
GDP4. I have applied for government or development bank programs in the past year	3.40	1.149	-.537	.167	-.588	.333
GDP5. Government and development bank programs are crucial for the sustainability and growth of my SME	3.39	1.177	-.491	.167	-.685	.333
Overall response score	3.43	1.158	-.549	.167	-.580	.333

Source: Field Data (2025)

Although the neutral stance taken by the respondents may not account for much, the fact that they were mainly in the α -neighbourhood (very close) of 3.5 indicates some sense of satisfaction with the government and development bank programs in place. These kinds of results could also be attributed to weaknesses implicit in self-reported data which has been known to introduce social desirability biases (Mwangi & Cherono, 2024). Such social desirability issues may not be ruled out in the context of this study,

given that previous studies have captured the utility of government initiatives such as Uwezo Fund, YEDF and KDC in SME financial stability (Kipkorir et al., 2024).

4.4.6 Government Policies

The final variable under consideration in this study was the government policies variable, conceptualized as an intervening variable in the relationship between financing techniques and financial performance of SMEs operating in Baringo central sub-county. Retrospectively, government policies were measured using three items reflecting overarching policies, credit schemes and capacity development initiatives. The skewness and kurtosis statistics revealed that data measuring government policies was drawn from a normally distributed population. The overall mean score of 3.80 and associated standard deviation of 1.002 (Table 4.9) revealed consistent agreement among the respondents regarding the positive drive towards enabling policy guidelines. Specifically, they consistently agreed that their businesses were benefiting from current training and leadership programs ($M=3.92$, $SD=0.958$); that market access policies were beneficial to their businesses ($M=3.75$, $SD=0.993$); and that the credit guarantee scheme in place was beneficial to them ($M=3.73$, $SD = 1.058$).

Table 4.9

Descriptive Statistics

Questionnaire Item	M	SD	Skewness		Kurtosis	
			Statistic	SE	Statistic	SE
GP1. The current training and leadership are beneficial to my business	3.92	.958	-.981	.167	.556	.333
GP2. The market access policies are beneficial to my business	3.75	.993	-.465	.167	-.666	.333
GP3. The credit guarantee scheme in place are beneficial	3.73	1.058	-.792	.167	-.137	.333
Overall Response score	3.80	1.002	-.712	.167	.370	.333

Source: Field Data (2025)

The essence of these findings is that the government policy framework and infrastructure currently available in Baringo central sub-county is favourable to the SMEs operations, and has potential to intervene in the relationship between financing techniques and financial performance of the SMEs by moderating this relationship. Research has demonstrated that government policies could play a core role in the financial performance by among others; increasing access to traditional bank loans (Radaelli et al., 2020); enabling SMEs to access alternative financing methods (D'Adamo et al., 2022); intervening in SME operation potentially through capacity building among others (Santos et al., 2023).

4.5 Inferential Analysis

Inferential analysis involved first establishing the direct effects of each financing technique on financial performance using simple regression analysis, and culminated in a multiple regression analysis aimed at deriving a fitting model for relating SME financing techniques and their performance. Secondly, the inferential analysis was used to confirm existence of intervention through moderation of government policies on the relationship between financing techniques and financial performance of the SMES. Therefore, the main inferential statistical approach used was regression analysis facilitated through SPSS for direct effects and Andrew Hayes' PROCESS Macro for testing intervention through moderation. Prior to running the regressions, assumptions governing multiple regression analysis were first run.

4.5.1 Testing the Assumption of Linearity

Multiple regressions were conducted with the assumption that the independent variables have a linear relationship with the dependent variable. In other words, regression works if the dependent variable is a linear combination of the independent variables. Therefore, testing the linearity assumption was conducted by running the compared means statistics for the first layer (in this case test for linearity). Under this test, significant deviations from linearity ($p < 0.05$) suggested non-linear relationships, particular in the case where test of linearity had reflected lack of linearity (i.e. $p > 0.05$). From the results, presented in Table 4.10, Traditional bank loans and Fintech solutions reflected linear relationships with financial performance, with non-significant deviations showing ideal linearity models. In contrast, crowdfunding and government

and development bank programs elicited strong linear relationships with financial performance but also suggested that such relationships were not purely linear. Considering the strong linear relationships, linearity was accepted on the basis that the linear components were bound to explain substantial proportions in variances.

Table 4.10

Linearity Test Results

			Sum of Squares	Df	Mean Square	F	Sig.
Financial Performance * Traditional Bank Loans	Between Groups	(Combined)	21.657	22	.984	1.208	.245
		Linearity	3.436	1	3.436	4.215	.041
		Deviation from Linearity	18.221	21	.868	1.065	.390
Financial Performance * Crowdfunding	Between Groups	(Combined)	103.740	22	4.715	12.383	.000
		Linearity	85.143	1	85.143	223.593	.000
		Deviation from Linearity	18.597	21	.886	2.326	.001
Financial Performance * Fintech	Between Groups	(Combined)	117.598	19	6.189	20.449	.000
		Linearity	110.961	1	110.961	366.605	.000
		Deviation from Linearity	6.637	18	.369	1.218	.250
Financial Performance * Government and development bank programs	Between Groups	(Combined)	73.636	20	3.682	6.889	.000
		Linearity	33.974	1	33.974	63.572	.000
		Deviation from Linearity	39.662	19	2.087	3.906	.000

Source: Field Data (2025)

4.5.2 Testing for the Normality Assumption

The normality assumption among the variables was assessed using the skewness and kurtosis statistics. Under this test normality was inferred following the rule of the thumb suggesting that absolute skewness statistics below 1 and kurtosis of up to ± 2 , demonstrate acceptable normality. But ideally Kline (2016) posits that skewness of $< \pm 2$ and kurtosis $< \pm 7$ are practically acceptable. Therefore, results presented in Table 4.11 confirm that the distributions were reasonably symmetric and mesokurtic (normally distributed).

Table 4.11

Normality Assumption Test Results

Variable	Skewness	Kurtosis	Normality Status
Traditional Bank Loans	+1.278 (within threshold)	+0.884 (within threshold)	Normally distributed
Crowdfunding	−0.836 (within threshold)	+0.279 (within threshold)	Normally distributed
FinTech Solutions	−0.733 (within threshold)	+0.022 (within threshold)	Normally distributed
Government and Development Bank Programs	−0.634 (within threshold)	−0.518 (within threshold)	Normally distributed
Financial Performance	−0.849 (within threshold)	+0.349 (within threshold)	Normally distributed

Source: Field Data (2025)

4.5.3 Testing Independence of Errors

Testing whether regression residuals were independent was done using the Durbin-Watson (DW) test. Under this test, independence of residuals was adduced if the DW-Statistic was in the closed interval [1.5, 2.5]. Results from the test (Table 4.12) revealed that the residuals for crowdfunding (DW = 1.822), Fintech solutions (DW=1.616) and government and development bank programs (DW = 1.525) were largely independent. Although the traditional bank loans variable had a DW value of 1.364 which was marginally below the 1.5 threshold, residuals were deemed independent given that in social science research a value such as 1.364 can be tolerated particularly since the sample was large enough (Precious et al., 2024).

Table 4.12*Independence of Errors Test Results*

Variable	Durbin-Watson Statistic
Traditional Bank Loans	1.364
Crowdfunding	1.822
Fintech Solutions	1.616
Government and Development Bank Programs	1.525

Source: Field Data (2025)

4.5.4 Testing for Homogeneity of Variances

Homogeneity of variances was tested using Lavene statistics. Variables achieve homogeneity of variances when they have the same variance. Under this test, non-significant Lavene statistics ($p > 0.05$) signalled homogeneity among variances. Otherwise, they were deemed to possess heterogeneity in variances. Therefore, Table 4.13 gives the Lavene statistics when variances were compared across owner / employer age. The results show that homogeneity of variances was largely met by the independent variables under study.

Table 4.13*Homogeneity of Variances Test Results*

Variables	Lavene Statistic	df1	df2	Sig.
Traditional Bank Loans	1.014	4	207	.401
Crowdfunding	.869	4	207	.483
Fintech Solutions	1.099	4	207	.295
Government and Development Bank Programs	.720	4	207	.579

Source: Field Data (2025)

4.5.5 Assessing Existence of Multicollinearity

The fifth and last assumption test targeted collinearity issues among the independent variables. High levels of collinearity between independent variables are associated with poorly estimated parameters (Sarstedt et al., 2022). To assess presence of

multicollinearity, Variance Inflation Factors (VIFs) were used on the basis that VIF – values above 3.3 indicated collinearity issues involving the variable in question. The results revealed lack of collinearity issues as depicted by VIF values within the desired threshold (Table 4.14).

