

## **FINANCIAL DETERMINANTS AND FINANCIAL SUSTAINABILITY OF SMALL AND MEDIUM-SIZED ENTERPRISES IN NAIROBI CITY COUNTY, KENYA**

**Owino Odhiambo Dancun.**

Student, Master of Science in Finance, School of Business, Economics, and Tourism, Kenyatta University, Kenya.

**Anthony Irungu.**

Lecturer, Department of Accounting and Finance, Kenyatta University.

**Bancy Muchiri.**

Lecturer, Department of Accounting and Finance, Kenyatta University.

©2025

**International Academic Journal of Economics and Finance (IAJEF) | ISSN 2518-2366**

**Received:** 10<sup>th</sup> February 2025

**Published:** 14<sup>th</sup> February 2025

Full Length Research

**Available Online at:** [https://iajournals.org/articles/iajef\\_v4\\_i4\\_90\\_123.pdf](https://iajournals.org/articles/iajef_v4_i4_90_123.pdf)

**Citation:** Owino, O. D., Irungu, A., Muchiri, B. (2025). Financial determinants and financial sustainability of small and medium-sized enterprises in Nairobi City County, Kenya. *International Academic Journal of Economics and Finance (IAJEF) | ISSN 2518-2366, 4(4)90-123.*

## **ABSTRACT**

Small and medium-sized enterprises encompass businesses with a workforce size ranging from ten to ninety-nine individuals. These enterprises are pivotal in fostering economic growth and job creation, constituting approximately ninety-eight percent of all businesses in Kenya. However, there is a worrisome trend of limited growth in new SME formations, and many of them face closure within the initial five years due to financial constraints and other factors. The study explored financial factors that affect the sustainability of SMEs in Nairobi City County. The primary goal was to identify the financial determinants and assess the sustainability of SMEs in this specific region. To achieve this, the study focused on examining the effect of access to finance, financial innovation, financial management and financial risk management on SME sustainability. The agency, pecking order, modern portfolio and diffusion of innovation theories guided the study. A descriptive research design was employed, utilizing a sample of 347 SMEs. Secondary data was obtained through templates and primary data was gathered via questionnaires. The collected data was analyzed using inferential and descriptive statistics, including regression econometric modeling. Findings were presented through frequency tables, graphs and percentages. Findings revealed that access to finance is statistically significant in explaining financial sustainability of SMEs ( $\beta = 0.245$ ,  $p < 0.05$ ). It was noted that financial innovation is statistically significant in explaining financial sustainability of SMEs ( $\beta = 0.317$ ,  $p < 0.05$ ). Findings indicated that working capital

management has a statistically significant effect on financial sustainability of SMEs ( $\beta = 0.129$ ,  $p < 0.05$ ). Based on this study findings, financial risk management has a statistically significant impact on financial sustainability of SMEs ( $\beta = 0.321$ ,  $p < 0.05$ ). This study concludes that SMEs face substantial hurdles when attempting to access funding from financial institutions. SMEs often encounter difficulty in providing the necessary collateral that financial institutions require as security for loans or credit. The SMEs did not engage in forward contracts and had no diversified portfolio investments. The lack of diversified portfolio investments among SMEs indicates a potential vulnerability to market fluctuations, which might have an adverse effect on their financial sustainability. SMEs did not practice prudent creditor's management and management policies did not enhance financial sustainability. The SMEs did not have robust cash management procedures. SMEs were not able to identify risks that affect its operations and they did not have any risk hedging mechanisms. This study recommends that financial institutions adopt lenient and favorable credit terms specifically tailored for SMEs. SMEs should consistently engage in product innovations to establish a competitive edge in the dynamic market environment. It's recommended that SMEs adopt prudent creditor's management practices that will cultivate responsible relationships with creditors. SMEs should take a proactive approach to risk management by identifying the risks that directly impact their operations.

**Keywords:** Access to Finance, Financial Innovations, Working Capital Management, Financial Risk Management,

## **INTRODUCTION**

### **Background to the study**

Despite persistent efforts, SMEs often face difficulties achieving financial sustainability in a dynamic business environment. The ever-evolving political, legal, technological, and economic landscape has presented significant challenges for firms (Bowen, Dowell & Morris, 2023). COVID-19 pandemic has further worsened the financial sustainability of SMEs, resulting in adverse social, economic, and political consequences (Yang & Jang, 2020). Ye and Kulathunga (2019) highlight COVID-19 effects, including transportation and logistics difficulties, supply shortages, reduced demand, and disruptions in the supply chain. SMEs, lacking adequate resources and preparedness, have been particularly affected by the outbreak (Ortiz & Hernández, 2022).

Financial sustainability refers to an organization's capacity to generate sufficient income or revenue to cover operational costs and ensure a sustainable future, regardless of whether the funds originate from donors, subsidies, or internal sources (Yadegaridehkordi et al., 2023). It helps organizations in covering their annual budgets without straining and ensures that an entity can generate enough revenue to cover various operational expenses (Anwar & Serly, 2022). Long-term profitability takes precedence in financially sustainable businesses over short-term gains, and organizations must establish long-term objectives for their financial well-being (Aslam, Rehman & Nasir, 2023). Four pillars—strategic and financial planning, revenue diversification, efficient finance and income creation, and effective administration—support financial sustainability. (Aslam, Rehman & Nasir, 2023).

The financial viability and sustainability of an organization are demonstrated by its ability to independently manage its operations. Despite government initiatives aimed at supporting the sustainability of SMEs, these enterprises have not fully utilized government functions and policies, as noted by Zhang and Wang (2022). The attainment of financial sustainability entails the capability of a company to sell its products at prices that cover costs and generate profits, as highlighted by Mengistu and Panizzolo (2023). Enhanced financial performance serves as an evaluation of a firm's monetary outcomes resulting from its policies and activities, as emphasized by Zaitul and Ilona (2022). Indicators of financial performance reflect these outcomes. By implementing internal strategies like working capital management, financial risk management, financial innovations, and access to financing, companies can bolster their financial sustainability, as suggested by Mengistu and Panizzolo (2023).

SMEs are autonomous businesses that operate independently and are not subsidiaries. The precise number of individuals employed by SMEs may differ depending on the country or region, as shown by Sinha et al. (2023). SMEs are important in economic growth in emerging economies and they have a notable track record of fostering job opportunities, driving innovation, and facilitating the development of new products in developed countries, as highlighted by Han and Choi (2022). The economic significance and contribution of SMEs to growing and established nations cannot be underestimated, as they represent a substantial percentage of businesses, employment, and GDP (Bayraktar, 2019). However, SMEs face various challenges, particularly in accessing financing, which hampers their growth and competitiveness (Lohana et al., 2019).

SMEs constitute a significant portion of global enterprises and employment. They contribute to job creation, income generation, and technological advancement (Bin, Diangha & Ofeh, 2021). In developing countries, SMEs enhance the macro economy, providing employment opportunities and fostering entrepreneurship (Bin, Diangha & Ofeh, 2021). However, SME development has been uneven across different African countries, with factors such as civil wars, inadequate infrastructure, unfavorable business environments, and financial constraints impeding their growth and sustainability (Olawaju & Msomi, 2021).

In Kenya, SMEs are defined based on their sales and employee numbers. The SME sector has experienced significant growth and has made a substantial contribution to the Kenyan economy (Narada, Ekayanake & Rajapakshe, 2020). However, financial challenges have led to the downfall of 60% of SMEs, primarily due to intensified global competition and the associated financial complexities (Narada, Ekayanake & Rajapakshe, 2020). To overcome these challenges, SMEs must be strategic (Narada, Ekayanake & Rajapakshe, 2020). Therefore, gaining an understanding of the financial determinants of SMEs' financial sustainability is crucial for their long-term success.

### **Statement of the Problem**

Long-term survival and prosperity of organizations heavily rely on financial sustainability, as emphasized by Leon and Cock (2016). This entails fulfilling financial obligations in both the short and long term, while generating ample revenue to cover expenses and attain a return on investment. In Kenya, SMEs make substantial contributions to the economy by employing a significant portion of the workforce, including youth and women, as acknowledged by the Government of Kenya (2020). However, despite their importance, SMEs face numerous challenges in attaining financial sustainability. These obstacles include financial mismanagement, limited access to financing, working capital issues, outdated business practices, intense market competition, low capitalization, and budgetary discipline concerns (Bak & Reicher, 2023; Saci & Mansour, 2023).

The reality is that numerous SMEs encounter challenges in maintaining long-term viability. As indicated by a survey conducted by the KNBS (2021), a substantial proportion of SMEs cease operations within a span of two years. Similarly, a significant percentage of SMEs face closure within the initial year of establishment, as noted by the Kenya Association of Manufacturers (KAM, 2018). The closure of these SMEs not only leads to job losses but also has adverse

effects on the overall economy, resulting in diminished living standards and heightened levels of poverty among Kenyan citizens. To fulfill Kenya's vision of becoming an industrialized economy by 2030, it is essential to prioritize and enhance the financial sustainability of SMEs. However, the existing academic literature on the financial determinants and sustainability of SMEs is limited and fragmented. Previous studies have focused on specific factors or specific populations, leaving gaps in knowledge. For instance, Nderitu (2022) explored the influence of factors such as access to credit, competition, technology, and education level on the financial sustainability of women-owned SMEs. While insightful, this study exclusively targeted women-owned SMEs, leaving a conceptual gap. Similarly, Wafula and Theuri (2018) investigated financial sustainability in SMEs in Samburu County, emphasizing growth potential and timely customer service. Nonetheless, the contextual gap arises from the study's specific location, limiting its generalizability to Nairobi City County. Gatukui and Katuse (2018) conducted a systematic review on SMEs' growth and sustainability, highlighting weaknesses in areas such as innovation, financial acumen, and human resource management. However, the study's methodology creates room for further research.

These gaps are filled with the current study which examines financial determinants and sustainability of SMEs specifically in Nairobi City County. By filling these gaps, the research provides valuable insights into how SMEs can achieve and maintain financial sustainability within the dynamic business environment of Nairobi City County.

## **Objective of the Study**

### **General objective**

The primary aim of this study is to explore the financial factors that affect the long-term sustainability of SMEs in Nairobi City County.

