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MOBILE BANKING SERVICES AND FINANCIAL SUSTAINABILITY OF WOMEN LED ENTERPRISES IN GARISSA TOWNSHIP MARKET

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Abstract: **Mobile banking services has emerged as a critical tool for fostering inclusive economic growth, reducing poverty, and enhancing resilience among vulnerable populations. The main objective of the study was to assess the influence of mobile banking services on financial sustainability of women led enterprises in Garissa Township market. The study was based on Technology Acceptance Model. The target population for this study comprised all the 685 women entrepreneurs operating within the Garissa Township Market. These included women running businesses in sectors such as retail, food vending, clothing, salon services, and small-scale manufacturing. The sample size for this study was 253 women entrepreneurs. The study used stratified random sampling to ensure representation across different business sectors. Data was collected using a structured questionnaire comprising both closed-ended and Likert-scale questions. Quantitative data was coded and analyzed using Statistical Package for the Social Sciences (SPSS) version 25. Descriptive statistics summarized demographic and financial access variables. Multiple regression analysis was used to determine the effect of financial inclusion dimensions on business sustainability. Data was presented in tables, graphs, and charts. The study showed that mobile banking services significantly contribute to the financial sustainability of women-led enterprises in Garissa Township Market. Based on the findings of the study, the study recommends that financial institutions and mobile banking service providers should continue expanding and improving mobile banking services targeting women entrepreneurs.**

Keywords: **Financial Sustainability, Garissa, Mobile Banking, Payment, Women Led Enterprises.**

1. INTRODUCTION

Mobile banking service is widely recognized as a key factor in promoting inclusive economic growth, reducing poverty, and strengthening the resilience of vulnerable populations. Access to affordable and diverse financial services, including savings, credit, insurance, and digital payment systems, has been linked to better economic outcomes and improved financial security (Pazarbasioglu et al., 2020). In recent years, Digital Financial Services (DFS), supported by mobile technology, internet access, and fintech innovations, have transformed how individuals and small businesses interact with financial systems. These services make financial transactions easier and faster, support better financial decision-making, and encourage saving and investment practices (Durai & Stella, 2019). The Coronavirus Disease 2019 (COVID-19) pandemic further highlighted the importance of DFS, as many people relied on digital platforms for emergency cash transfers and remote financial transactions during lockdowns and movement restrictions. At the same time, the pandemic revealed ongoing challenges such as weak digital infrastructure, limited digital literacy, and the need for stronger regulatory frameworks to ensure safe and inclusive access to digital financial services (Pazarbasioglu et al., 2020).

The global expansion of digital finance has placed increasing attention on women, who have historically been excluded from formal financial systems. Innovations such as mobile credit, savings applications, and fintech platforms have opened new opportunities for women to access financial services and participate more actively in economic activities. As a result, digital finance is often viewed as a promising pathway toward gender equality, women's economic empowerment, and sustainable business growth (Arner et al., 2020; Kofman & Payne, 2021). However, these opportunities are still limited by several structural challenges, including low levels of digital literacy, restrictive socio-cultural norms, inadequate access to technology, and lack of formal identification documents (Van Hove & Dubus, 2019; Altaf et al., 2025). Although mobile banking services such as M-Pesa have significantly expanded financial access in countries like Kenya, many women still use these services mainly for short-term transactions rather than long-term financial planning because of persistent liquidity pressures and immediate household needs (Van Hove & Dubus, 2019). Consequently, the global challenge is not only to expand access to digital financial services, but also to develop systems that are inclusive, secure, culturally sensitive, and capable of building trust and long-term participation among women users (Kofman & Payne, 2021).

Mobile banking has transformed the financial sector in Kenya by changing how individuals and small businesses access and manage financial services. The rapid growth of mobile money platforms such as M-Pesa has made mobile banking a major driver of financial inclusion, particularly for marginalized groups such as women entrepreneurs operating in informal markets. Mobile banking provides convenience, reduces the need to travel long distances to bank branches, lowers transaction costs, and allows users to access funds and payment systems in real time. In places such as Garissa Township Market, where traditional banking infrastructure remains limited and physical access to banks can be difficult, mobile banking plays an important role in helping women entrepreneurs carry out transactions, save money, and access credit services (Kimenyi & Ndung'u, 2018; CGAP, 2021). However, despite the increasing use of mobile banking services, there is still limited understanding of how these services directly influence the sustainability of women-owned businesses in Garissa, particularly in relation to profitability, business growth, and resilience during economic challenges.

