

EFFECT OF DIGITAL PAYMENT SERVICES ON FINANCIAL INCLUSION AMONG WOMEN-OWNED ENTERPRISES IN KAJIADO CENTRAL SUB-COUNTY, KENYA

Sarafino Leparmarai, Moses Kithinji & Barbara Naaminda

The Strategic JOURNAL of Business & Change MANAGEMENT
ISSN: 2312-9492 www.strategicjournals.com
Vol. 13, Iss.3, pp 1 – 14, July 25, 2026. www.strategicjournals.com, © Strategic Journals

EFFECT OF DIGITAL PAYMENT SERVICES ON FINANCIAL INCLUSION AMONG WOMEN-OWNED ENTERPRISES IN KAJIADO CENTRAL SUB-COUNTY, KENYA

[1] Sarafino Leparmarai, [2] Moses Kithinji & [3] Barbara Naaminda

[1] MBA Student, Department of Business Administration, School of Business, Kenya Methodist University, Kenya
[2,3] Lecturer, Kenya Methodist University, Kenya

Accepted: July 3, 2026

DOI: http://dx.doi.org/10.61426/sjbcm.v13i3.3588

ABSTRACT

This study examined the effects of digital payment services on financial inclusion among women-owned enterprises in Kajiado Central Sub-County, Kenya. The study was grounded in rational choice theory and adopted a descriptive research design. A total of 138 questionnaires were distributed to respondents in selected state corporations in Nairobi, with 116 completed and returned, yielding a response rate of 84.1%, considered adequate for analysis. Findings showed that digital payment systems were widely accepted and perceived as beneficial. A positive relationship between digital payments and financial inclusion highlights their role in improving transaction efficiency, expanding access to financial services, and integrating women-owned enterprises into the formal financial system. The study concluded that digital payments services play a significant and complementary role in enhancing financial inclusion among women entrepreneurs. Their accessibility, efficiency, and user-oriented features make them powerful tools for economic empowerment. The study recommends that policymakers and financial service providers expand digital infrastructure, particularly agent networks and ATM coverage, to improve accessibility.

Key Words: *Digital Payment Service, Financial Inclusion.*

CITATION: Leparmarai, S., Kithinji, M., & Naaminda, B. (2026). Effect of digital payment services on financial inclusion among women-owned enterprises in Kajiado Central Sub-County, Kenya. *The Strategic Journal of Business & Change Management*, 13 (3), 1 – 14.

INTRODUCTION

Digital payment service refers to financial transactions conducted online without the usage of physical cash (Minarni, 2025). Channels like M-Pesa have transformed how people and enterprises exchange money, enabling fast, secure, and convenient payments for goods, services, bills, and peer-to-peer transfers (Putrevu & Mertzanis, 2024). On the other hand, digital withdrawal service involves accessing cash from a digital account through electronic channels. This may include withdrawing money from automated teller machines (ATMs), mobile money agents and transferring funds from a mobile wallet to bank accounts (Raghunath, et al., 2024).

Financial inclusion is the extent to which women entrepreneurs are capable of accessing and efficiently using formal financial services like bank accounts, credit and e-payment system (Sherwani, et al., 2024). Financial inclusions are the efforts of making sure that enterprises could get suitable, cheap and timely financial services. The services include saving, loan and payment solutions offered in a way that is accountable and justifiable (Peter, et al., 2025). According to Tubastuvi, et al. (2023), financial inclusion plays crucial roles in reducing poverty, promoting growth of the economy and enhancing social equity. People are empowered by inclusive financial systems which enables them to securely save money, access loans for investment and manage financial risks (Tiwari, et al., 2025).

In Brazil, the rapid evolution of fintech companies continues to play significant roles in expansion of monetary services amongst marginalized people including women SME owners (DelSarto, 2025). Most Brazilian SMEs have frequently used Nubank as it lowers barriers to accessing financial services through no-fee digital accounts and credit products tailored to consumers and small businesses (Losanoff & Bonomo, 2021). In Kuwait, Al-Khub (2024) noted that digital financial services are still emerging and Enterprises owned by women are leveraging them in bridging the gaps in financial inclusions. In the UK, digital platform like *Pockit* is designed to serve customers who are marginalized by traditional banks such as poor people and owners of small businesses (McCarthy, 2025).