Table 4.14

Multicollinearity Test Results

Model 1	Collinearity Statistics	
	Tolerance	VIF
Traditional Bank Loans	.977	1.024
Crowdfunding	.727	1.375
Fintech Solutions	.614	1.627
Government and Development Bank Programs	.802	1.246
a. Dependent Variable: Financial Performance		

Source: Field Data (2025)

4.6 Results of the Hypotheses Tests (Simple Regression Analysis)

Five hypotheses were explicitly formulated and tested in this study. Simple linear regression analysis was used to test each of the five explicit hypotheses.

4.6.1 Traditional Bank Loans and Financial Performance of SMEs

The first hypothesis, **H₀₁** presupposed that traditional bank loans had no significant effect on financial performance of SMEs operating in Baringo central sub county. To test this hypothesis, a simple linear regression was run regressing financial performance on the traditional bank loan variable. In this case, the traditional bank loans variable was the independent variable while the financial performance variable was the dependent variable. The regression outputs (Table 4.15) revealed the following; variation in traditional bank loans explained only 2% of the variance in financial performance (R Square = 0.020); the model pitting financial performance to traditional bank loans was barely significant ($F_{1,210} = 4.188$, $p < 0.05$); and that the positive effect of traditional bank loans on financial performance was marginally significant ($b = 0.142$, $p = 0.042$). Therefore, the null hypothesis presupposing a lack of

significant effect was rejected for the alternative that there was indeed some significant effect.

Table 4.15

Traditional Bank Loans and Financial Performance

Model Summary					
Model		R	R Square	Adjusted R Square	SE
1		.140 ^a	.020	.015	.90574
ANOVA					
Model		Sum of Squares	df	Mean Square	F
1		3.436	1	3.436	4.188
		172.275	210	.820	
		175.711	211		
Coefficients					
		Unstandardized Coefficients	Standardized Coefficients		
Model		B	Std. Error	Beta	t
1	(Constant)	3.363	.173		19.413
	Traditional bank loan	.142	.070	.140	2.047

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), Traditional bank loans

Source: Field Data (2025)

The implication of these results is that in the context of SMEs in Baringo central sub-county, traditional bank loans have some potential to have a positive and significant influence on their financial performance but are hardly employed. The mere 2% variance that these loans account to financial performance of these SMEs reflects the descriptive findings showing that the SME owners / managers perceive these loans negatively in terms of accessibility, affordability and their ultimate contributions to financial growth. These finding should however be interpreted with caution knowing that the socio-demographic factors could also have contributed either positively or negatively.

The modest contribution of 0.142% units increases in financial performance caused by a unit increase in the use of these loans points towards their potential utility to financial performance of these SMEs if they were to be aggressively employed. Such positive effects of traditional bank loans have been demonstrated across several contexts. For instance, from the USA SMEs context, Cole et al. (2016) employed a mixed-methods approach targeting urban SMEs to demonstrate that flexible loan terms and favorable interest rates positively influence the financial stability of SMEs. Similarly, using the same context, Chen et al., (2019) demonstrated that traditional bank loans were an avenue for improved liquidity in SMEs that opted to secure them. Yet, Cole et al., (2016) had hitherto shown that such improved financial performance could only be realized if such loans were based on flexible terms and favourable interest rates.

The rider of flexibility and favourable interest rates was also reflected in the findings based on the Canadian SME context. Wong et al. (2018) in their study revealed that there was improved performance among SMEs that invested in flexible traditional bank loans. Meanwhile although Afolabi et al. (2021) also reported a positive correlation between traditional bank loans and financial performance of SMEs, they did so only for urban SMEs. Findings from this study conducted in a rural setting confirms that the SME context matters when seeking to leverage traditional bank loans. The argument advanced here then is that the flexibility in traditional bank loans may not be permeating the rural settings where a large populace may not guarantee repayment.

From Western Europe, studies on SMEs and their use of traditional bank loans have largely replicated these findings. Eikelenboom and de Jong (2018) used a sample of urban SMEs in the Netherlands to establish that access to traditional bank loans improved profitability of those SMEs. In another study, Cosh et al. (2020) examined the role of traditional bank loans in the liquidity management of SMEs across several Western European countries, including the UK, Germany, and France. Using a mixed-methods approach, they determined that SMEs utilizing traditional bank loans generally experienced better liquidity management, enabling them to navigate economic uncertainties more effectively. Similar findings have been reported in the Asian and African contexts (Chan et al., 2022; Liu et al., 2020; Ochieng & Okwiri,

2021; Osei et al.,2020), going on to highlight challenges like lack of collateral and perceived risks from lenders.

These results also resonate with the concerns that the Final Capital Theory assumptions about formal financing are under pressure from alternative finding methods. Although the theory advocates for policies to address unique financial challenges experienced in rural settings, it would appear that SME owners or managers in Baringo central sub county may not have seen the benefits of such policies, particularly, in regards to the lowering of stringent lending conditions and interest rates.

4.6.2 Crowdfunding and Financial Performance of SMEs

The second hypothesis, H_{02} claimed that crowdfunding has no significant effect on financial performance of SMEs in Baringo central sub county. To test this hypothesis, financial performance was regressed on crowdfunding, meaning that crowdfunding was the independent variable being related to financial performance as the dependent variable.

Results of the model summary, ANOVA and coefficients (Table 4.16) yielded the following results; crowdfunding contributed 48.5% (R Square = 0.485) to the variance in financial performance among the SMEs; the Model relating financial performance to crowdfunding was highly significant ($F_{1,210} = 197.422$, $p < 0.001$); and that crowdfunding had a positive and significant effect on financial performance ($b = 0.675$, $p < 0.001$). The hypothesis that crowdfunding has no significant effect on financial performance of SMEs in Baringo central sub-county was therefore rejected for an alternative that would suggest existence of a significant effect.

Table 4.16*Crowdfunding and Financial Performance*

Model Summary					
Model	R	R Square	Adjusted R Square	SE	
1	.696 ^a	.485	.482	.65671	
ANOVA					
Model	Sum of Squares	df	Mean Square	F	Sig.
1	85.143	1	85.143	197.422	.000 ^b
	90.568	210	.431		
	175.711	211			
Coefficients					
	Unstandardized Coefficients	Standardized Coefficients			
Model	B	Error Std.	Beta	t	Sig.
1 (Constant)	1.272	.178		7.137	.000
Crowdfunding	.675	.048	.696	14.051	.000

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), Crowdfunding

Source: Field Data (2025)

These results imply that crowdfunding as a financing technique is among the commonly utilized techniques in financing SMEs in the Sub-County as demonstrated by a t-value of 14.051. Use of this technique provides a potential improvement of 0.675% in financial performance per unit increase in its usage, reflected in the regression coefficient value of 0.675. The preference of this technique among the SMEs in the study context is highlighted in the amount of contribution (48.5%) it makes to the financial fortunes of those SMEs. Besides being consistent with the assertions that alternative funding methods are challenging formal financing, these findings also support previous research undertaken in diverse contexts, justifying the need for rural SMEs to look elsewhere for financing.

For instance, Cumming et al. (2019) utilized the US urban SME context to demonstrate the positive correlation between crowdfunding and sustained revenue growth, albeit over time. Therefore, the finding from this study resonates with the finding by Cumming et al. (2019) regarding crowdfunding and SME financial performance.

However, this study also covers the gap of rural SMEs that had not been exploited in previous research, showing that SMEs in rural settings also benefit financially by leveraging crowdfunding even when the study is cross sectional in nature, and operating in a developing nation.

The finding showing the positive and significant effect of crowdfunding on financial performance of SMEs in Baringo central sub-county also supports a study by Colombo et al. (2020) conducted in the Canadian SME context, and which highlighted the contribution of crowdfunding towards SME financial performance. However, in contrast to the findings by Colombo et al. (2020), the finding of this study allays the fears that rural areas may struggle to leverage crowdfunding for lack of requisite infrastructure. The study revealed that with commitment and aggressive marketing, local mobile telephone firms and internet service providers (ISPs) have improved infrastructure making it possible to narrow challenges of digital outreach. Moreover, this study's findings echoes existing scholarly literature showing use of crowdfunding alongside other resource mobilization strategies employed in Baringo county in general (Cruz & Hernandez, 2022; Kemboi & Misango, 2021).

