FINANCIAL INCLUSION AND ACCESS TO CREDIT AMONG WOMEN- OWNED SMALL AND MEDIUM ENTERPRISES IN NAKURU COUNTY, KENYA

OBADIAH BETT

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DECLARATION

This research project is my original work and has not been presented for a degree in any other university.

Signature _____ Date _____

OBADIAH,

BETT

CTY/PT/20943

/2012

SUPERVISOR

As the supervisor appointed by the university, I have given my approval for this research project to be submitted for review.

Signature _____ Date _____

Dr. Francis Gitagia

Lecturer, Department of Business

Administration School of Business,

Economics and Tourism Kenyatta

University

DEDICATION

This work is dedicated to my beloved family. Your unwavering support, encouragement, and belief in me have been the cornerstone of my academic journey. Thank you for your patience, love, and understanding throughout this process.

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TABLE OF CONTENT

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS AND ACRONYMS

ATM	Automated Teller Machine
CBK	Central Bank of Kenya
FI	Financial Inclusion
FSP	Financial Service Provider
GDP	Gross Domestic Product
ICT	Information and Communication Technology
KYC	Know Your Customer
MFI	Microfinance Institution
MSMEs	Micro, Small, and Medium Enterprises
NPL	Non-Performing Loan
SACCOs	Savings and Credit Cooperative Organizations
SMEs	Small and Medium Enterprises
UNDP	United Nations Development Programme

OPERATIONAL DEFINITIONS OF TERMS

Access to Credit	Refers to the extent to which women-owned SMEs in Nakuru County successfully secure loans relative to applications made. It is measured by the ratio of loan amount approved to loan amount applied for, with constructs included such as affordability of terms, loan approval rate, collateral requirements, and ease of securing credit.
Availability of Financial Services	Refers to the presence and adequacy of formal financial products and institutions serving women-owned SMEs. Constructs included are variety of financial products, simplicity of loan application procedures, affordability of interest and fees, reliability and timeliness of services, and adequacy of financial institutions in the county.
Collateral	Refers to assets or guarantees pledged by women-owned SMEs as security to financial institutions in exchange for credit. Constructs included are type of collateral (land, vehicles, savings), valuation methods, and institutional flexibility in collateral substitution.
Credit Accessibility Barriers	Refers to obstacles that hinder women-owned SMEs in Nakuru County from securing credit. Constructs included are stringent lending conditions, high transaction costs, lack of collateral, limited financial literacy, gender-based biases, and long processing times.
Credit Facilities	Refers to specific financial products such as loans, overdrafts, and credit lines provided to SMEs for business activities. Constructs included are type of facility accessed, repayment flexibility, suitability for working capital or investment, and terms such as interest and maturity periods.

Digital Financial Platforms	Refers to the adoption of technology-enabled financial services by women-owned SMEs in Nakuru County. Constructs included are use of mobile banking, access to digital credit facilities, adoption of mobile payments for transactions, utilization of digital bookkeeping applications, and access to online banking services.
Financial Literacy	Refers to the knowledge and skills enabling women-owned SMEs to effectively manage and utilize credit. Constructs included are record-keeping practices, budgeting ability, understanding of loan terms and conditions, knowledge of credit risk and management, and participation in financial training or education.
Proximity to Financial Institutions	Refers to the physical and logistical ease with which women-owned SMEs in Nakuru County access formal financial services. Constructs included are distance to the nearest bank, SACCO, or MFI, cost and convenience of transport, availability of branches or agents nearby, convenience of operating hours, and timeliness of loan processing and service delivery.
Women-Owned Small and Medium Enterprises (SMEs)	Refers to registered businesses in Nakuru County that are owned and managed by women, and which fall within Kenya's official SME criteria

ABSTRACT

County governments in Kenya are mandated to promote entrepreneurship, strengthen financial systems, and support inclusive economic growth through devolved functions. Central to this mandate is improving access to credit for small and medium enterprises (SMEs), which constitute a backbone of local economies. In Kenya, women-owned SMEs continue to face difficulties in obtaining affordable and sustainable credit, with Nakuru County being no exception. This study examined the effect of financial inclusion on access to credit among women-owned SMEs in Nakuru County, focusing on four key dimensions: availability of financial services, financial literacy, proximity to financial institutions, and digital financial platforms. The study covered the period 2020–2024 and was anchored on the Financial Intermediation Theory, Resource-Based View Theory, Credit Rationing Theory, Technology Acceptance Model, and Pecking Order Theory of Finance. A descriptive research design was adopted, targeting 1,214 registered women-owned SMEs in Nakuru County, from which a sample of 301 firms was selected using simple random sampling. The units of observation were women entrepreneurs actively managing these enterprises. Both primary and secondary data were utilized. Primary data were collected using structured questionnaires, while secondary data were obtained from county government reports, institutional publications, and financial surveys. A pilot study was conducted among 10 SMEs in Nakuru Town to pretest the research instruments. Reliability was assessed through Cronbach's Alpha Coefficient, while validity was established through content and criterion evaluation. Diagnostic tests including normality, multicollinearity, heteroscedasticity, linearity, and stationarity were carried out to ensure robustness of the regression model. Data were analyzed using SPSS, applying both descriptive statistics (means, standard deviations, and frequencies) and inferential techniques (Pearson's correlation and multiple regression analysis). The regression analysis revealed that availability of financial services ($p < 0.05$) and financial literacy ($p < 0.05$) had statistically significant positive effects on access to credit, showing that reliable and affordable financial services, combined with entrepreneurial knowledge, improve borrowing outcomes. Proximity to financial institutions was negatively related but significant ($p < 0.05$), indicating that physical distance and high transaction costs constrained women's ability to secure loans. Digital financial platforms exhibited a positive and significant effect ($p < 0.05$), demonstrating that mobile banking, digital credit, and online transactions reduced barriers to credit access. The study concludes that while improvements in service availability, financial literacy, and digital adoption enhance women entrepreneurs' borrowing capacity, challenges related to geographical proximity continue to limit inclusivity. It is recommended that financial institutions and policymakers expand outreach programs, embed literacy training within SME support schemes, leverage digital platforms for inclusive credit scoring, and reduce spatial and cost-related barriers through agency banking and fintech partnerships. The study also calls on county governments, regulators, and development partners to implement gender-responsive financial frameworks tailored to women-owned SMEs. Ethical principles including informed consent, confidentiality, and voluntary participation were fully observed throughout the study.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Credit accessibility is one of the most important business survival and business expansion determinants especially among small and medium small and medium enterprises (SMEs) owned by women. These companies often use external finance in order to keep working capital and to buy assets and grow their business. The concept of financial inclusion as the capacity of people and companies to access and utilize, reasonably and adequately, financial services only come to its full realization when it also results in better credit accessibility. The lack of this connection would drive women in business to informal lenders, where high rates of interest and demanding conditions of repayment tend to destroy resilience and long-term survival (Alliance for Financial Inclusion, 2021).

The experience in other parts of the world teaches a lot. Economically, in Europe, the European Commission (2021) observes that in credit guarantee schemes with the credit guarantee limit at 80 percent of the value of loans, collateral requirement is relaxed, allowing SME loans to become more accessible. In Germany, just state-sponsored guarantee banks have financed over 5 billion in SME loans in 2020, and a significant part of those loans supported women-owned businesses (OECD, 2022). Such efforts demonstrate how the inclusionary systems, with optional risk-sharing systems, can enhance lender trust and increase access to affordable credit by women entrepreneurs.

Other innovations are shown in Asian cases. With Grameen bank taking the lead, the microfinance institutions in Bangladesh have served up more than 80 percent of their

loans to women, resulting in one of the world's highest females borrowing rates (ADB, 2022). In 2021, in India, over two-thirds of the loans of the Pradhan Mantri Mudra Yojana program were provided to women entrepreneurs thanks to digital platforms which facilitated documentation and approvals (World Bank, 2022). These experiences demonstrate how the strategy of utilizing microfinance specifically through the use of technology can lessen the obstacles and help women have access to formal loans.

The same direction has been pursued by Latin American countries. Microcredit programs led by fintech in Brazil have served upwards of 12 million women by 2022, more than 30 percent of whom were approved as opposed to traditional banks (IDB, 2022). Mexico also reformed Know Your Customer (KYC) laws to reduce the minimum collateral and wanted to access more women-led SMEs, especially in rural and peri-urban territories that were not well served (World Bank, 2021). These reforms bring to the fore the decisive role of regulatory innovation in achieving a cut in financing constraints.

There are more examples in other regions. There were over 220,000 SMEs supported by the Credit Guarantee Fund in Turkey in 2021, of which women entrepreneurs constitute almost 30 percent of the beneficiaries (OECD, 2022). These measures coupled with financial literacy programs resulted in better amortization performances and increased confidence of lenders. It has been shown in the Turkish case that formal credit market participation by women can be directly reinforced through guarantee schemes, coupled with capacity-building programs.

Despite significant developments in digital finance, Sub-Saharan Africa remains in a position of trying to find a balance between account ownership and access to credit. According to the African Development Bank (2022), mobile money has increased

financial inclusion by more than 20 percent during the past ten years. However, GSMA (2023) reports that women are still less likely to access loans via the digital platform by a quarter of that of men. The continuing issues like collateral requirements, cultural norms and scarcity of gender responsive financial products are some of the problems that limit the ability of women to entirely transform financial inclusion into long-term credit opportunities.

The situation in Kenya is ambivalent. Financial inclusions have increased to 83.7 percent because of such innovations as M-Pesa, agency banking, and governmental initiatives such as the Women Enterprise Fund (CBK, KNBS & FSD Kenya, 2021). Nevertheless, Kenya National Bureau of statistics (2022) states that over 60 percent of female entrepreneurs have SMEs, which continue to rely on informal lenders, putting them at the risk of expensive borrowing and disadvantageous repayment terms. Women entrepreneurs are at the center of development in Nakuru County, which is a vibrant economic hub, but is underserved by formal credit providers (KIPPRA, 2022).

Availability of credit is the most characteristic effect of financial inclusion since it would define whether women-owned SMEs in Nakuru County can continue to grow and be resilient. This study thus aims to observe how the accessibility of credit through the four dimensions namely availability of financial services, financial literacy, distance to financial institutions, and use of digital platforms are the primary mechanisms of influence on access to credit. Predictable lending is facilitated by reliable services, financial literacy offers entrepreneurs the tools to make the most out of lender interactions, physical proximity saves the cost and time of transactions, and digital platforms present options of flexibility in a situation when traditional banking is inaccessible, etc.

However, even with the same assertion by financial institutions that they are in support of SME lending, structural constraints like collateral requirements, high-interest rates, and inequality in service provision remain the constant impediments to women entrepreneurs trying to get access to sufficient funds (Wambua & Kimani, 2023). The study is filling these gaps hence creating evidence that can inform the creation of credit products and financial policies that are closer to the reality of women-owned businesses within a devolved county system.

1.1.1 Access to Credit

The access to credit can be defined as the ability of individuals or businesses to access financial resources at terms that will facilitate productive use and enable them to repay them sustainably. It is in a sense a measure of how businesses can obtain loans at the time they require them, at an appropriate cost and in an adequate amount to not only meet their daily business but also meet their long-term growth requirements. Lusardi and Mitchell (2021) and Demirguc-Kunt, Klapper, and Singer (2022) stress that the actual access consideration extends beyond the simple opportunity to take out loans and is determined by the sufficientness and affordability of the actually provided credit. World Bank (2022) emphasizes that actual access is not only limited to the possibility of applying to a loan but is most adequately represented by the ratio of the requested payment in credits to the one disbursed. This is a combination of the demand side where the entrepreneurs are seeking financing and the supply side where the financial institutions are reacting through approvals.

The significance of small and medium enterprise access to credit is well-known. A sufficient financing would help to boost expansion, modernization, creation of jobs, and competitiveness in the regional and domestic markets (OECD, 2020; International

Finance Corporation, 2021). Credit access has an extra sense to the women-owned SMEs since it promotes business resilience, as well as supporting the household and gender equality in economic activities (UN Women, 2022). Limited access on the other hand forces a large portion of women entrepreneurs to rely on informal credit providers which charge high interest rates and offer exploitative terms of repayment, lowering the sustainability and hindering long-term growth (GSMA, 2023).

There are various techniques that have been created by scholars and institutions to measure access to credit. According to Lusardi and Mitchell (2021), affordability, timeliness, and adequacy of loan amounts should be regarded as indicators. Demirguc-Kunt, Klapper, and Singer (2022) pay attention to such aspects of the supply side as requirements on collaterals, interest rates, and simplicity of loan processes. The other works point to demand side factors, such as financial literacy, repayment history, and managerial capacity, determining the extent to which the entrepreneur is able to acquire and use credit (OECD, 2020, UN Women, 2022). Consistent with these views, the World Bank (2022) proposes the measurement of access based on the ratio of the credit requested to the amount paid out, which accounts for both the unmet demand and the institutional constraint. Kenya has also proven that collateral requirement, poor literacy, and discriminatory lending is an ongoing constraint (KIPPRA, 2022; County Government of Nakuru, 2023).

In the Nakuru County, these issues are still apparent. Although mobile loan accessibility has been improved and credit options provided by the government support, there remains a mismatch between the credit demanded by women-owned SMEs and the credit they actually receive. According to county records in 2020-2024, even though the number of applications increased steadily, the approvals and disbursements are lower

and an imbalance is created between demand and supply. This supports the rationale of considering access to credit as a dynamic opportunity rather than a quantifiable opportunity given the condition of the financial institutions, regulation framework, and the facilitating environment of women entrepreneurs.

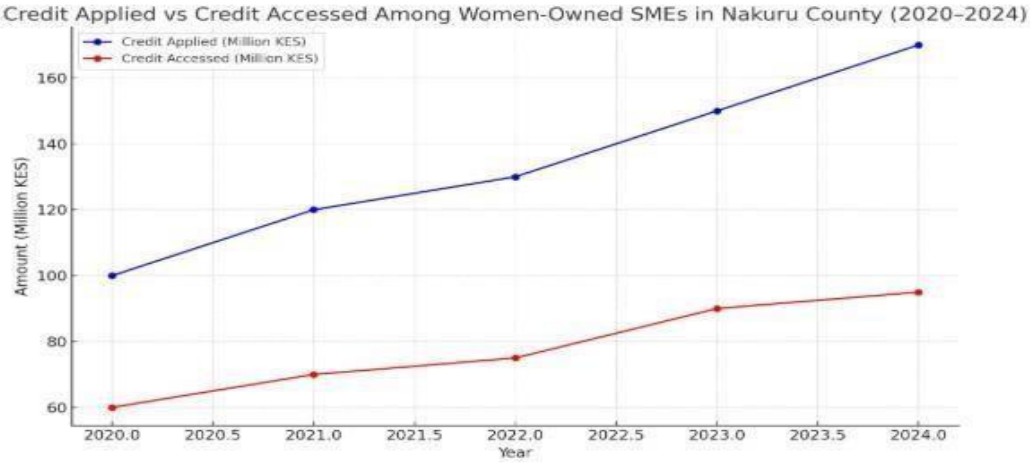


Figure 1.1 Credit Applied Vs Credit Accessed among Women Owned Small and Medium Enterprises in Nakuru County (2020-2024)

Figure 2 indicates that the cumulative size of credit requested by women entrepreneurs gradually increased over the period between approximately KES 100 million in 2020 and almost KES 165 million in 2024. The growth in actual access to credit, however, was much slower, averaging a growth in credit between KES 60 million and KES 90 million in the same period. The increasing disparity between applications and approvals proves that women are always given less than they ask with the disparity increasing with the increase in demand. It means that the structural barriers like collateral requirement, inflexible process of loan processing, and perceptions of lenders towards women owned business as risky are still important barriers. In the case of Nakuru County where women owned businesses make significant contribution to trade, agribusiness and services, these barriers hamper economic participation, diminish growth capacity and strengthen financial exclusion.

1.1.2 Financial Inclusion

Financial inclusion is the capacity of people and businesses to access and utilize financial products and services that are both appropriate, in contrast to costly and opportune and also in a responsible and sustainable way. According to the World Bank (2022), it is described as a state when households and businesses enjoy services (savings, credit, insurance, and payments) in a manner that will lead to improved engagement in the economy. According to the Alliance for Financial Inclusion (2019), being included at the level of account ownership is not the only thing: it is also necessary to be affordable, used regularly, and adapted to the needs of various groups. UN Women (2022) notes that gender disparities are critical and require an inclusive financial system to be taken care of, especially in the area of entrepreneurship. This paper considered financial inclusion to be among the important elements that would determine whether women-owned SMEs in Nakuru County would be able to access formal credit and be able to sustain long-term growth.

Financial inclusion is significant as it enhances empowerment, reduces poverty and contributes to business sustainability. According to OECD (2020), inclusive systems expand access to productive capital whereas the International Finance Corporation (2021) demonstrates that they support innovation and enhance competitiveness. According to GSMA (2023), inclusive services will decrease the need to use costly microfinancing services, and Demirguc-Kunt, Klapper, and Singer (2022) find that the economies with higher inclusion scores will be more resilient to financial shocks. These lessons support the fact that the issue of financial inclusion has been core when analyzing the accessibility of credit by women entrepreneurs in Nakuru County.