In Ghana, digital financial services have played a transformative role in expanding financial inclusion including among women entrepreneurs. Ghana experienced rapid growth in mobile money adoption, with account ownership rising dramatically from about 13% in 2014 to approximately 60% by 2021 (Raheem, et al., 2024). This expansion has enabled women-owned enterprises in informal sectors, to access payment systems, savings platforms, and micro-transactions without relying on traditional banking infrastructure (Raheem, et al., 2024). In Ethiopia, regulatory reforms allowing non-bank entities to offer mobile money services have accelerated growth, with mobile money accounts surpassing 100 million in 2024. Digital platforms such as mobile banking and mobile wallets are progressively recognized as instruments for enhancing financial inclusion and supporting micro and small enterprises owned by women (Abatihun, 2025).

In Kenya, digital financial services are deeply entrenched in the financial ecosystem. The mobile money sites have substantial roles in payments, savings and provision of loans (Mallinguh, et al., 2021). According to Sommer, Mader and Mußhoff (2025), Kenya has been recognized as a global pioneer in digital financial innovation, largely attributed to the success of M-Pesa, Airtel-Money and T-Kash. Tiony (2023) noted that the introduction of mobile-based transactions, digital loans, and mobile savings platforms has revolutionized how people manage their finances. These innovations have lowered transaction costs, improved convenience, and broadened access to financial products. As a result, Kenya's financial inclusions rate augmented from 26% in 2006 to 83% in 2021 (Kiptoo, 2022). Despite this progress, significant challenges persist, including digital credit over-indebtedness and exclusion of women from sustainable usage of digital financial products (Githaiga, 2025).

Problem Statement

Financial inclusion refers to the process of ensuring that individuals and enterprises have access to and effective usage of affordable, appropriate, and quality financial products and services, including payments, savings, credit, and insurance. It is widely acknowledged as a critical driver of economic growth, enterprise development, and poverty reduction, particularly among small and medium-sized enterprises (SMEs) (World Bank, 2022). In Kenya, financial inclusion has improved significantly over the years, largely due to the expansion of digital financial services (DFS), with formal financial access reaching approximately 84.8% of the adult population (KNBS, 2024).

In response, governments and financial sector stakeholders have increasingly promoted the adoption of digital financial services including digital payments as a strategy to enhance financial inclusion. Digital finance has been instrumental in expanding access and reducing traditional barriers associated with distance, cost, and documentation requirements (World Bank, 2022). However, despite the rapid growth and widespread adoption of DFS in Kenya, significant segments of women-owned enterprises remain financially excluded, underscoring the need to examine how specific digital financial services influence financial inclusion outcomes.

In Kajiado Central Sub-County, a considerable proportion of women-owned enterprises remain financially excluded despite ongoing efforts to enhance access to financial services. Women entrepreneurs in the region continue to face persistent constraints in accessing formal financial systems, which limits business growth and sustainability (Chege, 2023). Key barriers include limited access to affordable credit, low savings mobilization, high transaction costs, and continued reliance on informal financial arrangements such as rotating savings and credit associations. These challenges persist even as digital financial services (DFS) including mobile payments, digital savings, and digital credit continue to expand across Kenya and similar developing economies (KNBS, 2024; FSD Kenya, 2024).

Recent empirical studies in Africa further highlight mixed outcomes. For instance, a study by Kikulwe, Fischer, and Qaim (2021) established that mobile money services significantly enhance financial inclusion and household welfare, but the level of impact depends on user characteristics such as income and education. In Kenya, Jack and Suri (2021) found that mobile money platforms contribute to improved financial resilience; however, access to advanced services such as digital credit and savings remains limited among marginalized groups, including women entrepreneurs. Additionally, a study by Evans (2022) showed that while digital financial services increase access to basic financial tools, challenges such as high transaction costs and trust issues still limit deeper financial inclusion.