In Garissa County, particularly within Garissa Township Market, women entrepreneurs continue to face multiple social and economic challenges that affect their business activities. The northeastern region of Kenya has historically experienced lower levels of infrastructure development, educational attainment, and formal institutional presence compared to other parts of the country. These conditions have limited access to financial opportunities and business support services. Women entrepreneurs in this context often struggle with limited access to physical bank branches, poor or expensive transport networks, insecurity, and cultural norms that restrict women's financial independence and decision-making. Despite these challenges, mobile banking and agent banking services have gradually expanded into the region, creating new opportunities for more inclusive financial access. However, there is still insufficient research on how effective these financial channels are in supporting the sustainability of women-owned businesses in Garissa. In this context, business sustainability refers not only to the survival of enterprises over time but also to their ability to grow, remain profitable, manage financial risks, and contribute consistently to household income and economic well-being (Everant, 2024; IFC, 2024).

2. STATEMENT OF THE PROBLEM

Women-led enterprises play an important role in Kenya's economic development through employment creation, income generation, poverty reduction, and provision of goods and services. However, their ability to survive and grow is often constrained by limited access to and effective utilization of financial services. Mobile banking services provide convenient opportunities for entrepreneurs to make payments, save money, access credit, transfer funds, and manage business transactions. Despite the expansion of digital financial services in Kenya, it remains unclear whether access to mobile banking services has translated into improved financial sustainability of women-led enterprises, particularly in underserved markets.

According to the 2024 FinAccess Household Survey, 84.8% of Kenyan adults have access to formal financial services, with women recording 84.1% compared with 85.7% for men. Despite this relatively high level of financial access, only 18.3% of adults are considered financially healthy, meaning they can meet daily financial needs, withstand financial shocks, and invest in the future. This disparity suggests that access to financial services alone may not guarantee financial sustainability. For women entrepreneurs, effective utilization of mobile banking services may therefore be important in strengthening cash-flow management, savings, access to credit, and business resilience.

Women entrepreneurs in Kenya continue to experience significant financial constraints. The International Finance Corporation (IFC, 2024) reports that only about 7% of women-owned micro, small, and medium enterprises have formal access to finance. Limited financing constrains women's ability to acquire working capital, invest in productive assets, manage business expenses, and respond to financial shocks. Although mobile banking can potentially improve access to financial services, there is insufficient evidence on whether its use actually improves the financial sustainability of women-led enterprises. The challenge is particularly evident in Garissa County. According to the Kenya Financial Sector Stability Report (2024), only 3.8% of adults in the county have a bank account, while only 0.7% use mobile banking beyond basic mobile money services. Insurance coverage is also low at 0.8%, while access to microfinance and capital market services remains limited. In contrast, mobile money usage stands at 60.7%. This indicates a significant gap between basic mobile money usage and adoption of more advanced mobile banking services. Furthermore, mobile phone ownership in Garissa is estimated at 97.4% of households (Nairobi Business Monthly, 2022), but ownership does not necessarily translate into productive use of mobile banking services. Women-led enterprises may still face challenges in using mobile banking for savings, credit access, payments, and cash-flow management. These challenges may negatively affect their ability to maintain stable operations and achieve long-term financial sustainability.

Although previous studies have examined digital financial services and financial inclusion (Melubo & Musau, 2020; Kofman & Payne, 2021), limited empirical evidence exists on the specific relationship between mobile banking services and financial sustainability of women-led enterprises in informal market settings. Therefore, this study seeks to examine the relationship between mobile banking services and financial sustainability of women-led enterprises in Garissa Township Market, thereby addressing the existing empirical gap.

2.1 Theoretical Framework

This study was based on Technology Acceptance Model (TAM), developed by Fred Davis (1986), which suggests that two main factors, that is, Perceived Usefulness (PU) and Perceived Ease of Use (PEOU), shape a person's intention to use a technology, which in turn determines actual usage behavior. Perceived usefulness refers to the extent to which an individual believes that using a particular technology will improve their performance, while perceived ease of use refers to the degree to which the technology is seen as simple and effortless to use (Davis, 1989). In this study, mobile banking adoption among women entrepreneurs is likely to increase if the services are viewed as both beneficial and easy to operate.

2.2 Empirical Review

A study by Chhaidar et al. (2022) examined the relationship between financial technology investment and bank profitability in Europe. Using panel data from 23 European banks covering the period 2010-2019, the researchers applied a fully modified ordinary least squares (FMOLS) model to assess whether higher levels of digital investment are associated with improved financial performance, and whether bank size influences this relationship. Their findings show that greater investment in financial technology is positively and significantly linked to profitability. They also find that larger banks benefit more from FinTech investments compared to smaller banks, suggesting that scale plays an important role in realizing the gains from digital transformation. While this study provides useful evidence that financial technology can enhance business performance in terms of profitability, its focus is limited to large banking institutions in a developed European context. It does not specifically examine mobile banking services or other user-level digital financial tools used by individuals or entrepreneurs. In addition, it primarily measures profitability as the outcome variable, without considering broader dimensions of business sustainability such as growth, resilience, or long-term survival. More importantly, the study does not address small and micro enterprises or women entrepreneurs, who often experience very different financial constraints compared to formal banking institutions. As a result, its findings may not fully explain how digital financial services influence business outcomes at the micro level. The context also differs significantly from developing economies like Kenya, where access to infrastructure, digital literacy, and financial inclusion levels vary widely. Therefore, there remains limited empirical evidence on how specific digital financial services affect the sustainability of women-owned enterprises. This gap is especially evident in underserved and informal settings such as Garissa Township Market.