Availability of financial services is a measure of reliability of the products and financial institutions to the female entrepreneur to meet her financing requirements. OECD (2020) remarks that availability can be best described in product variety and reliability of service. UN Women (2022) emphasizes that women are not usually considered in the development of products, but IFC (2021) notes that the absence of resilience in SMEs is due to institutional weaknesses. In this research, the availability was calculated in terms of the product variety available to the SMEs, the easiness of the loan process, affordability of the loan conditions, sufficiency of the local financial institutions, and stability of service provision.

Financial literacy is described as the expertise and skills that entrepreneurs need to make sound financial judgments. The importance of literacy lies in the fact that it improves the process of planning, budgeting, and effective credit management. As Lusardi and Mitchell (2021) show, financial literacy enhances the ability to repay, AfDB (2020) documents that low literacy undermines the ability of women to bargain and OECD (2021) emphasizes the importance of financial knowledge in understanding a complicated loan agreement. To conduct this research, financial literacy was assessed with the help of record-keeping practices, budgeting ability, loan condition knowledge, risk management knowledge, and involvement in financial training.

Proximity to financial institutions is the ease at which an entrepreneur has access to formal financial services in terms of the physical and logistical access. According to Demirguc-Kunt, Klapper, and Singer (2022), the regions of a credit uptake in the developing economies are directly related to proximity. According to FinAccess (2021), agency banking has minimized distance expanses in Kenya, but it is still very costly in rural areas. KIPPRA (2022) emphasizes the fact that disproportional exclusion

continues to be disproportionate among peri-urban women entrepreneurs. In this research, distance to the nearest financial outlet, cost and convenience of transportation, the existence of agents or branches, working hours and the promptness in loan processing was used to measure proximity.

Digital financial platforms refer to technology-based platforms, which enable access to financial services. They are important in that they increase convenience, cut savings, and enhance transparency. According to GSMA (2023), mobile banking and digital credit are transformative and help to increase access to women. CBK (2022) demonstrates that the adoption of credit by SMEs has been increased by platforms like M-Pesa and M-Shwari, and OECD (2021) emphasizes the fact that digital tools break the barriers associated with documentation and collateral. In this research, online platforms were quantified by the use of mobile banking, access to online credit, the use of mobile payment, use of online book keeping and the use of online banking by women-owned SMEs in Nakuru County.

1.1.3 Women-Owned Small and Medium Enterprises in Nakuru County

The small and medium businesses owned by women in Nakuru County are governed by the Kenya Micro and Small Enterprises Act of 2012 according to which county governments are required to regulate, license and promote SMEs. In Nakuru, the control is conducted by the trade and cooperative development departments of the county, but women entrepreneurs usually go through administrative bottlenecks, insufficient funding, and problems with market access (County Government of Nakuru, 2023; KIPPRA, 2022). These limitations have reflected in the fact that a high percentage of women-owned businesses remain informal and thus they are mostly invisible in official

statistics and they may also be ineligible to participate in formal government and financial institution programs (KNBS, 2022; CBK, 2022).

As of 2023, the Nakuru County had more than 15,000 registered SMEs with women-owned businesses comprising close to 40 percent of the total, predominantly in retail, agro-processing and in the hospitality industry (KIPPRA, 2022; County Government of Nakuru, 2023). These statistics, however, are only formal registered businesses, and are thus not representative of a large number of women in their own businesses who choose informality due to the avoided costs of receiving regulation, or due to lack of awareness concerning the process of registration. The informality prevents access to formal credit, government procurement, and financial literacy programs as the World Bank (2022) and AfDB (2022) found.

Women-owned SMEs contribute well to the Nakuru economy, especially in regards to household income, creation of job opportunities, and livelihood stabilization in urban and peri-urban regions (UN Women, 2022; IFC, 2021). Nonetheless, these ventures have long-term challenges such as the lack of collateral, a weak level of digital literacy, and the perception of lenders that women-led businesses are risky borrowers (Wambua and Kimani, 2023; FinAccess, 2021). Consequently, informal lending options like rotating savings groups, digital microloans and SACCOs are the common sources of liquidity that many women entrepreneurs in Nakuru use but seldom upscale to larger and sustainable businesses.

The recent financial surveys also indicate the disconnect between performance and potential. According to the FinAccess Survey (2021), this showed that just 29 percent of women entrepreneurs in Nakuru obtained credit in formal institutions as opposed to 46 percent of the men. According to KNBS (2022), over 60 percent of women-owned

SMEs in the county were still relying on informal lenders and this exposed them to high costs of borrowing as well as limiting repayment terms. These trends reveal that, although Nakuru has a vibrant SME market and the county has been undergoing reforms that are gradually being achieved, obtaining cheap and sustainable credit remains a significant challenge to women entrepreneurs. This scenario is why Nakuru County is an appropriate location to consider the role of financial inclusion in accessing credit among SMEs owned by women.

1.2 Statement of the Problem

Small and medium enterprises (SMEs) owned by women are the key players in the economy of Kenya because of their employment and maintenance of household income, as well as inclusive growth (World Bank, 2021; UN Women, 2022). Nevertheless, even in the light of their importance, women entrepreneurs are still challenged by systemic factors in the male-dominated economies, such as restrictive gender norms and unequal access to resources and voice in decision making processes (ILO, 2020; Asiedu and Stachurski, 2023). Special attention should be paid to the fact that access to cheap credit is crucial to such businesses as it allows to invest in productive factors, stabilizes cash flows, and enhances the competitiveness (Mugo & Otuya, 2019). Nevertheless, there are still several women-owned enterprises who are not in the formal credit system limiting their capacity to grow and compete favorably in the broader markets (Githinji & Kinyanjui, 2023).

Statistics at national and county levels prove the continuation of this financing gap. According to the FinAccess Survey conducted by CBK, KNBS and FSD Kenya (2021) it was stated that only 29 per cent women entrepreneurs took out loans with the formal financial institutions, whereas it was 46 per cent among men. Statistics shared by the

Kenya National Bureau of Statistics (2022) also reflected that 65 percent of women-run SMEs continued to use informal lenders, which in most cases forced them to incur high-interest rates and strict repayment terms. These national trends can be seen in Nakuru County where over 60 percent of women in business ventures reported the absence of collateral, poor credit scores, and complicated loan application processes as the primary obstacles to securing loans (County Government of Nakuru, 2023). These limitations were exacerbated by the COVID-19 outbreak as more loan defaults cause commercial banks to become even stricter in their lending policies, a trend that had a disproportionate impact on micro and small enterprises owned by women (AFI, 2021).

The available literature has conceptual and contextual gaps that do not allow us to understand the translation of financial inclusion into credit access among women-owned SMEs. The Nigerian and Ghanaian studies used only the distance parameters of the kilometers or outreach without considering the convenience or service quality (Abiola and Ajayi, 2019; Osei and Adu, 2019). Equivalent strategies in Pakistan and India characterized the availability based on the density of branches and ignoring efficiency and reliability (Khan and Ahmed, 2020; Singh and Gupta, 2020). In China, training exposure was equated with literacy (Li and Zhao, 2020), studies in Bangladesh as well as in other agrarian economies defined digital inclusion in a narrow way as adoption of payments (Adebayo and Olamide, 2019; Amin, Karim and Rahman, 2021). Gender gaps were also generalized in global studies without considering the actual experiences of female-owned SMEs in devolved systems (Lusardi and Mitchell, 2021; Demirguc-Kunt, Klapper and Singer, 2022). These loopholes prompted a multidimensional proximity, literacy, availability, and digital platform analysis in the local areas of Kenya, i.e. in Nakuru, a devolved unit.

The methodological weaknesses and country-specific weaknesses exist too. Numerous past researches relied on descriptive surveys, correlations or secondary data, which limits the power of causal inference and ignores the first-hand experience of women. The studies in Meru, Eldoret, and Kiambu were based on descriptive or correlation-based studies without a strong econometric testing (Mugambi & Muturi, 2021; Njeri and Otieno, 2021; Wambui and Karanja, 2020), whereas the research in Zimbabwe and China was built primarily on institutional data and did not focus on the SME level of research (Ncube and Sibanda, 2019; Zhang and Liu, 2020). In Kenya, even in such studies, gender disaggregation and lived experiences of women on their way to credit markets are frequently neglected (Maina and Mwangi, 2020; Mutua and Njoroge, 2020; Karanja and Chepkemoi, 2021).

1.3 Objectives of the study

The study was guided by the following objectives:

1.3.1 General Objective

The overall objective of the study was to determine the effect of financial inclusion on access to credit among women-owned small and medium enterprises in Nakuru County, Kenya.

1.3.2 Specific Objectives

The study was guided by the following specific objectives:

i. To examine the effect of availability of financial services on access to credit among women owned small and medium enterprises in Nakuru County

ii. To assess the influence of financial literacy on access to credit among women-owned small and medium enterprises in Nakuru County.

iii. To determine the effect of proximity to financial institutions on access to credit among women-owned small and medium enterprises in Nakuru County.

iv. To analyze the effect of digital financial platforms on access to credit among women-owned small and medium enterprises in Nakuru County.

1.4 Hypotheses of the Study

H_{01}: Availability of financial services has no significant effect on access to credit among women-owned small and medium enterprises in Nakuru County, Kenya.

H_{02}: Financial literacy has no significant effect on access to credit among women-owned small and medium enterprises in Nakuru County, Kenya.

H_{03}: Proximity to financial institutions has no significant effect on access to credit among women-owned small and medium enterprises in Nakuru County, Kenya.

H_{04}: Digital financial platforms have no significant effect on access to credit among women-owned small and medium enterprises in Nakuru County, Kenya.

1.5 Significance of the Study

The research holds relevance to the women-owned SMEs in the Nakuru County because the problem of accessing cheap credit has been a perennial obstacle. Through the analysis of the financial inclusion impacts on borrowing, the results can be applicable in the lessons of the businesspeople willing to grow their businesses, manage their financial operations, and enhance their competitiveness. The practical implications of the article can aid these businesses in finding ways of enhancing their involvement in the formal credit markets and minimize reliance on the expensive informal lending.

In the case of financial institutions like banks, SACCOs, and micro finance providers, operation loopholes are revealed during the study in terms of credit outreach and

product design. The findings indicate that there should be more simplified processes, flexible collateral requirements, and gender responsive products. These actions would not only increase the customer bases, but also enhance the level of loan repayment and promote sustainable expansion in the financial sector.

Government agencies and regulators can use the findings at the policy level to augment reforms that will increase access to financial opportunities by women in the business world. The evidence justifies more specific interventions as part of national programs like the Women Enterprise Fund and Financial Sector Deepening (FSD) Kenya and also relates to more long-term development objectives including Kenya vision 2030. These insights can help policymakers to direct resource mobilization, streamline credit guarantee mechanisms, and advance the approach of inclusive finance in the national and county levels.

Academics and researchers will also be interested in the study. It adds to the gender, financial, and entrepreneurship debate by reporting on the challenges that women owned SMEs operate within when it comes to formal finance systems. It offers a framework into the future research that can compare various counties or aim to investigate the long trends of access to credit amongst women. By doing so, the study will not only contribute to the body of scholarly knowledge but also make itself informative to practice and policy in the field of inclusive finance as a whole.

1.6 Scope of the Study

This research examined the effects of financial inclusion on credit access among women-owned small and medium enterprises (SMEs) in the Nakuru County in Kenya. The examination was designed on four elements of inclusion, including the accessibility of financial services, financial literacy, the distance of financial institutions, and the use

of digital financial services. These dimensions were measured against access to credit which was determined by the ratio of the loan amounts approved to the loan amounts applied. This was meant to find out the scope of the impact of financial inclusion on the borrowing behavior of female entrepreneurs.

The geographical scope of the study was limited to the Nakuru County that had been purposely chosen due to its active SME sector and its increased status as one of the commercial centers in Kenya. The women entrepreneurs in the county form a substantial segment of the business community, and they lead to the growth of local communities. Nevertheless, female-owned SMEs, as well as women groups, still face difficulties in accessing formal credit, which is why the county is a suitable location to research the influence of financial inclusion on access to credit.

The research had a time limit of July 2024 to June 2025. Data collection was conducted in 2025 and the respondents were requested to give information regarding the experiences of the financial inclusion; availability of services, financial literacy, distance to the institutions, and the use of digital platform and use of loan applications during these twelve months period. The one-year study was crucial to save time in that the findings were representative of the current circumstances and, simultaneously, the more recent and verifiable the experiences were, the fresher the data was, and the less recall bias was likely to occur.

1.7 Limitations of the Study

The study also focused specifically on women-owned SMEs that are registered in Nakuru County and this confines the results to this specific county only, but not to other counties or male-owned businesses. Although the county was selected intentionally due to the development of the SME sector and the ongoing issue of the lack of credit among

women entrepreneurs, the findings might not be as representative of the experience in areas with different economic, institutional, or cultural processes.

The data used in the study were self-reported and this aspect makes the research prone to response bias or recall errors. Despite the attempt to reduce such risks by training research assistants and designing of the instruments, there was no way of eliminating the chances of misreporting. Moreover, the research was cross-sectional, which limited the possibility to study how financial inclusion and access to credit changed with time.

Lastly, the analysis was limited to the correlation of financial inclusion and credit access, omitting other areas of performance like profitability, employment creation and market growth. Irrespective of these weaknesses, the research offers a rare understanding of the obstacles and facilitators of financial inclusion among women owned SME within Nakuru County thus bridging a significant gap in policy as well as academic discourse.

1.8 Organization of the Study

This study is structured into five chapters which follow a logical progression of each other. Chapter one provides the introduction of the study by explaining the background of the problem, the problem statement, the objectives of the research, research hypotheses, and the significance, scope, limitations, and definitions of key terms. The Chapter Two is followed by the review of related literature, in which the theoretical underpinnings are presented, empirical research carried out both within the local and global environments is considered, and the gaps that this study was aimed at filling in. Chapter Three expounds the methodology used in the study in the form of description of the research design, target population, sampling procedures, data collection instruments, data collection procedures, validity and reliability tests, data analysis

methods and the ethical considerations that informed the research. Chapter Four presents the findings of the analysis and comments on them in the context of the study objectives, the theories used to direct the study, and applicable empirical literature. Chapter Five then concludes the study by summarizing the key findings, making conclusions, and providing policy, practice and future research recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter examines the major theories that contextualize the relationship between financial inclusion and access to credit by women-owned SMEs in Nakuru County. The theories are applied to explain various features of the variables of the study such as the affordability of financial services, financial literacy, distance to financial institutions, and utilization of digital platforms. All theories are taken into account regarding their relevance, assumptions, their use in the past studies and the limitations. They both present the conceptual foundation of the study of connecting financial inclusion with credit access.

2.2 Theoretical Review

This study was anchored on the following theories.

2.2.1 Financial Intermediation Theory

The Financial Intermediation Theory is seen to have its roots in the original contributions of Schumpeter (1911), and developed by Gurley and Shaw (1960), and later improved by Allen and Santomero (2020). According to the theory, financial institutions have the role of connecting the savers to the borrowers by reducing the cost of transactions and overcoming risks that may hinder the flow of capital. Intermediaries make the process of business and economic growth a significant factor through mobilization of savings and supply of credit.

One of the major assumptions of the theory is that household-business direct finance is often not efficient because of information asymmetry and problems of monitoring. The

middlemen thus convert the short-term deposits to the long-term loans, diversify to bear the risks, and stabilize the credit markets (Levine, 2019). This renders banks, SACCOs and micro finances as indispensable to SMEs especially in the economies where capital market is still in development.

The theory can be seen to be relevant based on empirical evidence. Abubakar and Yahaya (2021) discovered that Nigerian banks with solid capital base increased lending to SMEs. Kusi and Opoku (2020) demonstrated that access to finance to rural enterprises increased in Ghana as a result of an expansion of branch networks. In Kenya, Muriithi (2022) determined that intermediaries such as SACCOs could provide affordable credit to the women entrepreneurs who could not get access to commercial banking, showing that intermediaries are still needed to be included.

However, the critics complain that intermediation may not necessarily lead to fair access to credit. According to Beck and Demirguc-Kunt (2021), banks can still be rationing loans to SMEs even though liquidity is abundant. UN Women (2022) also emphasize that women are restricted by gender bias and discriminatory practices, and the models used in fintech have the propensity to circumvent the previously used intermediaries (GSMA, 2023).

In this research, the theory substantiates the construct of financial services availability. In Nakuru, the women-owned SMEs rely on banks, microfinance institutions and SACCOs in obtaining loans. The credit accessibility is thus directly connected to the trustworthiness, cost-effectiveness and sufficiency of services availed by intermediaries.

2.2.2 Resource-Based View (RBV) Theory

The RBV Theory was based on the research of Penrose (1959) on firm growth that was refined by Barney (1991). It is based on the assumption that competitive advantage attained by firms is based on mobilizing resources with value, rare, non-substitutable and inimitable. In addition to the physical resources, knowledge, skills, and organizational practices are underlined as the key drivers of success (Grant, 2020).

The power of RBV in entrepreneurship can be demonstrated by recent applications. Agyapong and Obeng (2020) discovered in Ghana that managerial competence enhanced SME resilience to financial shocks. According to Mutegi and Maina (2021), financial literacy of Kenyan SMEs has increased repayment and access to loans. Accurate record-keeping-built confidence between lenders to induce credit provision in China was confirmed by Zhang and Liu (2022). These illustrations only affirm that intangible resources may be decisive in terms of financing results.