Despite these insights, gaps remain in the existing literature. For example, Githaiga (2025) focused broadly on financial technology (FinTech), presenting a conceptual gap as FinTech encompasses a wider range of innovations beyond specific digital financial services such as payments, savings, withdrawals, and credit. Fernandes, Borges, and Caiado (2021) present a contextual gap, as their study was conducted in Mozambique, whose financial ecosystem differs from that of Kenya. Furthermore, Ocharive and Iworiso (2024) reveal a methodological gap by relying on panel data rather than primary data collected from enterprise-level respondents, thereby limiting context-specific insights.

Moreover, most recent empirical studies have not sufficiently focused on women-owned enterprises, despite their unique financial challenges and critical role in economic development (World Bank, 2023). This reveals an empirical gap in understanding how specific components of digital financial services namely digital payments affect financial inclusion among this group. Therefore, this study sought to bridge these gaps by investigating the influence of digital payments services on financial inclusion

among women-owned enterprises in Kajiado Central Sub-County.

Objective of the Study

The objective of this study was to determine the effect of digital payment services on financial inclusion among women-owned enterprises in Kajiado Central Sub-County.

The study tested the following null hypothesis:

- **H_o:** Digital payment services have no significant effect on financial inclusion among women-owned enterprises in Kajiado Central Sub-County.

LITERATURE REVIEW

Theoretical Literature

Rational Choice Theory

Rational choice theory was developed by Adam Smith in 1776. The theory posits that economic decisions are closely linked to social behaviors. Rational choice theory is built on three key concepts: the rational actors, self-interests and the invisible hands (Herfeld, 2022). It suggests that individuals evaluate costs and benefits before making economic decisions, aiming to choose the most advantageous option even in the presence of factors beyond their control (Kebede, 2022). Under this theory, users choose financial products and services that maximize their personal utility. RCT assumes that individuals behave rationally, even under uncertainty, by comparing the benefits of one option to the costs of alternative choices (Thomas, et al., 2022).

Rational choice theory helps explain the behaviour of individuals using digital credit, digital payments, and digital savings platforms. Individuals opt for digital credit when the immediate benefits such as quick access, lack of collateral, and convenience are perceived to outweigh potential high interest costs. Moreover, digital payments minimise the costs of transactions, improve speed, and enhance security, making them a rational choice compared to cash-based transactions. Digital savings products like M-Shwari and KCB M-Pesa appeal to individuals who value safety, accessibility, and interest earnings at low. The theory is relevant as it highlights how digital payment withdrawals and saving could influence financial inclusions amongst enterprises owned by women in Kajiado Central Sub-County.

Empirical Literature

Digital payment is a key pillar of digital financial services as it drives financial inclusions (Mula, 2025). As argued by Minarni (2025), digital payments promote financial inclusion through reduction in cash dependence, lowered transaction costs and enhanced efficiency of financial systems. Accessing financial services digitally by people remote areas have been made possible by the expansion of mobile money. Digital payment systems offer a gateway through which users can begin to adopt other financial products like credit and savings (Putrevu & Mertzanis, 2024). Businesses that have adopted digital payments experiences reduced costs of operations, improve efficiency and great retention of customers because of seamless options of payment (Hussain, et al., 2025).

A study by Shair, et al. (2024) assessed the roles of digital payments in advancing financial inclusions in Pakistan. The research used Global Findex database 2021 for obtaining the secondary data and analysis was through logistic regression model. The study found that accessing mobile phones and internet have significantly enhanced the financial inclusion. Engaging in systems of digital payments like credit cards, online banking and financial apps allows people to easily access financial services. The study concluded that e-payments played an important role in improving financial inclusions in Pakistan. However, the research was done in Pakistan and not in Kenya.

Research by Chandel and Chandel (2025) investigated the digital payment systems that advances the Indian financial inclusions. The study used surveys for collecting data from 384 sampled participants. The data analysis was via descriptive statistics and structural equation modeling. The

research found that attitudes towards systems of digital payments have meaningfully impacted the intentions to utilize them. It was established that digital payments bridge financial geographical gaps, reduces transactional costs and allows small business to access financial services. However, the study was one in Pakistan and not in Kenya. In addition, the study adopted structural equation modeling which is not applicable in the current research.