#### **1.4.2 SPECIFIC OBJECTIVES**

- i. To analyze the impact of financial access on the long-term financial viability of SMEs in Nairobi City County.
- ii. To assess the importance of financial innovations in relation to the financial sustainability of SMEs in Nairobi City County.
- iii. To analyze the consequences of working capital management on the financial sustainability of SMEs in Nairobi City County.
- iv. To examine the influence of financial risk management on the financial sustainability of SMEs in Nairobi City County.

## **LITERATURE REVIEW**

### **Theoretical Review**

According to cervone and pervin (2015), a theory is comprised of interconnected ideologies, meanings and propositions that offer a comprehensive understanding of a particular phenomenon. the theory serves as a guiding framework for the study and assists in testing the proposed hypotheses. In this section, we will delve into the relevant theories associated with

the independent variables, specifically access to bank loans, financial management, financial risk management, and financial innovations.

### **Pecking Order Theory**

According to Myers and Majluf (1984), managers choose funding sources in a hierarchy. According to this theory, managers prioritize internal sources such as retained earnings, before turning to external sources like debt financing (e.g., bank loans) and hybrid forms of finance (e.g., convertible loans). This theory argues that factors like bankruptcy costs, agency costs, and information asymmetries have limited influence on the capital structure decisions.

Ehrhardt and Brigham (2011) provided empirical evidence supporting this theory, showing that firms mainly rely on internal sources by reinvesting profits and selling short-term marketable securities. Chen and Huang (2013) highlighted the preference of well-informed managers for internal financing, while optimistic managers combine internal funds with debt financing to maximize profitability. According to Proenca et al. (2014), risk-averse managers still favor external finance. Approximately, 75% of SMEs base their financial decisions on the pecking order idea (Zoppa and McMahon, 2002). The theory's importance comes in its capacity to explore the link between SME financial sustainability and access to financing. Understanding this theory will SMEs better understand the funding options available and the best ways for them to access finances.

### **Working Capital Management Theory**

Understanding the link between a company's working capital is based on the working capital management theory (Sagan, 1955). The effective management of these components and their interactions is emphasized by this paradigm. To achieve and sustain a sufficient level of working capital within a company is the primary goal of working capital management (Rekha, 2014). Working capital encompasses various aspects of a company's liquidity, efficiency, and overall wealth, including cash.

According to this theory, businesses that adhere to the principles of working capital management are expected to invest in working capital, secure appropriate financing for it, manages cashflow, enhance accounts payables and receivables management. The theory emphasizes the measurement and analysis of short-term debts and other short-term accounts within a one-year timeframe to ensure the efficient utilization of long-term assets (Almazani, 2014).

This theory holds significant value in the present study as it allows for the analysis working capital management and SMEs performance. It provides insights into how SMEs can strike a balance among different components of working capital to maintain their competitiveness. Furthermore, the theory assists in evaluating how SMEs effectively manage their current assets, avoiding the accumulation of non-earning assets and emphasizing prudence in resource management. A higher level of working capital strengthens the liquidity position of SMEs. Adequate working capital management offers guidance on investing in and financing current assets while ensuring financial stability.

### **Modern Portfolio Theory**

Harry Markowitz developed the theory in 1952. It revolves around the concept of a portfolio, which consists of a collection of financial assets like real estate, bank deposits, foreign exchange, and asset-backed securities held by individuals or groups (Wangui, 2020). According to this theory, investors typically prefer portfolios with lower levels of risk for the same level of return. A key principle of this theory is the trade-off between risks and returns, suggesting that investors should be rewarded for assuming higher risks. It examines the extent to which the actual return deviates from the expected return. The theory assumes rational behavior from investors in an efficient and perfect market environment, particularly regarding financial risk management (Chijoriga, 2007). The theory promotes the idea of diversifying assets in order to reduce both market risks and risks unique to individual organizations. It can be considered an expansion of the proverb "don't put all your eggs in one basket," highlighting the advantages of distributing investments across various assets.

This idea sheds light on how financial risk management affects SMEs' long-term viability. It adds that SMEs should carefully consider the risks involved as well as diversify their assets across a variety of financial products. This underscores the significance of implementing effective financial risk management strategies, which enable diversification and mitigate the potential consequences of any failures in financial management. The theory serves as a guiding principle to enhance the robustness of financial risk management practices within SMEs, ultimately leading to improved financial sustainability for SMEs in Nairobi County, Kenya.

### **Diffusion of innovation theory**

It was initiated by Everett Rogers in 1962, focuses on adoption and spread of innovations within a social system. Innovations involve implementing novel ideas that bring added value to a company's products, processes, or other aspects of its operations. These new ideas are aimed at enhancing the overall effectiveness of the firm's activities. This value encompasses both the benefits to the firm itself and the advantages for consumers or other firms (Nieto and Santamaria, 2010). The theory highlights that innovations are disseminated through communication mediums within people of a social system (Rogers, 1995).

Financial innovations such as business accounts, credit facilities, direct marketing strategies, mobile banking, and crowdfunding have favorable effect on customer relations and operational effectiveness in banking sector in the case of SMEs (Nzove and Eunice, 2013). The absence of these innovations can hinder the sustainability of SMEs, especially in Nairobi, Kenya, where a significant portion of the population is well-informed and educated. Mwangi and Cheluget (2018) emphasized the importance of promoting innovation, literacy and inclusion among SMEs. Kimani and Elijah (2016) highlighted that SMEs should embrace innovation to increase sales and enhance profit margins, ultimately ensuring sustainability in Nairobi County, Kenya—an area of focus in this research proposal. Hence, this theory serves as the basis for exploring impacts of financial innovations on the sustainability of SMEs.



## **Empirical Review**

### **Access to finance and financial sustainability of SMEs**

SMEs face considerable obstacles to growth and sustainability, particularly in emerging markets and developing nations like Nairobi, Kenya. According to Adeyeye, Azeez, and Aluko (2016), the age, size, kind, and ownership of SMEs are all factors that affect their capacity to obtain bank financing. Macroeconomic factors also play a significant impact in SME financing through influencing the banking industry and broader economy. Due to commercial banks' frequent reluctance to extend loans, many SMEs in Nairobi are forced to rely on internal resources or help from friends and family, which has a huge negative influence on the sustainability of youth entrepreneurs.

Nyabicha (2015) investigated how commercial bank loans affected SMEs' performance. According to the research, business performance is directly impacted by financing availability, lending policies, collateral requirements, and repayment terms. The performance of micro and small businesses is also positively impacted by factors including infrastructure, government laws, rules, and access to business information. The recommendations included expediting the lending process, giving flexible repayment terms, and doing away with the need for collateral in favor of guarantors. Obiageri, Onodugo and Chigozie (2019) evaluated the usage of loans as a funding sources for SMEs. They discovered the difficulties faced in this situation by both SMEs and commercial banks through their investigation. The report recommends regulatory changes to address these issues and the need for additional research on alternate sources of funding for SMEs.

In Kitui County, Kenya, processing SMEs' financial performance was investigated by Muli (2019) in relation to their availability to financing. According to the study, banks should implement beneficial policies to make it simpler for SMEs to acquire loans, which will improve their financial performance. It also emphasized the need for enhanced infrastructure and transactional processes between banks and SMEs, underlining the low accessibility of loans for processing SMEs.

Ndungu (2018) investigated variables affecting the viability of micro and small businesses run by young people in Nairobi City County. The research's findings emphasized a number of crucial elements that impact on the viability of young businesses, including a competitive business climate, financial accessibility, entrepreneurial skills, and technology. To enhance the long-run viability of young entrepreneurship, the research stressed the significance of taking these factors into account.

These studies offer valuable insights into the determinants of SME sustainability, particularly regarding access to finance. They highlight the importance of addressing financing challenges and implementing supportive policies and reforms to foster the growth and sustainability.

### **Financial Innovations and Financial Sustainability of SMEs**

Financial innovations encompass a wide array of advancements in financial instruments, including new instruments, modifications of traditional ones, and novel applications of existing



ones (Blach, 2011). These innovations play key role in ensuring sustainability of SMEs. The current highly competitive market, SMEs must have a strong market orientation and keep pace with technological advancements to thrive (Shiu & Walker, 2007). However, SMEs often face challenges such as market saturation.

Nzove (2013) noted that banks offered financial innovations such as small-scale business loans, specialized accounts, mobile banking, e-banking, and direct marketing. Service innovations by financial institutions had most significant effect on SME development. It was suggested that government intervention should provide managerial training for SMEs, improve access to credit facilities, and enhance loan disbursement efficiency.

Maina (2016) examined financial innovation and SMEs performance. Positive relation between the financial innovation adoption and SMEs performance was revealed. Innovation within financial practices resulted in efficiencies and increased profits. The study emphasized the importance of SMEs adopting innovation to improve product quality, boost sales, and enhance profit margins. Asad, Rizwan, Shah and Munir (2018) assessed innovation practices and SMEs performance. The results of their research revealed that various forms of innovation were positively associated with learning and growth, customer performance and SMEs performance. SMEs should adopt suitable types of innovation to improve their overall performance. The study recommended government initiatives to train entrepreneurs in innovative practices.

Kwamboka (2018) examined financial innovations and MFIs performance. The study revealed that microfinance institutions contribute to inclusive growth by facilitating technological improvements and business innovations among their clients. The introduction of mobile banking and financial technology companies has greatly enhanced the growth. SMEs should invest in research to better understand the rapidly evolving financial technology industry. These studies highlight the significance of financial innovations in fostering the growth, performance and SMEs performance. They underscore the need for SMEs to embrace innovation, seek government support, and adapt to the evolving financial landscape to enhance their competitiveness and long-term success.

### **Working Capital Management and Financial Sustainability of SMEs**

It is an essential aspect of ensuring the financial sustainability of businesses, as it directly affects both profitability and liquidity (Nderitu, 2022). It serves as a framework for evaluating liquidity and is a vital analytical tool that influences a company's profitability and liquidity. Researchers have explored various dimensions, like inventory control, the money conversion cycle, debt and credit management, highlighting its complexity and the variables involved. Professionals in the financial field are interested in this area because decisions made in working capital management often aim to maximize profitability while minimizing liquidity, and vice versa.