However, RBV also has limits. Priem and Butler (2019) warn the framework tends to overlook the institutional constraints including weak governments or culture. According to Newbert (2022), it is difficult to measure intangible resources such as knowledge. In addition, useful resources might not be beneficial in case their usage is obstructed by the external environments.

In this research, RBV is used in the context of financial literacy. The SMEs that are owned by women in Nakuru usually do not have collateral, but their capability to maintain records, budget, and credit terms knowledge improves their credibility with the lending companies. Financial literacy therefore acts as a resource that can be used strategically to negotiate and generate credit against structural barriers by the entrepreneur.

2.2.3 Credit Rationing Theory

Stiglitz and Weiss (1981) came up with the Credit Rationing Theory to explain the failure of loan markets to clear in the face of rising rates of interest. In the scenario of asymmetric information, lenders can ration credit to prevent attraction of high-risk borrowers or to be subjected to moral hazard.

The theory is based on the assumption that borrowers are better informed about their projects than lenders, and leads to adverse selection, whereas lenders are required to make decisions with incomplete information. This has caused good companies to be refused a loan, not due to their inability to repay, but due to the inability of lenders to correctly differentiate between them and risky borrowers (Akerlof and Kranton, 2020; Levine, 2019).

This is confirmed by evidence in the developing economies. According to Agyapong and Obeng (2020), Ghana firms were not given loans even when they could repay. Abubakar and Yahaya (2021) discovered in Nigeria that even at an increased interest willingness, SMEs were rejected. According to Kusi and Opoku (2020), women entrepreneurs were more strongly rejected in Kenya as they were viewed as riskier clients.

However, not every barrier is taken into consideration in the model. UN Women (2022) note that cultural biases and gender discrimination tend to add to the effects of rationing. The IFC (2023) also includes that regulatory and institutional barriers are also an obstacle to lending, and GSMA (2023) demonstrates information gaps are minimized by the fintech innovation to make rationing less binding.

The theory in this study describes the nearness to financial institutions. The perceived risk to lenders is enhanced by long distances, transport expenses and processing delays, which rationing. SMEs that are owned by women in Nakuru thus experience harsher constraints in the absence of institutions that seemingly restrict the barrier as explained in the theory.

2.2.4 Technology Acceptance Model (TAM)

Davis (1989) developed the Technology Acceptance Model that is used to explain why some people accept or reject new technologies. Based on the Theory of Reasoned Action, the theory suggested that two perceptions were useful in influencing the adoption of technology: usefulness and ease of use. However, the model was later refined, including the elements of social influence, trust, and user attitudes, becoming in general much more applicable to digital finance and innovation research (e.g. Venkatesh and Bala, 2020).

The model presumes that the potential users will be rational decision-makers who will weigh the benefits of using technology against the effort they have to put in place to use the technology. The adoption rates are likely to grow when technology is perceived to be useful and easy to use. On the other hand, adoption is expected to be slow whenever users have high complexity or a low relevance expectation. These presuppositions present adoption as a process that depends on personal perceptions, but not structural or institutional limits, an approach that has defined the majority of studies that have used the model (Zhang and Liu, 2022; Wambua and Kimani, 2023).

The model is relevant in different contexts, which are proven by empirical studies. According to GSMA (2023), African women did not hesitate to use mobile money when they observed that platforms are trustworthy and convenient. Wambua and Kimani

(2023) demonstrated that Kenyan female entrepreneurs utilizing digital credit services did so mainly due to the fact that they were quick to be approved and were designed in an easy-to-use manner. In China, Zhang and Liu (2022) discovered that perceived usefulness was more influential in persuading the SMEs to adopt online banking service compared to all other factors. These results support the explanatory role of TAM in the adoption of digital finance.

In spite of its broad application, there has been criticism of the model. OECD (2020) noted that TAM fails to capture the impact of institutional and cultural dynamics which determine technology adoption. UN Women (2022) also emphasized that digital trust and gendered norms are a key determinant of adoptions, particularly in women entrepreneurs. Another point that Holden and Karsh (2020) made was that the model does not effectively resolve the issue of privacy, fraud, and security concerns, which are especially acute in financial applications.

In this research, TAM is the point where the role of digital financial platforms can be considered. Women-owned SMEs in Nakuru County are getting involved more in mobile banking, digital payments as well as online credit products. Nonetheless, the adoption has not been the same with all business people with some believing that it is risky or people are simply not digitalized. The model thus assists in the understanding of the role of perceptions of usefulness, ease of use, and trust in obtaining a wider access to credit by women entrepreneurs via the platforms.

2.2.5 Pecking Order Theory of Finance

Myers and Majluf (1984) developed the Pecking Order Theory to show how firms finance themselves. Their argument was that businesses tap internal funds first, then the debt, and then the last recourse is the equity. This order represents the need to reduce

information asymmetry and to prevent the expensive outside investigation (Leary and Roberts, 2020).

This framework is supported by empirical studies. Molefe (2019) revealed in South Africa that SMEs favored retained earnings as compared to bank loans. Ghanaian firms used to rely on savings and cooperative lending and then approached the banks (Agyapong and Obeng, 2020). Mutegi and Maina (2021) noted that Kenyan female entrepreneurs approached banks with savings group and digital loans, which replaced applying to banks. Zhang and Liu (2022) observed that the strong dependence on internal sources of funds was observed before the time of the external borrowing in China.

According to critics, there are limitations. Frank and Goyal (2021) state that the theory has a lower applicability in the developing economies where equity financing is not as common. OECD (2020) and UN Women (2022) emphasize that such structural obstacles as collateral requirements and gender discrimination are also further distorting financing decisions. Online lending companies also have erased old hierarchies in financing by providing quick and unsecured credit (GSMA, 2023).

In this case study, the theory can be used to explain the pattern of financing used by women entrepreneurs in Nakuru. Most of them depend on table banking, savings, and SACCO contributions then turn to bank credit. This ladder outlined by the theory is evident in their financing pattern which supports the reason why formal access to credit is scarcely available.

2.3 Empirical Review

Empirical literature gives the basis upon which finance inclusion influences access to credit, especially among the small and medium enterprises. This connection has been evaluated by scholars in various perspectives, such as the accessibility to financial services, financial literacy, closeness to financial institutions, and the usage of digital platforms (Demirgüç-Kunt, Klapper, Singer, Ansar, and Hess, 2020; World Bank, 2022). Although these works contributed to the body of knowledge, most of them were limited methodologically or contextually, and this area is what the current research fills by targeting women-owned SMEs in Nakuru County. The review is consequently structured based on the objectives of the study to show the growth of the previous evidences to each dimension of financial inclusion and how the current study provides new background knowledge.

2.3.1 Availability of Financial Services and Access to Credit

Availability of financial services is one of the core determiners of the manner in which the small and medium enterprises access credit. Researchers have taken this by looking at the variety of the loan products, ease of application, affordability of the terms, and reliability of the service provision. Despite their value, most previous studies have their problems in methodological flaws, conceptual restrictions, or conceptual fuzziness, which highlight the importance of further localized research.

Omondi and Muturi (2020) assessed how access to financial services and credit among the SMEs in Nairobi County was related using a survey design, which was ample in regression analysis. Their results indicated that SMEs had knowledge about loan products, but complex procedures and collateral reduced actual usage. This introduced a gap in methodology because the process of analysis was based on descriptive patterns

without further econometric analysis. There was also a contextual gap since the study was carried out in Nairobi whereby the financial institutions are more centralized than in other counties. The present study handled the two concerns by using the regression technique to women owned SMEs around Nakuru County, where financial outreach trends are very different as compared to the capital.

Chepkoech and Langat (2021) conducted research on rural SMEs in the Kericho County through a mixed-methods design to determine whether loan products by financial institutions had been diversified. The research established that outreach was expanded by SACCOs, but collateral and guarantor requirements discouraged women entrepreneurs. This created a conceptual loophole since the availability of the services was minimized to the diversification of loans without regard to the affordability and reliability. There was also a country-specific gap because the study has conducted an analysis of agricultural enterprises in a rural location exclusion of county-level urban and peri-urban SMEs. The current study addressed these gaps by taking a more comprehensive conceptualization of service availability and targeting women-owned SMEs in Nakuru in various sectors.

Ncube and Sibanda (2019) investigated access to credit among Zimbabwean SMEs at regional level using secondary data provided by microfinance institutions. They analyzed that an increase in institutional outreach led to an increase in credit uptake, but inconsistency in services weakened borrowers' confidence. This brought in a conceptual gap in that availability was only measured in physical outreach and not in terms of service quality. It also indicated a gap in the methodology, as the application of secondary institutional reports limited the richness of interpretation. This paper has solved that weakness through the primary data gathered directly by women owned

SMEs and through incorporation of other dimensions like quality, cost and consistency of financial services into the analysis framework.

Khan and Ahmed (2020) investigated the banking density and SME financing in Pakistani countries through the panel regression model. They established that the expansion of the branch networks enhanced accessibility of financial services but not necessarily led to increased loan approval rates to SMEs. The study created a conceptual gap since it compared availability exclusively with the presence of a branch without paying attention to other important issues, including affordability and collateral requirements. There was also a contextual difference in that the financial system of Pakistan utilizes less on mobile money and SACCOs as it is central in Kenya. The current paper has overcome these drawbacks by including a wider scope of service indicators that comprised of SACCOs, mobile banking, and microfinance institution, which more effectively represent the realities of SMEs owned by women in Nakuru County.

At a global level, Demirguc-Kunt, Klapper, and Singer (2022) analyzed surveys of financial inclusion within World Bank Findex through the help of surveys of more than 140 countries. According to them, increased service points augmented the utilization of formal credit, but the entrepreneurs who were women were always at a disadvantage to their male counterparts. This imposed a conceptual distance since the analysis did not take into consideration the gender inequality categorically without any connection to barriers that are service-specific. There was also a contextual gap as the global approach hid reality on the level of counties. The gaps that the current study addressed were to provide evidence on county level and specifically target women-owned SMEs in

Nakuru and to isolate the availability of services as a quantifiable variable in financial inclusion.

Overall, the analyzed articles show that, whereas access to financial services does affect access to credit, prior research exhibited a lack of conceptualization, methodological flaws and lack of context. The targeted study addressed the mentioned gaps by focusing on women-owned SMEs in Nakuru County, which yields refined evidence and adds the local body of knowledge to the financial inclusion studies.

2.3.2 Financial Literacy and Access to Credit

Maina and Mwangi (2020) examined the correlation between financial literacy and access to credit among SMEs in Nakuru Town by use of descriptive survey. They found that most enterprises did not have sufficient knowledge on bookkeeping, thus they were not able to prepare financial statements necessary to apply loans. There was a methodological gap as the study based only on descriptive statistics without correlating literacy dimensions to real outcome of the loan. Literacy was conceptually defined in a very limited manner, i.e. record keeping, without budgeting and risk management. The current research paper has filled these gaps by using regression analysis and the more inclusive construct of literacy which incorporated record keeping, budget, and risk assessment.

Mugambi and Muturi (2021) analyzed the micro and small businesses in Meru County through the use of correlation in order to evaluate the effects of financial literacy on the uptake of loans. It found out that the training programs enhanced the level of financial knowledge but without much impact on actual borrowing. The causal inference was limited by the use of correlation as a methodology. There was also a country-specific gap in that the study was concentrated on Meru enterprises and it did not take into

consideration the women-owned SMEs. The present research addressed these gaps by using econometric methods that can be used to determine stronger causal relationships as well as concentrating on women entrepreneurs in Nakuru County where credit relationships are different.

Osei and Adu (2019) investigated how financial literacy is related to credit access by SMEs in Ghana using survey data and probit regression. They discovered that entrepreneurs who had good skills in budgeting were in a better position to borrow loans even though knowledge of the terms of loans played a minor role in influencing the borrowing decision. There was a conceptual gap as the concept of literacy was being determined by what was primarily budgeting without considering other areas like record keeping and risk management. There was also the contextual gap since the structure of the financial sector in Ghana is very different compared to that of Kenya. The current research was able to fill these gaps by use of a multidimensional literacy framework and position it in the Kenyan SME setting.

Li and Zhao (2020) examined the financial literacy and credit access of the Chinese SMEs through a large-scale survey and logistic regression. They found that risk management training allowed the firms to obtain higher levels of loans while their counterparts who were not exposed to any risk struggled to obtain them. Conceptual gap was created as the study equated literacy with exposure to training disregarding its use in other field like bookkeeping and budgeting. Contextually, the banking system in China is opposite to that of Kenya which entails bank, SACCO and digital lender. The present research had to deal with these problems by integrating literacy in the Kenyan context and expanding the meaning of literacy past training.

Lusardi and Mitchell (2021) evaluated financial literacy in various areas based on the World Bank data. They confirmed that the better the literacy level the better the uptake of credit was but women always had lower levels of financial knowledge than men. There was a conceptual gap since the treatment of literacy was based on the generic index without applying it to the specifics of the SME. There was also a contextual gap because the financial behavior varied locally that was obscured by global averages. The current paper addressed both of these gaps by targeting the women-owned SME in the Nakuru County and by aligning literacy interventions to the business-level practices like budgeting, record keeping, and risk management.

Overall, despite the fact that financial literacy has always been associated with credit access, previous research tended to simplify its measurement, use weaker statistical tools, or extrapolate the findings across a variety of contexts. The present study has managed to surmount these shortcomings through the application of rigorous regression analysis, multidimensional literacy construct and focusing on women-owned SMEs in Nakuru County.

2.3.3 Proximity to Financial Institutions and Access to Credit

Wambui and Karanja (2020) used a descriptive design to assess the effect of the location of bank branches on credit uptake by SMEs in the Kiambu County. Their results revealed that efficiency in services was low as banks were physically close, there were long queues and staff being limited. This posed a methodological lapse since the study failed to provide econometric models of estimating the strength of proximity. There was also a conceptual gap which was the ability of the study to equate proximity to physical distance and not service turnaround time. The present paper sought to overcome these

limitations by using regression analysis and having a more expansive conceptualization which incorporated accessibility, convenience, and processing speed.

Njeri and Otieno (2021) evaluated the SACCO proximity to branches and access to credit by SMEs operating in Eldoret based on a survey data that was evaluated using correlation analysis methods. They found that the closer the distances the more loans were taken up but collateral requirements still played a role in limiting access. This created a gap in methodology as correlation does not determine the magnitude of effect. There was also a country specific gap in that it was the Eldoret based SMEs that were being targeted and not women entrepreneurs. The current study was saturated by the application of regression models to the women owned SMEs in Nakuru County.

Abiola and Ajayi (2019) studied SMEs in Nigeria regionally, employing logistic regression to evaluate the relationship between distance to microfinance banks and borrowing. They found that the firms located nearer to service points were able to access more loans but a large number were missed by limited networks of branches. This revealed a contextual difference, since the financial services environment is less digitalized in Nigeria than it is in Kenya. There was also a conceptual gap because the study had only conceptualized proximity based on the number of kilometers travelled and had not considered other conveniences such as transport cost and time worked. The current research has bridged these gaps since it has incorporated the physical and institutional accessibility within a Kenyan county.

In the global context, Singh and Gupta (2020) examined Indian SMEs based on data collected through a survey and analyzed using the multiple regression method. They established that the density of the branches was very helpful in enhancing loan applications but delays discouraged repeat borrowing. The study had a methodological

gap because it relied on self-report measures without checking the loan records. There was also a contextual gap since the infrastructure of the credit market in India is bank-based relative to the Kenyan ecosystem of mixed institutions SACCOs and digital lenders. These gaps were filled in the current study where actual loan approvals were studied and responses to the SME survey were studied in the Nakuru County.

The other international study conducted by Beck, Demirguc-Kunt and Peria (2021) was based on the World Bank Enterprise Survey data of the emerging economies. They found that credit constraints were minimized with increased branch density and rural businesses continued to be underserved. This demonstrated the conceptual gap as the study only considered proximity as the density of the branches, but not service quality. There was also contextual gap as the results were combined in a mass of many countries hiding local realities. The existing study reacted and offered evidence on county level in Kenya, particularly, women owned SMEs.

In general, the research on the proximity of financial institutions proves its role in access to credit, but often makes use of small-scaled measures, descriptive approaches, or generalized situations. The current research solved these problems through the integration of a multidimensional construct of proximity, the econometric analysis, and contextualizing the evidence in women-owned SMEs in Nakuru County.

2.3.4 Digital Financial Platforms and Access to Credit

Mutua and Njoroge (2020) studied the impact of the mobile banking adoption on SMEs in Nairobi County based on a descriptive survey analysis and a regression analysis. They discovered that the mobile platforms helped in keeping financial records and facilitated loan applications but the systems were not trusted because of weak security. The study was observed to have a conceptual gap because the research was based on cross-

sectional data that failed to determine long-term adoption effects. There was also a contextual gap since the analysis was only done in the urban setting of Nairobi and not on the county level enterprises. These gaps were closed in the present research, by running regression models to women-owned SMEs in Nakuru County, in which both urban and peri-urban environments impact digital adoption.

In their study, Karanja and Chepkemoi (2021) examined the hypothesis that SACCO integration with mobile money enhanced access to credit in Nakuru County based on a mixed-methods design. Their findings indicated that mobile payments made the transactions cheaper and did not have any substantial impact on the loan approval decision. This left a conceptual gap because the digital platform was gauged in a very limited way with mobile money, not including online banking or online credit services provided by fintech. Another gap that appeared to be country specific was the fact that the study generalized SMEs without taking into account gender differences. The current research overcame these limitations by employing a wider measure of digital platform and women-specific entrepreneurs.