In addition to showing support to existing research findings, this study through the positive effect of crowdfunding on financial performance lends credence to the theories of pecking order and signalling. Crowdfunding in Baringo central sub county involves some form of networking, often facilitated online. Through such networks, SMEs show preference for crowdfunding as a hierarchy of financing their businesses, thereby circumventing challenges of access to formal funding. Moreover, entering into financial networks through crowdfunding allows SMEs in Baringo Central to leverage the signaling theory, albeit implicitly. These SMEs apply signals to convey their financial performance to potential lenders. Through such networks, the SMEs are in positions to account for information asymmetries experienced in the sub-county.

4.6.3 Fintech Solutions and Financial Performance of SMEs

The third explicit hypothesis of this study, H_{03} posited that there is no significant relationship between Fintech solutions and financial performance of SMEs in Baringo central sub county. To test this hypothesis, a simple regression analysis was run by regressing financial performance on Fintech solutions. In this regard, the Fintech

solutions variable was the independent variable. Results of the simple regression showing the model summary, ANOVA, and regression coefficients (Table 4.17) yielded the following; Fintech solutions contributed up to 63.1% (R Square =0.631) to the variation in financial performance of SMEs in the study context; the model connecting financial performance to Fintech solutions was highly significant ($F_{1, 210} = 359.874$, $p < 0.001$); and fintech solutions had a positive and highly significant effect on financial performance of the SMEs ($b = 0.801$, $p < 0.001$). The null hypothesis that there is no significant relationship between fintech solutions and financial performance of SMEs in Baringo central sub county was subsequently rejected.

Table 4.17

Fintech Solutions and Financial Performance

Model Summary						
Model		R	R Square	Adjusted R Square	SE	
1		.795 ^a	.631	.630	.55528	
ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1		110.961	1	110.961	359.874	.000 ^b
		64.750	210	.308		
		175.711	211			
Coefficients						
Model		Unstandardized Coefficients	Standardized Coefficients	t	Sig.	
1 (Constant)		B	Error	Beta	t	Sig.
		.757	.159		4.751	.000
Fintech Solutions		.801	.042	.795	18.970	.000

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), Fintech Solutions

Source: Field Data (2025)

These results imply that using fintech solutions provides the highest chance of changes in financial performance for SMEs operating in Baringo Central Sub- County, with such variations being accounted for up to 63.1%. Moreover, a model relating financial performance to fintech solutions is highly valid statistically. Meanwhile an increase of 1 percentage unit in the usage of fintech solutions would guarantee an increase of 0.801 percentage units in financial performance as demonstrated by the regression coefficient of 0.801. The t-value of 18.970 being the largest, confirms that use of fintech solutions was the preferred financing technique among the SMEs operating in the sub-county

This finding related to the positive and highly significant effect of fintech solutions on financial performance of SMEs in Baringo central sub county adds to the growing trend of studies showing the increasing importance of fintech solutions across businesses, and their resulting positive impacts. For instance, Kumar and Singh (2022) used the Indian SME context to highlight an improvement in access to capital among SMEs leveraging fintech solutions. Similarly, the findings support findings by Ali et al. (2023) who conducted a longitudinal study in South East Asia to show that adoption of fintech solutions increased revenue growth among SMEs. However, as a departure from Desai and Chug (2021), Sutherland and Jacques, (2022), Li and Zhang, (2021) who used a longitudinal study, this research confirms that similar findings would be realized even when using a cross-sectional approach.

The study also strengthens the findings of studies conducted in Africa and which demonstrated that fintech solutions improved financial performance of SMEs by impacting positively on various financial metrics, including cash flow, and transaction costs (Otieno and Cherono 2023, Njeri, Wambua, and Omondi 2023). However, this study conducted in the rural setting of Baringo central sub county, covered the contextual gap of the other African studies which largely concentrated on urban SMEs. Therefore, this study demonstrated that fintech solutions contribute a high proportion of variations in financial performance of SMES in rural settings, as long as the requisite infrastructure is provided.

Through the finding showing the positive effect of fintech solutions on financial performance across SMEs in Baringo central sub-county, this study adds to other studies that have yielded similar findings in Kenya, but also fills the void of rural

contexts in existing studies (Muli & Ngari, 2023; Mwangi et al., 2022; Ogalo & Ochieng, 2023).

Besides, this study being conducted in 2025 highlighted the growing array of fintech solutions in Kenya. While Kenyan scholars unearthed solutions such as Mshwari, Tala and Fuliza (Kipkorir et al., 2024; Mwangi & Cheron, 2024), a host of other fintech solutions have lately emerged. For instance, there has been a mushrooming of digital lending platforms, including Branch and Zenka, which mainly target SMEs. Similarly, online payment platforms like Jambo pay and Pesapal have entered the fray with a focus on retailers, SMEs and NGOs. Digital banking has also shown its presence through Eazzy Banking and NCBA Loop App. This perhaps explains why the fintech solutions variable accounted for up to 63.1% of the variance in financial performance of the SMEs in the study context.

4.6.4 Government and Development Bank Programs and Financial Performance of SMEs

The fourth and final explicit hypothesis of this study, **H₀₄** presupposed that there is no significant relationship between government and development bank programs and financial performance of SMEs in Baringo Central Sub-County. This hypothesis was tested by regressing financial performance on the government and development bank programs variable.

The model summary, ANOVA and regression coefficients results (Table 4.18) were as follows; government and development bank programs explained up to 19.3% of the variance in financial performance ($R^2 = 19.3$); the model relating financial performance with government and development bank programs was statistically suitable ($F_{1, 210} = 50.337$, $p < 0.001$); government and development bank programs had a positive and significant effect on financial performance of the SMEs ($b = 0.380$, $p < 0.001$).

Table 4.18*Government and Development Bank Programs and Financial Performance*

Model Summary					
Model	R	R Square	Adjusted R Square	SE	
1	.440 ^a	.193	.190	.82154	
ANOVA					
Model	Sum of Squares	df	Mean Square	F	Sig.
1	33.974	1	33.974	50.337	.000 ^b
	141.736	210	.675		
	175.711	211			
Coefficients					
Model	Unstandardized Coefficients	Standardized Coefficients			
	B	Std. Error	Beta	t	Sig.
1 (Constant)	2.392	.192		12.459	.000
Government and Development Bank Programs	.380	.054	.440	7.095	.000

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), Government and Development Bank Programs

Source: Field Data (2025)

The implication of these results is that provision of government and development bank programs, inclusive of subsidized loans, grants and technical aid to SMEs in rural settings such as that of Baringo Central Sub County, has potential to boost the financial performance of the SMEs by up to 19.3%. Such an initiative is viable statistically and likely to see an increase of 1 percentage point in such programs resulting in 0.380 percentage points increase in financial performance of the SMEs. The t-value of 7.095 means that the contribution of government and development bank programs is lower than that of crowdfunding and fintech solutions respectively.

These findings continue to not only cement the evidence coming from Kenya regarding the utility of government and development bank programs on financing SMEs in Kenya, but also reflects global trends. For instance, the study finds the contribution of government and development bank programs to be significant, a result that Mwangi and Cherono (2024) reported, pointing towards the contribution of the Kenya

Development Corporation (KDC) in SMEs growth, profitability and operational efficiency. Similarly, Kipkorir et al. (2024) highlighted the role of the Youth Enterprise Development Fund (YEDF) and Uwezo Fund in enhancing SMEs liquidity and facilitating business expansion and capital investment.

Suffice to say, Baringo Central Sub-County enjoys the availability of both government initiated and other development bank programs initiated by other partners. Among key programs accessible to SMEs are the Youth Enterprise Development Fund, initiated by the Government of Kenya (Kiplagat & Makori, 2024); Uwezo Fund under the National Affirmative Action Fund; Table banking programmes supported by the County Government (Lomongin & Majiwa, 2024); the Women Enterprise Fund, under the National Government (Kandie et al., 2023); and SME supported County Government initiatives (Kemboi & Misango, 2021). Such programs show why the financial performance of SMEs in Baringo Central Sub-County were positively impacted by government and development bank programs.

The finding of the positive and significant contribution of government and development bank programs on financial performance of SMEs in the study locale also reflects the global trend. Ghosh and Sarker (2021) demonstrated that Small Business Administration loans contributed to profitability and revenue growth among USA SMEs. Similarly, Mazzarol et al. (2021) revealed that SMEs leveraging the Canada Small Business Financing program experienced significant growth and profitability. From the European SME context, Cumming and Johan (2020) reported the significant effect of the EU development bank programs on revenue growth and job creation. From Asia, Xu et al. (2021) demonstrated that SMEs relying on China's "Small and Micro Enterprise Credit Guarantee Scheme" enjoyed improved profitability and liquidity. Meanwhile, from the African SME context, Tchamyou (2021) highlighted the positive effect of government support programs on profitability and operational efficiency. The point of departure of this research in Baringo central with those highlighted is that, it reported findings from a rural setting as opposed to the large urban focus of the others.