According to research conducted by Sinha et al. (2022), profitability does not always equate to liquidity. A business can be profitable without having sufficient liquidity. Therefore, managing liquidity is crucial to achieve an optimal level. Excessive liquidity should be avoided, as it can

result in unnecessary additional costs for the organization. Conversely, a low level of liquidity can create challenges for meeting short-term obligations as they arise. Thus, maintaining a balanced level of liquidity is essential.

Efficient working capital management, which includes effective management can significantly enhance a company's profitability. To achieve a harmonious equilibrium between current assets and liabilities, it is essential to have proper planning and regulation measures in place. Organisations must manage their cash flows to enhance meeting of short-term obligations. There should not be excessive investments in long term assets, at the expense of meeting due obligations for firms. Skillful handling of liquidity, profitability, and leverage is necessary to strike the right balance and achieve financial stability.

Masocha and Dzomonda (2018) conducted a research study focusing on the survival of SMEs. Their findings highlighted that proficient working capital management has the ability to reduce the high failure rate commonly experienced by SMEs. SMEs can overcome their problems by using well-planned and executed working capital management techniques.

Rugui and Omagwa (2018) assessed financial management methods and success of SMEs. The study discovered a number of variables that affected performance. Thirty-nine SMEs in Limuru Town were given. The findings highlighted the positive correlation between ownership structure, financing, and success, while cash management did not show a significant link to performance. The study emphasized the importance of SMEs strengthening their innovation, research, networks, collaborations with stakeholders, and exploring diverse financing options. Omar, Ronald, and Nyaga (2021) evaluated how working capital management techniques affect SMEs' ability to remain financially stable. The study targeted 600 SMEs from diverse industries. The findings indicated that SMEs in Mandera County heavily relied on customer satisfaction as a major performance metric but generally had subpar performance. The research emphasized on the advantages of SMEs in embracing improved cash management practices to enhance their financial health and sustainability.

Research was done by Kangangi and Omagwa (2020) to determine how working capital management techniques impact SMEs' potential to make money in Kenya. The research utilized 89 SMEs from a population of 841 SMEs. Surveys were employed to get the data. Results indicated that effective cash and debtor management had a favorable effect on the financial viability. However, inventory management and creditor management showed favorable impacts but were statistically insignificant. The study recommended the development of policies and frameworks for cash management, credit administration, and inventory management to maintain optimal levels and prevent overstocking or understocking.

Working capital management plays key role in achieving financial sustainability for SMEs. Effectively managing working capital helps strike a balance between liquidity and profitability. The studies emphasize the importance of improving working capital management practices.

### **Financial Risk Management and the Sustainability of SMEs**

Success and growth of SMEs heavily rely on the implementation of effective financial risk management practices and strategies. Wanjohi (2017) highlights that financial risk management involves various processes, including identifying and categorizing risks, assessing risks using data and models, monitoring and reporting risks, and controlling risks through the involvement of senior management. These practices provide SMEs with a structured framework to identify potential risks, evaluate their impact, and implement measures to mitigate them, ensuring the financial well-being and sustainability of the business. Jiraskova (2017) emphasizes the need for organizations to address evolving risks in real-time because of the changing nature of the economy. Financial management in both private and public companies involves various risks that can impact their operations and existence. SME managers and owners face similar risks but also encounter risks specific to their activities and financing methods.

The successful performance and long-term sustainability of SMEs heavily depend on implementation and effective risk management. Mehmood and Zhang (2010) underscore the importance of employing various risk management techniques, such as insurance, hedging, derivative contracts, auditing, swaps, and risk measurement methodologies like value at risk. These practices enable SMEs to identify, assess, and mitigate risks, thereby safeguarding their financial well-being. Kiprop and Maina (2018) examined financial risk management and the SME performance. The results demonstrated how much financial risk management affects these businesses' performance. The study suggested including stakeholders in the creation of educational initiatives meant to improve SMEs' comprehension of risk assessment, monitoring, and mitigation. Chris, James, and Amenawo (2019) investigated how financial risk affected the performance among SMEs. Research found a long-term inverse correlation between financial risk and SME performance. Risks associated with interest rates, inflation, and liquidity were found as having significant negative effects on SMEs. The study emphasized the importance of effectively controlling financial risk to enhance the performance of Nigerian SMEs. By implementing risk management strategies, SMEs can proactively address potential risks and create a more stable and sustainable business environment.

René-Pascal van den Boom (2019) carried out research on financial risk management techniques in SMEs. A framework was created to enhance financial risk and SMEs performance. The study discovered that the degree of decentralization and the risk manager's educational background both had an effect on how financial risk management methods were implemented in these SMEs. AlQutan et al. (2021) assessed the methods employed by small businesses to manage risk. Results showed that small businesses were significantly aware of the value of risk management. Main measures adopted by small businesses were on education and raising public knowledge of risk management techniques. By properly identifying, assessing, monitoring, and implementing control measures for various risks, SMEs can enhance their performance and ensure their long-term sustainability across different contexts.

### Conceptual Framework

It presents a visual representation that depicts the interconnections among the variables under investigation. It illustrates the relation between independent variables and the dependent variable, which is the financial sustainability of SMEs in Nairobi, Kenya (Mbuva, 2014)

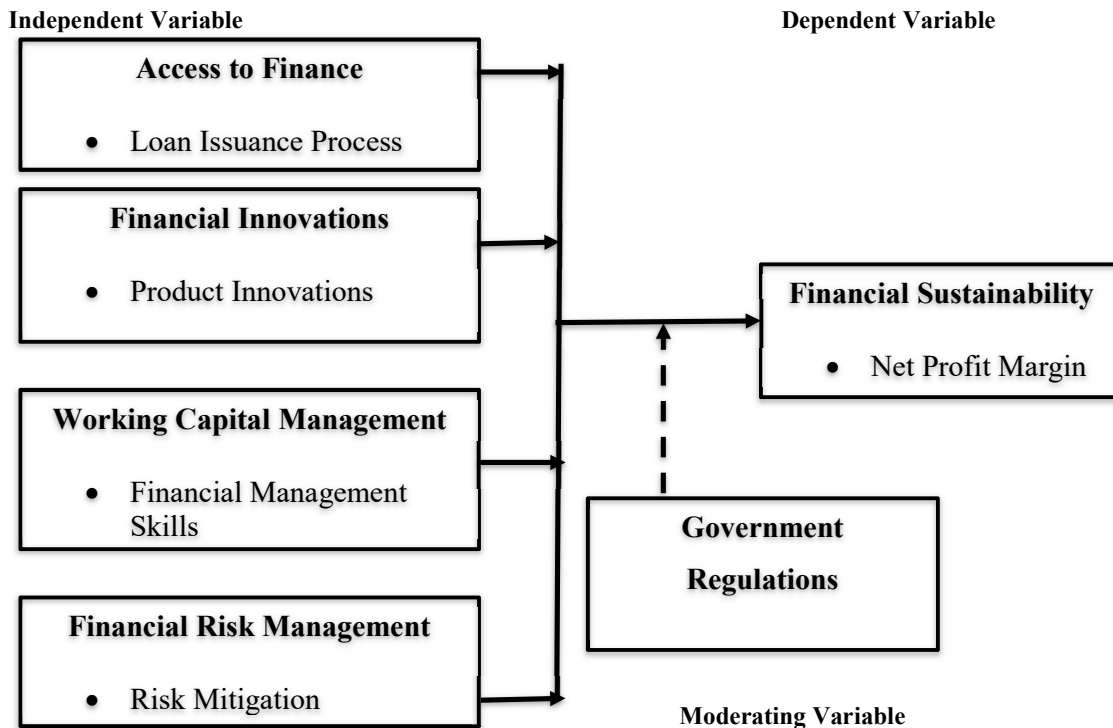


Figure 2.1: Conceptual Framework

## RESEARCH METHODOLOGY

### Research Philosophy

According to Kenny and Anthony (2012), philosophy involves the systematic exploration of fundamental questions regarding existence, reason, knowledge, values, mind, and language. It serves as a framework for understanding the nature of knowledge and its development, as noted by Snyder (2019). Epistemological research philosophy was employed. Epistemology, a branch of philosophy, investigates knowledge by examining potential sources such as perceptual experience, reason, memory, and testimony. Epistemologists also explore concepts like truth, belief, justification, and rationality (Kenny & Anthony, 2012).

A pragmatism research position was adopted, which aligns with the epistemological philosophy. Pragmatism emphasizes the practicality of concepts, recognizing that no single perspective can capture the entirety of reality. The pragmatism research philosophy provides a suitable foundation for determining the most effective strategies to evaluate the financial determinants and financial sustainability of SMEs in Nairobi.

### Research Design

It is framework which directs research process (Saunders, Lewis & Thornhill, 2016). It entails choosing data sources, data collection procedures, and data analysis strategies after doing

thorough research. Descriptive research design was used. The goal of descriptive research design is to gather data to come up with hypotheses or provide answers regarding current condition of the subject(s) under research (Williams, 2006). The selection of this specific research design for the proposal was based on its ability to enable a comprehensive and detailed examination of the variables associated with the subject under investigation. Kothari (2004) emphasizes that descriptive research design aims to describe the groups' characteristics and focuses on presenting facts and making predictions. A similar approach was employed in a study conducted by Muli (2019).

### **Target Population**

It is the complete set or total collection of objects, subjects, or members that share specific characteristics and meet specific criteria (Pilot and Hungler, 2011). The target population is all the relevant objects or individuals that possess the required attributes and meet the defined criteria. In the case of Nairobi County, there were approximately 3450 businesses holding NCC trading licenses (Nairobi County, 2021). These businesses span various sub-sectors, including manufacturing, services, wholesale, retail, transport, infrastructure/construction, automobile, information communication technology, and tourism. The research proposal concentrated on the population of 3450 registered SMEs in Nairobi City County, Kenya. This population included all seventeen sub-counties within Nairobi City County and was derived from the aforementioned sectors.

*Table 3.2: Population of the Study*

<b>Category</b>	<b>Target Population</b>
Automobile	125
Services	952
Whole sale	292
Retail shops	976
Transport	425
Construction	298
ICT	213
Tourism	117
Manufacturing	42
<b>Total</b>	<b>3450</b>

*Source: NCC (2021)*

### **Sample and Sampling Techniques**

Sample is a subset of the target population. Sampling is selection of representative portion from the overall population to create a smaller, manageable cross-section, as explained by Kothari (2010). By sampling, researchers can gather data from the selected elements in a way that allows them to draw conclusions about the characteristics and traits of the entire population, as emphasized by Muli (2019).