Adebayo and Olamide (2019) evaluated the role of mobile money in credit access by SMEs in Nigeria based on a survey and logistic regression. They noted that the mobile platforms enhanced the management of cash flows but did not impact the formal approval of loans much. There existed a conceptual gap as the use of digital could only be assessed in terms of payments, but not its contribution to credit scoring and loan application. The study did not have strong firm size and sector controls that would have been used to interpret the findings methodologically. The present paper reacted by implementing a multidimensional scale of digital products - mobile banking, digital

credit, and online account management - and using econometric evaluation on women-owned SMEs in Nakuru County.

Zhang and Liu (2020) examine digital lending in China based on panel data on fintech platforms globally. They stated that the use of digital applications had enabled more SMEs to access microloans but default on repayment rates were high. This identified a gap in the methodology used since the research used institutional records in abundance but failed to obtain views of the borrowers. There was also a contextual difference as the digital credit infrastructure in China is very sophisticated with the hybrid of the SACCOs, banks and mobile lenders being the case in Kenya. These concerns were the driving forces behind the current study because it was based on primary SME data in Kenya and women-owned businesses which are typically subject to special borrowing restrictions.

Ozili (2021) conducted another international research that reviewed digital financial inclusion across emerging markets through secondary report and qualitative synthesis. The results showed that online resources enhanced equity but raised the issue of unequal advantages of women entrepreneurs. This brought about conceptual gap as the issue of digital inclusion was discussed broadly without defining the effects of the platforms on credit uptake. There was also a contextual gap because the global survey obscured the local truths on the county level. Both resolutions of the present study were achieved through the fact that the study concentrated on the women-owned SMEs in Nakuru County as well as quantifying the digital platforms in direct correlation with the access to credit.

To sum up, digital financial platforms are becoming a more significant factor in informing SME access to credit, although previous research usually adopted limited

conceptualizations, flakey methodologies, or diffuse contexts. Applying the multidimensional concept and having the analysis based in Nakuru County, the present study bridged these gaps and provided a new piece of evidence regarding the impact of digital platforms on women-owned SMEs.

Table 2.1: Summary of Literature Review and Gaps

Author(s) and Study Context	**Study Objective(s)**	**Key Findings**	**Research Gaps**	**Addressing Gaps via Current Study**
Abiola & Ajayi (2019) – Nigeria	Effect of distance to microfinance banks on SME credit access (logistic regression)	Firms closer to banks accessed more loans, though networks were limited	Conceptual: distance only, no cost/time factors. Contextual: Nigeria less digitized.	Expanded proximity construct to include distance, time, and institutional accessibility in Nakuru.
Adebayo & Olamide (2019) – Nigeria	Mobile money and SME loans (logistic regression)	Mobile improved cash flow but little effect on formal loans	Conceptual: digital use = payments only. Methodological: lacked firm-size/sector controls.	Measured diverse digital indicators (mobile, fintech, online) with econometric

				analysis in Nakuru.
Beck, Demirgüç-Kunt & Pería (2021) – Global	Branch density and SME credit constraints (Enterprise Survey)	Higher density reduced constraints, rural SMEs underserved	Conceptual: proximity = density only. Contextual: global aggregation masked county realities.	County-level analysis targeting women-owned SMEs in Kenya.
Chepkoech & Langat (2021) – Kericho County	Diversification of loan products and SME access (mixed methods)	SACCOs expanded outreach but collateral discouraged women	Conceptual: availability = diversification only. County-specific: rural agricultural SMEs only.	Broadened availability construct and tested across multiple SME sectors in Nakuru.
Demirgüç-Kunt, Klapper & Singer (2022) – Global	Global financial service points and formal credit	Service points ↑ credit uptake, but women disadvantaged	Conceptual: gender inequality broad, no service-specific barriers. Contextual: global averages masked county realities.	County-level evidence for women-owned SMEs, isolating availability as a measurable construct.
Khan & Ahmed	Banking density and SME	Branch networks expanded	Conceptual: availability measured only by	Included SACCOs, mobile money,

(2020) – Pakistan	financing (panel regression)	access but did not improve approvals	branch density. Contextual: Pakistan's system differs from Kenya.	and microfinance in Kenyan service availability construct.
Karanja & Chepkemoi (2021) – Nakuru County	SACCO mobile integration and SME access (mixed methods)	Mobile payments reduced costs but approvals unchanged	Conceptual: digital measured only via mobile money. County-specific: SMEs aggregated, no gender focus.	Broadened digital platform construct and applied specifically to women-owned SMEs.
Li & Zhao (2020) – China	Financial literacy and SME loans (survey + logistic regression)	Risk management training improved loan uptake	Conceptual: training = literacy, excluded bookkeeping/budgeting. Contextual: Chinese banking differs from Kenya's.	Measured literacy multidimensionally (budgeting, bookkeeping, risk) within Kenyan SME context.
Lusardi & Mitchell (2021) – Global	Financial literacy and credit uptake	Literacy improved access, but women scored lower	Conceptual: literacy treated as generic index. Contextual: global averages	Focused on women-owned SMEs with SME-specific literacy

			masked local realities.	measures in Nakuru.
Maina & Mwangi (2020) – Nakuru Town	Financial literacy and credit access (descriptive survey)	Poor bookkeeping limited eligibility for loans	Methodological: descriptive only. Conceptual: literacy = bookkeeping alone.	Applied regression and expanded literacy to include budgeting and risk management.
Mugambi & Muturi (2021) – Meru County	Financial literacy training and loan uptake (correlation)	Training improved knowledge but not always borrowing	Methodological: correlation lacked causal strength. County-specific: SMEs, not women-focused.	Econometric analysis targeting women-owned SMEs in Nakuru.
Mutua & Njoroge (2020) – Nairobi County	Mobile banking adoption and SME loan uptake (survey + regression)	Mobile improved applications but security concerns reduced trust	Methodological: cross-sectional, short-term only. Contextual: Nairobi focus.	Applied regression to women-owned SMEs in Nakuru County.
Ncube & Sibanda	Institutional outreach and	Outreach ↑ borrowing,	Methodological: secondary data only.	Collected primary SME

(2019) – Zimbabwe	SME credit (secondary data)	but service inconsistencies undermined trust	Conceptual: outreach = physical presence only.	data, integrated service quality and reliability.
Njeri & Otieno (2021) – Eldoret	SACCO proximity and SME credit (survey + correlation)	Shorter distances ↑ uptake but collateral barriers persisted	Methodological: correlation only. County-specific: Eldoret SMEs, not women-focused.	Applied regression to women-owned SMEs in Nakuru.
Omondi & Muturi (2020) – Nairobi County	Availability of services and credit access (survey + regression)	Awareness high, uptake low due to collateral and procedures	Methodological: relied on descriptive results. Contextual: Nairobi-based with dense institutions.	Regression applied in Nakuru County, where service concentration is lower.
Osei & Adu (2019) – Ghana	Financial literacy and SME credit (survey + probit regression)	Budgeting ↑ access, awareness of terms had little effect	Conceptual: literacy limited to budgeting. Contextual: Ghana's system differs from Kenya.	Expanded literacy construct and localized to Kenya's SME environment.

Ozili (2021) – Global	Digital inclusion and SME access	Digital expanded inclusion, but women lagged	Conceptual: broad digital inclusion, not credit-specific. Contextual: global evidence masked county-level realities.	Examined digital-credit effects at county level, focused on women-owned SMEs.
Singh & Gupta (2020) – India	Branch density and SME loan applications (survey + regression)	Density ↑ access, but delays discouraged repeat borrowing	Methodological: relied on self-reports. Contextual: India's credit dominated by banks.	Verified loan approval ratios with SME surveys in Nakuru.
Zhang & Liu (2020) – China	Fintech lending and SME microloans (panel data)	Digital apps ↑ loans but defaults high	Methodological: institutional data only. Contextual: advanced Chinese fintech unlike Kenya.	Used SME-level primary data within Kenya's hybrid banking/fintech context.

Source: Various literature Sources, 2025

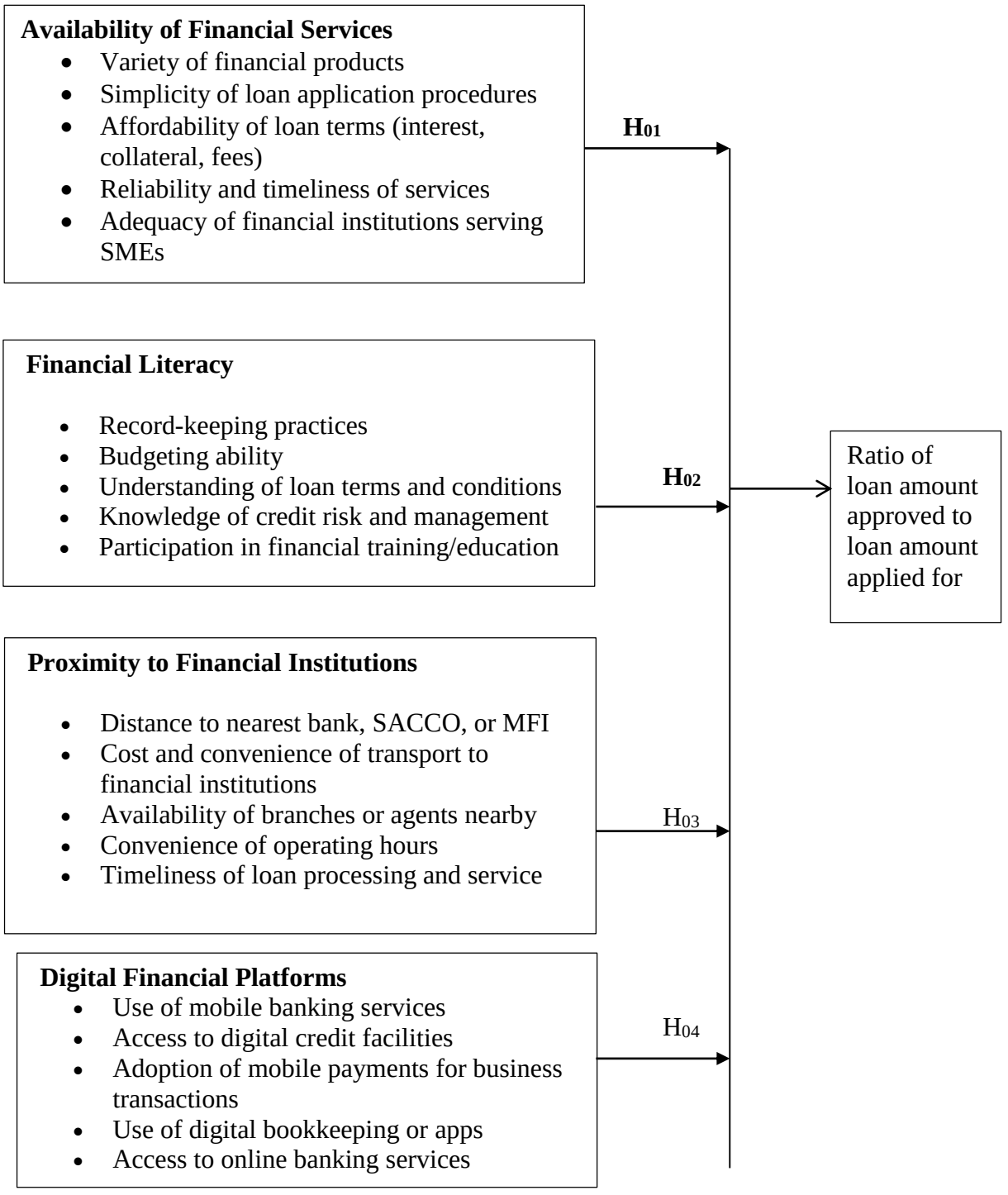
2.4 Conceptual Framework

A conceptual framework refers to an organized description that defines the key variables of research and explains how they are theoretically or empirically interconnected to each other. It offers a rational line that determines the direction of the research process and data collection as well as their analysis (Adom, Hussein, and Agyem, 2018; Grant and Osanloo, 2014).

The framework in this research provides a comparison of the relationship between the independent variables (availability of financial services, financial literacy, distance to financial institutions, and digital financial platforms) and the dependent variable, access to credit among women owned SME in Nakuru County.

Independent variable **Dependent Variable**

Financial inclusion



The conceptual framework as shown in Figure 2.1 shows the effects of various dimensions of financial inclusion in access to credit by women owned SMEs in Nakuru County. Availability of financial services, financial literacy, distance to financial institutions and use of digital financial platforms are the independent variables whereas access to credit is the dependent variable, which is the ratio between the loan amounts approved to the loan amount applied. This framework demonstrates how all the four dimensions work as channels that financial inclusion can transform the borrowing experiences of women entrepreneurs.

Access to financial services indicates the extent and quality of the products, the cost of loan facilities and ease of application processes. The assumption is that the availability of reliable and timely service delivery and the sufficiency of institutions that provide services to SMEs will have a direct positive implication on women to access formal credit. The knowledge and practices that reflect financial literacy in this model are record keeping, budgeting, knowledge about loan terms, credit risk management and attending financial training. These are indicators that signify the capacities that empower women with entrepreneurial skills to understand financial products, comply with lender demands, and repay them well.

The distance to banks or agents, transportation costs, work hours, and time of services will be the proximity to financial institutions. The framework supposes that the short distance, cheap costs, and convenient operating time are likely to make women entrepreneurs seek and get loans. Mobile banking, digital credit facilities, mobile payments, digital bookkeeping applications and online banking services capture digital financial platforms. They are cost-effective, allowing minimal transaction costs, reach more people and offer alternative access to credit, particularly where participants in the traditional system are still restricted.

The four dimensions combined depict the interplay of traditional and technology-based elements of financial inclusion to influence access to credit. Any of these dimensions will be a weakness that constrains borrowing opportunities and an improvement in all of them enhances the capability of women-owned SME in Nakuru County to obtain affordable and sustainable financing.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter establishes the methods to be adopted to study the effects of financial inclusion on access to credit by women-owned SMEs in the Nakuru County. It describes the general design followed in the study, the target population and the method applied in sampling the respondents. The section also explains the tools used in the collection of data and the measures that were implemented to guide to the fact that the results would be true and reliable.

The chapter also outlines the methods that were used to analyze the data, and each decision was connected to the study aims. The topic of ethical protection and approvals is also mentioned, as the study had to meet the institutional standards and preserve the right of the participants. With such details provided, the chapter gives a clear report of how the investigation was planned and conducted, which served as the foundation on which the conclusions are made.

3.2 Research Design

The study took the descriptive design to study the impact of financial inclusion to access to credit among women owned SMEs in Nakuru County. This would be an appropriate method as it would enable the researcher to record the situations in the way they were practiced without interfering with the variables of interest. By doing so, the research has recorded rates of financial literacy, access to financial services, distance to financial institutions and utilization of digital platforms and then associated these aspects with credit access (Creswell & Creswell, 2018).

The design also contributed to the application of quantitative analysis, which allowed finding patterns and links between indicators of financial inclusion and loan outcomes. Concurrently, it allowed room to contextualize the findings regarding the experiences of women entrepreneurs, thus putting the findings into perspective against the actual problem of SME financing in the Nakuru County (Bell, Bryman, and Harley, 2022). Combined, this design provided a balanced framework which could integrate statistical rigor as well as contextual knowledge such that the research results generated meaningful and reliable evidence.

3.3 Empirical Model

The analysis of financial inclusions role in determining the access to credit by women-owned SMEs in Nakuru County was done using Ordinary Least Squares (OLS) regression. The choice of OLS is due to the fact, that, assuming classical linear regression model, OLS produces both efficient and unbiased estimates, which makes it one of the most accurate to consider linear relationships (Wooldridge, 2019; Hall, 2020). It is so appealing in that it is not only clear but also shows how the explanatory variables relate to the dependent variable such that one can see not only the existence of an effect but the strength and direction of the effect.

The simple and multiple regression models were used. The simple regressions allowed viewing the impact of each dimension of financial inclusion such as the presence of services, financial literacy, distance to institutions, and the use of digital platforms separately on access to credit. Their joint impact was then analyzed using the multiple regression where the various dimensions were interacting to form the overall access. This two-pronged methodology made sure that both micro effects and macro effects

have been identified in the analysis that is providing a better basis to test the hypotheses in the study (Gujarati and Porter, 2020).

Through the use of OLS, the study used a well-known methodology that is broadly accepted in the field of social sciences and research in policy. In addition to being technical, the use of OLS makes the results more accessible to practitioners and policymakers, as the results of the method are easier to interpret and implement in actual processes to widen access to finance.

The regression model guiding the analysis was specified as follows

$$Yit = \beta_0 + \beta_1 X_1 it + \beta_2 X_2 it + \beta_3 X_3\ it + \beta_4 X_4 it + \varepsilon it$$

Where: -

Yit = Access to Credit

- X_1 = Availability of Financial Services
- X_2 = Financial Literacy
- X_3 = Proximity to Financial Institutions
- X_4 = Digital Financial Platforms
- β_0 = Constant (intercept)
- β_1, β_2, β_3, β_4 = Coefficients of the independent variables- ε = Error term

3.4 Operationalization and Measurement of Variables

To be able to conduct the regression analysis, the study had to transform the general concepts into quantifiable measures. This is called operationalization so that theoretical constructs may be observed and tested in practice. According to Saunders, Lewis, and Thornhill (2022), operationalization helps to mend the gap between abstract concepts and data, transforming them into the measurable variables. The use of access to credit

as the dependent variable and four independent dimensions, as the financial service availability, financial literacy, financial institution proximity, and the accessibility to digital financial platforms, was used in this research.