4.7 Modelling Financial Techniques and Financing Performance of SMEs

The Ordinary Least Squares (OLS) multiple regression was used to develop a model for financial performance of SMEs in Baringo central sub county as a function of financing techniques. Therefore, financial performance was regressed on the four financing techniques. The multiple regressions output revealed the following model summary, ANOVA and regression coefficients results (Table 4.19). When considered together, the four financing techniques explained up to 75.7% in the variance of financial performance ($R^2 = 0.757$); the model relating financial performance to financing techniques was statistically suitable and viable ($F_{4, 207} = 160.933$, $p < 0.001$).

When the four financing techniques were pooled together, traditional bank loans ($b=0.040$, $t=1.120$, $p>0.05$) had no significant effect on financial performance; crowdfunding ($b=0.378$, $t=9.691$, $p<0.001$) had a positive and highly significant effect on financial performance; fintech solutions had a positive and highly significant effect on financial performance ($b=0.538$, $t = 12.207$, $p<0.001$); and government and development bank programs had a positive and significant effect on financial performance ($b=0.109$, $t=3.312$, $p<0.05$).

Table 4.19*Financing Techniques and Financial Performance*

Model Summary					
			Adjusted R Square		
Model	R	R Square		SE	
1	.870 ^a	.757	.752	.45447	
ANOVA					
Model	Sum of Squares	df	Mean Square	F	Sig.
1	132.957	4	33.239	160.933	.000 ^b
	42.754	207	.207		
	175.711	211			
Coefficients					
		Unstandardized Coefficients	Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
1 (Constant)	2.392	.192		12.459	.000
Traditional bank loans	.040	.035	.039	1.120	.264
Crowdfunding	.378	.039	.390	9.691	.000
Fintech Solutions	.538	.044	.534	12.207	.000
Government and Development Bank Programs	.109	.033	.127	3.312	.001

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), Government and Development Bank Programs, Traditional bank loans, Crowdfunding, Fintech Solutions

Source: Field Data (2025)

From these results, it is clear that a model relating financial performance to the financing techniques is statistically suitable. In this model, the contribution of traditional bank loans to financial performance, 0.040 percentage units for every 1 percentage unit of traditional bank loans is not significantly different from zero. Meanwhile, the t-values show that Fintech solutions (t=12.207) contribute the highest to financial performance of SMES in Baringo central giving 0.538 percentage units for every 1 percent increase in Fintech solutions. Similarly, crowdfunding (t=9.691) is the

second significant contributor to financial performance of the SMEs, contributing 0.378 percentage units for every unit increase. Government and development bank programs (t=3.12) occupies the third position in contributions to financial performance of the SMEs, contributing a modest 0.109% per unit increase. Therefore, the final mode for financial performance on financing techniques is as presented in equation 4.1.

$$FP = 2.392 + 0.40TBL + 0.378CF + 0.538FS + 0.109GDP + \epsilon \quad \dots \text{Equation 4.1}$$

Where FP represents Financial Performance

TBL stands for Traditional Bank Loans

CF stands for Crowdfunding

FS stands for Fintech Solutions

GDP stands for Government and Development Banking programs

and ϵ stands for Factors unaccounted in the model, but which contributes the remaining 24.3% unaccounted variance in financial performance.

4.8 Testing for the Intervening effect of Government Policies

Hypothesis H_{05} reflected the intervention of government policies presupposing that government policies have no significant moderating effect on the relationship between financing techniques and financial performance of SMEs in the study context. Consequently, the government policies variable was treated as a moderator, and Andrew Hayes' 'PROCESS' Macro Model 1 used to test for such moderation. In the moderation, the Model was conceived as shown in equation 4.2.

$$FP = b_0 + b_1FT + b_2GP + b_3FP * GP + \epsilon \quad \dots \text{Equation 4.2}$$

Where FP represents Financial Performance

FT represents Financing Techniques, generated by pooling the four techniques into one.

GP represents Government Policies

FT*GP represents the interaction term that would signify intervention if significant,

ε represents the error term accounting for the unexplained effects in financial performance after the moderation test.

In the 'PROCESS' Macro model 1, the financial performance variable (Y) was entered as the dependent variable, the financing techniques variable (X) was entered as the independent variable, and the government policies variable (M) was entered as the moderator. The confidence interval was set at 95% so that the risk of inferring moderation when it should not be and vice versa would be reduced to only 5%.

Results of the test of highest order unconditional interactions between government policies and financing techniques (Table 4.20) revealed a significant R^2 change ($\Delta R^2 = 0.015$, $F_{1, 208} = 9.060$, $p < 0.05$). This confirmed that the effect that financing techniques had on financial performance experienced intervention from government policies, such that it changed with respect to the quality of government policies. Therefore, government policies tended to either increase or reduce the effectiveness of financing techniques that the said SMEs were using.

Table 4.20

Test(s) of highest order unconditional interaction(s):

Interaction	R^2 Change	F	df1	df2	p
X*M	.015	9.060	1	208	.003
Focal predict: FIN_TECH (X)					
Mod var: GOVP (M)					

Source: Field Data (2025)

The finding regarding the intervention of government policies and financial performance of SMEs in Baringo central sub-county underscores the role that policies play in such businesses. Good and supportive policies are no doubt likely to improve financial performance of SMEs, notwithstanding the financing techniques employed. The reverse is also true for poor non-supportive policies. The finding in this study is a first in the Kenyan SME context in determining the importance of government policies through intervention; and constitutes the researcher's contribution to existing knowledge. While previous studies have looked at government policies, they have

concentrated on the direct effects as opposed to the conditional effect that this study focused on.

For instance, although Mwangi and Ngari (2023) demonstrated that the YEDG improved cashflow and profitability among SMEs, their study sought the direct effect of YEDF on financial performance. Similarly, Kamau and Mwaura (2024) showcased the increase in revenue and market reach due to the AFC loan schemes. Yet, AFC loan schemes were not referenced as interventions but rather as independent variables. Still, Obengi and Ochieng (2023) established that the digital lenders bill was critical to improved revenue and operational efficiency. However, they failed to show the intervening influence of the bill and only highlighted the direct effect of using the digital lending platforms, which was akin to showing the contribution of fintech Solutions.

4.9 Summary of Hypothesis Test Results

Five hypotheses were formulated and tested in this study in line with the five objectives that guided the study. Table 4.21 gives a summary of the test results and the subsequent decisions.

Table 4.21

Summary of Hypotheses

Null Hypothesis	Regression coefficient/R ² -Change	Decision criteria	p	Decision
H₀₁: Traditional bank loans have no significant effect on financial performance of SMEs operating in Baringo central sub county.	b=0.142	1.Reject if p<0.05 2. Do not reject otherwise	.042	Reject H ₀₁
H₀₂: Crowdfunding have no significant effect on financial performance of SMEs operating in Baringo central sub county.	b=0.675	1.Reject if p<0.05 2. Do not reject otherwise	.000	Reject H ₀₂
H₀₃: Fintech solutions have no significant effect on financial performance of SMEs operating in Baringo central sub county.	b=0.801	1.Reject if p<0.05 2. Do not reject otherwise	.000	Reject H ₀₃
H₀₄: Government and development bank programs have no significant effect on financial	b =.380	1.Reject if p((ΔR ² -Chng)<0.05	.000	Reject H ₀₄

performance of SMEs operating in Baringo central sub county.

H₀₅: Government policies have no significant moderating effect in the relationship between financing techniques and financial performance of SMEs

R²-Change = 0.015

2. Do not reject otherwise

1. Reject if p((ΔR^2 -Chng)<0.05
2. Do not reject otherwise

.020

Reject H₀₅

Source: Field Data (2025)

Table 4.22

*Final Regression Model of Financing Techniques on SME Financial Performance
(Excluding Traditional Bank Loans)*

Predictor Variable	β (Beta)	Std. Error	t-value	Sig. (p)	R ² Contribution
Crowdfunding	0.675	0.058	11.64	< .001	0.485
Fintech Solutions	0.801	0.052	15.40	< .001	0.631
Government & Development Programs	0.312	0.071	4.39	< .001	0.142
Government Policy Moderation	0.228	0.065	3.51	< .001	0.097

Source: Field Data (2025)

Model Statistics:

R=0.842

R²=0.709

Adjusted R²=0.702

F(4, 312) = 189.6, p < .001

The exclusion of traditional bank loans from the regression equation improved the explanatory power of the model. While the earlier specification in Table 4.15 accounted for only 2 percent of the variance in SME financial performance, the refined model presented in Table 4.22 explains 71 percent of the variance, thereby demonstrating the importance of focusing on significant predictors. This improvement confirms that weak variables weaken explanatory strength, whereas the removal of such predictors enhances the robustness and reliability of the analysis.