Research by Minarni (2025) examined the impacts of digital payment systems on financial inclusions in developing economies. The qualitative approach was employed in this research. Data was obtained using interview and FGDs. Thematic analysis was utilized for data analysis. It was established that digital systems of payment substantially influenced the financial inclusions in poor nations. It was established that digital payments addressed various challenges faced while access to financial services is enhanced through the usage of technological innovations like mobile connectivity and digital platforms. However, the study had a methodological gap as it adopted qualitative approach that is not applicable in the current research.

Fernandes, et al. (2021) studied how digital payment services contributes to financial inclusions in Mozambique. The study adopted ARDL model approach. The research found that the financial inclusion was determined by a rise in financial activities via ATMs, POS systems, electronic interbank and intrabank transfers, as well as domestic and international remittances. The research deduced that limited domestic digital remittances and direct debit leads to low levels of financial penetration in Mozambique. Though, the study was done in Mozambique and not in Kenya.

A study by Njoroge (2025) studied how digital payment systems impacts financial inclusions in Kenya. The research used cross-sectional research designs. The questionnaire was utilized in collecting the data. The analysis was through descriptive and regressions. The research found that digital payment systems increase the likelihood of customers to access savings, credit and insurance services. It was also established that digital payments are cheaper and faster in contrast to cash and bank transfers. The study concluded that digital systems reduce time and effort needed for everyday financial activities like bill payments and purchasing goods. However, the study did not focus on enterprises owned by women in Kajiado Central Sub-County.

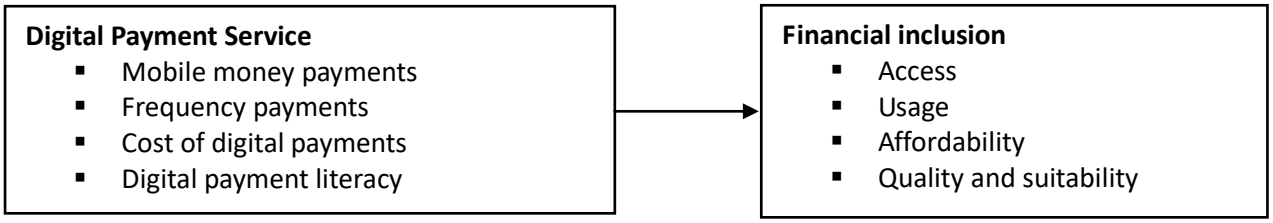
Financial inclusion is the extent to which women entrepreneurs can obtain and make efficient usage of formal financial services such as bank accounts, loans and digital payment platforms (Sherwani, et al., 2024). As argued by Peter, et al. (2025), financial inclusions are the procedure of making sure that enterprises can access financial services that are affordable, suitable, and available when needed. Tubastuvi, et al. (2023) noted that financial inclusion plays key roles in reduction of poverty, promotion economic growth and enhancing social equity. Rani and Sundaram (2023) argued that financial inclusion has been significantly enhanced through technological innovations like m-banking and online finance channels.

Accessing finance enables women entrepreneurs to invest in productive assets, expand operations, management of risks and improved cash flow management (Nguse, et al., 2022). Research by Sherwani, et al. (2024) investigated the financial inclusions amongst enterprises owned by women in Iraq. The study used surveys for collecting data from 321 owners of enterprises in Iraq. The analysis was done through a chi-square for testing the associations amongst the variables. The research found that financial inclusion was determined by business duration, experiences in entrepreneurship and ICT usage. The research was however done in Iraq which may have different levels of financial inclusion compared to Kenya.