In this research proposal, a sample of three hundred and forty-seven (347) SMEs was selected, which represents approximately ten percent of all registered SMEs. The random sampling approach was utilized to ensure unbiased selection of samples. Selected sample included SMEs from various sub-sectors of interest, encompassing all seventeen sub-counties within Nairobi City County. The study considered the owners or top managers of these SMEs as participants. The chosen sample size adhered to the recommendation of Mugenda and Mugenda (2005) that a sample size ranging from 10% to 30% is appropriate and representative for a population.

*Table 3.3: Sample Size*

<b>Category</b>	<b>Target Population</b>	<b>Sample Size</b>
Automobile	125	13
Services	952	96
Whole sale	292	30
Retail shops	976	98
Transport	425	43
Construction	298	30
ICT	213	22
Tourism	117	12
Manufacturing	42	3
Total	3450	347

*Source: NCC (2021)*

### **Data Collection Instruments**

Data collection is methodically obtaining and measuring data on particular factors in order to respond to pertinent queries and evaluate results (Waithaka, 2017). Ember & Ember (2009) defined primary data as information gathered directly from the field by the researcher in order to make comparisons. On the other hand, researchers can access data that has already been acquired and is known as "secondary data".

Semi structured questionnaire was employed in collecting information. Gituma (2016) suggests that questionnaires are appropriate for studies as they allow for the collection of information not easily observable. Secondary data was collected by using secondary data gathering sheet, which covered a period of six years and extract financial records from 347 SMEs. The

structured questionnaires were given out to the randomly chosen sample of 347 SMEs. Drop-and-pick-later technique was employed, and questionnaires were distributed to managers or owners of SMEs, allowing them to complete the questionnaires at their convenience within a five-day period. After this period, the questionnaires were gathered from the sampled population.

### **Reliability Test**

Reliability is the consistency of a measurement, specifically how an instrument consistently measures in the same manner when used under the same conditions with the same subjects (Gituma, 2016). It is important for an instrument to produce accurate and consistent results when assessing a factor that is prone to vary over time and under the same conditions, as noted by Ali (2014).

Cronbach's Alpha ( $\alpha$ ) was employed to conduct reliability analysis. Reliability coefficient lies between 0 to 1, where a coefficient of 0 means no internal reliability, and a coefficient of 1 represents perfect internal reliability. Typically, reliability coefficient of  $\alpha \geq 0.7$  is considered adequate as a threshold for reliability.

### **Validity Test**

The level to which a measurement or instrument accurately captures and depicts the idea or event intended is known as validity. It encompasses the assessment of the truthfulness of research findings through theoretical and empirical approaches, as mentioned by Kubai (2019). Validity also ensures that the data gathered adequately covers the intended scope of the research and aligns with the research objectives, as highlighted by Hamed (2016). Furthermore, validity establishes a meaningful and reliable relationship between variables.

There are various types of validity, including criterion or concrete validity, which examines the relationship between a measure and its outcome, predicting the results. Construct validity focuses on how well a researcher has transformed a conceptual construct into a practical and operational reality. Face validity is defined as the subjective judgment of whether a measure seems to assess the intended construct or concept (Hamed, 2016). Content validity, on the other hand, evaluates the representativeness and adequacy of the content within a measuring instrument, relying on expert judgment.

In this study, content validity was employed. This involved discussing the instrument's items and content with colleagues, supervisors, university lecturers, and experts in relevant fields. Suggestions and recommendations gathered from these consultations and discussions were used to assess and adjust the instrument's validity as necessary. Additionally, face validity was conducted by reviewing the collected data from the questionnaires to ensure that the items appear relevant, reasonable, unambiguous and clear.

### **Data Collection Procedure**

An introduction letter from the board of postgraduate studies at Kenya University (KU) and NACOSTI was sought. This letter served as official authorization to conduct data collection from SMEs in Nairobi County. Obtaining this letter was crucial to make sure the credibility, validity, and academic nature of the research, as it confirmed that the research had undergone a rigorous review process and adheres to ethical guidelines. It provided assurance to the SMEs



and other stakeholders that the study was legitimate and carried out with proper authorization. Once the instruments had been tested and adjusted, the researcher initiated the data collection process.

To facilitate data collection, two research assistants were hired and trained. The research assistants involved in the study received detailed briefings on the research objectives to ensure a clear understanding of the study's purpose and goals. This step was essential to align their efforts with the research objectives and maintain consistency in data collection procedures. Additionally, distribution of questionnaires was utilized to enhance the response rate. This method involved delivering questionnaires or data collection forms to the participants and subsequently returning to collect the completed forms at a later time. This approach aimed to provide convenience to the participants, allowing them sufficient time to provide accurate and thoughtful responses. The research team aimed to maximize the participation and response rate, thereby increasing the overall quality of the collected data. The research assistants helped in distributing questionnaires to the participants.

To ensure a representative sample, visits were made to all SMEs, ensuring an equitable distribution of respondents. The research objectives were communicated to the participants, and those who agreed to participate were provided with questionnaires and given sufficient time to complete them. Gathering secondary data on financial sustainability of SMEs involved use of a designated data collection sheet.

### **Operationalization and Measurements of Variables**

Operationalizing and measuring variables are fundamental steps in analyzing all the variables involved in the study, including independent and dependent variables, as well as their corresponding indicators. This process allows for a detailed understanding and examination of the variables, leading to valuable insights by clearly defining and measuring the variables, researchers can gather meaningful data that contributes to the overall findings and enhances the research outcomes (Thakur, 2019). This study used primary data which was incorporated by secondary data gathered using primary data coaction sheet for a period of six years. The secondary data was first collected and reviewed in order to give proper understanding on the existing insights, fill in background information on the financial sustainability of the SMEs in respect to access to finance, financial innovation, working capital management and financial risk management. This also aided in the refining of questionnaires.

**Table: 3.1: Operationalization and Measurement of Variables**

Variable	Variable Type	Operationalization	Measures	Scale	Instruments
Financial sustainability	Dependent	Net Profit margin	Net income/Net sales	Ratio/ likert	Secondary data collection template/ Questionnaire

access to finance	Independent	Interest rate	Loaners Attitude and Loan issuance procedure	Ordinal /Likert	Questionnaire
Financial Innovation	Independent	Product/Service/institutional innovation	Application of ICT	Ordinal /Likert	Questionnaire
working capital Management	Independent	Financial Management techniques/Skills	Skills possessed	Ordinal / Likert	Questionnaire
Financial Risk management	Independent	Risk Mitigation techniques/skills	Mitigation measures	Ordinal / likert	Questionnaire

*Source: Author 2022*

**Data Analysis and Presentation**

Data analysis plays vital role in research as it involves examining and interpreting the collected data to draw meaningful conclusions. Mixed methods were employed to analyze the data, aligning with the study variables and objectives.

Quantitative data was organized, coded and categorized to ensure its usability. SPSS was utilized as a powerful tool for analyzing data. Descriptive analysis techniques were applied to transform the raw data into visual representations such as tables, charts, frequency distributions, and percentages. These visual aids provided a clear and concise presentation of the data, facilitating a comprehensive understanding of the research findings. Additionally, descriptive statistics was used to further explore and examine the quantitative data.

The utilization of appropriate analytical tools and techniques enabled the research team to draw reliable conclusions and contribute to the overall significance of the research. Regarding qualitative data, content analysis was employed to determine perspectives and viewpoints of respondents regarding the financial determinants and sustainability of SMEs in Nairobi County. A multiple regression model was adopted, which is represented by the equation:  $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon$ . Here, Y represents the sustainability of SMEs, while X1 to X4 represent access to finance, financial management, financial innovations and working capital management. The regression coefficients  $\beta_1$  to  $\beta_4$  signify the relationship between variables, while  $\beta_0$  denotes the constant term. The error term  $\epsilon$  accounts for any unexplained

variability in the model. To present the data, tables, figures and frequency distribution tables were utilized. Demographic information of the participants was presented using percentages. Additionally, mean and standard deviation calculations provided further insights into the data.

### **Diagnostic Tests**

This study conducted an assessment to examine the normality, heteroscedasticity, multicollinearity and autocorrelation of the data. These aspects were analyzed to ensure the data meets certain assumptions and to identify any potential issues that may impact study's findings.

### **Normality Test**

To examine distribution of collected sample data, a normality test was carried out. The test assisted in determining whether the data follows a normal distribution, which is important for making accurate predictions and understanding distribution. In this study, the Kolmogorov-Smirnov test was utilized since the sample size exceeded fifty (50), providing a suitable statistical method for assessing normality (Smith, 2015). Additionally, graphical techniques like histograms were employed to visualize the distribution of the data.

### **Multicollinearity Test**

Multicollinearity compromises the credibility of the regression model, which can result in biased or unreliable results (Ahmed, 2018). It occurs when one independent variable can be predicted accurately using other variables in the model (Kaua, 2021).

Variance Inflation Factor (VIF) was utilized to measure multicollinearity. The VIF calculates how much multicollinearity has inflated a regression coefficient's variance. By analyzing the VIF and tolerance values, the study identified any issues related to multicollinearity in the regression model. By examining the presence of multicollinearity and addressing it appropriately, this study ensured the credibility of regression analysis.

### **Heteroscedasticity Test**

When the variability of the error term in a linear regression model is not constant, it is said to be heteroscedastic. In other words, the residuals' spread or dispersion fluctuates depending on the value of the independent variable. The homoscedasticity presumption, which holds that the error term has a fixed variance, is broken by this.

A graphical approach was utilized in this work to assess heteroscedasticity. With this technique, dependent variable predictors were plotted against the squared residuals ( $ri^2$  or  $ri^2'$ ). Heteroscedasticity is present if the plot clearly displays a pattern in which the spread of residuals changes consistently as the expected values of the dependent variable rise or fall.