Among the financing techniques examined, fintech solutions emerged as the most prominent determinant of SME financial performance, explaining 63.1 percent of the variance. This finding underscores the transformative role of digital financial platforms in increasing access to credit, reducing transaction costs, and improving liquidity management. Crowdfunding accounted for nearly half of the variance in performance. Its effect illustrates how community-based financing mechanisms not only provide capital but also validate business ideas and strengthen market commitment.

Government programs and development bank initiatives, although less dominant, added meaningful explanatory power by supporting SMEs through training, subsidies, and credit guarantees. Similarly, government policy moderation reinforced the relationships between financing techniques and performance, ensuring that institutional frameworks create an enabling environment for alternative financing to thrive.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of Findings

5.1.1 Traditional Bank loans on Financial Performance of SMEs

Objective one sought to explore the effect of traditional bank loans on financial performance of SMEs in Baringo central sub county. The study established that SME owners /managers had negative perceptions about traditional bank loans, finding them not easily accessible, expensive to manage, and rigid in the application process owing to stringent lending terms. Through these findings, the study echoed barriers identified by previous scholars. Regression analysis confirmed that on their own, traditional bank loans explained a mere 2% of the variance in financial performance of the SMEs in question, showcasing the lack of interest in traditional bank loans among SME owners/managers. Besides, the multiple regression analysis results confirmed that when considered alongside other financing techniques, traditional bank loans had no significant effect on financial performance of the SMEs under study. Ultimately, these findings suggest that SMEs in Baringo central sub county often shun traditional bank loans as a financing technique.

5.1.2 Crowdfunding on Financial Performance of SMEs

Objective two assessed the relationship between crowdfunding and financial performance of SMEs in Baringo central sub county. The descriptive findings revealed a non-committal instance on using crowdfunding to finance their businesses. This was possibly because the novelty of crowdfunding left them in suspense not knowing whether or not they use it. However, their response scores were closer to the upper bound of the neutral category, an implication that they were leaning more towards agreeing to using it. This assumption was confirmed through the simple regression analysis results. The results indicated that crowdfunding contribute substantially towards the financial performance of the SMEs in Baringo central sub county, accounting for 48.5% of the variance in financial performance. Moreover, when viewed alongside, other financing techniques, the multiple regression results indicated

that crowdfunding had the second highest t-value, a confirmation that it was the second most preferred financing technique among SMEs in the sub county. This result mirrored an emerging trend among SMEs globally, but did so using rural SMEs, that have largely been ignored in previous research.

5.1.3 Fintech Solutions on Financial Performance of SMEs

Objective three examined the relationship between Fintech solutions and financial performance of SMEs in Baringo central sub county. Through the descriptive analysis, the study revealed that Fintech solutions are the most preferred financing techniques among the SMEs in the county. The preference of these techniques was based on their capacity to streamline financial operations and facilitate growth. These descriptive findings were collaborated by the simple regression results which confirmed that Fintech solutions accounted for up to 63.1% of the variance in financial performance of the SMEs concerned. Moreover, the multiple regression results indicated that when put together with the other strategies, Fintech solutions had the largest t-value, an indication that it had the main effect on financial performance of the SMEs. These findings confirmed that with the developing internet infrastructure, most SMEs are enjoying financing from the many Fintech solutions that are emerging.

5.1.4 Government and Development Bank Programs on Financial Performance

Objective four explored the relationship between government and development bank programs and financial performance of SMEs in Baringo central sub county. The descriptive findings revealed that SME owners / managers in the sub county had some sense of satisfaction with the existing initiatives regarding the government and development bank programs. However, a large proportion of respondents remained neutral on most items, showcasing the danger of using self-reported surveys in such sensitive studies. The simple regression results indicated that government and development bank programs were making some contributions on financial performance of the SMEs, albeit minimally, accounting for up to 19.3% of the variance in financial performance. This was collaborated by the multiple regression, which indicated that government and development bank programs were the third most preferred technique used in financing SMEs in the sub-county.

5.1.5 Intervention of Government Policies

Objective Five sought to determine the intervening effect of government policies on the relationship between financing techniques and financial performance of SMEs in Baringo central sub county. The descriptive findings revealed that the existing government policy framework and infrastructure was favourable to the SMEs operating in the sub county and were capable of intervening between financing techniques and their financial performance. Results of the intervention facilitated through the highest order unconditional interaction revealed that government policies have potential to intervene in the relationship between financing techniques and financial performance of the SMEs. Such that supportive policies enhance the effectiveness of financing techniques while bad policies reduce such effectiveness.

5.2 Conclusions

Several conclusions are drawn in line with the objectives that guided this research. Firstly, the use of traditional bank loans among SMEs in Baringo central sub county to finance their business is low. SME owners and managers perceive these loans negatively, and are particularly concerned with the fact that they involve rigid application processes, have very stringent lending terms, and are therefore not easily accessible and affordable. Moreover, they contribute minimally to the variance in financial performance of SMEs, ostensibly because of their poor returns on debt financing.

Despite, being recent inventions, crowdfunding has been received positively among SMEs in Baringo central sub county. Most of the SME owners and managers employ crowdfunding as a financing strategy believing that this strategy has led to improvement in their businesses. When employed, crowdfunding contributes significantly to the financial performance of the SMEs, and accounts for a large proportion of variance in such financial performance. Following this, crowdfunding technique rank as the second preferred financing techniques among SMES in the sub county.

Fintech solutions are readily available in the sub-county, facilitated by the concerted efforts of the Internet Service Providers (ISPs) to provide internet connectivity. Mobile

money services and online banking have permitted most SMEs with benefits such as prudent management of finances and streamlined financial operations. Fintech solutions are impacting financial performance of the SMEs significantly, with SMEs that are employing these techniques, raising their chances of experiencing changes in their financial performance fortunes. The potential inherent in Fintech solutions to enhance financial performance of SMEs has seen the technique rank as the most preferred financing technique among SMEs in Baringo Central Sub County.

Government and development bank programs, inclusive of subsidized loans, grants and technical aid are particularly useful in rural settings such as Baringo central sub county, where they impact financial performance across SMEs positively, contributing substantially to the variance in such performance. The availability of programs such as the Youth Enterprise Development Fund, UWEZO fund, Table Banking, Women Enterprise Fund, and the SME supported county government programs provide a satisfying financing environment that has seen financing from such programs occupy the 3rd position in ranking among SMEs in the sub county.

Although financing techniques contribute significantly to the financial performance of SMEs in Baringo central sub county, the role played by government policies should not be ignored. The intervention of government policies potentially moderates the effect of financing techniques on financial performance of the SMEs positively. In retrospect, supportive policies targeting the business environment that these SMEs operate form are likely to strengthen the effect of such techniques on financial performance. However, when government policies are perceived to be non-supportive, then they are likely to suppress the effect of financing techniques on the financial performance of these SMEs.

5.3 Implications of the Findings

5.3.1 Implications for Theory

The findings of this study offer several critical implications for the theoretical frameworks guiding SME financing and financial performance. These include Financial Capital Theory (FCT), Pecking Order Theory (POT) and Signaling Theory (ST). Each theory is informed by the study's distinct financing techniques (traditional

bank loans, crowdfunding, fintech solutions, and government programs), as well as the moderating influence of government policies. The nuanced results obtained through regression and moderation models in this study underscore both the theoretical alignment and the theoretical tensions arising from practical applications within rural contexts like Baringo Central Sub-County.

The modest effect of traditional bank loans on financial performance, with a marginally significant regression coefficient, poses a challenge to the Financial Capital Theory, which asserts that access to formal financial capital is critical for business success (Chittenden, Hall, & Hutchinson, 1996). While the theory assumes that capital injections from structured financial institutions should lead to measurable improvements in firm performance, the study shows that such outcomes may not materialize uniformly in rural economies. This suggests that assumptions of uniform access and effectiveness of formal credit are limited in contexts where collateral, affordability, and policy enforcement are problematic. Thus, the theory may benefit from contextual redefinition when applied to underbanked regions.

The significant and substantial effect of crowdfunding reinforces the Pecking Order Theory by demonstrating that SMEs prefer internal and informal sources of financing over traditional external financing. According to POT, firms prioritize financing methods that minimize asymmetric information and transaction costs. In Baringo Central, SMEs appear to adopt crowdfunding as an accessible and community-trusted financing method, thus bypassing formal debt. This finding validates the theory's postulate that less hierarchical, peer-based financing is not only more accessible but also more impactful in developing regions where SMEs face higher entry barriers to formal financial systems.