A study by Macharia (2022) investigated the financial inclusions amongst business women in Nairobi county. The target population was 5339 registered women entrepreneurs. Questionnaires

and interviews were used for collection of data. The analysis of data was through content and descriptive analysis. It was established that financial inclusion was determined by availability of mobile loans, access to savings and mobile transfers. The study also found that using mobile platforms to send or receive money promotes greater financial inclusion, as it provides a variety of market tools that facilitate efficient financial transactions. The research however omitted various aspects of financial inclusion such as usage and affordability.

Conceptual Framework



Independent Variable **Dependent Variable**

Figure 1: Conceptual Framework

METHODOLOGY

This study employed an explanatory research design. The study population was 3,187 owners of registered women owned enterprises in Kajiado Central Sub-County. Women owned enterprises was identified through registration records obtained from Kajiado county business permit records. The study targeted enterprise owners because they were actively engaged in adopting various digital financial services to enhance financial inclusions in Kajiado Central Sub-County. The study adopted mixed sampling design. This entailed using both random and stratified sampling techniques. The size of the sample was calculated using Nassiuma (2000) formula. The ratio for sampling was 138⁄3187=0.043.

The primary data for both dependent and independent variables was collected using questionnaires. The questionnaires were utilized for collecting data from the sampled owners of women owned enterprises in Kajiado Central Sub-County. The questionnaire had closed and open-ended questions. Data analysis was undertaken with the help of SPSS. Qualitative data from open ended questions were analyzed through content analysis. Further, quantitative data collected using questionnaires were analyzed using descriptive and inferential statistics. Descriptive statistics are mean, standard deviation, frequency and percentage. Moreover, inferential statistics was bivariate regression analysis to establish how digital financial services influenced financial inclusions.

FINDINGS

Response Rate

Out of the 138 questionnaires distributed to respondents in selected state corporations in Nairobi, Kenya, 116 were duly completed and returned, representing a response rate of 84.1%. According to Saunders et al. (2009), acceptable response rates for questionnaires that are both administered and collected by the researcher typically range between 30% and 50%. Based on this benchmark, the achieved response rate of 84.1% was considered highly adequate for the study.

Descriptive Analysis of Study Variables

Study analysed questionnaire per construct so as to give context to characteristics of the variables. The descriptive analyses included means and standard deviation. A Likert scale was used to measure responses in the questionnaire. Respondents were expected to rate each statement on a five- point scale.

Digital Payment Services

To measure effectiveness of digital payment services on financial inclusion, five statements were formulated and analysed and the findings are as shown in Table 1 below.

Table 1: Digital Payments Services

Statements	Mean	SD
Mobile money payment platforms are my primary mode of receiving payments from customers.	3.93	0.18
Mobile money payments have increased my accessibility to formal monetary services.	4.28	0.17
Frequent use of digital payments has improved my business cash flow management.	4.17	0.27
Low digital payment costs encourage me to use cashless payment methods.	3.78	0.13
I am confident in using digital payment platforms for my business transactions	3.65	0.09
Overall	3.96	0.17

The overall mean score for digital payment services was 3.96, with a relatively low standard deviation of 0.17, indicating a high level of agreement among respondents and minimal variation in their views. This suggests that digital payment systems are widely accepted and consistently perceived as beneficial across the sample. Among the specific statements assessed, the highest-rated was that mobile money payments have increased accessibility to formal financial services, which recorded a mean score of 4.28. This highlights the significant role of mobile money platforms in promoting financial inclusion, particularly by enabling users to access services that may have previously been out of reach.

This was followed by the statement indicating that frequent use of digital payments has improved business cash flow management, with a mean score of 4.17. This finding suggests that respondents recognize the efficiency and transparency that digital transactions bring to financial tracking and liquidity management in business operations. Additionally, respondents reported that mobile money platforms serve as their primary method of receiving payments from customers, reflected by a mean score of 3.93. While slightly lower than the other statements, this still indicates strong reliance on digital channels for routine financial transactions, underscoring the central role of mobile money in everyday business activities.

Financial Inclusion

Six statements were developed to assess the level of financial inclusion among the respondents, and these were subjected to detailed analysis. The statements captured key dimensions of financial inclusion. The responses were analyzed using descriptive statistics, particularly mean scores and standard deviations, to determine the extent to which respondents agreed with each statement. The findings of this analysis are presented in Table 2.