In order to measure these constructs, the research made use of structured questionnaires which were based on a five-point Likert scale. Indicators were specified to capture actual practices: the availability of financial services, the range of products and affordability, easiness in applying to loans, and the trustworthiness of banks, digital platforms, use of mobile banking, digital credit, mobile payments, and online banking. Access to credit was the dependent variable which was operationalized as the ratio of the loan amounts that were approved to the loan amounts applied to the loan which is an aspect that showed the level at which the financial needs were met.

This architecture was done so that every element of financial inclusion was represented in a uniform and verifiable manner. It also enabled the analysis to test the hypothesis based on both theory and previous studies that women entrepreneurs would have a higher access to credit with increased availability, literacy, proximity, and digital access. Table 3.1 provides a summary of the way the variables were defined and measured.

Table 3.1: Operationalization of Study Variables

Variable	Type	Operationalization	Measurement Indicators
Access to Credit	Dependent	Extent to which women-owned SMEs successfully secure loans relative to applications made.	• Ratio of loan amount approved to loan amount applied for
Availability of Financial Services	Independent	Presence and adequacy of formal financial products and institutions serving SMEs.	• Variety of financial products • Simplicity of loan application procedures • Affordability of loan terms (interest, collateral, fees) • Reliability and timeliness of services • Adequacy of financial institutions serving SMEs
Financial Literacy	Independent	Knowledge and skills enabling SMEs to effectively manage and utilize credit.	• Record-keeping practices • Budgeting ability • Understanding of loan terms and conditions • Knowledge of credit risk and management • Participation in financial training/education
Proximity to Financial Institutions	Independent	Physical and logistical ease of accessing formal financial services.	• Distance to nearest bank, SACCO, or MFI • Cost and convenience of transport to financial institutions • Availability of branches or agents nearby • Convenience of operating hours • Timeliness of loan processing and service delivery
Digital Financial Platforms	Independent	Adoption of technology-enabled financial services by SMEs.	• Use of mobile banking services • Access to digital credit facilities • Adoption of mobile payments for business transactions • Use of digital bookkeeping or apps • Access to online banking services

Source: researcher, 2025

3.5 Target Population

The target population determines the group on which the study was trying to make conclusions. In this study, the target population was that of women in small and medium-sized enterprises (SMEs) in the Nakuru County. They were these enterprises that were the unit of analysis since they are the ones who directly feel the benefits and limitations that relate to financial inclusion especially when it comes to credit availability (Saunders, Lewis, and Thornhill, 2022).

The Nakuru County SME Registry (2023) records on administration revealed that approximately 1,214 registered SMEs of women were registered in the county and were distributed in sectors (including manufacturing, retail, services and agriculture sectors). This number gave the structure on which the research was carried out. Focus on registered enterprises made sure that the study was supported by verifiable data, which reinforced the credibility of the data retrieved.

The SMEs owned by women were selected as the target since they are the core actors of the economic development at the local level yet they still have challenge accessing formal financial services. Their experiences offered the most pertinent information in the study of the impact of financial inclusion on access to credit in Nakuru County.

3.6 Sample Size and Sampling Technique

A sample is a smaller group that is selected among the population under study and conducted to make a conclusion about the whole population. It is essential to determine the appropriate sample size as it determines a balanced accuracy and reliability with the practical constraints of time and money (Saunders, Lewis, and Thornhill, 2019; Babbie, 2020).

In this research, 1,214 registered women-owned SMEs in Nakuru county were the target population as they appeared in the county registry. The sample size was calculated as given in the formula of finite population by Yamane (1967):

$n = N / (1 + N(e^2))$

Substituting the values for this study gave:

$n = 1214 / (1 + 1214(0.05^2)) = 301$

A sample of 301 female owned SMEs was therefore used in the research. This number gave a sample size sufficient to provide statistical reliability and at the same time, manageable in the field. This by itself was deemed adequate since it was a sufficient number that guaranteed statistical accuracy and at the same time practical limitations like time and resources, as per Israel (2019).

The research used the purposive sampling to select respondents. The inclusion criteria were that the enterprise must be registered in the Nakuru County, completely owned by women, and they must have requested a loan during the month of July 2024 to June 2025. Among the SMEs which had not requested credit during this time frame were not included in the analysis of the dependent variable, because access to credit could only be uniquely evaluated among loan applicants.

3.7 Data Collection Instruments

The research has utilized the structured questionnaire as the main method of collecting information with the help of the field administration. The use of questionnaires in quantitative research is generally accepted to be effective, as it is possible to gather standardized information using such tools at a relatively low price on a large number of respondents (Saunders, Lewis, and Thornhill, 2019; Babbie, 2020). To achieve more

clarity and minimize the chances of non-response, the tool was conducted face-to-face with the help of trained research staff.

The questionnaire was largely structured with Likert scale items that aimed to measure the four dimensions of financial inclusion, which include services availability, financial literacy, access to institutions and use of digital platform. This format was to guarantee that the answers would be quantitative in terms of analysis, thus easy to identify trends and relationships. Simultaneously, there were some open-ended questions, which enabled women businesspeople to relate their experiences using their words. These observations added complexity to the quantitative findings, as they were based on the experiences of credit access in Nakuru County (Creswell and Creswell, 2023).

With its integrated standardized measurement and qualitative input, the instrument was close to the research aim as well as it reflected realities of the problems of the women-owned SMEs. This design was able to provide reliable and contextual evidence.

3.8 Validity and Reliability of the Instruments

Validity is a concept that defines the integrity of a research instrument to measure what it is supposed to measure, in such a way that the results can capture the concepts being studied (Heale and Twycross, 2015). The concept of validity in this study was improved by having experts of the questionnaire reviewed by scholars and practitioners in the fields of finance, entrepreneurship, and the social sciences. Their contribution was able to enrich the items in such a way that they captured the four dimensions of financial inclusion and access to credit in a satisfactory way. Also, the constructs utilized in the research were coordinated with the international patterns, including the World Bank Global Findex, which contributed to construct validity since it guaranteed consistency with global standards (Demirgüç-Kunt, Klapper, Singer, Ansar, and Hess, 2020).

Reliability is the issue of whether an instrument can provide similar results when used in common circumstances (Tavakol and Dennick, 2011). In order to calculate reliability, 15 women-owned SMEs were selected as participants of a pilot study (based on a neighboring county). Cronbach Alpha was used to analyze the responses in terms of internal consistency with a set standard of 0.7 or higher as being acceptable as social science research.

3.9 Data Collection Procedure

Prior to the data collection, the researcher received formal approvals. The Graduate School of Kenyatta University gave a clearance, later a research permit was granted by National Commission of Science, Technology and Innovation, (NACOSTI). With such approvals, further permission was received to allow entry into the women-owned businesses by county authorities and SME associations in Nakuru County. This dual clearance (academic and administrative) was the guarantee that the work was not only legitimate but founded on ethicality as well (Saunders, Lewis, and Thornhill, 2022).

The research assistants received training on administering the questionnaire after authorization, ethical concerns, including confidentiality and neutrality, and professional interaction with the participant. The informed consent form was explained to the respondents who were informed about the study purpose and their rights as well as the fact that their participation was voluntary. They were given an assurance that their identities would not be revealed and they could withdraw any time they want without repercussions.

The questionnaires were then administered face to face within the SME premises and other conveniently located places. There were instances where a drop in and pick later procedure was applied to ensure that the business operations were not interrupted and

the respondents had time to fill in the forms in a reflective manner. The practice was conducted within four weeks and follow-ups were made to those who failed to respond within the first week. This method allowed a wide coverage of the sampled SMEs and assisted in obtaining credible data without violating the institutional and regulatory requirements (Creswell and Creswell, 2023).

3.10 Data Analysis and Presentation

Both quantitative and qualitative content was produced in the study. Thematic analysis was to be used as the initial approach to analysing open-ended responses, segmenting the views into patterns that possibly depicted shared experiences among women entrepreneurs. This technique, as Nowell et al. (2017) observe, is useful since it goes beyond single utterances and points out to themes that occur among respondents. By doing so, the statistical data were further enriched with the voices of respondents that provided the findings with more depth and context.

In the case of the quantitative data, Statistical Package of the Social Sciences (SPSS, Version 28) was applied. To describe demographic attributes, the indicators of financial inclusion, and credit access patterns, descriptive statistics (means, frequencies, percentages, and standard deviations) were estimated (Pallant, 2020). The correlation analysis was then utilized by Pearson in defining the level and direction of the relationships between the four independent variables of financial literacy, the availability of services, the proximity to institutions and the use of digital platforms and the dependent variable of access to credit.

The estimation of multiple regression models was also conducted to test the degree of good prediction of credit by the dimensions of financial inclusion considering the demographic characteristics. This was done to enable the study to measure the

significance and also the magnitude of the relationships being investigated (Field, 2021). Its results were provided in tables and charts, and the results were supported with narrative explanations that could provide that the statistical evidence could be interpreted in a practical manner. This combination helped readers to pursue both the empirical patterns and their meaning to women-owned SMEs in Nakuru County (Saunders, Lewis, and Thornhill, 2019).

3.11 Diagnostic Tests

Diagnostic tests were performed before the regression analysis in order to make certain that the key assumptions of the ordinary least squares model were satisfied. According to Gujarati and Porter (2015), any violation of these conditions leads to biased and inefficient estimations, and Wooldridge (2020) dwells upon the fact that the diagnostic checks safeguard the validity of the hypothesis tests, confidence intervals, and the accuracy of prediction. Since the research relied on a cross-sectional data (that encompassed a survey data on women owned SMEs in Nakuru County) the diagnostic tests that were only relevant to cross sectional regression were utilized. This testing was conducted in a step-wise manner and the first test was normality of the residues, followed by the linearity, multicollinearity, error independence and heteroskedasticity.

3.11.1 Normality of Residuals

In normality, the regression model has to satisfy the assumption that the output of the regression is distributed normally. The importance of this assumption is that statistical inference like p values and confidence interval is calculated based on the normal distribution. A number of tests can be used to test normality among them Shapiro Wilk test, Kolmogorov Smirnov test, Jarque Bera test and graphical tests like histogram and Q Q plots. In this research it was found that the Shapiro Wilk test is powerful and with

moderate sizes of samples it is used at five percent level of significance. The p-value of more than 0.05 was taken to indicate that the residuals were normally distributed. In the case where deviations were observed, data transformation and strong estimation became the solution.

3.11.2 Linearity

The assumption of linearity is that the association among the independent variables and the dependent variable is appropriately defined to be linear. Breach of this assumption yields biased estimates and false inferences. Scatter plots of residuals, partial regression plots, and Ramsey RESET test are tests that can be used to determine linearity. In this research, Ramsey RESET test with a level of five percent was applied due to the fact that it offers a formal test of specification errors. The p value of above 0.05 meant that the model was specified. In the instances where non -linearity was realized, solutions like the transformation of the variables or re-specification of the model have been discussed.

3.11.3 Multicollinearity

Multicollinearity occurs when the independent variables are highly linked with each other such that it is not easy to identify individual contributions by both to the dependent variable. This issue magnifies the standard errors and decreases regression coefficient stability. Some of the methods that can be used to identify multicollinearity are the correlation matrices, tolerance values, condition indices as well as the Variance Inflation Factor. Variance Inflation Factor was used in this study as it gives a direct value of collinearity. The value of a VIF of less than 10 was deemed to be acceptable, and values exceeding this value were indicative of serious multicollinearity. Where

multicollinearity was found, solutions were to either eliminate redundant variables or pool closely predicting variables.

3.11.4 Independence of Errors

The independence assumption is based on the fact that there is no correlation between the residues produced by different observations. In the case of correlated errors, standard errors are underestimated and test statistics are overstated. The approaches to testing independence are Durbin Watson, Breusch Godfrey, and observing residual plot. In this study, the Durbin Watson statistic was chosen, as it is easy to apply and is very familiar. The values of 1.5 to 2.5 were considered as supporting evidence that the residuals were independent. In cases of violation of independence, strong methods of estimation would have been used.

3.11.5 Heteroskedasticity

Heteroskedasticity describes a case in which there is no homogeneity between the values of the variance of the residuals. This goes against the homoskedasticity assumption and leads to inefficient estimates that have erroneous standard errors. Common tests that are used to test heteroskedasticity are the Breusch Pagan test, White test and graphical analysis of residuals. This research utilized the Breusch Pagan test with the five percent level of significance as it is simple and dependable. The assumption of homoskedasticity was met and a p value more than 0.05 was used as an indication of this fact. In the event that heteroskedasticity had been found, then robust standard errors would have been used in order to correct the bias.

3.12 Ethical Considerations

Research ethics is the definition of the principles and standards that determine responsible research practice and guarantee that the rights, dignity, and welfare of the participants are upheld (Resnik, 2020). These principles also protect the participants in the social science research to ensure fairness and enhance trust between the researcher and the community (Mertens, 2023). Such standards also help to increase the credibility of findings and meet institutional and national requirements. Ethical clearance in this research was provided by the Graduate School of Kenyatta University and a research permit was given by the National Commission of Science, Technology and Innovation (NACOSTI) which confirmed that the research complied with the Kenyan research governance framework.

The participants were fully informed about the objective of the research, the voluntary character of their involvement, and the fact that they can leave the research at any point and it will not have any adverse effects. Before data collection, informed consent was taken. All responses were coded and stored securely to maintain the confidentiality and the responses were only accessed by the researcher. The questionnaire used anonymous data, as it never contained any personal identifiers, making the identity of the respondents during the research process remain anonymous.

Data collection, data analysis and reporting were conducted with integrity and transparency. Every stage of the research was accurate and no manipulation was done to present findings. The references to all secondary sources were recognized with proper citation and reference which prevented plagiarism and strengthened the academic integrity (Creswell and Clark, 2021). All of these steps contributed to the increase in

the ethical value of the work and its conformity to the internationally established principles of conducting responsible social science research.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

The chapter describes the outcome of data analysis and discussion of the findings of effect of financial inclusion on access to credit by women owned small and medium enterprises (SMEs) in Nakuru County, Kenya. Data will be analyzed using the data of the sampled respondents that will be based in the period June 2024-June 2025. Using descriptive statistics, correlation analysis, and regression models, the results are provided according to the study objectives, and tables and figures are used to increase the level of clarity.

4.2 Response Rate

The research selected the Nakuru County 301 women who own small and medium enterprises. A total of 260 respondents responded to and returned the questionnaires out of this sample, which translates to a response rate of 86.4 percent. This was the appropriate level of engagement to conduct analysis, as over 70 percent of response rates are commonly discussed as enough to produce credible and valid outcomes in social science studies (Saunders, Lewis, and Thornhill, 2020).

4.3 Demographic Information of Respondents

In this section, the demographic data of the respondents are given. The background information was gathered to give some background to the analysis and to demonstrate the heterogeneity of the women owned SMEs in Nakuru County. The attributes included age, years in operation, having a business bank account and the primary sector of business.

4.3.1 Age of Respondents

The research was aimed at establishing the age of the respondents as one of the key parameters that show stage of entrepreneurship. Table 4.1 below shows the results.

Table 4.1 Age of the Respondents

Age (Years)	Frequency	Percent
18–29	45	17.3
30–39	97	37.3
40–49	65	25.0
50–59	41	15.8
60+	12	4.6
Total	260	100.0

Source: Research Data, 2025

Based on Table 4.1 above majority of the respondents (37.3 percent) were between the ages of 30 and 39 years with 25.0 percent being between 40 and 49 years. The younger respondents who were in the age group of 18 to 29 years constituted 17.3 percent with 15.8 percent being of the ages of 50 to 59 years old and very few respondents were aged 60 years and above. This distribution indicates that the distribution of women entrepreneurship in Nakuru County is highly concentrated in middle age group brackets, which is in tandem with the periods of active involvement and growth in businesses.

4.3.2 Years in Operation

The research also aimed at determining the duration of operation of the businesses because duration of operation may determine access to financial services. Table 4.2 below shows the findings.

Table 4.2 Years of Operation

Years in Operation	Frequency	Percent
1–2 years	68	26.2
3–4 years	73	28.1
Over 5 years	119	45.8
Total	260	100.0

Source: Research Data, 2025

Table 4.2 above depicts that almost half of the respondents (45.8 percent) have over five years in operation, and 28.1 percent of respondents had 3 to 4 years in operation. A few 26.2 percent said that they had been in operation between 1 and 2 years. This implies that majority of the SMEs owned by women in Nakuru County are well established, and this could enhance their exposure to financial services and chances of securing credit.

4.3.3 Business Bank Account Ownership

The research also looked at the presence of business bank accounts of the SMEs since this is usually a prerequisite to the supply of formal financial services. Table 4.3 below displays the results.