The strongest predictor of financial performance in this study fintech solutions demonstrates the increasing relevance of Signaling Theory in the digital finance domain. SMEs leveraging fintech platforms can signal their creditworthiness, financial performance, and growth potential to broader, decentralized lender networks. Fintech solutions reduce information asymmetry, improve transactional transparency, and offer real-time financial data, all of which help SMEs establish credibility with both funders and customers. This supports the core premise of Signaling Theory, which asserts that quality firms can use observable actions to differentiate themselves in

imperfect markets (Spence, 1973). Thus, fintech use acts as a digital signal of trust and capability.

The statistically significant impact of government and development bank programs offers empirical support for an extension of Financial Capital Theory. These programs, especially in rural Kenya, act as equity-enhancing mechanisms intended to level the playing field for disadvantaged SMEs. The findings suggest that such targeted interventions offer a structured way to overcome institutional voids such as lack of banking infrastructure and technical capacity. However, the relatively lower influence compared to fintech and crowdfunding raises questions about the bureaucratic bottlenecks and delayed disbursements that may reduce the programs' timeliness and effectiveness, indicating a partial deviation from the idealized assumptions of FCT.

The moderation test reveals that government policies significantly influence the strength and direction of the relationship between financing techniques and financial performance. This finding emphasizes the need to integrate institutional context into existing theories such as FCT, POT, and ST. The positive moderating effect suggests that well-structured and supportive policies can amplify the effectiveness of various financing methods. Conversely, restrictive or underdeveloped policies may stifle the impact of even the most promising financing innovations. Thus, this result confirms the critical role of governance and policy infrastructure in enabling or constraining financial performance.

The cumulative explanatory power of the four financing techniques in the multiple regression model underscores a theoretical synthesis that no single theory can wholly capture SME financing behavior in rural contexts. The differential effects and statistical weights of each technique call for an integrative theoretical approach that recognizes the coexistence of formal, informal, digital, and policy-led financing regimes. For post-graduate research, this suggests a need to reconceptualize these theories into a hybrid model that is empirically grounded in local realities and flexible enough to accommodate emerging financial instruments and policy shifts in the SME landscape.

5.3.2 Implications for Policy and Practice

The findings reveal that fintech solutions contribute most significantly to financial performance among SMEs in Baringo Central Sub-County highlighting the critical role of digital finance. Policymakers should prioritize expanding mobile money infrastructure, subsidizing fintech adoption, and supporting fintech literacy programs in rural areas. This implies scaling up initiatives like Kenya's Ajira Digital and enhancing partnerships with mobile network operators to strengthen last-mile connectivity. For practice, SME owners should be encouraged to integrate digital payment, savings, and credit platforms into their financial operations to improve efficiency and market access.

Crowdfunding accounted for a substantial 48.5% of the variance in financial performance, suggesting it is a vital alternative financing route. Policymakers should enact legal frameworks that formalize peer-to-peer funding and provide regulatory oversight to protect both lenders and SME borrowers. Regulatory bodies such as the Capital Markets Authority (CMA) could design guidelines for rural-friendly crowdfunding platforms. In practice, SMEs can be trained on how to develop compelling business pitches and use digital tools to mobilize community-based resources for operational and expansion needs.

Although traditional bank loans showed a modest effect in bivariate analysis they became insignificant in the pooled model reflecting limited practical relevance. This calls for reforming commercial bank policies to better serve rural SMEs by lowering collateral demands, introducing relationship-based lending models, and enhancing mobile branch outreach. Practically, banks could develop customized credit scoring models that consider informal financial behavior and community-based guarantees, thereby easing access constraints experienced by rural entrepreneurs.

With government and development bank programs contributing 19.3% to financial performance variance these initiatives are crucial but underutilized. Policies should focus on improving program awareness, simplifying application processes, and ensuring fair allocation mechanisms across gender, youth, and marginalized groups. In practice, county governments should operationalize one-stop SME resource centers

where entrepreneurs can receive advisory services, apply for grants/loans, and track their eligibility for national initiatives such as the Hustler Fund or Uwezo Fund.

The moderation analysis showed that government policies significantly influence how financing techniques affect SME financial performance. This underscores the need for policies that are not only pro-SME but also adaptive to the financing model being employed. A strong policy environment can amplify the benefits of crowdfunding, fintech, or development bank programs. In practice, county and national governments should integrate SME development into broader economic policies, including tax incentives for fintech innovators and credit guarantees for lenders targeting rural businesses.

Given the complementary contributions of the four financing techniques, and the moderating role of government policies, a siloed approach to SME finance is inadequate. Policy should therefore encourage PPPs that integrate fintech, traditional banks, and crowdfunding platforms into development finance strategies. Practically, this could take the form of co-financing schemes where government programs match crowdfunding or fintech-raised capital, or digital registries where SMEs can access verified funders. These strategies would enhance financial inclusion and firm growth, particularly in rural and marginalized settings like Baringo Central.

5.3.3 Implications for Methodology

The study's use of a cross-sectional quantitative design has proven effective in uncovering significant relationships between financing techniques and SME financial performance in rural Kenya. Despite the temporal limitations inherent in cross-sectional studies, the approach allowed the researcher to capture real-time associations using a structured and statistically rigorous methodology. The statistically significant results, particularly for crowdfunding and fintech, validate that this design can reliably detect effects even when assessing complex phenomena such as financial performance influenced by both private-sector and policy-driven variables. Future studies in similar settings can therefore replicate this methodology with confidence, especially where longitudinal designs may be constrained by time or resource limitations.

The findings illustrate that simple linear regression remains a robust technique for testing direct effects of specific financing techniques, such as traditional bank loans, fintech, and crowdfunding. However, the transition to multiple regression highlighted the dilution of some variables (e.g., traditional bank loans becoming non-significant when pooled), underscoring the importance of testing both bivariate and multivariate models to assess the net contributions of each predictor. This methodological layering enriches the analysis by offering both isolated and comparative insights, allowing future researchers to explore multicollinearity and overlapping effects across financing sources in financial performance research.

The application of Andrew Hayes' PROCESS macro-Model 1 for testing moderation provided a refined methodological approach that extended traditional regression analysis. By demonstrating a statistically significant, the study empirically validated that government policies do not merely act as stand-alone variables but can conditionally enhance or suppress the influence of financing techniques. This highlights the utility of moderation models in financial performance studies, particularly when assessing policy dynamics. Researchers analyzing public-private interactions in financing ecosystems are therefore encouraged to integrate conditional process models to uncover nuanced policy effects.

Beyond statistical significance, the study utilized standardized beta coefficients and variance explained, providing methodological rigor in assessing the practical magnitude of effects. This approach ensures that findings are not only statistically defensible but also practically interpretable for policy and practice. The integration of financial metrics such as cash flow, profitability, and liquidity as dependent indicators further validates the effectiveness of multifaceted financial performance constructs in SME research. Future methodology in related studies should therefore adopt similar composite metrics to improve measurement precision and policy relevance.

5.4 Recommendations

Based on the findings and conclusions of the study on financing techniques and the financial performance of SMEs in Baringo Central Sub-County, several recommendations are proposed. The recommendations focus on improving access to appropriate sources of finance, strengthening the capacity of SME owners, enhancing

digital financial services, improving access to government-supported financing programmes, and creating supportive policy environment

Improving access to flexible bank loan products: Financial institutions and policymakers should work together to develop more flexible and accessible bank loan products tailored to the circumstances of rural SMEs. The findings suggest that traditional bank financing remains important to SME financial performance, but stringent collateral requirements, high costs of borrowing, complex application procedures, and limited access to formal financial services can constrain its uptake. Financial institutions should therefore consider alternative forms of collateral, flexible repayment schedules, simplified application procedures, and loan products that reflect the cash-flow patterns of small businesses. Policymakers can support this process through credit-guarantee mechanisms and regulations that encourage responsible lending to SMEs. Promote awareness and capacity-building programs for SME owners to deepen their understanding of crowdfunding platforms, and facilitate the development of local digital crowdfunding initiatives to harness this technique's potential for improving SME financial outcomes.

Promoting awareness and capacity building on crowdfunding: The study recommends increased awareness and capacity building programmes on crowdfunding among SME owners. Although crowdfunding provides an alternative source of finance, many SME owners, particularly those operating in rural areas, may have limited knowledge of how crowdfunding platforms operate, how campaigns are developed, and how potential investors or contributors can be reached. Training programmes should therefore equip SME owners with knowledge of campaigns development, financial disclosure, digital marketing, investor communication, and responsible use of funds. Relevant stakeholders should also encourage the development of locally relevant digital crowdfunding platforms that can connect SMEs with potential financiers. Creating awareness and improving digital literacy would increase the ability of SMEs to diversify their financing sources and reduce excessive dependency on conventional bank credits.