Table 2: Financial Inclusion

Statements	Mean	SD
I can easily access formal financial services (such as banks, mobile money platforms) whenever I need them.	3.71	0.56
I am able to open and operate a business bank account without difficulty.	3.62	0.47
I regularly use formal financial services for saving, borrowing, payments and business transactions.	3.74	0.24
I am aware of the various financial services available for SMEs.	3.17	0.11
Costs and charges associated with financial services are affordable for my income	3.84	0.18
The financial products and services I use are well suited to my financial needs.	3.49	0.98
Overall	3.59	0.42

The findings indicated that financial inclusion recorded a mean score of 3.59 with a standard deviation of 0.42, indicating a moderately positive perception among respondents and relatively low variation in their responses. This suggests that while access to and use of formal financial services is generally favorable, there is still room for improvement. The highest-rated statement was that the costs and charges associated with financial services are affordable relative to respondents' income or business level, with a mean of 3.83. This implies that affordability is a key strength in promoting financial inclusion, as users feel that financial services are reasonably priced and within their reach.

This was followed by the statement that respondents regularly use formal financial services for saving, borrowing, payments, and business transactions, which achieved a mean score of 3.74. This reflects a growing integration of formal financial systems into everyday financial activities. Respondents also indicated that they can easily access formal financial services, such as banks and mobile money platforms, whenever needed, with a mean of 3.71. This suggests that availability and proximity of services are generally adequate, though not without some limitations.

The statement that respondents are able to open and operate a business bank account without difficulty recorded a mean of 3.62. While still positive, this comparatively lower score may point to procedural or administrative challenges that some users encounter when engaging with formal banking systems. The findings demonstrate steady progress in financial inclusion, particularly in terms of affordability, usage, and access. However, simplifying account management processes and further enhancing ease of access could strengthen inclusion outcomes even further.

Tests of Hypotheses

This section presents the testing of the study hypotheses and provides a detailed explanation of the corresponding results. The hypothesis was developed in line with the specific objectives of the study. The null hypotheses guided the analysis: **H_0:** Digital payment services have no significant effect on financial inclusion among women-owned enterprises in Kajiado Central Sub-County.

All statistical analyses were performed at a 95% confidence level ($\alpha = 0.05$). The interpretation of the findings relied on several key statistical measures. The coefficient of determination (R^2) was used to evaluate the goodness of fit of the model, while the F-test assessed the overall significance of the regression model. In addition, the t-test was applied to examine the significance of individual predictor variables, and p-values were used as the basis for hypothesis testing decisions. For the direct relationships under investigation, a p-value less than 0.05 was considered evidence of a statistically significant effect, leading to the rejection of the null hypothesis. Conversely, a p-value greater than 0.05 indicated insufficient evidence to reject the null hypothesis, suggesting that the relationship was not statistically significant.

Digital Payment Services and Financial Inclusion

The first objective of the study was to examine the effect of digital payment services on financial inclusion among women-owned enterprises in Kajiado Central Sub-County. This objective was tested using the following null hypothesis: **H_{01}:** Digital payment services have no statistically significant effect on financial inclusion among women-owned enterprises in Kajiado Central Sub-County. The hypothesis was tested using simple linear regression and results presented in Table 3 below.

Table 3: Digital Payment Services and Financial Inclusion

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.550[a]	.303	.299	6.36406	.303	49.609	1	114	.000	1.867

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1400.00	1	1400.001	49.609	.000[b]
	Residual	3217.13	114	28.220		
	Total	4617.13	115			

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.399	.099		4.049	.000
	Digital Payment Services	.442	.219	.432	2.021	.040

a. Dependent Variable: Financial Inclusion

The results in Table 3 provided both explanatory and predictive insights into the relationship between digital payment services and financial inclusion among women-owned enterprises in Kajiado Central Sub-County. An R^2 value of 0.303 indicates that digital payment services account for 30.3% of the variation in financial inclusion. This suggests a moderately strong explanatory power, meaning that while digital payment services play a substantial role in enhancing financial inclusion, there are other factors such as financial literacy, access to credit, infrastructure, and regulatory environment that also contribute to the remaining 69.7% of variation not captured by the model.