Identifying and addressing heteroscedasticity is important in regression analysis as it can affect the accuracy and reliability of the regression model's coefficients and predictions. By assessing heteroscedasticity, the research ensured the validity and soundness of regression results and makes any necessary adjustments to address this issue. If the plot does not exhibit any discernible pattern, it suggests the absence of heteroscedasticity. Conversely, if a clear pattern is observed, it indicates the presence of heteroscedasticity (Kaua, 2021). By examining the plot,

the study determined whether there is heteroscedasticity in the data and take appropriate measures to address it if necessary.

**Autocorrelation Test**

In linear regression analysis of time-dependent phenomena, it is anticipated that the error term is independent of its previous values. If this assumption is violated, it indicates the presence of autocorrelation (Gujarat, 2004). There are various methods available to detect autocorrelation, including graphical methods, run tests, and the Durbin-Watson test. In this study, the graphical method was utilized, specifically by plotting the residuals against time. This plot is referred to as a Time Sequence Plot. If the Time Sequence Plot does not exhibit any noticeable pattern, it indicates the absence of autocorrelation. However, if a pattern is observed in the plot, it suggests the presence of autocorrelation (Gujarat, 2004)

**DATA ANALYSIS, PRESENTATION AND INTERPRETATION**

**Inferential Analysis and Results**

The research carried out correlation analysis and linear regression analysis. These showed the association between the variables being studied.

**4.1 CORRELATION ANALYSIS**

Pearson correlation analysis was done and the outcome presented in Table 4.19

*table 4.19: Pearson Correlation Analysis*

		<b>Financial Sustainability</b>	<b>Financial Access</b>	<b>Financial Innovation</b>	<b>Working Capital mgt</b>	<b>Financial Risk mgt</b>
<b>Financial Sustainability</b>	Pearson Correlation	1	.883**	.900**	.838**	.892**
	Sig. (2-tailed)		0.000	0.000	0.000	0.000
	N	334	334	334	334	334
<b>Financial Access</b>	Pearson Correlation	.883**	1	.860**	.808**	.812**
	Sig. (2-tailed)	0.000		0.000	0.000	0.000
	N	334	334	334	334	334
<b>Financial Innovation</b>	Pearson Correlation	.900**	.860**	1	.785**	.842**

	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000
	N	334	334	334	334	334
<b>Working Capital mgt</b>	Pearson Correlation	.838**	.808**	.785**	1	.813**
	Sig. (2-tailed)	0.000	0.000	0.000		0.000
	N	334	334	334	334	334
<b>Financial Risk mgt</b>	Pearson Correlation	.892**	.812**	.842**	.813**	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	
	N	334	334	334	334	334

---

*Source: Research Data*

From the research results, positive and significant correlation between financial access and financial sustainability was noted ( $r=0.883$ ,  $p=0.000$ ). Similarly, a favorable and significant correlation between financial innovations and the financial sustainability of SMEs ( $r=0.900$ ,  $p=0.000$ ). Working capital management had a favorable and significant correlation with financial sustainability ( $r=0.838$ ,  $p=0.000$ ). Additionally, financial risk management was positively and significantly correlated with financial sustainability of SMEs ( $r=0.892$ ,  $p=0.000$ ). ( $p < 0.05$ ) is significant, while any value above 0.05 is regarded as insignificant. Therefore, all the variables were significant which means that access to finance, financial innovations, working capital management and financial risk management correlated with financial sustainability of SMEs. Nderitu (2022) explored the influence of financial factors and sustainability of SMEs and noted that technology, access to finance and working capital management significantly link with firm sustainability. Wafula and Theuri (2018) investigated financial sustainability in SMEs and concluded that firm innovation and risk management greatly impacted on sustainability of the businesses.

### **Linear Regression Model Analysis and Results**

A Linear regression analysis was performed to investigate the effect of the independent variables on the dependent variable. A summary of linear regression model is illustrated in Table 4.19

**Table 4.20 Regression Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson statistics
1	.947 <sup>a</sup>	0.897	0.896	0.09316	1.742

a. Predictors: (Constant), fin\_risk, fin\_access, wc\_mgt, fin\_innov

b. Dependent Variable: financial sustainability

**Source: Research Data**

Results reveal that r square is 0.897 that is, 89.7%. This means that financial sustainability of SMEs would vary by 89.7% due to changes in access to finance, financial innovations, working capital management and financial risk management, at 95% confidence level. Other factors that affect financial sustainability of SMEs account for only 10.3%. The correlation coefficient, R, measures association between the variables. Results revealed high, positive correlation between variables, as indicated by 0.947 correlation coefficient.

**Table 4.21: ANOVA**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	24.879	4	6.220	716.740	.000 <sup>b</sup>
	Residual	2.855	329	0.009		
	Total	27.734	333			

a. Dependent Variable: financial sustainability

b. Predictors: (Constant), fin\_risk, fin\_access, wc\_mgt, fin\_innov

**Source: Research Data**

ANOVA results indicated that population parameters had a level of 0.000 significance. It reveals that there was a link between the dependent variable and independent variables. Estimated value F was bigger than the critical value of F (716.740 > 2.372). This is a further indication that there was significant correlation between the dependent variable and independent variables. Hence, association between accessibility to finance, financial innovations, working capital management, financial risk management and financial sustainability is significant. Therefore, model is strong and reliable to make conclusive findings and recommendations.

**Table 4.22: Coefficients**

Model	Unstandardized Coefficients	Std. Error	Standardized Coefficients	t	Sig.	VIF
(Constant)	0.046	0.032		1.470	0.143	
fin_access	0.244	0.039	0.245	6.339	0.000	4.785
fin_innov	0.307	0.039	0.317	7.977	0.000	5.052
wc_mgt	0.123	0.032	0.129	3.804	0.000	3.686
fin_risk	0.313	0.036	0.321	8.619	0.000	4.443

**a. Dependent Variable: Financial Sustainability**

**Source: Research Data**

Table 20 shows the model equation to be:

$$Y = 0.046 + 0.245 X_1 + 0.317 X_2 + 0.129 X_3 + 0.321 X_4 + \varepsilon$$

Holding access to finance, financial innovations, working capital management and financial risk management to a constant zero, financial sustainability of SMEs would be at a constant value of 0.046. The VIF of the variables; 4.785, 5.052, 3.686 and 4.443 are all less than 10.000, hence satisfactory. The VIF indicates the extent to which the variance of the weight coefficient is inflated. Therefore, the level in which the weight is related with each predictor in the model is low.

Accessibility to finance is substantially significant in describing financial sustainability ( $\beta = 0.245$ ,  $p < 0.05$ ). Hence, a unit increase in access to finance leads to 0.245 unit increase in financial sustainability. This finding concurs with conclusions of Adeyeye, Azeez and Aluko (2016), who pointed out that access to finance, firm size and ownership structure of SMEs are all factors that affect their sustainability. According to the researchers, macroeconomic factors play a significant impact in SME financing through influencing the banking industry and broader economy. Due to commercial banks' frequent reluctance to extend loans, many SMEs are forced to rely on internal resources, which has a huge negative influence on the sustainability of youth entrepreneurs. Additionally, Nyabicha (2015) notes that SMEs' business performance is directly impacted by financing availability, lending policies, collateral requirements and repayment terms. It is therefore important that the lending process is expedited and SMEs get favourable terms for credit. In the same breadth, Obiageri, Onodugo and Chigozie (2019) evaluated the usage of loans as a funding sources for SMEs and noted that accessibility to finance is a contributor to performance of these small businesses.

Findings indicate that financial innovation is statistically significant in describing financial sustainability of SMEs ( $\beta = 0.317$ ,  $p < 0.05$ ). This reveals that a unit increase in financial innovation results to a 0.317 units improvement in financial sustainability. The finding agrees with that of Maina (2016), who examined financial innovation and SMEs performance. A favorable link between the financial innovation adoption and SMEs performance was revealed. Innovation in financial practices resulted in efficiencies and increased profits. In the same vein, Asad et al. (2018) assessed innovation practices and SMEs performance and concluded that various forms of innovation were positively associated with SMEs performance. Kwamboka (2018) examined financial innovations and firm performance and found that organizations contribute to inclusive growth by facilitating technological improvements and business innovations among their clients.

Results reveals that working capital management has a statistically significant effect on financial sustainability of SMEs ( $\beta = 0.129$ ,  $p < 0.05$ ). This indicates that one-unit increase in working capital management leads to 0.129 unit increase in financial sustainability of SMEs. Indeed, Nderitu (2022) noted that working capital management is key factor in ensuring the financial sustainability of businesses, as it affects both profitability and liquidity. Working capital management serves as a framework for evaluating liquidity and is a vital analytical tool that influences a company's profitability and liquidity. Masocha and Dzomonda (2018) performed research focusing on performance of SMEs, hence highlighted proficient working capital management has the ability to reduce the high failure rate commonly experienced by SMEs. SMEs can therefore overcome their challenges by using well-planned and executed



working capital management techniques. Omar, Ronald, and Nyaga (2021) evaluated how working capital management techniques affect SMEs' ability to remain financially stable and emphasized the need for SMEs to adopt improved cash management practices to enhance their financial health and sustainability. Likewise, Kangangi and Omagwa (2020) study findings revealed that effective finance management had favorable and substantially significant impact on the financial sustainability of SMEs.

Financial risk management has a substantially significant effect on financial sustainability ( $\beta = 0.321$ ,  $p < 0.05$ ). This shows that a one-unit increase in financial risk management leads to a 0.321 unit increase in financial sustainability of SMEs. Jiraskova (2017) emphasizes the need for organizations to address evolving risks in real-time due to the dynamic nature of the economy. Kiprop and Maina (2018) examined financial risk management and the SME performance and discovered that financial risk management affects businesses' performance. Chris et al. (2019) investigated how financial risk influenced the performance and noted a favorable correlation between financial risk and performance.

## **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

This section outlines summary of this study results according to the effects of access to finance, financial innovations, working capital management and financial risk management on the financial sustainability of SMEs in Nairobi City County is presented in this chapter. Further, it outlines conclusions noted anchored on this study results and the recommendations the study makes.