Kurniasari (2021) examined the influence of productivity applications on financial inclusion within a peer-to-peer (P2P) lending platform. The study aimed to assess how sales management and productivity apps enhance the performance of direct sales agents, streamline loan application processes, and reduce approval times, thereby contributing to business efficiency and sustainability within the P2P lending sector. The research adopted a mixed-methods approach, combining

quantitative analysis of operational data from MODALKU, a major Indonesian P2P lending platform, with qualitative interviews conducted with sales agents. A sample of 150 direct sales agents was selected using purposive sampling based on activity levels and performance records. Data were collected from internal platform records and structured interviews. The findings revealed that the use of mobile productivity applications significantly improved the efficiency of sales agents, reducing loan processing times by approximately 25% and increasing loan approval rates by 18%. These improvements were found to enhance financial inclusion by enabling faster access to credit for clients, thereby supporting the growth and sustainability of businesses financed through the platform. However, while the study demonstrates the positive role of digital tools in improving operational efficiency and financial inclusion, its focus is limited to sales agents operating within a P2P lending institution rather than end-user entrepreneurs themselves. It does not directly examine how entrepreneurs, particularly small business owners or women-led enterprises, experience or benefit from such digital financial services. In addition, the study is set within a structured digital lending platform, which differs significantly from informal and semi-formal business environments in developing economies. This gap is especially relevant in contexts such as Garissa Township Market, where financial inclusion challenges are shaped by infrastructural constraints, digital literacy levels, and access to formal financial systems.

Biswas (2021) studied how mobile financial services affect financial behavior in India, focusing on whether access to these services influences actions such as saving, investing, taking insurance, and borrowing from formal financial institutions. Using nationally representative survey data from 4,000 households collected between 2017 and 2019, the study applied a quantitative approach with instrumental variable regression to address potential bias. The findings showed that mobile financial services had a positive effect on financial behavior, increasing participation in formal investment by 12%, insurance uptake by 9%, and borrowing from formal institutions by 15%. The study also found that these services helped reduce gender gaps in financial participation, suggesting that mobile finance can support more inclusive economic activity. However, the research mainly looked at households rather than small businesses or entrepreneurs, and it did not examine how women-owned enterprises specifically use mobile financial services to support business operations and long-term sustainability. It was also conducted in the Indian context, which differs significantly from informal market settings in places like Garissa Township Market. Because of this, there is still limited understanding of how mobile financial services translate into real business outcomes for women entrepreneurs in such environments, particularly in terms of growth, resilience, and sustainability.

Diallo et al. (2024) examined the security of mobile banking applications within the West African Economic and Monetary Union (WAEMU), aiming to understand how application-level security affects user trust and the long-term sustainability of mobile banking services. The study conducted a static code analysis of 59 mobile banking applications drawn from the eight WAEMU countries, selecting them based on popularity and official approval. Using security assessment tools, the researchers evaluated the apps for vulnerabilities and insecure coding practices. The findings showed that more than 70% of the applications contained serious security weaknesses, including insecure data storage and weak or absent encryption. These vulnerabilities exposed users to potential cyber threats and raised concerns about data protection. Even though many of the applications were regularly updated, security issues persisted, largely due to poor development practices and limited regulatory enforcement in the region. The study concluded that such weaknesses could significantly undermine user trust and threaten the continued adoption and sustainability of mobile banking systems in West Africa. However, the study primarily focused on technical security aspects at the application level rather than on the real-world financial experiences or outcomes of users. It did not explore how mobile banking services influence the financial performance or sustainability of businesses, particularly women-owned enterprises. It also did not assess how users, especially entrepreneurs in informal settings, engage with or are affected by these security risks in their day-to-day financial activities. As a result, there remains a gap in understanding how issues of trust, security, and system reliability translate into actual business sustainability outcomes, especially in contexts such as Garissa Township Market where women entrepreneurs rely heavily on mobile financial services for business operations.

Konte and Tetteh (2023) conducted an empirical study to examine how mobile money services and traditional financial systems influence firm productivity in Sub-Saharan Africa. The study aimed to assess the effect of mobile money usage on productivity, evaluate the contribution of traditional financial services such as access to bank accounts and credit, and determine whether combining digital and traditional financial tools leads to better business outcomes. Using a quantitative research design, the researchers analyzed secondary data from the World Bank Enterprise Survey (WBES), covering 5,837 formal firms across 14 Sub-Saharan African countries, including Kenya, Ghana, Uganda, and Tanzania. The firms operated

in both the manufacturing and service sectors, and the data included information on financial access, mobile money usage, employment, and firm output. The findings showed that mobile money use alone did not significantly improve labor productivity, while access to traditional financial services had a strong positive effect on productivity. More importantly, firms that combined mobile money with traditional banking services achieved higher productivity gains than those relying on only one type of financial service. These findings suggest that digital finance works best when supported by broader access to formal financial systems. However, the study focused on formal firms rather than women-owned micro and small enterprises, and it measured productivity mainly through labor output instead of broader indicators of business sustainability such as resilience, profitability, or reinvestment. In addition, the study did not specifically examine mobile banking services within informal market settings such as Garissa Township Market, leaving an important contextual and empirical gap that the current study seeks to address.