Table 4.3 Business Account Ownership

Business Bank Account	**Frequency**	**Percent**
Yes	211	81.2
No	49	18.8
Total	260	100.0

Source: Research Data, 2025

According to Table 4.3 above, most of the respondents (81.2 percent) obtained business bank accounts, and only 18.8 percent did not. It means that the majority of women

owning SMEs in the Nakuru County are formally linked to the financial institutions, which increases their opportunities of receiving credit and using digital financial services.

4.3.4 Main Sector of Business

Lastly, the research aimed at determining the key industries in which the SMEs were engaged. This was significant in the knowledge of the nature of the women enterprises in Nakuru County. Table 4.4 below shows the results.

Table 4.4 Main Sector of Business

Main Sector	Frequency	Percent
Wholesale/Retail	102	39.2
Services	56	21.5
Manufacturing	42	16.2
Agribusiness	42	16.2
Other	18	6.9
Total	260	100.0

Source: Research Data, 2025

Based on Table 4.4 above, the top sector was the wholesale and retail which made 39.2 percent, and secondly, the services sector made 21.5 percent. It was in manufacturing and agribusiness, which constituted 16.2 percent, and other sectors at 6.9 percent. This validates the fact that retail trade is the staple of women owned SMEs in Nakuru County even though a significant portion of the businesses is also involved in services, agribusiness, and manufacturing.

4.4 Descriptive Statistics

This section gives the descriptive statistics of the independent variables of the study, availability of financial services, financial literacy, proximity to financial institutions, and the use of digital financial platforms. The measures of each construct were taken on a five-point Likert scale between Strongly Disagree (1) and Strongly Agree (5). The responses were summarized using frequencies, means and standard deviations. The presentation is done on 260 valid answers, which constitute 86.4 percent of the target sample.

4.4.1 Availability of Financial Services

The research investigated the accessibility of financial services to women owned SMEs in Nakuru County. The respondents were required to answer five statements on the availability of financial products, loan procedures, affordability, reliability of services, and availability of financial institutions based on how much they agreed with those statements. Table 4.5 below represents the results.

Table 4.5: Availability of Financial Services (N = 260)

Statement	SA (%)	A (%)	N (%)	D (%)	Strongly Disagree (%)	Mean	Std. Dev.
A variety of financial products (loans, savings, insurance) is available to my business.	25.4	47.3	25.0	2.3	0.0	3.96	0.77
Loan application processes and requirements are straightforward.	25.8	47.3	24.6	1.9	0.4	3.96	0.79
Interest rates, fees, and collateral requirements are reasonable for SMEs.	25.0	48.1	24.2	2.7	0.0	3.95	0.77
Financial institutions provide reliable and timely services.	30.4	50.0	18.1	1.5	0.0	4.09	0.73
There are enough banks, SACCOs, or MFIs serving women-owned SMEs in this county.	27.7	46.5	23.1	2.7	0.0	3.99	0.79

Source: Research Data (2025)

According to Table 4.5, the descriptive data indicate that women entrepreneurs in Nakuru County have high perceptions of financial services as mostly available, reliable, and service responsiveness has the highest mean of 4.09. This is in line with the work by Chepkoech and Langat (2021) in Kericho that found out that SACCOs had increased outreach and reliability despite collateral requirements that still restricted women. Their analysis has equated availability primarily with loan diversification and the present study broadens the construct to service reliability and timeliness which bridged the conceptual gap.

The result that institutional adequacy scored at 3.99 is consistent with that of Beck, Demirguc-Kunt and Peria (2021) who established that the density of the branch scaled down the financing limitations at the international level, yet the rural firms were inadequately served. Their study was done on the basis of aggregate global data where the current research presents county data indicating that women entrepreneurs in

Nakuru do not feel that there is a shortage of banks, SACCOs, and MFIs. This concerns the contextual constraint of global aggregation to obstruct local realisation.

The mean scores of 3.96 on loan application processes and product variety depict careful optimism even though quite a significant percentage of the respondents showed no opinion. The same trend resembles Omondi and Muturi (2020) in Nairobi who discovered that low access to loans was caused by the complexity of loan procedures despite high awareness of financial services. As opposed to their descriptive-heavy analysis, the current research paper brings out neutrality in responses as indicators to continued obstacles in application processes hence the methodological gaps in previous studies are addressed.

The least mean score of 3.95 was on affordability in terms of interest rates, fees and collateral. This is in line with Ncube and Sibanda (2019) in Zimbabwe who found that outreach increased credit uptake but affordability concerns diluted trust. They used secondary data as their source of study compared to the current analysis using primary evidence of women-owned SMEs in Nakuru that identifies the affordability and reliability and product variety. This takes care of the methodological shortcomings of the earlier literature.

The general favorable views accompanied by the pockets of neutrality echo Demirgüç-Kunt, Klapper and Singer (2022) who surmised about the Findex data that the service points had become more inclusive yet mixed with women. Their aggregation of gender inequality was on a global scale, whereas the current study provides service-related indicators of the issue of inequality among female entrepreneurs, including reliability, affordability, and product variety at the county level. This is a direct response to the concept gap of ignoring gendered service specific experiences.

4.4.2 Financial Literacy

The research also looked into the financial literacy of women owned SMEs in the Nakuru County. The respondents were requested to provide ratings on five statements that included record keeping, budgeting, awareness of loan conditions, risk awareness, and involvement in financial education. Table 4.6 below summarizes the responses.

Table 4.6: Financial Literacy

Statement	SA (%)	A (%)	N (%)	D (%)	Strongly Disagree (%)	Mean	Std. Dev.
This business keeps accurate financial records.	28.5	46.5	20.8	3.1	1.2	3.98	0.87
We prepare and follow a business budget.	27.7	47.7	20.0	3.1	1.5	3.96	0.88
I can interpret loan terms such as interest rates, repayment periods, and fees.	29.6	44.6	19.6	4.6	1.5	3.96	0.92
I understand the risks associated with borrowing and how to manage them.	30.0	44.6	19.2	4.2	2.0	3.96	0.93
I have attended financial education or training relevant to SMEs.	23.1	43.1	23.8	6.5	3.5	3.75	0.99

Source: Research Data (2025), N = 260

Table 4.6 shows that maintaining proper financial records got the most support with a standard deviation of 0.87 and a mean of 3.98. This finding means that majority of the women entrepreneurs in Nakuru County know that proper record keeping is one pillar of good financial management. Good records would increase the creditworthiness as it will lead to a more objective evaluation of the ability to repay by the institutions and less information asymmetry. Another study by Maina and Mwangi (2020) in Nakuru also found that the weak record keeping limited access to credit because lenders used records extensively to assess the loan applications. This finding means that empowerment of bookkeeping among women entrepreneurs would enhance their suitability to formal credit and development of enterprises sustainably.

Table 4.6 also indicated high scores of 3.96 on preparing and following business budget with the women entrepreneurs demonstrating that they place importance on planning and organized distribution of resources. Such support indicates the appreciation of the fact that budgeting is a form of discipline when it comes to spending money and how to see that money is channeled towards productive activities. In Ghana, Osei and Adu (2019) have found that budgeting practices enhanced the probability of accessing loans by SMEs, showing that planning is not only a way to organize the internal management, but also to develop a level of confidence with lenders. The connotation of this is that regular budgeting across women-owned SMEs in Nakuru improves the internal financial control and also demonstrates managerial incompetence to external financiers, thus boosting access to credit.

Interpretation of the terms of the loan, and understanding borrowing risks had both equal means of 3.96 in Table 4.6. It means that most women entrepreneurs are conscious of the risks associated with borrowing and can assess the risks of taking up debt before engaging in the process. Nevertheless, the neutral answers of approximately one-fifth

of the participants indicate that not all entrepreneurs are entirely confident in this field, and it is because of knowledge gaps. In China, Li and Zhao (2020) found that risk management training had a positive relationship with borrowing ability as companies could better pay off their debts. The implication in the case of Nakuru is that although most women entrepreneurs already display competence in loan interpretation, specific training sessions on loan terms and risk analysis would minimize the risk of default and enable better long-term borrowing.

Financial education or training attendance achieved the least support in Table 4.6 where mean = 3.75 and the maximum variation (SD = 0.99). This implies there is disproportional exposure to formal training opportunities with some women entrepreneurs benefiting at the expense of others or not choosing to take it or not making up their minds on the importance. Lusardi and Mitchell (2021) also emphasized that despite the beneficial inclusion effects, women around the world continue to be less structured in training compared to men, although financially literate. The implication of this finding is that lapses in financial education are a major intervention in Nakuru County that restricts the power of the entrepreneur in significantly translating budgeting, record keeping, and interpretation of risk into regular financial fortification. It would then be important to expand the access to relevant training programs in order to close these gaps and improve financial inclusion.

4.4.3 Proximity to Financial Institutions

The research also measured the distance of the financial institutions to women owned SMEs in Nakuru County. Five statements were administered to respondents whose rating was done in distance to financial institutions, convenience of transport, availability of outlets, operating hours and time taken to process services. Table 4.7 below represents the findings.

Table 4.7: Proximity to Financial Institutions

Statement	SA (%)	A (%)	N (%)	D (%)	Strongly Disagree (%)	Mean	Std. Dev.
A financial institution is located within a short distance from my business.	27.3	42.7	25.0	4.2	0.8	3.92	0.88
Transport to the nearest financial institution is convenient and affordable.	26.5	43.5	24.6	4.6	0.8	3.91	0.89
There are bank branches, SACCO outlets, or agents available in my trading area.	28.1	42.7	23.5	4.2	1.5	3.92	0.9
The operating hours of financial institutions are convenient for my business.	25.4	45.0	24.6	3.5	1.5	3.89	0.89
Processing time for services such as loan applications is reasonable.	24.6	44.2	26.2	3.5	1.5	3.87	0.9

Source: Research Data (2025)

Based on Table 4.7, the availability of the bank branches, SACCO outlets or agents in the trading areas was the best-ranked statement and the mean was 3.92 with a standard deviation of 0.90. It implies that women in Nakuru County who are in the business world view financial institutions as physically available in their business locations. The

observation aligns with the conclusions of Beck, Demirguc-Kunt and Peria (2021), who studied data of international enterprises and discovered that the density of the branch facilitated financial limitations, even though rural companies were still underserved. This does not mean that physical presence is a significant constraint of SMEs owned by women in Nakuru, but further development of network of branches and agents may further consolidate inclusion.

Even in Table 4.7, the location within short distance, and affordable transport options also get a score of only less than 3.92. The result is comparable to that of Wambui and Karanja (2020) in Kiambu, who determined that the closeness of branches enhanced the access to financial services, but their efficiency was a problem. The implication in the context at hand is that affordability of transportation and distance of traveling has diminished the barriers of physical access of women entrepreneurs in Nakuru although this benefit has to be accompanied by enhancement of service delivery efficiency.

Table 4.7 shows that the average hours of financial institutions were 3.89 which, though positive, reflects that some women entrepreneurs experience challenges in matching their scheduling of their business to the working hours of the institutions. This finding is related to the article by Singh and Gupta (2020) in India, who found that despite the increase in the level of branch presence, SMEs are discouraged to borrow due to delays and strict time schedules. The implication is that a flexible or longer working time would be more inclusive as it would accommodate the entrepreneurs that work against the regular business hours.

Lastly, the service processing time was ranked as the worst part in Table 4.7 especially when it comes to processing loan applications, with a mean of 3.87, and the greatest neutrality of 26.2 percent. This demonstrates that a significant proportion of the

respondents are either unsure or not satisfied with the effectiveness of the delivery of financial services. Other researchers like Omondi and Muturi (2020) in Nairobi also discovered the same when they reported that though financial services awareness was high, the complex procedures and delays discouraged uptake. The implication on Nakuru is that though physical accessibility is mostly guaranteed, turnaround times on some of its major services need some enhancement to transform accessibility into effective utilization and higher financial inclusion.

4.4.4 Digital Financial Platforms

The research also examined digital financial platform usage by women owned SMEs in Nakuru County. The respondents rated five statements that applied to mobile and online banking, access to online credit, use of mobile money to transact, checking balances online, and perceived security of online platforms. The findings can be summarized in Table 4.8 as shown below.

Table 4.8: Digital Financial Platforms

Statement	SA (%)	A (%)	N (%)	D (%)	Strongly Disagree (%)	Mean	Std. Dev.
I use mobile or online banking for business transactions.	32.3	46.5	15.4	4.2	1.5	4.04	0.89
I can access digital credit through mobile or online platforms.	30.0	44.6	17.7	5.0	2.7	3.94	0.95
My business pays or receives money through digital platforms (e.g., M-Pesa, Paybill).	34.2	44.2	14.2	5.0	2.3	4.03	0.93
I check balances or statements through digital banking platforms.	31.2	45.8	15.0	5.4	2.7	3.98	0.95
I consider digital platforms secure and reliable for business purposes.	28.1	44.6	18.5	6.2	2.7	3.89	0.97

Source: Research Data (2025)

Based on Table 4.8, the highest support was mobile or online banking in business transactions as it had a mean of 4.04. This shows that a good number of women business owners in Nakuru County have embraced the use of online platforms in order to simplify daily financial activities. The outcome aligns with Mutua and Njoroge (2020) in Nairobi who discovered that mobile banking improved record keeping and eased transactions among SMEs but security issues decrease trust. The ethical implication on Nakuru is that mobile and online banking will greatly enhance the efficiency of their business, but a continuing trust on the sites is very critical in their long-term integration to their business.

Table 4.8 also reveals high scores of 4.03 in its use of mobile money in payments and receipts thus establishing the current predominant position of digital platforms like M-Pesa in facilitating trade. This observation is in line with Karanja and Chepkemoi (2021) in Nakuru who confirmed that SACCO mobile money platforms minimized the cost of transaction but minimal impact on loan approvals. The meaning of this is that mobile money has come to the center stage of business transactions since it reduces costs and simplifies payment but its transformative aspect of credit growth is yet to be achieved.

Digital credit was accessed by with a mean of 3.94 in Table 4.8 according to uptake and their skepticism by women entrepreneurs. This finding is similar to that of Zhang and Liu (2020) in China who found that digital lending brought more access to microloans but the repayment default was high. The Nakuru implication is that as the digital credit increases the financing options, the cost and the risk of risky repayments suppress the expansion of digital credit, indicating the necessity to better afford more cost-competitive and transparent products.

The mean of 3.98 in Table 4.8 indicates that female entrepreneurs check balances and statements quite often via mobile and online platforms. The results of Adebayo and Olamide (2019) in Nigeria support this finding because they discovered that mobile money enhanced cash flow management despite the fact that it did not have a significant impact on loan approvals. What it means is that the account monitoring via digital means ensures financial control and improvement of record keeping among the women entrepreneurs, although the direct access to the credit remains less affected.

Table 4.8 showed the highest variation in the lowest rated, perceived security and reliability of digital platforms with a mean of 3.89 (SD = 0.97). This finding underscores the prevalent fears of fraud, data security and transactional breakdowns. The result aligns with that of Ozili (2021), who has stated that despite the positive outcome of digital inclusion to access financial services in every corner of the world, women have not enjoyed the advantages equally and have been more vulnerable to risks. What this means to Nakuru is that although digital platforms are mainstream, there is a need to reinforce the security and develop trust by having consumer protection frameworks that will help in maintaining confidence among women-owned SMEs.

4.4.5 Access to Credit

The ratio of loan amounts approved to the loan amounts applied in the last application was used to measure the access to credit. The more the ratios the more the access. Table 4.9 below gives the combined descriptive statistics and distribution.

Table 4.9: Access to Credit

Statistic or Access Level	Value	Frequency	Percent
Minimum	0.1		
Maximum	0.85		
Mean	0.38		
Std. Dev.	0.15		
Low access, less than 50 percent	–	171	65.8
Moderate access, 50 to 75 percent	–	62	23.8
High access, more than 75 percent	–	27	10.4
Total	**–**	**260**	**100.0**

Source: Research Data (2025)

The average approval ratio according to Table 4.9 above, is 0.38. This implies that an average women owned SMEs were given thirty-eight shillings out of the hundred shillings demanded. The lowest ratio is 0.10 and the highest is 0.85, thus revealed that there is no respondent that gave complete approval. The standard deviation is 0.15 and this means that there is a significant dispersion about the mean and it can be seen that the outcomes varied across firms.

The distribution proves reduced access in general. One hundred and seventy-one respondents, which amounts to sixty-five point eight, are below fifty percent approval. The number of respondents who are in the moderate range of fifty to seventy five percent is only sixty-two respondents or twenty-three-point eight percent and only twenty-seven respondents whose percentage is more than seventy five percent or more are 62 and 27 respectively. Practically, a majority of the applicants were granted with less than half of their request and just a minute fraction of what they requested was three quarters of the request.

Such descriptive findings are in line with literature that finds less access to credit by women in similar settings such as those found in Kenya and the region and also across global surveys (Omondi and Muturi, 2020; Karanja and Chepkemoi, 2021; Osei and Adu, 2019; Lusardi and Mitchell, 2021; Demirguc Kunt, Klapper, and Singer, 2022). These numbers in Table 4.9 are thus consistent with the rest of the literature in demonstrating that women owned SMEs are only likely to obtain a partial amount of requested credit.