The F-statistic (F = 49.609) with a p-value of 0.000 demonstrates that the regression model as a whole is statistically significant. In practical terms, this confirms that the model reliably explains the relationship between digital payment services and financial inclusion and is not a result of random chance. Therefore, the independent variable (digital payment services) meaningfully improves the prediction of financial inclusion.

At the individual variable level, the t-test results (t = 2.021, p = 0.04) indicate that digital payment services have a statistically significant effect on financial inclusion at the 5% significance level. This implies that changes in digital payment services are associated with measurable and reliable changes in financial inclusion outcomes among women-owned enterprises in Kajiado Central Sub-County.

The predictive regression equation was:

FI = 0.399 + 0.442 DPS

Further quantifies this relationship. The intercept (0.399) represents the baseline level of financial inclusion when digital payment services are absent. Although, in real-world scenarios, a complete absence of digital payment services may be unlikely, this value serves as a reference point for understanding the model. The coefficient of digital payment services (0.442) shows a positive

relationship, meaning that an increase in digital payment services leads to an increase in financial inclusion. Specifically, a one-unit improvement in digital payment services results in a 0.442-unit increase in financial inclusion, assuming all other factors remain constant. This positive coefficient underscores the importance of digital payment platforms in expanding access to financial services, improving transaction efficiency, and integrating women-owned enterprises into the formal financial system. Findings suggest that promoting and strengthening digital payment services such as mobile money, online banking, and electronic transactions can significantly enhance financial inclusion among women entrepreneurs in the region. However, since the model does not explain all the variation, complementary interventions targeting other determinants would further strengthen financial inclusion outcomes.

Hypotheses Testing Results

The aim of hypothesis testing is to determine whether there has been a statistically significant change in the probability of occurrence within a population. In this study, hypotheses were evaluated at a 5% significance level. The decision rule was based on the p-value: if it was less than 0.05, the null hypothesis was rejected; if it exceeded 0.05, the null hypothesis was not rejected and was regarded as valid within the study context.

H_0: Digital payment services have no statistically significant effect on financial inclusion among women-owned enterprises in Kajiado Central Sub-County.

The results showed that digital payment services had significant and positive relationship with financial inclusion at the 5% level of significance. This conclusion was based on a p-value of less than 0.05, which meets the threshold for statistical significance. Consequently, the null hypothesis was rejected with 95% confidence, leading to the inference that digital payment services plays a meaningful role in influencing financial inclusion among women-owned enterprises in Kajiado Central Sub-County.

The results were consistent with the findings of Minarni (2025), who posited that digital payments promote financial inclusion through reduction in cash dependence, lowered transaction costs and enhanced efficiency of financial systems. Similarly, the study aligns with Chandel and Chandel (2025) who investigated the digital payment systems that advances the Indian financial inclusions and found that attitudes towards systems of digital payments have meaningfully impacted the intentions to utilize them. It was further established that digital payments bridge financial geographical gaps, reduces transactional costs and allows small business to access financial services. The results are also supported by the findings of Fernandes, et al. (2021) who studied how digital payment services contributes to financial inclusions in Mozambique. The study adopted ARDL model approach. The research found that the financial inclusion was determined by a rise in financial activities via ATMs, POS systems, electronic interbank and intrabank transfers, as well as domestic and international remittances. The research also deduced that limited domestic digital remittances and direct debit leads to low levels of financial penetration in Mozambique.

CONCLUSION AND RECOMMENDATIONS

The study found that digital payment systems were widely accepted and consistently perceived as beneficial across the sample. Specifically, mobile money payments have increased accessibility to formal financial services by enabling users to access services that may have previously been out of reach, frequent use of digital payments has improved business cash flow management and mobile money platforms serve as the primary method of receiving payments from customers.