### **Conclusions**

This study concluded that there is significant positive influence of financial access on financial sustainability of SMEs. SMEs face substantial hurdles when attempting to access funding from financial institutions. These demanding prerequisites could include rigorous documentation, creditworthiness assessments, and other criteria that SMEs might struggle to fulfill. SMEs often encounter difficulty in providing the necessary collateral that financial institutions require as security for loans or credit. This absence of easily accessible collateral poses a significant barrier to SMEs seeking financial support, as it restricts their ability to leverage their assets to secure the necessary funding. There were few loan products for SMEs. Financing options for SMEs were not provided by financial institutions and interest rates charged by financial institutions were not favourable. This lack of customization in loan offerings limits SMEs' options and hampers their ability to find financing solutions that align with their specific business requirements. Scarcity of accessible financing alternatives exacerbates the challenges faced by SMEs in their pursuit of financial sustainability.

It concludes that significant and positive effect of financial innovations on financial sustainability of SMEs was reported. Product innovations were not important in the business' financial sustainability as businesses had no robust institutional innovations that improved financial sustainability. While traditional product innovations might not be the primary driver, the focus on institutional innovations, encompassing the broader financial ecosystem and

practices, emerges as crucial. The SMEs did not engage in forward contracts and had no diversified portfolio investments. This suggests a hesitation or inability to utilize financial derivatives for managing risk associated with future price fluctuations. This absence of engagement in forward contracts might indicate a missed opportunity for SMEs to safeguard their financial positions and enhance their financial resilience. Diversification, a fundamental principle of risk management, includes distributing investments over different asset categories to minimize losses from the underperformance of a single investment. The lack of diversified portfolio investments among SMEs indicates a potential vulnerability to market fluctuations, which could have an adverse effect on their financial sustainability.

Positive and significant impact of financial innovation on financial sustainability was discovered. SMEs did not practice prudent creditors management and management policies did not enhance financial sustainability. SMEs were not effectively managing their relationships with creditors, potentially leading to suboptimal credit terms, payment delays, or missed opportunities to negotiate favorable terms with suppliers. The absence of management policies aligned with financial sustainability objectives could mean that business decisions and practices were not optimally geared towards ensuring long-term financial health. Bank reconciliations were not conducted on a regular basis, implying a lack of accuracy and clarity in tracking financial transactions. Furthermore, the timely recording of daily business transactions was not consistently practiced. This delay in recording transactions could lead to incomplete or inaccurate financial records, hampering the SMEs' ability to make informed financial decisions. The SMEs did not have robust cash management procedures. Effective cash management is crucial for maintaining liquidity, meeting financial obligations, and seizing growth opportunities. The absence of robust cash management procedures indicates a potential vulnerability to cash flow challenges that could adversely affect the overall financial sustainability of the SMEs.

Significant impact of financial risk management on financial sustainability in SMEs was noted. SMEs were not able to identify risks that affect its operations and they did not have any risk hedging mechanisms. This implies a lack of awareness or a comprehensive risk assessment process, potentially leaving the SMEs susceptible to unforeseen challenges that could jeopardize their financial sustainability. Risk hedging involves utilizing financial instruments or strategies to offset potential losses from adverse events. The lack of such mechanisms suggests a potential vulnerability to market fluctuations, economic uncertainties, or other external factors that could adversely affect the SMEs' financial stability. Income risk was not well managed. Effective management of income risk involves strategies to handle fluctuations in revenue, ensuring a consistent cash flow to support ongoing operations. The inadequate management of income risk could lead to financial instability during periods of reduced income. SMEs credit risk was low. SMEs were not taking adequate measures to assess the creditworthiness of their customers or clients, potentially leading to delayed or defaulted payments, which could impact their financial sustainability. SMEs did not mitigate against risk in their operations. Risk mitigation involves taking proactive steps to minimize the impact of potential risks on business operations. The absence of such measures implies a potential exposure to operational disruptions that could harm the SMEs' financial health.

### **Recommendations for practice**

Financial institutions should adopt lenient and favorable credit terms specifically tailored for SMEs. By accommodating the unique needs and challenges faced by these businesses, financial institutions can create credit terms that acknowledge the inherent variability in SME operations and revenue streams. This approach can alleviate some of the burdens associated with stringent credit requirements and enhance SMEs' access to much-needed financing. Financial institutions should adopt a more reasonable approach when it comes to collateral demands for SME loans. Recognizing the limitations that SMEs might have in providing collateral, financial institutions can adjust their criteria to accommodate a broader range of assets or alternative forms of security. This flexibility can encourage SMEs to seek financing without being hindered by the lack of traditional collateral options. Financial institutions should diversify their offerings by providing a wide scale of loan services and other financial inclusion services which cater the diverse needs of SMEs. This would involve designing loan products that align with the varying business models, sizes, and growth stages of SMEs. Furthermore, the study suggests that these institutions should introduce other financial inclusion products beyond loans, such as payment services, risk management tools, and financial advisory services, which can collectively contribute to the overall financial sustainability of SMEs. The study advocates for financial institutions to adopt a lower-cost approach to lending to SMEs. By offering loans with relatively lower interest rates, financial institutions can ensure that a larger number of SMEs can access credit without being burdened by high borrowing costs. This affordability can enable SMEs to invest in growth opportunities and improve their financial health over the long term.

SMEs should consistently engage in product innovations. By continually refining and introducing new products, SMEs can establish a competitive edge in the dynamic market environment. This adaptability and innovation can not only attract customers but also enable SMEs to respond effectively to changing consumer preferences, ultimately bolstering their chances of long-term success. Beyond product offerings, SMEs should focus on reshaping their broader business frameworks, practices, and structures. These institutional changes can help SMEs align their operations with financial sustainability goals, ensuring that the entire organization is geared towards achieving stable financial health and enduring growth. The study advocates for specific financial strategies that can contribute to SMEs' financial resilience. Engaging in forward contracts is recommended, allowing SMEs to manage risk associated with potential future price fluctuations. This strategy helps stabilize costs and revenue, safeguarding against adverse market movements. This study recommends that SMEs adopt diversified portfolio investments. Diversification involves spreading investments across different types of assets, reducing the impact of poor performance in any single investment. This approach minimizes potential losses and enhances the overall stability of the SMEs' financial position, particularly in the face of market volatility.

It's recommended that SMEs adopt prudent creditors management practices. This involves cultivating responsible relationships with creditors, which can lead to improved credit terms, timely payments, and a reliable supply chain. By effectively managing these relationships,

SMEs can ensure smoother operations and better financial terms, ultimately contributing to their financial health. The study underscores the importance of establishing and adhering to effective management policies. By formulating clear and comprehensive management policies, SMEs can guide their decision-making processes, streamline operations, and ensure consistency in their actions. This approach can lead to improved financial outcomes and enhanced credibility in the eyes of stakeholders. To reinforce accurate financial records, the study recommends timely recording of daily transactions and regular bank reconciliations. These practices enhance transparency, accountability, and accuracy in financial reporting. Maintaining up-to-date records and promptly reconciling bank statements enable SMEs to make informed decisions, prevent errors, and uphold their financial integrity. Effective cash management emerges as another critical aspect of the recommendations. SMEs are encouraged to adopt robust cash management procedures. These procedures involve optimizing cash flow, ensuring sufficient liquidity to meet financial obligations, and capitalizing on growth opportunities. Effective cash management can safeguard SMEs against cash flow challenges, ensuring they have the resources needed to sustain operations and capitalize on strategic initiatives.

The study recommends that SMEs should take a proactive approach to risk management by identifying the risks that directly impact their operations. This involves a thorough assessment of potential vulnerabilities and threats that could affect various aspects of the business. By recognizing these risks, SMEs can develop tailored strategies to mitigate their impact and ensure a more secure operational environment. The study emphasizes the need for SMEs to establish risk hedging mechanisms. These mechanisms involve using financial tools or strategies to minimize potential losses resulting from adverse events. By incorporating risk hedging into their operations, SMEs can guard against the negative effects of unpredictable market fluctuations, economic uncertainties, or other external challenges. Recognizing the importance of comprehensive risk management, the study proposes collaboration between various stakeholders like government, financial institutions, and NGOs. These entities should collectively offer training to SME business owners on effective risk management practices. This support can empower SMEs to better understand, assess, and mitigate risks, ultimately aiding in achieving sustainable financial outcomes. The study further highlights the significance of managing income risk, which involves navigating fluctuations in revenue. SMEs are advised to implement strategies that ensure a consistent cash flow to sustain ongoing operations during periods of income variability. This proactive approach to income risk management can prevent financial instability and support long-term viability. Moreover, the study underscores the importance of credit risk management. SMEs should adopt measures to evaluate the creditworthiness of their customers or clients before extending credit terms. This approach can reduce the likelihood of delayed or defaulted payments, ensuring that SMEs' cash flow remains steady and supporting their overall financial sustainability.

### **Recommendations for further research**

The study focused on SMEs in Nairobi City. However, there exists an opportunity for broader exploration in the country. Conducting similar studies across the country could significantly enrich the findings of this research, thereby granting it a more extensive and comprehensive scope. By incorporating a wider array of SMEs, a more holistic understanding of the subject

matter could be attained. The findings obtained from the analysis reveal  $R^2$  value of 0.897, equivalent to 89.7%. This statistic signifies that approximately 89.7% of the variance in the financial sustainability of SMEs can be attributed to fluctuations in their access to finance, financial innovations, working capital management and financial risk management on financial sustainability. This correlation is substantially significant at a 95% confidence level. It implies that changes in these factors have a substantial impact on financial sustainability. However, it is important to note that there are other factors, accounting for 10.3% of the variance, that influence financial sustainability of SMEs. These factors warrant further investigation and exploration to better comprehend their contribution to financial sustainability of SMEs. The methodology employed quantitative methods for data collection and analysis. This approach integrated quantitative techniques, allowing for a comprehensive exploration of the subject matter. Adopting a mixed methods approach could prove beneficial in investigating financial factors that influence the sustainability of SMEs as a suggestion for future research. Such an approach can provide a more nuanced and well-rounded understanding of the intricate association between financial factors and financial sustainability of SMEs.