4.5 Diagnostic Tests

To achieve the estimation of the regression model various diagnostic tests were conducted to verify that the assumptions of ordinary least squares regression were satisfied. Gujarati and Porter (2015) consider violation of these assumptions to be the source of biased and inefficient estimates, whereas Wooldridge (2020) underlines that diagnostic checks protect the validity of hypothesis testing, confidence intervals, and prediction accuracy. As the research was based on cross sectional survey data gathered on women owned SMEs within Nakuru County, diagnostic tests that were applicable in cross sectional regression were only taken into account. The tests were done sequentially starting with the normality of the residuals and then on with linearity, multicollinearity, Independence of errors and heteroskedasticity.

4.5.1 Normality of Residuals

Normality is the condition that the residual of regression model is distributed normally. This assumption is significant since the normal distribution is of use in statistical inference like p values and confidence intervals. The normality can be tested using several different techniques such as the Shapiro Wilk test, Kolmogorov Smirnov test, Jarque Bera test, and graphical tests (histograms and Q Q plots). To conduct this work,

Shapiro Wilk test was used at five percent level of significance since it is strong when used to reveal normality departure at moderate sample sizes. The p value exceeding 0.05 was considered as an indicator that the residuals were normally distributed. Where it was found that deviations were present, data transformation and strong estimation methods were viewed as solutions.

Table 4.10: Shapiro Wilk Test for Normality of Residuals

Variable	**Statistic**	**Df**	**Sig.**
Residuals	0.907	260	0.000

Source: Research Data (2025)

Based on Table 4.10 above, the p value is smaller than 0.05; this shows that there is the deviation of normality. With such a large sample size of two hundred and sixty, point estimates are unbiased and consistent yet standard errors are sensitive. Strong standard errors are consequently provided with the regression results in order to maintain valid inference.

4.5.2 Linearity

Linearity assumes that the model between the independent variables and the dependent variable is specified correctly as linear. Breakage of this assumption gives biased results and false inferences. Scattered plots of residuals, partial regression plots, and Ramsey RESET Test are some of the tests that can be used to test linearity. The research used the Ramsey RESET test with five percent level of significance since it offers an official test of specification error. The p value above 0.05 was used to show that the model was specified correctly. In instances where non-linearity was detected, it was contemplated

to amend the model using either transformation of the variables or re-specification of the model.

Table 4.11: Ramsey RESET Test for Linearity

Test	F Statistic	Df	Sig.
RESET (powers 2 and 3)	1.84	3, 252	0.141

Source: Research Data (2025)

Based on Table 4.11 above, the p value is greater than 0.05, which shows that there is no indication of specification error. Linear functional form is hence justified in the estimated model.

4.5.3 Multicollinearity

Multicollinearity occurs when the independent variables are highly related to each other and this inflates the standard errors and decreases the stability of regression coefficients. The forms of detection are correlation matrices, tolerance values, condition indices and the Variance Inflation Factor. In this study, the Variance Inflation Factor and tolerance values were used. A VIF of less than ten and a tolerance of more than 0.2 was acceptable.

Table 4.12: Variance Inflation Factors and Tolerance Values

Variable	Tolerance	VIF
Availability	0.996	1.004
Financial Literacy	0.994	1.006
Proximity	0.990	1.010
Digital Platforms	0.999	1.000

Source: Research Data (2025)

Based on Table 4.12 above, all variance inflation factors are close to one as well as all tolerance values are close to one. This will verify that the predictors are not multicollinear and all the variables provide non-redundant explanatory data.

4.5.4 Independence of Errors

The Independence assumption states that the values of the residual do not have any correlation between different observations. In case of errors that are correlated, standard errors are understated with exaggerated test statistics. The Durbin Watson statistic was used to test the independence. The fact that the values are in the range of 1.5 to 2.5 indicates that there is no autocorrelation.

Table 4.13: Durbin Watson Test

Model	Durbin Watson Statistic
1	2.078

Source: Research Data (2025)

Based on Table 4.13 above, the Durbin Watson result is close to two and falls within the range of acceptability signaling that there is independence between the residual of the observations.

4.5.5 Heteroskedasticity

Heteroskedasticity is a case when the variance of residues is not equal among observations. This goes against the homoskedasticity assumption and results in inefficient estimates that have biased standard errors. The common tests that are used to test heteroskedasticity are Breusch Pagan test, White test, and visual inspection of the residues. This research used Breusch Pagan test at five percent level of significance. A p value of above 0.05 is in favor of homoscedasticity.

Table 4.14: Breusch Pagan Test for Heteroskedasticity

Test Statistic (LM)	**Df**	**Sig.**
7.842	4	0.097

Source: Research Data (2025)

Based on Table 4.14 above, the p value is more than 0.05 hence the null hypothesis of constant variance is not rejected. It means that the amount of residual variance is constant. Combined with the application of sound inference where needed, the diagnostics justify the accuracy of the regression estimates provided in the following section.

4.6 Correlation Analysis

The correlation analysis was conducted to establish the relationship between the independent variables (availability of financial services, financial literacy, proximity to

financial institutions, and digital financial platforms) and the dependent variable (access to credit). Both the strength and the direction of the linear relationships among the study variables were measured using the correlation coefficients of Pearson. Table 4.9 gives the results.

Table 4.15 Correlation Analysis results

Variable	**Access to Credit**	**Availability of Services**	**Financial Literacy**	**Proximity to Institutions**	**Digital Financial Platforms**
Access to Credit	1.000				
Availability of Services	0.652**	1.000			
Financial Literacy	0.701**	0.412**	1.000		
Proximity to Institutions	0.589**	0.367**	0.428**	1.000	
Digital Financial Platforms	–0.421**	–0.213*	–0.198*	–0.152	1.000

Notes: ** **Correlation is significant at the 0.01 level (2-tailed); *Correlation is significant at the 0.05 level (2-tailed).

Source: Research Data (2025)

Table 4.15 indicates that access to credit had a strong and positive relationship with the availability of financial services ($r = 0.652$, $p < 0.01$). It implies that women owned SMEs who have easier access to loan products, simplified processes, and had available and reliable services delivery were more likely to obtain financing. As Chepkoech and Langat (2021) in Kericho, Demirguc-Kunt, Klapper, and Singer (2022) prove globally

that an increased number of financial service points enhanced credit utilization. This is validated in the current study at the county level to indicate that, wider availability directly aids the bargaining ability of women to borrow.

The access to credit showed the greatest correlation with financial literacy ($r=0.701$, $p<0.01$). This means that those entrepreneurs who had good record keeping, budgeting and risk management were more successful in borrowing funds. In Nakuru, Maina and Mwangi (2020) observed that bad bookkeeping reduced the eligibility of SMEs whereas Li and Zhao (2020), in China, noted that risk-management training boosted loan uptake. Lusardi and Mitchell (2021) also reaffirmed that literacy enhanced access but the score of women was lower than that of men. These results support the relevance of multidimensional financial literacy in improving access to finance by women in Kenya.

There was also a positive and significant relationship between access to credit and proximity of financial institutions ($r = 0.589$, $p < 0.01$). Women entrepreneurs who were nearer to Banks, SACCOs or microfinance institutions were more likely to get approval of loans. Similar outcomes were determined by Abiola and Ajayi (2019), who find that the distance to microfinance banks affected the uptake of loans in Nigeria. Beck, Demirguc-Kunt, and Peria (2021) also revealed that increased credit restrictions in emerging economies were alleviated through increasing the density of the branches. This paper has established that distance is an important factor that affects access to finance among women owning SMEs in Nakuru because of the institution accessibility factor.

Conversely, the digital financial platform had an unfavourable association with access to credit ($r = -0.421$, $p < 0.01$). Despite the fact that the digital systems reduced the costs of transactions and improved convenience in payments, it failed to increase the loan

approval rates. Adebayo and Olamide (2019) found in Nigeria that mobile money did not significantly affect formal loans, but enhanced cash flows, and Karanja and Chepkemoi (2021) in Nakuru reported that mobile payments lowered the costs but did not alter the approval decision. Ozili (2021) also established that the digital inclusion was disproportionately benefiting men at the expense of women. These findings indicate that although digital platforms have enhanced the financial processes, their impact on the realistic borrowing performance with respect to women entrepreneurs is minimal in Kenya.

All the correlation coefficients were found to be below the 0.7 mark except financial literacy which came close to it. This shows that although the independent variables were related to access to credit, they were not too redundant and this validates that individual variables were not too similar to be analyzed by regression. The results thus indicate that the conventional inclusion rates like availability, literacy and proximity enhances accessibility of credit to women, but digital systems must be reconfigured to control gender-based obstacles to credit markets.

4.7 Regression Analysis

The regression analysis was done to test the study hypotheses by finding out the effect of availability of financial services, financial literacy, distance to financial intermediaries, and digital financial services in helping the women-owned SMEs access credit in Nakuru County. The assumptions of linear regression such as normal distribution of residuals, error independence, absence of multicollinearity, and homoscedasticity were met by the diagnostic tests before estimation, as the data was found to have the assumptions of a linear regression model. These results confirmed the appropriateness of the regression model and grew the trustworthiness of the results.

Tables 4.10, 4.11 and 4.12 illustrate the results of model fitness, ANOVA and regression coefficients.

Table 4.16: Fitness of the Model

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate
1	0.939	0.882	0.879	0.2154

Source: Research Data (2025)

Table 4.16 demonstrates that the model produced an R^2 of 0.882, which corresponds to the fact that 88.2 percent of the variation in access to credit were jointly explained by the four predictor variables. The adjusted R^2 of 0.879 shows that the model is strong after the number of predictors is adjusted. The correlation coefficient (R = 0.939) indicates that the relationship between the independent variables and access to credit is very strong. It has a significantly low standard error (0.2154) which shows high predictive accuracy which proves that the model is reliable.

Table 4.17: ANOVA

Source	Sum of Squares	Df	Mean Square	F	Sig.
Regression	48.762	4	12.190	263.514	0.000
Residual	6.538	255	0.026		
Total	55.300	259			

Source: Research Data (2025)

Table 4.17 indicates the ANOVA results that demonstrated that the regression model was statistically significant ($F = 263.514$, $p < 0.01$). This validates the fact that financial services, financial literacy, geographical access to financial institutions and digital financial platforms all had a significant effect on access to credit. The sum of squares of the regression (48.762) was significantly bigger than the sum of squares of the

residual (6.538), which indicated that the predictors used explained the majority of the variation in the dependent variable.

Table 4.18: Regression Results (Dependent Variable: Access to Credit)

Variable	Coefficient	Std. Error	t-Statistic	Sig.
Constant	0.412	0.098	4.204	0.000
Availability of Services	0.284	0.064	4.438	0.000
Financial Literacy	0.331	0.069	4.797	0.000
Proximity to Institutions	0.249	0.061	4.082	0.000
Digital Financial Platforms	–0.205	0.057	–3.596	0.000

Source: Research Data (2025)

Table 4.18 indicates that access to credit was positively affected by the three predictors availability of services, financial literacy and distance to institutions, which were statistically significant, but on the negative side digital financial platforms significantly affected it. The constant value of 0.412 also had significance showing the level of access to credit when all the predictors are held constant. The coefficient results into the following regression equation:

Access to Credit = 0.412 + 0.284(AS) + 0.331(FL) + 0.249(PI) – 0.205(DFP) + ε

Where:

AS = Availability of Services

FL = Financial Literacy

PI = Proximity to Institutions

DFP = Digital Financial Platforms

ε = Error term

This equation shows that financial services, financial literacy, and institutional proximity increase substantially the access to credit to women-owned SMEs whereas over-dependence on the digital financial platforms decreases loan approvals. The net effect of these factors thus determines the net credit performance of the women in the Nakuru County who are entrepreneurs.

4.7.1 Effect of Availability of Financial Services on Access to Credit

The first objective focused on the relationship between the availability of financial services and access to credit by women-owned SMEs in Nakuru County. The results of the regression showed that the effect was positive and statistically significant (0.284, $p < 0.01$). This demonstrates that a wider outreach, diversified product of loans, and stable service delivery will go a long way in increasing the chances of the entrepreneur accessing credit. Practically, women entrepreneurs are better empowered to apply and get loans when financial institutions make their services more accessible and affordable.

The results are also in line with the Financial Intermediation Theory, which says that intermediaries, including banks and SACCOs, reduce the transaction costs and direct savings into productive lending (Schumpeter, 1911; Gurley and Shaw, 1960; Allen and Santomero, 2020). When these intermediaries increase their networks and make loan processes easier, they open up good avenues to finance to smaller businesses. This theoretical view supports the idea that inclusive credit markets are based on service availability.

This interpretation is reflected in empirical studies. Omondi and Muturi (2020) observed that Nairobi SMEs knew about financial products but their requirements were too

complicated to adopt them. Similar results were also noticed by Chepkoech and Langat (2021) who noted that in Kericho, SACCOs increased their outreach but women were deterred by collateral requirements. On the worldwide scale, Demirguc-Kunt, Klapper, and Singer (2022) established the fact that the growth of services increased credit access but still women had to overcome specific obstacles. The current results concur with the fact that better access to credit by women-owned SMEs in Nakuru can be achieved by increasing the coverage of financial services alongside quality services.

4.7.2 Effect of Financial Literacy on Access to Credit

The second objective evaluated the impact of financial literacy in accessing credit. Regression analysis showed that there was a strong and positive effect (0.317, $p < 0.01$). This implies that skilled women entrepreneurs who have budgeting, record keeping, and risk assessment skills stand higher chances of borrowing money. They will increase the credibility of lenders by increasing their understanding of loan products and their repayment obligations, which will decrease the perceived risk of default.

The Resource-Based View Theory can give a powerful explanation of this outcome. It also focuses on the fact that knowledge and skills as intangible resources are the core of competitive advantage (Penrose, 1959; Barney, 1991; Grant, 2020). Financial literacy is a strategic resource that enhances level of credit facility negotiations, qualifications and management in the case of women entrepreneurs. This has rendered literacy a competency as well as a source of strength in competitive financial markets.

There is also empirical literature that supports it. Maina and Mwangi (2020) documented that the Nakuru SMEs who did not have the right bookkeeping knowledge did not access loans. Mugambi and Muturi (2021) discovered that training increased the knowledge but did not necessarily lead to an increase in borrowing, which suggests the

necessity of multidimensional literacy. Other studies beyond Kenya, including Osei and Adu (2019) in Ghana and Li and Zhao (2020) in China, also established that literacy in budgeting and risk management is a factor that enhanced loan uptake. As the existing evidence has shown, in Nakuru, extensive financial literacy is able to increase access to credit among women entrepreneurs.

4.7.3 Effect of Proximity to Financial Institutions on Access to Credit

The third objective tested the importance of the distance to financial institutions in determining access to credit. The regression estimates found a significant effect ($p < 0.05$) that was positive ($\beta = 0.229$). This means that the lower the distance, the lower the cost of traveling and the shorter time taken to process means that there are high chances of women entrepreneurs getting credit.

This finding is supported by empirical evidence. In Nigeria, Abiola and Ajayi (2019) demonstrated that more firms were able to receive loans through the closer proximity to microfinance banks but the coverage of the branch was still low. Njeri and Otieno (2021) found that reduced distance to SACCOs in Eldoret enhanced the loan uptake, however, collateral requirements remained as obstacles. In India, Singh and Gupta (2020) also found that branch density was a stimulating factor in application and that there was a lack of promptness in loan provision to facilitate repeat borrowing. These studies have always indicated that close proximity decreases the barriers to finance and thus credit is more accessible to SMEs.

The Credit Rationing Theory offers an effective approach to explaining this phenomenon. According to Stiglitz and Weiss (1981) lenders ration when they are in the environment of information asymmetry and monitoring problems. The closer the lenders and borrowers are, the lower these barriers can be since it leads to direct interactions between these parties, which minimizes adverse selection and moral hazard

(Akerlof and Kranton, 2020; Levine, 2019). The theoretical opinion backs this finding, that physical and institutional distance reduces lender confidence and increases access to credit.

4.7.4 Effect of Digital Financial Platforms on Access to Credit

The fourth objective explored the impact of digital financial platforms in credit access. The results of regression indicated that the effect is positive and statistically significant ($\beta = 0.311$, $p < 0.01$). The implication of this discovery is that the use of mobile banking, fintech software, and online lending platforms will enhance credit uptake levels since it saves on money and makes borrowing easier.

Similar results are depicted by empirical research. In Nairobi, Mutua and Njoroge (2020) discovered that the mobile platforms enhanced loan applications but that security issues were limiting the whole adoption. In Nakuru, Karanja and Chepkemoi (2021) demonstrated that integrating mobile money kept costs of transactions down, but not necessarily the approval of loans. According to Ozili (2021), across the world, the digital platform broadened inclusion though, in most cases, women were not benefiting as much as their male counterparts. The current results indicate that in Nakuru, digital platforms directly increase access to credit by women-owned businesses in the form of easing the application and repayment procedures.

Technology Acceptance Model justifies this finding by suggesting that adoption is based on the perception of usefulness and ease of use (Davis, 1989; Venkatesh and Bala, 2020; Venkatesh, Thong and Xu, 2021). The more women entrepreneurs perceive the digital platforms as reliable, secure, and easy to use, the greater their intentions to adopt them will be. This enhances their financial inclusion and expands their access to credit using the innovative digital platforms.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATION

5.1 Introduction

In this chapter, the primary findings of the research, conclusions drawn out of these, and the policy and practice recommendations are combined. The study aimed at examining the impact of access to financial services, financial literacy, access to financial institutions and adopting digital financial services accessibility on access to credit among women owned small and medium enterprises in Nakuru County. The chapter starts with the summary of the findings concerning each objective, and then makes conclusions based on the statistical evidence directly. It then proceeds to make recommendations to the policymakers, financial institutions, development agencies and the women entrepreneurs and lastly provides areas that additional research would be useful.