In Ghana, Owusu-Ansah and Asare (2025) conducted a study on the prioritization of e-business risks affecting the sustainability of digital financial services within the context of China–West Africa digital cooperation. The study sought to identify the major risks facing digital financial systems and determine which risks posed the greatest threat to the long-term sustainability of services such as mobile banking and digital payments. Using a hierarchical decision model together with the Best–Worst Method, the researchers collected data from 40 experts drawn from sectors including telecommunications, digital payments, consumer electronics, and online retail. The participants were purposively selected based on their professional expertise and experience in digital business environments. The findings revealed that the most significant risks affecting digital financial services were data security and privacy concerns, regulatory compliance challenges, and infrastructural limitations. The study concluded that addressing these risks is essential for strengthening user trust and ensuring the sustainability of digital financial services in Ghana. However, the study focused mainly on risk assessment from the perspective of digital financial service providers and industry experts rather than end users or entrepreneurs. It did not examine how mobile banking services influence the financial sustainability of women-owned enterprises, nor did it explore the practical experiences of women entrepreneurs using digital financial services in informal business settings. As a result, there remains a contextual and empirical gap in understanding how mobile banking contributes to business sustainability among women entrepreneurs in areas such as Garissa Township Market.

In Tanzania, Otieno and Edward (2019) examined the impact of mobile banking on financial inclusion among rural populations in the Mwanza Region, specifically in the Magu district. The study aimed to understand how mobile banking services contribute to financial inclusion, identify the factors influencing their adoption, and compare the use of mobile accounts with traditional branch banking services. The researchers adopted a cross-sectional survey design targeting individuals aged 18 years and above who had access to mobile banking platforms. Using stratified random sampling, a sample of 200 respondents was selected to ensure representation across different demographic groups, including gender, age, and income levels. Data were collected through structured questionnaires. The findings revealed that mobile banking significantly improved financial inclusion by offering rural residents affordable, convenient, and accessible financial services. The study also showed that mobile banking reduced the need for individuals to travel long distances to physical bank branches, thereby saving both time and transportation costs. However, challenges such as low digital literacy and unreliable network connectivity were identified as major barriers limiting full adoption and effective use of mobile banking services. While the study provides valuable insights into the role of mobile banking in improving financial inclusion in rural areas, it focused mainly on individuals rather than entrepreneurs or small businesses. It also did not examine how mobile banking services influence the financial sustainability of women-owned enterprises or business outcomes such as growth, resilience, and continuity. Consequently, there remains a contextual and empirical gap, particularly in informal and underserved settings such as Garissa Township Market, which the current study seeks to address.

Mwirichi (2023) conducted a study to assess the effect of mobile banking services on the financial performance of small and medium enterprises (SMEs) in Nairobi. The study adopted a descriptive research design and targeted 226 SMEs that had consistently renewed their business licenses for five consecutive years. Using cluster sampling, a sample of 160 respondents was selected for the study. Data analysis was carried out using correlation and multiple regression techniques to determine the relationship between mobile banking services and SME financial performance. The findings showed that mobile banking services such as bill payments, money transfers, receiving customer payments, accessing mobile loans, saving money, and paying suppliers significantly improved operational efficiency and reduced transaction costs compared to traditional banking methods. The study also found that mobile loans contributed positively to SME financial performance, while mobile banking deposits demonstrated a strong and significant positive relationship with business performance. These

findings suggest that mobile banking can play an important role in improving business operations and profitability among SMEs. However, the study mainly focused on general financial performance rather than long-term business sustainability, which includes aspects such as resilience, continuity, adaptability, and reinvestment. In addition, the study did not specifically focus on women-owned enterprises or explore the unique financial and structural challenges faced by women entrepreneurs. Since the research was conducted in an urban setting with relatively advanced financial infrastructure, its findings may not fully reflect the realities of women entrepreneurs operating in underserved and informal markets such as Garissa Township Market. This creates a contextual and empirical gap that the current study seeks to address.