## REFERENCES

- Adeyeye P.O., Azeez B.A & Aluko O.A (2016). Determinants of small and medium scale enterprises financing by the banking sector in Nigeria: a macroeconomic perspective. *Investment Management and Financial Innovations*, 13(1-1), 170-175. doi:10.21511/imfi.13 (1-1).2016.04 DOI [http://dx.doi.org/10.21511/imfi.13 \(1-1\).2016.04](http://dx.doi.org/10.21511/imfi.13 (1-1).2016.04) released on Friday, 08 April 2016 journal.
- Al Qubtan, T.R, Pei-Tha Gan, Fatimah Salwa Abd. Hadi, Norasibah Abdul Jalil, Norimah Rambeli (2021). *The practical Risk Management Approaches among Small and Medium Enterprises in Muscat, Oman*. TEM Journal. Volume 10, Issue 2, Pages 996-1004, ISSN 2217-8309, DOI: 10.18421/TEM102-65, May 2021.
- Ali, A (2014). *Diffusion of Innovation Theory and adoption of e -Government by Medium business Enterprises in Kenya : A case of Nairobi City County*. Unpublished MBA project of University of Nairobi.
- Amenawo I. Offiong, Chris O. Udoka and James Godwin Bassey (2019). *Financial risk and performance of SMEs in Nigeria*. *Investment Management and Financial Innovations*, 16(4), 110-122. doi:10.21511/imfi.16 (4).2019.10
- Anwar, A., & Serly, S. (2022). financial literacy on the sustainability of smes in gowa district. *Economics and Business Journal (ECBIS)*, 1(1), 37–46. <https://doi.org/10.47353/ecbis.v1i1.5>
- Asad M., Rizwan A., Shah M. & Munir A. (2018). *The impact of innovation practices on sustainable performance SMEs*. Academia, accelerating the world's research. Pakistan.

- Aslam, R., Rehman, S., & Nasir, A. (2023). Investigating the relationship between government support and SMEs' sustainability through financial and green lenses. *Journal of Business and Industrial Marketing*. <https://doi.org/10.1108/JBIM-05-2022-0191>
- Bak, G., & Reicher, R. (2023). Challenges of the SMEs in the 21st century. *Scientific Papers of Silesian University of Technology. Organization and Management Series*, 2023(166), 31–47. <https://doi.org/10.29119/1641-3466.2022.166.3>
- Bayraktar M. (2019), *The Importance Of SMEs On World Economies. International conference on Eurasian economies, Çukurova University, turkey*. Unpublished project.
- Bin, J. M., Diangha, S. N., & Ofeh, M. A. (2021). Impact of Access to Credit on the Sustainability of Small and Medium Sized Enterprises in Cameroon. *American Journal of Industrial and Business Management*, 11(06), 705–718. <https://doi.org/10.4236/ajibm.2021.116046>
- Blach J.(2011) *Corporate Financial Management in Terms of the Innovative Financial Mechanisms Implementation. Rationality and Efficiency Analysis* .Unpublished Mba project.Usiu.
- Bowen, R., Dowell, D., & Morris, W. (2023). Hospitality SMEs and the circular economy: strategies and practice post-COVID. *British Food Journal*. <https://doi.org/10.1108/BFJ-10-2022-0932>
- Cervone, D., & Pervin, L. A. (2015). *Personality, binder ready version: theory and research*. John Wiley & Sons.
- Chebii P.A(2016) *Entrepreneurial Mentorship and Demographic Characteristics within Small and Medium Enterprises in Eldoret, Kenya* .International Journal of Academic Research in Business and Social Sciences May 2016, Vol. 6, No. 5 ISSN: 2222-6990.
- Chen, C. C., Chen, X.-P., & Huang, S. 2013. Chinese Guanxi: *An integrative review and new directions for future research*. *Management and Organization Review*, 9 (1): 167–207.CrossRefGoogle Scholar.
- Cheruyot B.(2014).*The financial management practices and financial performance of small and medium manufacturing enterprises in Kericho county,Kenya*.Unpublished project. Kenyatta University.
- Chijoriga, M. (2007). *Application of credit scoring and financial distress prediction models to commercial banks' lending: The Case of Tanzania*. Ph. D Dissertation, WirtsCHAFTSnnversitat Wien (WU), Vienna
- Cooper, D. R., & Schindler, P. S. (2014). *Business Research Methods*. Mcgraw-Hill Education.
- Cunningham L.( 2011).*SMEs in selected countries in East Asia ,Southeast Asia, Asia Pacific Journal of Management* 17: 103-32s School, City University, London (Xinhua News Agency July 31 2011.



- Ehrhard M.C & Brigham E.F (2011).*Financial Management: Theory and Practice*. South-Western Cengage Learning, 2011 .....Edition 13
- Ember, C., & Ember, M. (2009).*Cross Cultural Research Methods*, (2nd edition). Altamira Press, New York, United States of America.
- European Union and the Committee of the Regions (2019) *EU policy framework on SMEs: state of play and challenges*. Catalogue number: QG-02-19-559-EN-N; ISBN: 978-92-895-1019-6; doi: 10.2863/612657
- Financial Innovations and Their Role in the Modern Financial System – Identification and Systematization of the Problem*. November 2011 e-Finanse 7(3):13-26.
- Gatukui Candidate, P. K., & Katuse, P. (2018). A review of smes strategic planning for growth and sustainability in kenya: issues and challenges. *International Journal of Social Sciences and Entrepreneurship*, 1(110), 26–41. Retrieved from <http://www.ijssse.org>
- Gituma, k. (2016).*Entrepreneurial determinants affecting sustainability of women owned SMEs in Kenya*. Unpublished PhD thesis of Jomo Kenyatta University of Agriculture and Technology.
- Gujrati DN, Basic Econometrics, 4th edition (2004) , The McGraw-Hill Companies
- Hamed, T. (2016).*Validity and Reliability of the Research Instrument; How to Test the Validation of a Questionnaire/Survey in a Research*. *International Journal of Academic Research in Management (IJARM)* Vol. 5, No. 3, 2016, Page: 28-36, ISSN: 2296-1747
- Han, N.-H., & Choi, D.-W. (2022). The Relationship Between Sustainability, SCM Performance, and Financial Performance of Korean SMEs. *Journal of Korea Trade*, 26(2), 84–99. <https://doi.org/10.35611/jkt.2022.26.2.84>
- IMF's Regional Economic Outlook for Sub-Saharan Africa*, released in April 2015
- International conference on Eurasian economies (2019) *the Importance of SMEs on World Economies International Finance Corporation* (2016)
- International Labour Organization report (ILO) *in 1972 on 'Employment, Income and Equity in Kenya'* (ILO, 1972)
- Jayasundara JMSB and Rajapakshe PSK. (2020) *A Review of Global Challenges and Survival Strategies of Small and Medium Enterprises (SMEs)*. Department of Economics, Rajarata University of Sri Lanka, Mihintale 50300, Sri Lanka; [naraddagamage@ssh.rjt.ac.lk](mailto:naraddagamage@ssh.rjt.ac.lk) (S.K.N.G.); [abeyrathne.rjt@ssh.rjt.ac.lk](mailto:abeyrathne.rjt@ssh.rjt.ac.lk).
- Jirásková S.(2017)General Milan Rastislav stefanik Armed Forces Academy University of Economics in Katowice; *Financial Risk Management* .December 2017Land Forces Academy Review 22(4) DOI:10.1515/raft-2017-0037



- Kangangi, L. K., & Omagwa, J. (2020). working capital management practices and growth of small and medium-sized enterprises in nyeri county, kenya. *International Journal of Economics*, 4(11). Retrieved from [www.ijebmr.com](http://www.ijebmr.com)
- Karadag H. (2015) University of Pretoria; *Financial Management Challenges in Small and Medium-Sized Enterprises: A Strategic Management Approach*. February 2015 *EMAJ Emerging Markets Journal* 5(1) DOI:10.5195/emaj.2015.67
- Kaua C.N (2021) *Influence of Innovation on the Financial Performance of Small and Medium Women Owned Enterprises in Nairobi City County*. Unpublished Phd Thesis of Jomo Kenyatta University of Agriculture and Technology.
- Kedoga D.K (2013): *Factors influencing growth and development of SMEs in Kenya, a case of Huruma division, Nairobi County-Kenya* .Unpublished master of arts in project planning and management of the University of Nairobi.
- Kenny, Anthony (2012). *A New History of Western Philosophy*. Oxford University Press. ISBN 978-0-19-958988-3
- Kenya National Bureau of Statistics. (2016). *Economic Survey, Government Printers, Nairobi Kenya*.
- Kenya Vision 2030: *A Globally Competitive and Prosperous Kenya*. October 2007. Nairobi: Government Printer. Kenya National Bureau of Statistics. (2016). *Economic Survey, Government Printers, Nairobi Kenya*.
- Kimani, Elijah M (2016). *Effect of adoption of Financial Innovation on Performance of small and medium Enterprises in Kenya*. *International Journal of Advanced Engineering and Management Research* Vol. 1 Issue.
- Kothari, C. (2004). *Research Methodology: Methods & Techniques*. (2nd edition). New age International Publishers, New Delhi, India.
- Kubai, E. (2019). *Reliability and Validity of Research Instruments*. Correspondence to [kubaiedwin@yahoo.com](mailto:kubaiedwin@yahoo.com). UNICAF University - Zambia
- Kwambokas O.V (2018) *The effects of financial innovations on the performance of microfinance institutions in Kenya for the period 2011-2016* .Unpublished Mba Project. United States International University – Africa.
- Lambert R.A, Leuz C. & Verrecchia R.E(2012). *Information Asymmetry, Information Precision, and the Cost of Capital*. *Review of Finance*, Volume 16, Issue 1.
- Lohana, S., Binti Rashid, U. K., Nasuredin, J., & Kumar, V. (2019). Determinants of Financial Sustainability and Access to Finance among SMEs in Malaysia: A Pilot Study. *Management and Business Research Quarterly*, (10), 1–7. <https://doi.org/10.32038/mbrq.2019.10.01>
- Mabula, J. B., Dong Ping, H., & James, M. (2023). The Impact of African Firms' Utilization of Financial and Technology Resource on Innovation: A Simple Mediation. *SAGE Open*, 13(1). <https://doi.org/10.1177/21582440231153037>