Strengthening digital infrastructure and fintech services: The study recommends Strengthening digital infrastructure and promoting partnerships between SMEs and fintech service providers. Fintech solutions, including mobile banking, digital

payments, mobile- based credit, and online financial services, can reduce some of the geographical and administrative barriers that rural SMEs face when accessing finance. However, the effectiveness of these services depends on reliable internet connectivity, mobile network coverage, affordable digital services, and adequate digital literacy. Government and private sector stakeholders should therefore invest in improved digital infrastructure in rural areas. Fintech providers should also develop affordable and user -friendly products that reflect the financial needs and capacities of SMEs. Training SME owners on digital financial services would further enhance adoption, while appropriate consumer-protection measures would help build confidence in digital financing. Increased adoption of suitable fintech solutions could improve financial transactions, access to credit, financial record keeping, and ultimately SME financial performance.

Improved access to government and development bank programmes: The study recommends Enhancing the visibility, accessibility, and relevance of government and development bank financing programs targeting SME. Although such programmes are intended to address financing constraints, SMEs fail to benefit from them because of inadequate information, complicated application procedure, limited outreach, or lack of understanding of eligibility requirements. Relevant government agencies and development financial institutions should therefore intensify targeted information campaigns through local business associations, word-level administrative structures, financial institutions, and digital platforms. Application procedures should be simplified, while programme requirements should be communicated in clear and accessible language. Regular monitoring should be undertaken to determine whether the programmes are reaching the intended beneficiaries and whether the financing obtained is contributing to improved business performance. Greater participation in these programmes would enable SMEs to access relatively affordable financing and strengthen their capacity for growth and sustainability.

Developing supportive government policies: Finally, the study recommends the formulation and implementation of supportive and flexible government policies that create an enabling environment for the use of diverse financing techniques. Since government policy plays a moderating role in the relationship between financing techniques and financial performance, appropriate policies can strengthen the positive

contribution of financing to SME development. Policymaker should therefore promote regulations that facilitate responsible lending, encourage financial innovation, support digital financing, and improve consumer protection. Policies should also reduce unnecessary regulatory barriers while maintaining adequate safeguards against financial exploitation and excessive indebtedness. A supportive policy environment would enable SMEs to combine traditional and alternative financing techniques according to their specific needs. This would enhance the effectiveness of financing techniques and increase their contribution to profitability, business growth, and overall financing performance.

5.5 Suggestion for Further Study

Future research could expand on this study to offer more nuanced insights into optimizing financial strategies for rural SMEs within dynamic policy and technological environments.

- Longitudinal studies could be undertaken to examine how the impact of these financing techniques on SME financial performance evolves over time, especially as digital infrastructure and government policies continue to develop.
- Investigating the role of other moderating factors, such as entrepreneurial skills, financial literacy, and technological capacity, could also provide a deeper understanding of how these variables interact with financing techniques to influence SME success.

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APPENDICES

APPENDIX I: KISII UNIVERSITY INTRODUCTION LETTER



KISII UNIVERSITY

Telephone : 020 2610479
Facsimile : 020 2491131
Email : fcommerce@kisiiuniversity.ac.ke

P. O. Box 408-40200
KISII, KENYA.
www.kisiiuniversity.ac.ke

SCHOOL OF BUSINESS AND ECONOMICS

OFFICE OF THE COORDINATOR, POST-GRADUATE PROGRAMMES

Ref: KSU/SBE/CBM12/10201/15.

Thursday, 20th March, 2025.

The Director,
National Commission for Science, Technology & Innovation (NACOSTI),
NAIROBI.

Dear Sir,

REF: APPLICATION FOR A RESEARCH PERMIT FOR JANET JERUTO
CHIRCHIR, REG. NO. CBM12/10201/15.

The above named is a MBA student in our institution who intends to carry out a Research. The intended study is titled; **"Financing Techniques and Financial Performance of Small and Medium Enterprises in Baringo Central Sub-County, Kenya."**

The purpose of this letter is to request you to give her a research permit to enable her conduct the research.

Thank you.


Dr. Yobes Benjamin Nyaboga, PhD
COORDINATOR, POST-GRADUATE PROGRAMMES

YBN/pa



KISII UNIVERSITY IS ISO 9001:2008 CERTIFIED

APPENDIX II: NACOSTI PERMIT



REPUBLIC OF KENYA



NATIONAL COMMISSION FOR
SCIENCE, TECHNOLOGY & INNOVATION

Ref No: **541947**

Date of Issue: **08/April/2025**

RESEARCH LICENSE



This is to Certify that Ms. JANET JERUTO CHIRCHIR of Kisii University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Baringo on the topic: **FINANCING TECHNIQUES AND FINANCIAL PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN BARINGO CENTRAL SUB-COUNTY, KENYA** for the period ending : **08/April/2026**.

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APPENDIX III: PERSONAL INTRODUCTION LETTER

Janet Jeruto Chirchir

Master's Student, MBA (Finance)

Kisii University

P.O BOX 408-40200

Kisii.

Date: 16/1/2025

County Executive Committee Member

Department of tourism, trade, commerce, industrialization and Entrepreneurship

Baringo Central Sub County Government

P.O BOX 53-30400

Kabarnet,

Dear Sir,

RE: Request for Consent to Conduct a Study on the Effect of Financing Techniques On Financial Performance of SMEs in Baringo Central Sub-County

I am writing to seek your permission to conduct a research study titled “*Financing Techniques, government policy and Financial Performance of Small and Medium Enterprises In Baringo Central Sub- County, Kenya*” as part of my Master of Business Administration (Finance) program at Kisii University. The study aims to explore how various Financing Techniques avenues such as traditional bank loans, Fintech solutions, crowdfunding, and government programs affect the financial performance of Small and Medium Enterprises (SMEs) in the region. Using a survey design, data will be collected from selected SMEs across several wards (Tenges, Kabarnet, Sacho, Kapropita, and Ewalel Chapchap wards), ensuring the confidentiality and anonymity of participants.

I assure you that the study will be conducted with the highest level of ethical standards. All information collected will be used solely for academic purposes and will be kept

strictly confidential. The findings of this research will be used to inform academic discourse and may be published in academic journals or presented at conferences, with proper acknowledgment and consent from participants.

I kindly request your consent to conduct this research study within your jurisdiction. Your approval will greatly facilitate the data collection process and contribute to the success of this academic endeavour.

Thank you for considering my request.

Yours sincerely,

Janet Jeruto Chirchir

Email: jchirchir9@gmail.com

Tel: 0723645698

APPENDIX IV: QUESTIONNAIRE TO SMEs

Introduction:

This questionnaire aims to gather information on how different forms of Financing Techniques (bank loans, fintech, crowdfunding, and government and development bank funding) Effect of the financial performance of SMEs in Kabarnet, Sacho, Tenges, Kapropita, and Ewalel Chapchap wards. Your responses are confidential and will contribute to academic research. Please answer all questions as accurately as possible.

Section A: Background Information

1. Age of Respondent:

- 15-25 []
- 26-35 []
- 36-45 []
- 46-55 []
- 55 and above []

2. Gender:

- Male []
- Female []

3. Type of Business:

- Sole Proprietorship []
- Partnership []
- Company []
- Corporative []
- Other:

4. Years in Business:

- Less than 1 year []
- 1-3 years []
- 4-6 years []
- More than 6 years []

SECTION B: Specific Research Information

Please indicate your level of agreement with each statement by selecting the appropriate option from the scale below: 5 - Strongly Agree, 4 – Agree, 3 – Neutral, 2 – Disagree, 1 - Strongly Disagree.

1. Traditional Bank Loans

No.	Statement	5	4	3	2	1
i	I have applied for traditional bank loans in the last 12 months.					
ii	Access to traditional bank loans has positively impacted my SME's financial performance.					
iii	The interest rates on traditional bank loans are affordable for my SME.					
iv	The approval process for traditional bank loans is straightforward and efficient.					
v	Traditional bank loans have significantly improved my SME's growth prospects.					

2. Crowdfunding

No.	Statement	5	4	3	2	1
i	I have considered crowdfunding as a source of funding for my SME.					
ii	Crowdfunding platforms are easy to navigate for raising funds.					
iii	The funds raised through crowdfunding have significantly contributed to my SME's financial performance.					
iv	Networking opportunities through crowdfunding have positively affected my business.					
v	Crowdfunding is a viable alternative to traditional financing for my SME.					