Kimathi et al. (2020) examined the effect of mobile payment technologies on the financial performance of small and medium enterprises (SMEs) in Kirinyaga County. The study aimed to determine how mobile payments influence revenue collection, transaction costs, cash flow management, and overall profitability among SMEs. A descriptive research design was adopted, targeting 226 registered SMEs that had consistently renewed their business licenses for five consecutive years, an indication of business continuity. Using cluster sampling, the researchers selected a sample of 160 SME owners and managers. Data were collected through structured questionnaires that focused on patterns of mobile payment usage, transaction costs, revenue growth, and cash flow management practices. Descriptive statistics and regression analysis were then used to analyze the relationship between mobile payments and financial performance indicators. The findings revealed a strong positive relationship between the adoption of mobile payment technologies and SME financial performance. Mobile payments significantly improved revenue collection by enabling quicker and more secure transactions, while also reducing transaction costs compared to traditional banking methods. These improvements contributed to better cash flow management and increased profitability among SMEs. However, the study mainly focused on short-term financial performance indicators such as revenue growth and cash flow efficiency rather than broader dimensions of long-term business sustainability, including resilience, continuity, and reinvestment. In addition, the research did not specifically focus on women-owned enterprises or examine the realities of entrepreneurs operating in marginalized and informal settings such as Garissa Township Market. As a result, there remains a contextual and empirical gap regarding how mobile payment services influence the sustainability of women-owned businesses in underserved regions, which the current study seeks to address.

Okello et al. (2023) investigated the relationship between mobile banking adoption, technological efficiency, and the financial performance of SMEs in Kajiado County. The study aimed to determine how the use of mobile banking affects transaction efficiency, operational costs, and overall financial outcomes, while also examining whether technological efficiency enhances these effects. Using a descriptive research design, the researchers targeted 58 licensed SMEs operating within the county. Data were collected through structured questionnaires administered to SME owners and managers, focusing on their use of mobile banking services, transaction patterns, technological capabilities, and financial performance indicators such as profitability, revenue growth, and cost management. Regression and moderation analyses were then applied to assess both the direct effects of mobile banking adoption and the moderating role of technological efficiency. The findings showed that SMEs that actively used mobile banking experienced improved transaction efficiency, including faster payments and reduced delays in receiving funds. Mobile banking also helped lower operational costs by reducing reliance on physical cash transactions and traditional banking infrastructure. Furthermore, the study found that technological efficiency positively strengthened the relationship between mobile banking and financial performance, meaning that businesses with better technological capabilities benefited more from adopting mobile banking services. Although the study demonstrated the positive contribution of mobile banking to SME performance, it focused mainly on general financial performance indicators rather than broader aspects of long-term business sustainability such as resilience, continuity, and reinvestment. In addition, the research did not specifically examine women-owned enterprises or the unique barriers faced by women entrepreneurs in underserved areas. Consequently, there remains a contextual gap in understanding how mobile banking influences the sustainability of women-owned businesses in informal settings such as Garissa Township Market, which the current study seeks to address.

3. RESEARCH DESIGN

This study adopted a descriptive research design. The target population for this study consisted of all 685 women entrepreneurs operating within Garissa Township (Garissa Township Market Traders Association, 2025). These entrepreneurs were engaged in a range of business activities, including retail trade, food vending, clothing and fashion businesses, salon and beauty services, and small-scale manufacturing enterprises. The unit of analysis in this study was

women-owned enterprises, while the unit of observation was the owners or managers of these enterprises, as they were the primary decision-makers in business operations and financial management. The sampling frame was developed from a register of women entrepreneurs provided by the Garissa Township Market Traders Association, local women's groups, and relevant county government business records. A sample of 254 women entrepreneurs was used. The study adopted stratified random sampling technique. Primary data for this study was collected from women-owned enterprises in Garissa Township using a structured questionnaire. Most of the questions used a five-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree," while a few will be multiple-choice questions to capture specific factual details. Ethical approval was obtained for research since it involved collecting data from human subjects. The quantitative data collected in this study were coded, entered, and analyzed using the Statistical Package for the Social Sciences (SPSS) version 25. Before analysis begins, the data were carefully cleaned to identify and address missing values, inconsistencies, and possible outliers. Descriptive statistics such as means, standard deviations, frequencies, and percentages was then used to summarize the data. To test the study hypotheses and examine the relationship between financial mobile banking services and financial sustainability, simple linear regression analysis was used. The relationship between these variables was expressed using the following regression model:

$$FI = \beta_0 + \beta_1 MB + \varepsilon$$

Where;

FI is Financial Inclusion;

β_0, β_1 are constants;

MB is Mobile Banking;

ε is the error term.

4. FINDINGS

4.1 Demographic Characteristics

The study targeted 252 women-led enterprises operating in Garissa Township Market. Out of the 252 questionnaires that were administered, 240 were duly completed and returned, while 12 questionnaires were either not returned or were incomplete and were therefore excluded from the analysis. This resulted in a response rate of 95.2% and a non-response rate of 4.8%.