- Maina K.E (2016) *.The effect of adoption of financial innovation on performance of SMEs in Kenya*. International Journal of Advanced Engineering and Management Research Vol. 1 Issue 2, April 2016.
- Makali M. J (2012) *.The effect of commercial bank loans on the economic growth of Kenya*. University of Nairobi. Unpublished MBA project.
- Marembo, M. (2013). *Financial management practices employed by SMEs in the Buffalo city metropolitan municipality, Eastern Cape*. MBA research paper, University of Fort Hare, South Africa.
- Masocha, R., & Dzomonda, O. (2018). The Mediating Role of Effective Working Capital Management on the Growth Prospects of Small and Medium Enterprises in Polokwane Municipality. SAAPAM Limpopo Chapter 5th Annual Conference Proceedings 2018, (2010), 157–165.
- Mehmood, S. & Zhang, M. (2010). *Financial Risk Management in an Integrated Framework*. Unpublishes MBA thesis. Blekinge Institute of Technology.
- Mengistu, A. T., & Panizzolo, R. (2023). Tailoring sustainability indicators to SMEs for measuring industrial sustainability performance. *Measuring Business Excellence*, 27(1), 54–70. <https://doi.org/10.1108/MBE-10-2021-0126>
- Micro and Small Enterprises (MSE) Bill 2012*.
- Morina D. & Gash P. (2016) *.The role of smes on the economic development*.CRC-Journal Volume 3, No 5, 2016 [www.crc-journal.com](http://www.crc-journal.com) Page 167.
- Mugenda, A. G. (2110). *Social Science Research*. Nairobi: Kijabe Printing press.
- Mugenda, O. & Mugenda, A. (2003). *Research Methods: Quantitative and Qualitative Approaches*. 2nd Ed. Nairobi: Acts Press
- Muli D. M (2019). *Effect of access to finance on financial performance of processing smes in kitui county, Kenya*. South Eastern Kenya University, Kenya. International Journal of Finance and Accounting ISSN 2513-4311X (online) Vol.4Issue 1, pp 75-89, 2019.
- Muli D.M. (2019). *Determinants of financial performance of processing SMEs in Kitui County*. Unpublished MBA project.
- Mwangi, W. P. & Chelate, J., (2018). *Role of Financial Literacy, Financial Innovation, and Financial Inclusion on SME Access to Credit in Kenya: A Case of Kumisa SACCO*: Journal of Finance and Accounting Vol 2(2) pp. 1-18.
- Nairobi City County SMEs Survey Report (2021)
- Nakhaima F.K (2016).*Factors that affect financial performance of SMEs in Kenya*. United States International University of Africa. Unpublished Mba project.
- Nderitu, C. (2022). Selected Factors Influencing Financial Sustainability of Women-Owned Manufacturing Small and Medium Enterprises in Westlands Sub County, Nairobi,

- Kenya. *Journal of Entrepreneurship & Project Management*, 6(4), 25–32. <https://doi.org/10.53819/81018102t3051>
- Nemoto, N., & Koreen, M. (2019). SME Policy faced with Development of Financial Technology: Digital Innovation Can Improve Financial Access for SMEs. *Think20Japan*, (1), 1–11. Retrieved from <https://t20japan.org/wp-content/uploads/2019/03/t20-japan-tf9-1-digital-innovation-improve-financial-access-smes.pdf>
- Ngugi, J & Bwisa, H. (2013). *Factors influencing growth of group owned SMEs. A case of one village one product enterprises*. *International Journal of Education and Research*. Vol. (8), 58-79
- Ngui, T. (2014). *The Role of SMEs in Employment Creation and Economic Growth in Selected Countries*. *International Journal of Education and Research*, 2(12), 461-472.
- Nieto M. & Santamaria L. (2010). *Technological Collaboration: Bridging the Innovation Gap between Small and Large Firm*. University Carlos III de Madrid. January 2010 *Journal of Small Business Management* 48(1):44 - 69
- Noah K. Kiprop & Kimani E. Maina (2018). *The relationship between Financial Risk Management and the Performance of Small and Micro Enterprises in Moiben Constituency, Uasin Gishu County, Kenya*. *Africa International Journal of Multidisciplinary Research*
- Nyabicha J. O (2015). *Effect of commercial bank loans on performance of micro and small enterprises (mses) in Kenya: case of Kenya commercial bank (KCB) Boresha Biashara loans in Nairobi County*. Unpublished MBA project -Egerton University.
- Nzove, Eunice M., September, 2013. *Effect of Financial Innovations on the Growth of Small and Medium Enterprises*. University of Nairobi, College of Humanities and Social Sciences.
- Obiageri U.M, Onodugo V. A & Chigozie M.P(2019). *Assessing the Effectiveness of Commercial Bank Loans as Sources of Funding/ Capital Formation for Small and Medium Enterprises (SMEs) in Southeast, Nigeria*. *Business, Management and Economics Research* ISSN (e): 2412-1770, ISSN (p): 2413-855X Vol. 5, Issue. 4, pp: 62-70, 2019.
- Olarewaju, O., & Msomi, T. (2021). Factors Affecting Small and Medium Enterprises' Financial Sustainability in South Africa. *African Journal of Inter/Multidisciplinary Studies*, 3(1), 103–117. <https://doi.org/10.51415/ajims.v3i1.893>
- Omar, M. S., Ronald, M. O., & Nyaga, N. G. (2021). Analysis of Impacts of Working Capital Management Practices on Financial Performance of Small and Medium Enterprises (Juakali) in Mandera County, Kenya. *IRA-International Journal of Management & Social Sciences* (ISSN 2455-2267), 17(2), 10. <https://doi.org/10.21013/jmss.v17.n2.p1>
- Ortiz-Martínez, E., & Marín-Hernández, S. (2022). European SMEs and non-financial information on sustainability. *International Journal of Sustainable Development*

and World Ecology, 29(2), 112–124.  
<https://doi.org/10.1080/13504509.2021.1929548>

- Thakur, prof(Dr.)K.S.(2019) Dean, Faculty of Commerce School of Commerce & Business Studies Jiwaji University, Gwalior 474002 (INDIA)
- Pilot, M. and Hungler, B. (2011). *Entrepreneurship and Microfinance: A Tool for Empowerment of Poor - Case of Akhuwat-Pakistan*, unpublished MSc Thesis, Karachi: Malardalen University.
- Proença, P., Laureano, R. and Laureano, L. (2014). *Determinants of capital structure and the 2008 financial crisis: evidence from Portuguese SMEs*, *Procedia – Social and Behavioral Sciences*, Vol. 150, pp. 182-191
- René-Pascal van den Boom (2019). *Financial Risk Management in Dutch SMEs*. Journal of Financial Risk Management Vol.8 No.2, June 5, 2019
- Republic of Kenya, (2013) *Economic Survey. Nairobi Kenya: Government Printers*.
- Republic of Kenya, (2017). *Economic Survey. Nairobi Kenya: Government Printers*
- Rowell D. & Connelly L.B (2012). A history of the word “moral hazard”. The Journal of Risk and Insurance, 2012, Vol. 79, No. 4, 1051-1075 DOI: 10.1111/j.1539-6975.2011.01448.
- Rugui, L., & Omagwa, J. (2018). Effect of Financial Management Practices on Performance of Selected Small and Medium Enterprises in Limuru Town, Kenya. *International Journal of Scientific and Education Research*, 2(05), 1–12.
- Saci, K., & Mansour, W. (2023). Risk Sharing, SMEs’ Financial Strategy, and Lending Guarantee Technology. *Risks*, 11(2). <https://doi.org/10.3390/risks11020033>
- Saunders, R., Lewis, F., & Thornhill, L. (2016). *Innovation in Financial Services: Corporate Culture and Investment Banking*. *California Management Review*, 50(1), 174–191.
- Sinha, A. K., Mishra, A. K., Manogna, R. L., & Prabhudesai, R. (2023). Determinants of sustainable financial and innovation performance: a panel data analysis of Indian manufacturing SMEs. *International Journal of Business and Globalisation*, 33(1–2), 113–129. <https://doi.org/10.1504/ijbg.2023.128325>
- Udell, G. F. (2020). SME access to finance and the global financial crisis. *Journal of Financial Management, Markets and Institutions*, 8(1). <https://doi.org/10.1142/S2282717X20400034>
- Wafula, M. W., & Theuri, J. (2018). Microfinance Outreach and Financial Sustainability of Micro Finance Institutions in Samburu County, Kenya. *International Journal of Current Aspects in Finance (IJCAF)*, IV(Ii), 162–175. Retrieved from [www.ijcab.org](http://www.ijcab.org)
- Waitakere. (2017). *A study of critical success factors affecting SMEs in Nairobi County: a case study of small and medium-sized enterprises in Nairobi city central business district*. Unpublished Mba project. United States international university-Africa.

- Wangui P. K (2020). Analysis of key financial ratios on performance of general insurance business in Kenya. Unpublished Mba Project. Grets University.
- Wanjohi S. (2017). *The Effect of Financial Risk Management on the Financial Performance of Commercial Banks in Kenya*. Muranga University, Kenya. January 2017 International Journal of Finance and Banking Research 3(5):70DOI: 10.11648/j.ijfbr.20170305.12
- William, M. (2006). *Research methods Knowledge Base*. New York: Atomic Dog publishing.
- Wolman H. (2015). *Financial management practices in successful Small and Medium Enterprises (SMEs)*. The Southern African Journal of Entrepreneurship and Small Business Management 7(1):88.
- Yadegaridehkordi, E., Foroughi, B., Iranmanesh, M., Nilashi, M., & Ghobakhloo, M. (2023). Determinants of environmental, financial, and social sustainable performance of manufacturing SMEs in Malaysia. *Sustainable Production and Consumption*, 35, 129–140. <https://doi.org/10.1016/j.spc.2022.10.026>
- Yang, S. J., & Jang, S. (2020). How does corporate sustainability increase financial performance for small-and medium-sized fashion companies: Roles of organizational values and business model innovation. *Sustainability (Switzerland)*, 12(24), 1–21. <https://doi.org/10.3390/su122410322>
- Ye, J., & Kulathunga, K. M. M. C. B. (2019). How does financial literacy promote sustainability in SMEs? A developing country perspective. *Sustainability (Switzerland)*, 11(10). <https://doi.org/10.3390/su11102990>
- Zaitul, Z., & Ilona, D. (2022). Is Financial Literacy Associated with SME Sustainability During COVID-19? *KnE Social Sciences*. <https://doi.org/10.18502/kss.v7i6.10613>
- Zhang, G., & Wang, T. (2022). Financial Budgets of Technology-Based SMEs From the Perspective of Sustainability and Big Data. *Frontiers in Public Health*, 10.