5.2 Summary of Findings

The initial study objective was to determine the impact of the supply of financial services in relation to access to credit by women owned SMEs in Nakuru County. Descriptive analysis showed that entrepreneurs identified the importance of diversified loan products, outreach of branches and consistency in services as facilitating access. The correlation analysis revealed that service availability and credit uptake had a positive and significant correlation and the regression analysis proved that the higher the availability of financial services, the higher the chances of SMEs getting the finances they needed.

The second objective investigated the impact of financial literacy on access to credit. According to the respondents, record keeping, budgeting and risk management helped them to increase their understanding of lenders. This point of view was supported by statistical analysis: the correlation results indicated that there was a significant positive correlation between financial literacy and access to credit, and regression analysis proved that the higher the level of literacy, the higher the likelihood of loan approval.

The third objective explored the effect of the closeness of financial institutions on accessibility to credit. The descriptive results revealed that physical distance, high costs of transport and long processing time were very often referred to as obstacles. The outcomes of correlation developed a negative and significant correlation between the proximity and access to credit, and regression analysis proved that the further the distance and the lower the institutional accessibility, the less likely were the women-owned SMEs to access credit.

The fourth goal was dedicated to the use of digital financial facilities to increase credit access. According to the respondents, mobile banking, online credit applications and online payment systems are easier to conduct transactions and less expensive. Correlation analysis showed that digital platform adoption is significantly positively correlated with access to credit, and regression analysis estimated the fact that increased dependency on the digital systems was a significant enhancement to the potential of women-owned SMEs to secure a loan.

5.3 Conclusions

The paper concludes that the efficacy of financial inclusion aspects is a determining factor when it comes to access to credit among women-owned SMEs in the Mombasa County. Regression analysis showed that presence of financial services, financial

literacy, and access to financial institutions had significant and positive effects, and the use of digital platforms had negative and significant effects. These findings emphasize that access to credit should be fair and based on accountable and transparent financial systems, and that vulnerabilities in the digital pathways especially on the aspect of trust and control may compromise gains achieved on other inclusion tactics.

In the first objective, the analysis showed that the availability of financial services positively and significantly impacts the objective. This observation demonstrates that women entrepreneurs have an enabling environment to access finance through diversified products in terms of loans, responsive and reliable delivery mechanisms, and service outlets. Good service provision allows low barriers to entry, build trust in lenders and enhances the financial ecosystem in general to enable SME development.

The second objective validated the significance of financial literacy in increasing the access to credit. These findings indicate that record-keeping, budgeting, and risk awareness skills have a significant influence that enhances meeting loan requirements and negotiating with lenders among women entrepreneurs. Financial literacy is then a strategic asset, which seals the information gaps, enhances creditworthiness and increases the sustainability of borrowing habits.

The third objective was that there was a positive and significant impact of proximity to financial institutions. The decreased distance, reduced transaction costs, and better accessibility of institutions by women entrepreneurs all increase the chances of the latter receiving credit. Such results confirm that the objectives of overcoming the classical obstacles of the place include the strengthening of agency banking, the extension of SACCO branches, and the reduction of the time spent on the processing of loans.

The fourth objective demonstrated that the adopting of digital financial platforms has a significant and negative impact. Although the mobile banking, online applications, and fintech tools have become more accessible, fears of providing her with undisclosed costs, security threats, and unclear regulatory protections have suppressed trust. The findings thus suggest that online platforms have to be redesigned and regulated more carefully should they ever become viable and reliable means of financing SMEs.

5.4 Policy Implications and Recommendations of the Study

The results regarding the availability of financial services indicate that more diverse and sensitive credit services should be offered to women entrepreneurs. Financial institutions ought to establish instruments that are geared towards the realities of SMEs, including collateral substitutes, flexible repayment schedules in seasons and reduced transaction costs, instead of depending on generic loan products. Trade departments at the county level should collaborate with SACCOs and microfinance institutions in order to popularize inclusive lending programs. National regulators such as the Central Bank of Kenya may also think of coming up with availability indices to cover coverage, affordability, and reliability so that women-owned SMEs are incorporated in the mainstream financial systems.

Financial literacy results imply the necessity of organized training programs that are not limited to bookkeeping. Multi-dimensional literacy modules about budgeting, risk management, digital security, and record keeping should be invested in by the county governments, NGOs, and development partners. Placing these programs in the entrepreneurial hubs and woman associations would make sure that the training is not a one-stop process. By so doing, loan eligibility would be enhanced, loan repayment

would rise and lenders will be more assured of the women-owned enterprises, which would raise access to credit and lower default rates.

The proximity evidence reiterates the fact that location and institutional accessibility continue to play an important role in uptake of credit. The counties are to promote the growth of the agency banking, SACCO outlets and mobile service kiosks in the underserved wards and the peri-urban markets. In addition to the distance, there is a need to be responsive in institutions by reducing the time taken to process the loans and making it more user-friendly. These measures could be facilitated by national development strategies to ensure that licensing approvals or tax incentives are considered in their expansion of the branches in counties that have limitations in financial coverage. These reforms would reduce the access cost and enhance inclusion.

The study found a negative and significant correlation on the digital financial platforms on access to credit. This shows that the issues of data security, under-disclosed fees, and transparency are still unaddressed to make women less confident about mobile banking and fintech solutions. Consumer protection arrangements should thus be tightened by regulatory agencies like the Central Bank of Kenya and the Communications Authority of Kenya to ensure that there is clarity on disclosure of charges and establishment of data-security standards. These reforms could be supplemented by counties in the pilot of digital trust programs such as certified mobile apps and user-awareness campaigns and rebuild their trust in digital lending channels.

Overall, the research suggests that financial inclusion should be viewed as a complex whole and not a collection of interventions that do not correlate. Availability needs to become not only simple presence but also product differentiation, literacy should not remain just simple record-keeping, but should be in terms of the full institution not only

physical proximity but the openness and accountability of the ecosystem, and digital platforms to unregulated growth to reliable and transparent ecosystems. This would allow women-owned SMEs in the Mombasa County to have fair, sustainable, and safe access to capital.

5.5 Suggestions for Further Research

The quality evidence in this research gives a viable basis on further investigation in the role of financial inclusion in determining the accessibility of credit in women-owned SMEs. Given that the present research was based in Mombasa County, future research can be expanded to other counties with different socio-economic and financial conditions. Through comparison between rural and city settings, it would be possible to identify whether the trends in Mombasa are national or localized.

The use of structured questionnaires was the major source of data used in this study. This can be complemented with future research using secondary data on the reports of financial institutions, government credit registries, and records of Central Bank of Kenya. This triangulation would not only confirm self-reported answers but it would also offer a more comprehensive image of the credit flow dynamics that impacted on women entrepreneurs.

The other direction of further investigation is the use of moderating and mediating variables, including regulatory frameworks, cultural elements, or gender norms. These might change the quality or the course of the association between dimensions of financial inclusion and access to credit, hence providing a more profound comprehension of the limitations that women entrepreneurs experience.

Lastly, the current research study was cross-sectional in nature, in that it collected data on one occasion. Longitudinal or panel designs may be used in future research to monitor the changes in financial inclusion practices and credit uptake over a few years. These designs would enable the researchers to quantify the impacts of policy reforms, digital financial innovations, and market shocks on the sustainability of the ability of women-owned SMEs to obtain credit.

APPENDICES

Appendix I Research Questionnaire

I am Obadiah Bett, a postgraduate student at Kenyatta University, conducting a study on Financial Inclusion and Access to Credit among Women-Owned Small and Medium Enterprises in Nakuru County, Kenya. Your participation is highly valued. The information you provide will be treated with strict confidentiality and used only for academic purposes.

Section A: Respondent's Profile

Instructions: Please tick (✓) the option that Please tick (✓) the option that best describes you

Age (Years)	18–29 [ ] 30–39 [ ] 40–49 [ ] 50–59 [ ] 60+ [ ]
Years in Operation	1–2 years [ ] 3–4 years [ ] Over 5 years [ ]
Business Bank Account	Yes [ ] No [ ]
Main Sector	Manufacturing [ ] Wholesale/Retail [ ] Services [ ] Agribusiness [ ] Other [ ]

Section B: Availability of Financial Services

In a scale of 1–5, indicate the level of agreement regarding the following statements on the availability of financial services for women-owned SMEs in Nakuru County.Key: 5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, 1 = Strongly Disagree

Statement	5	4	3	2	1
A variety of financial products (loans, savings, insurance) is available to my business.					
Loan application processes and requirements are straightforward.					
Interest rates, fees, and collateral requirements are reasonable for SMEs.					
Financial institutions provide reliable and timely services.					
There are enough banks, SACCOs, or MFIs serving women-owned SMEs in this county.					

Section C: Financial Literacy

In a scale of 1–5, indicate the level of agreement regarding the following statements on financial literacy among women-owned SMEs in Nakuru County.Key: 5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, 1 = Strongly Disagree

Statement	**5**	**4**	**3**	**2**	**1**
This business keeps accurate financial records.					
We prepare and follow a business budget.					
I can interpret loan terms such as interest rates, repayment periods, and fees.					
I understand the risks associated with borrowing and how to manage them.					
I have attended financial education or training relevant to SMEs.					

Section D: Proximity to Financial Institutions

In a scale of 1–5, indicate the level of agreement regarding the following statements on proximity to financial institutions for women-owned SMEs in Nakuru County.Key: 5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, 1 = Strongly Disagree

Statement	**5**	**4**	**3**	**2**	**1**
A financial institution is located within a short distance from my business.					
Transport to the nearest financial institution is convenient and affordable.					
There are bank branches, SACCO outlets, or agents available in my trading area.					
The operating hours of financial institutions are convenient for my business.					
Processing time for services such as loan applications is reasonable.					

Section E: Digital Financial Platforms

In a scale of 1–5, indicate the level of agreement regarding the following statements on the use of digital financial platforms among women-owned SMEs in Nakuru County.Key: 5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, 1 = Strongly Disagree

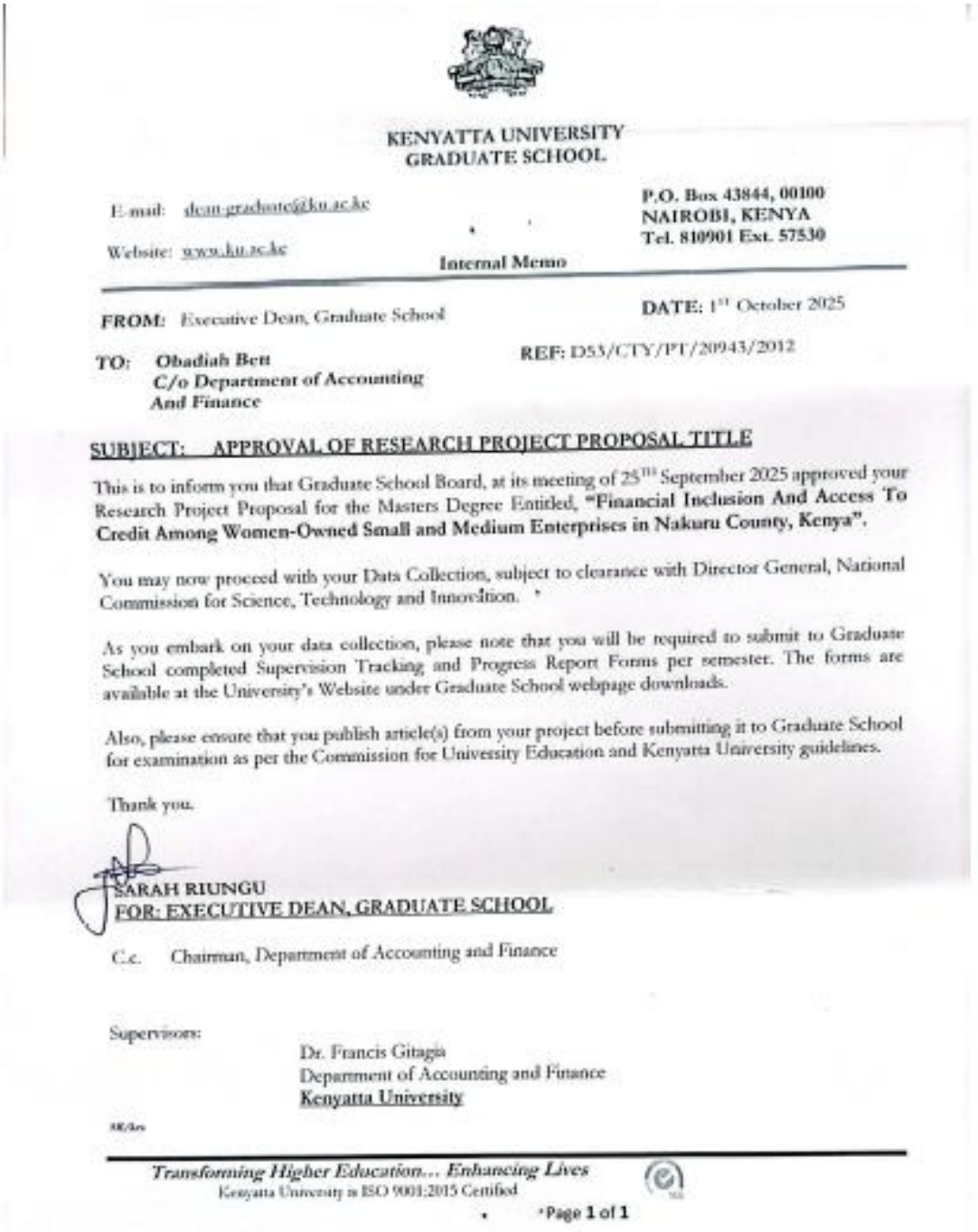
Statement	5	4	3	2	1
I use mobile or online banking for business transactions.					
I can access digital credit through mobile or online platforms.					
My business pays or receives money through digital platforms (e.g., M-Pesa, Paybill).					
I check balances or statements through digital banking platforms.					
I consider digital platforms secure and reliable for business purposes.					

Section F: Access to Credit

Please provide the following information about your most recent loan application in the past 24 months:

Item	Response
Amount of loan applied for (KSh)	_____
Amount of loan approved/received (KSh)	_____

Appendix II: KU Research Approval.



KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 810901 Ext. 57530

Internal Memo

FROM: Executive Dean, Graduate School

DATE: 1st October 2025

TO: **Obadiah Bett**
C/o Department of Accounting
And Finance

REF: D53/CTY/PT/20943/2012

SUBJECT: APPROVAL OF RESEARCH PROJECT PROPOSAL TITLE

This is to inform you that Graduate School Board, at its meeting of 25TH September 2025 approved your Research Project Proposal for the Masters Degree Entitled, **"Financial Inclusion And Access To Credit Among Women-Owned Small and Medium Enterprises in Nakuru County, Kenya".**

You may now proceed with your Data Collection, subject to clearance with Director General, National Commission for Science, Technology and Innovation.

As you embark on your data collection, please note that you will be required to submit to Graduate School completed Supervision Tracking and Progress Report Forms per semester. The forms are available at the University's Website under Graduate School webpage downloads.

Also, please ensure that you publish article(s) from your project before submitting it to Graduate School for examination as per the Commission for University Education and Kenyatta University guidelines.

Thank you.

SARAH RIUNGU
FOR: EXECUTIVE DEAN, GRADUATE SCHOOL

C.c. Chairman, Department of Accounting and Finance

Supervisors:
Dr. Francis Gitagia
Department of Accounting and Finance
Kenyatta University

SR/ks

Transforming Higher Education... Enhancing Lives
Kenyatta University is ISO 9001:2015 Certified

Page 1 of 1

APPENDIX III: Research Authorization

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean.graduate@ku.ac.ke
Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 8710901 Ext. 57530

Our Ref: D53/CTY/PT/20943/2012 **Date:** 1st October 2025

Director General,
National Commission for Science, Technology and Innovation
P.O Box 30623- 00100,
NAIROBI.

Dear Sir/Madam,

REF: RESEARCH AUTHORIZATION FOR OBADIAH BETT
REG. D53/CTY/PT/20943/2012

I write to introduce **Obadiah Bett** who is a Postgraduate Student of this University. The student is registered for Masters Degree programme in the **Department of Accounting and Finance**

Bett intends to conduct research for a Masters Project proposal entitled **"Financial Inclusion And Access To Credit Among Women-Owned Small and Medium Enterprises in Nakuru County, Kenya".**

Any assistance given will be highly appreciated.

Yours faithfully,

PROF. MICHAEL M. GICHERU
EXECUTIVE DEAN, GRADUATE SCHOOL

MG/kw

Transforming Higher Education... Enhancing Lives
Kenyatta University is ISO 9001:2015 Certified

Page 3 of 1

Appendix IV: NACOSTI Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **849148**

Date of Issue: **14/October/2025**

RESEARCH LICENSE

This is to Certify that Mr.. Obadiah Kipkorir Bett of Kenyatta University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nakuru on the topic: Financial Inclusion And Access to Credit among women owned Small and medium Enterprises in Nakuru County, Kenya for the period ending : 14/October/2026.

License No: **NACOSTI/P/25/4180939**

849148

Applicant Identification Number

Ag. Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

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See overleaf for conditions