The findings revealed that most of the respondents, 78 (32.5%), were aged between 30 and 39 years. This was followed by 56 respondents (23.3%) who were between 20 and 29 years, while 54 respondents (22.5%) fell within the 40-49 years age bracket. Respondents aged between 50 and 59 years accounted for 30 (12.5%), whereas 14 (5.9%) were above 59 years. In regard to distribution of respondents by level of education, the study found out that the largest proportion of respondents, 96 (40.0%), had attained secondary education. This was followed by respondents with primary education, who accounted for 54 (22.5%), while 48 (20.0%) had obtained certificate or diploma qualifications. Respondents with bachelor's degrees represented 20 (8.3%), whereas only 4 (1.7%) had postgraduate qualifications. Additionally, 18 respondents (7.5%) indicated that they had not received any formal education. The findings suggest that most women entrepreneurs have attained at least a basic level of formal education, which is likely to support the day-to-day management of their businesses.

In regard to how long each respondent had operated her business, the study showed that 72 respondents (30.0%) had been operating their businesses for between four and six years, making this the largest category. This was followed by 66 respondents (27.5%) who had operated their businesses for between one and three years. Another 54 respondents (22.5%) had been in business for between seven and ten years, while 30 respondents (12.5%) had operated their businesses for more than ten years. Only 18 respondents (7.5%) had been in business for less than one year. These findings indicate that most of the women-led enterprises included in the study were relatively established businesses rather than newly started ventures.

4.2 Influence of Mobile Banking Services on Financial Sustainability of Women-Led Enterprises

The respondents were asked to rate different statements using a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The results were analyzed using frequencies, percentages, weighted means, and standard deviations, as presented in Table 1.

Table 1: Influence of Mobile Banking Services on Financial Sustainability of Women-Led Enterprises

Statement	SD	D	N	A	SA	Mean	Std. Dev
Mobile banking services have improved access to financial services for my enterprise.	12 (5.0%)	18 (7.5%)	35 (14.6%)	102 (42.5%)	73 (30.4%)	3.82	1.10
Mobile banking enables my business to conduct transactions more conveniently.	8 (3.3%)	14 (5.8%)	26 (10.8%)	110 (45.8%)	82 (34.2%)	4.02	0.98
Mobile banking has reduced the cost of managing my enterprise finances.	15 (6.3%)	25 (10.4%)	42 (17.5%)	98 (40.8%)	60 (25.0%)	3.68	1.15
Mobile banking has improved my ability to save and manage business income.	10 (4.2%)	20 (8.3%)	38 (15.8%)	105 (43.8%)	67 (27.9%)	3.83	1.07
Mobile banking has contributed to the growth and sustainability of my enterprise.	13 (5.4%)	22 (9.2%)	40 (16.7%)	101 (42.1%)	64 (26.7%)	3.75	1.12
Overall Mean						**3.82**	**1.08**

The findings in Table 1 indicate that mobile banking has become an important financial tool for women-led enterprises in Garissa Township Market. The overall weighted mean of 3.82 shows that most respondents generally agreed that mobile banking services support the sustainability of their businesses. The standard deviation of 1.08 suggests that although respondents had slightly different experiences, there was a general pattern of agreement regarding the usefulness of mobile banking. A closer look at the findings shows that the highest-rated benefit of mobile banking was the convenience it provides when conducting business transactions. This statement recorded a weighted mean of 4.02 and a standard deviation of 0.98. A total of 192 respondents (80.0%) agreed or strongly agreed that mobile banking makes business transactions easier. This finding reflects the reality that many women entrepreneurs rely on mobile platforms to receive payments, pay suppliers, and transfer money without the need to travel to banking halls. The convenience saves time and allows them to focus more on running their enterprises.

The findings also reveal that mobile banking has improved access to financial services among women entrepreneurs. A combined 175 respondents (72.9%) agreed or strongly agreed that mobile banking has increased their ability to access financial services, with a mean score of 3.82. This suggests that mobile banking has helped bridge the gap between small business owners and formal financial services, especially for entrepreneurs who may experience challenges accessing traditional banking facilities. In addition, respondents indicated that mobile banking has supported better management of business finances. The statement on improved savings and income management recorded a mean score of 3.83, with 172 respondents (71.7%) expressing agreement. This implies that mobile financial services have encouraged better financial discipline by making it easier for entrepreneurs to monitor income, save money, and manage daily business transactions.

Although respondents agreed that mobile banking reduces financial management costs, this statement recorded a slightly lower mean score of 3.68. This may suggest that while mobile banking reduces some costs associated with physical banking, users may still experience challenges such as transaction charges, network interruptions, or limited digital skills. Similarly, the contribution of mobile banking to enterprise growth and sustainability received a mean score of 3.75, indicating that respondents recognized its role in supporting business continuity and expansion.