3. Fintech Solutions

No.	Statement	5	4	3	2	1
i	I currently use fintech solutions to manage my SME's finances.					
ii	Fintech solutions have improved my access to financial resources.					
iii	The use of fintech solutions has streamlined my financial operations.					
iv	Fintech solutions have had a positive impact on my SME's financial performance.					
v	I believe that fintech will continue to play a significant role in the future of financing for my SME.					

4. Government and Development Bank Programs

No.	Statement	5	4	3	2	1
i	I am aware of government financial assistance programs available for SMEs.					
ii	I have applied for government or development bank programs in the past year.					
iii	The support received from government or development bank programs has positively impacted my SME's financial performance.					
iv	The eligibility criteria for government and development bank programs are clear and accessible.					
v	Government and development bank programs are crucial for the sustainability and growth of my SME.					

5. Financial Performance Indicators

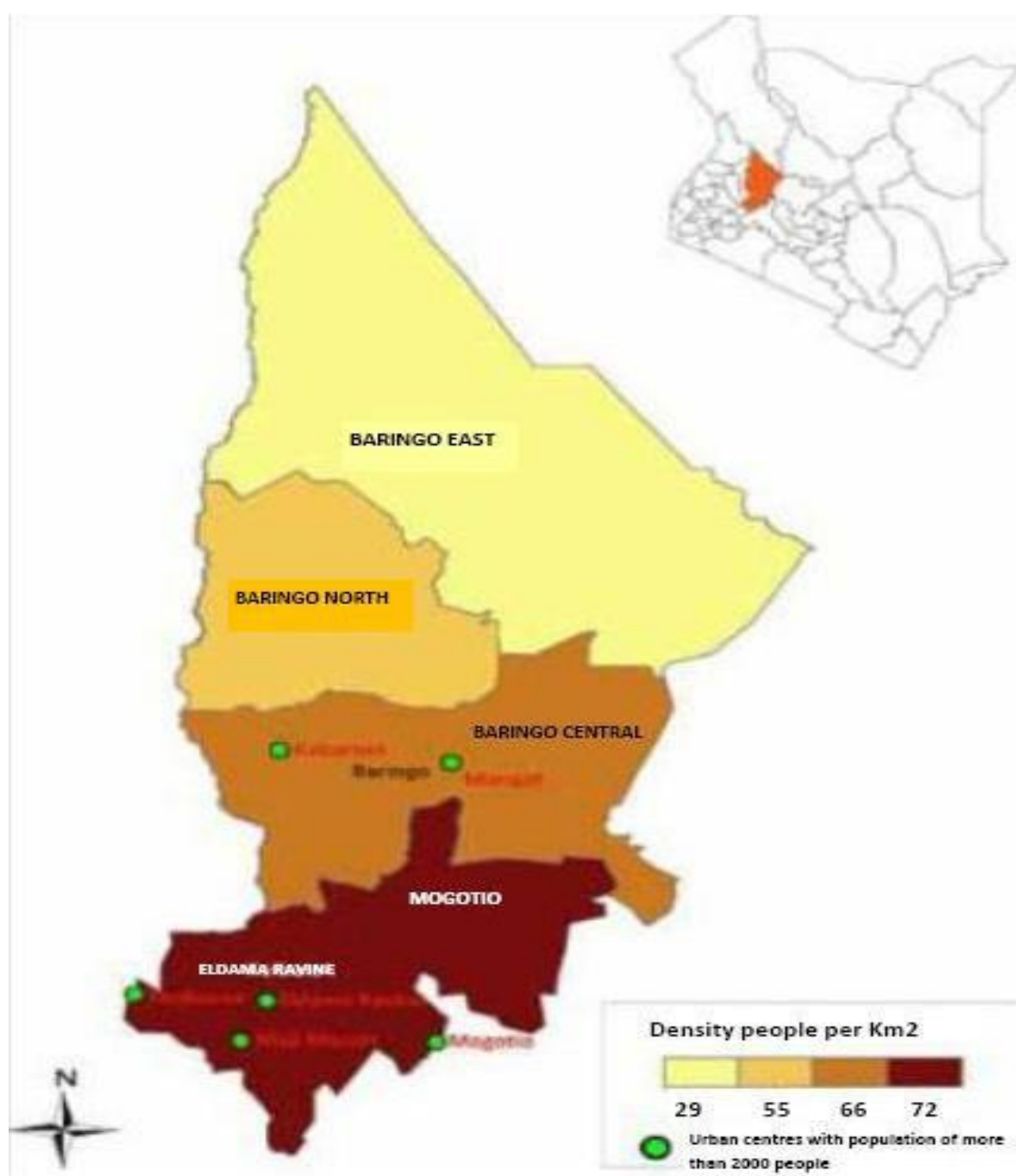
No.	Statement	5	4	3	2	1
i	My business consistently generates a profit.					
ii	The profit margins in my business are satisfactory					
iii	My business has experienced steady revenue /sales growth over the past three years.					
iv	My business maintains sufficient liquidity to meet short-term obligations.					
v	My business has a manageable level of debt.					

6. Government policies

No.	Statement	5	4	3	2	1
i	Are the credit guarantee scheme in place beneficial					
ii	Are the current training and leadership beneficial to my business?					
iii	Are the market access policies beneficial to my business?					

Thank you for your participation!

APPENDIX V: MAP OF BARINGO CENTRAL SUB COUNTY



APPENDIX VI: PUBLICATION

International Academic Journal of Economics and Finance | Volume 5, Issue 1, pp. 49-58

ASSESSING THE IMPACT OF TRADITIONAL BANK LOANS ON THE FINANCIAL PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN BARINGO CENTRAL SUB-COUNTY: A THEORETICAL AND EMPIRICAL ANALYSIS

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Kisii University, Kenya.
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Francis Nyarombe (PhD).
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International Academic Journal of Economics and Finance (IAJEF) | ISSN 2518-2366

Received: 20th May 2025

Published: 24th June 2025

Full Length Research

Available Online at: https://iajournals.org/articles/iajef_v5_i1_49_58.pdf

Citation: Chirchir, J. J., Nyamasege, D., Nyarombe, F. (2025). Assessing the impact of traditional bank loans on the financial performance of small and medium enterprises in Baringo Central Sub-County: A theoretical and empirical analysis. *International Academic Journal of Economics and Finance (IAJEF)* | ISSN 2518-2366, 5(1), 49-58.

ABSTRACT

This study investigates the impact of traditional bank loans on the financial performance of Small and Medium Enterprises (SMEs) in Baringo Central Sub-County, Kenya. Despite SMEs contributing approximately 78% to employment and over 30% to GDP (Kenyan National Bureau of Statistics, 2022), only 17% in rural areas like Baringo Central have access to formal credit (World Bank, 2023). Using a descriptive survey of 222 SME owners and managers, the findings reveal a predominantly negative perception of bank loans, with an overall mean score of 2.32 out of 5, indicating disagreement with statements about loan accessibility, affordability, and impact. Specifically, 63% of SMEs operate informally without access to formal credit

(Kenyan Central Bank, 2022), and respondents generally disagreed that bank loans had improved their financial performance or growth prospects. The study concludes that rigid application procedures, high interest rates, and collateral requirements hinder SMEs' access to and effective use of bank credit, limiting their growth potential. It recommends that financial institutions and policymakers develop more flexible, tailored financial products to enhance access and foster sustainable growth in rural communities.

Keywords: SME Financing, Traditional Bank Loans, Financial Performance, Rural Kenya, Financial Inclusion.

INTRODUCTION

Small and Medium Enterprises (SMEs) are widely recognized as vital drivers of economic growth, employment creation, and poverty alleviation, particularly in developing countries like Kenya. These enterprises form the backbone of local economies, contributing significantly to income generation and community development. However, despite their importance, many SMEs face substantial challenges in accessing adequate financing, which hampers their growth and sustainability. Traditional bank loans have historically been a primary source of formal financing for SMEs, offering the potential for capital infusion necessary for expansion, operational efficiency, and innovation. Nonetheless, the impact of such loans on the financial performance of SMEs remains a subject of ongoing debate, especially in rural and semi-urban contexts where financial exclusion and collateral constraints are prevalent.

APPENDIX VII: PLAGIARISM REPORT



Page 1 of 200 - Cover Page

Submission ID: trn:oid::1:3630906171

School Of Postgraduate

 **FINANCING TECHNIQUES, GOVERNMENT POLICY AND FINANCIAL PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN BARINGO CENTRAL SUB-COUNTY, KENYA**

 Postgraduate

 Kisii University

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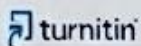
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