The findings support Konte and Tetteh (2023), who observed that digital financial services contribute to greater financial inclusion by enabling underserved groups to access and use financial products more easily. The findings are also in agreement with Owusu-Ansah and Asare (2025), who established that mobile financial technologies enhance the performance of small enterprises by improving transaction efficiency, savings behavior, and financial management

practices. The positive perceptions among respondents in this study demonstrate similar benefits among women-owned businesses. Furthermore, the results correspond with Mwirichi (2023), who highlighted the role of mobile banking in expanding financial inclusion among small business owners by providing affordable and accessible financial solutions. The current findings reinforce the argument that mobile banking helps women entrepreneurs overcome barriers associated with conventional banking systems. The findings also align with Otieno and Edward (2019), who reported that mobile financial services improve the operational efficiency and sustainability of small enterprises by simplifying payments and enhancing access to financial resources. The experiences of women entrepreneurs in Garissa Township Market confirm the importance of mobile banking in supporting everyday business operations. Finally, the results are consistent with Okello et al. (2023), who emphasized that digital financial inclusion strengthens the resilience of small enterprises by improving financial access and decision-making capabilities. The present study demonstrates that mobile banking contributes to enterprise sustainability by enabling women entrepreneurs to manage their finances more effectively.

4.3 Business Sustainability and Financial Performance of Women-Led Enterprises

Respondents were asked to indicate their level of agreement with statements relating to business growth, ability to manage financial challenges, access to funds or credit, future expansion plans, and the contribution of financial services to business sustainability. The responses were measured using a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The findings were analyzed using frequencies, percentages, weighted means, and standard deviations, as presented in Table 2.

Table 2: Business Sustainability and Financial Performance of Women-Led Enterprises

Statement	SD	D	N	A	SA	Mean	Std. Dev
My business has been growing steadily over the past few years.	12 (5.0%)	22 (9.2%)	36 (15.0%)	105 (43.8%)	65 (27.0%)	3.79	1.10
I can manage financial challenges effectively in my business.	10 (4.2%)	20 (8.3%)	38 (15.8%)	108 (45.0%)	64 (26.7%)	3.82	1.06
I have consistent access to funds or credit to sustain my business.	18 (7.5%)	30 (12.5%)	45 (18.8%)	95 (39.6%)	52 (21.6%)	3.55	1.22
I have long-term plans to expand or improve my business.	9 (3.8%)	18 (7.5%)	34 (14.2%)	110 (45.8%)	69 (28.7%)	3.88	1.02
Financial services have contributed to the sustainability of my business.	11 (4.6%)	21 (8.8%)	37 (15.4%)	106 (44.2%)	65 (27.0%)	3.80	1.08
Overall Mean						**3.77**	**1.10**

The findings presented in Table 2 indicate that women-led enterprises in Garissa Township Market demonstrate a generally positive level of business and financial sustainability. The findings reveal that having long-term business plans was the most highly rated aspect of sustainability. The statement I have long-term plans to expand or improve my business recorded the highest weighted mean of 3.88 with a standard deviation of 1.02. A total of 179 respondents (74.5%) agreed or strongly agreed with this statement. This suggests that many women entrepreneurs have future-oriented goals and are interested in growing their enterprises beyond their current operations. Having clear expansion plans reflects confidence in business continuity and a desire to improve performance over time. The ability to manage financial challenges effectively also received strong support from respondents, with a mean score of 3.82 (SD = 1.06). About 172 respondents (71.7%) agreed or strongly agreed that they can handle financial difficulties affecting their businesses. This indicates that many entrepreneurs have developed strategies for managing challenges such as changes in customer demand, increased operating costs, and fluctuations in income. The findings further show that financial services have contributed positively to business

sustainability. This statement recorded a mean score of 3.80 (SD = 1.08), with 171 respondents (71.2%) agreeing or strongly agreeing. This implies that access to financial services such as banking facilities, digital financial platforms, and other financial support mechanisms has helped women entrepreneurs improve their ability to manage and sustain their enterprises.

Similarly, respondents agreed that their businesses have been growing steadily over the past few years, recording a mean score of 3.79 (SD = 1.10). A total of 170 respondents (70.8%) agreed or strongly agreed with this statement. This suggests that many women-led enterprises have experienced improvements in areas such as customer growth, revenue generation, and overall business performance. However, access to consistent funds or credit recorded the lowest weighted mean of 3.55 (SD = 1.22). Although most respondents agreed that they have some access to financial resources, the lower score suggests that obtaining adequate and reliable financing remains a challenge for some women entrepreneurs. Limited access to affordable credit may restrict business expansion, investment opportunities, and the ability to respond effectively to financial pressures.

The overall weighted mean of 3.77 shows that most respondents agreed that their businesses have experienced growth, developed resilience, and benefited from access to financial services. The standard deviation of 1.10 indicates moderate differences in respondents' experiences, suggesting that while many enterprises have achieved some level of sustainability, the extent of success varies depending on access to resources, financial support, and business conditions.

4.4 Regression Analysis

4.4.1 Model Summary

To establish the extent to which financial inclusion influences the financial sustainability of women-led enterprises in Garissa Township Market, a multiple regression analysis was conducted. The analysis examined how the four financial inclusion dimensions jointly predict the sustainability of women-owned businesses. Financial sustainability was used as the dependent variable, while the four financial inclusion dimensions were treated as independent variables. The results of the regression model summary is presented in table 3.

Table 3: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.399	0.159	0.155	0.823

The model summary results indicate a weak positive relationship between mobile banking and the financial sustainability of women-led enterprises, as shown by the correlation coefficient (R = 0.399). This suggests that improvements in access to mobile banking services is fairly associated with improved business sustainability among women entrepreneurs in Garissa Township Market. The coefficient of determination (R^2 = 0.159) shows that mobile banking service explain 15.9 % of the changes observed in financial sustainability. The remaining 84.1% may be influenced by other factors outside this study, such as business experience, market competition, availability of customers, and economic conditions.

4.4.2 Analysis of Variance (ANOVA)

The study carried out an Analysis of Variance in an effort to determine the significant of the overall model, giving the results in Table 4.

Table 4: ANOVA Result

Model	Sum of Squares	df	Mean Square	F-Value	Sig.
Regression	27.450	1	27.450	40.51	0.000
Residual	161.350	238	0.678		
Total	**188.800**	**239**			

The ANOVA results show that the regression model was statistically significant, with an F-value of 40.51 and a significance level of 0.000. This means that the mobile banking has a meaningful influence on the financial sustainability of women-led enterprises. The results confirm that mobile banking services play an important role in strengthening the capacity of women entrepreneurs to overcome financial barriers and improve the stability of their businesses.

4.4.3 Regression Coefficients

The output from the analysis yielded the coefficients which were later used to formulate a model which links the dependent variable with the independent variable. The findings are presented in Table 5.

Table 5: Regression Coefficients

Model	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t-value	Sig.
Constant	2.184	0.241	-	9.06	0.000
Mobile Banking	0.362	0.057	0.399	6.36	0.000

The regression results show that mobile banking services had a significant positive influence on financial sustainability ($\beta = 0.399$, $p = 0.000$). This suggests that mobile banking has made it easier for women entrepreneurs to conduct transactions, receive payments, and manage business finances without the limitations of distance and time. For many small business owners, the convenience of mobile financial services supports smoother daily operations. The regression equation was therefore established as:

$$Y = 2.184 + 0.362X$$

Where:

Y = Financial Sustainability of Women-Led Enterprises

X_1 = Mobile Banking Services

Overall, the regression findings demonstrate that mobile banking service significantly contributes to the financial sustainability of women-led enterprises in Garissa Township Market. The results suggest that when women entrepreneurs have access to mobile banking services, they are better equipped to manage their businesses, respond to challenges, and pursue sustainable growth.

5. SUMMARY OF FINDINGS

The main objective of the study was to assess the influence of mobile banking services on the financial sustainability of women-led enterprises in Garissa Township Market. The findings showed that mobile banking services play an important role in helping women entrepreneurs manage their businesses more effectively. Many respondents indicated that mobile banking has made it easier to receive payments, transfer money, monitor transactions, and access financial services without having to leave their businesses. The regression results confirmed that mobile banking services have a positive and significant influence on financial sustainability, with a standardized beta coefficient of 0.246 and a significance level of $p < 0.001$. This means that as women entrepreneurs gain better access to mobile banking services, their ability to manage and sustain their businesses improves. The finding reflects the reality that many small business owners operate under time and financial constraints; therefore, having financial services available through their mobile phones reduces interruptions and allows them to focus more on serving customers and growing their businesses. The findings therefore suggest that mobile banking has become more than just a method of transferring money; it has become an important business tool for women entrepreneurs. By allowing quick and convenient financial transactions, mobile banking helps women-led enterprises overcome some of the challenges associated with distance, time, and limited access to formal banking services.

6. CONCLUSION

The study concludes that mobile banking services significantly contribute to the financial sustainability of women-led enterprises in Garissa Township Market. Mobile banking has provided women entrepreneurs with easier and faster ways of conducting financial transactions, receiving payments, and managing business finances. By reducing the challenges associated with distance, time, and limited access to traditional banking facilities, mobile banking has enabled women entrepreneurs to operate their businesses more efficiently. The study therefore concludes that increased access and use of mobile banking services strengthens business continuity and supports the long-term sustainability of women-led enterprises.

7. RECOMMENDATIONS

Based on the findings of the study, the study recommends that financial institutions and mobile financial service providers should continue expanding and improving mobile banking services targeting women entrepreneurs. Although mobile banking has improved access to financial services, there is a need to enhance awareness among women business owners on how to use available mobile financial products beyond basic money transfers.

8. SUGGESTIONS FOR FURTHER RESEARCH

Future studies may consider examining other factors that influence the sustainability of women-led enterprises beyond financial inclusion. While this study focused on mobile banking services, other factors such as agent banking, financial literacy, branch banking, entrepreneurial skills, access to markets, business networks, government support programs, and the prevailing economic environment may also influence business sustainability. Investigating these factors would provide a broader understanding of the challenges and opportunities affecting women-owned enterprises.

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