Positive coefficient of digital payment services in relation to financial inclusion underscores the importance of digital payment platforms in expanding access to financial services, improving transaction efficiency, and integrating women-owned enterprises into the formal financial system. Findings suggest that promoting and strengthening

digital payment services such as mobile money, online banking, and electronic transactions can significantly enhance financial inclusion among women entrepreneurs in the region.

The results highlight the critical role of digital financial ecosystems in reducing gender gaps in financial access and empowering women economically, thereby contributing to inclusive local economic development. Digital payment services are not just convenient transaction tools, but transformative enablers of economic participation for women-owned enterprises in Kajiado Central Sub-County. The positive and statistically significant relationship observed in both regression and correlation analyses suggests that increased adoption of digital payment platforms directly contributes to improved financial inclusion outcomes.

In practical terms, this means that women entrepreneurs who utilize mobile money, digital wallets, and cashless payment systems are more likely to access formal financial services such as savings accounts, credit facilities, and insurance products. Digital transaction histories can serve as alternative credit profiles, reducing reliance on traditional collateral requirements that often disadvantage women.

Further, digital payment systems lower transaction costs, enhance security, and improve business efficiency. This enables women-owned enterprises to expand their customer base, including serving clients who prefer or require cashless transactions. It also facilitates participation in broader digital marketplaces, increasing revenue potential. The findings further imply that policy interventions aimed at strengthening digital infrastructure, promoting digital literacy, and ensuring affordability of digital financial services could have a disproportionately positive impact on women entrepreneurs. Financial institutions and fintech providers may also leverage this insight to design gender-responsive products tailored to the needs of women-owned businesses.

Based on the study findings, several key recommendations are proposed to enhance financial inclusion among women-owned enterprises in Kajiado Central Sub-County. First, Policymakers and service providers should prioritize expanding agent networks, reducing withdrawal fees, and improving service reliability to maximize the benefits for women-owned enterprises. This includes strengthening mobile network coverage, increasing the density of agent banking and cash-out points, and ensuring reliable electricity access. Policies should also promote affordability by encouraging competitive pricing and reducing transaction costs associated with digital payments.

Suggestions for Further Study

Future research should move beyond establishing statistical relationships and focus on understanding the long-term effects of digital financial services on women-owned enterprises. Future research should explore the long-term impacts of digital financial services on business growth, profitability, and sustainability among women-owned enterprises. Longitudinal studies would provide deeper insights into how sustained use of digital payments, savings, withdrawals, and credit influences economic empowerment over time. Further studies should also examine the role of digital literacy and socio-cultural factors in shaping adoption and usage of digital financial services. Comparative studies across different regions or counties would help identify contextual differences and best practices. Further research should investigate contextual and socio-cultural factors that may affect financial inclusion. Variables such as education levels, household dynamics, cultural norms, and access to mobile devices can significantly influence how women engage with digital financial services. Understanding these factors would help in designing more inclusive and targeted interventions. Research should investigate potential risks such as over-indebtedness from digital credit and cybersecurity concerns, as well as the effectiveness of policy interventions aimed at enhancing financial inclusion.

REFERENCES

Abatihun, A. D. (2025). *Evaluating Digital Financial Services in Ethiopia and Identifying its impact on Financial Inclusion* (Doctoral dissertation, Addis Ababa Science and Technology University).

Adam, M. A., & Kulmie, D. A. (2024). The role of financial inclusion in poverty reduction. *The International Journal of Business Management and Technology*, *8*(4), 36-44.

Alliance for Financial Inclusion. (2023). *Digital financial services and women's financial inclusion*. Alliance for Financial Inclusion.

Al-Khub, A. (2024). Digital financial inclusion in emerging economies: Evidence from Jordan. *Journal of Risk and Financial Management*, *17*(2), 66.

Chandel, S., & Chandel, S. (2025). The role of digital payment systems in advancing financial inclusion in India. *Cureus Journal of Business and Economics*, *2*, 10-7759.

Chege, J. N. (2023). *Adult and Continuing Education and Performance of Women Owned Small-scale and Micro-enterprise Projects in Loitokitok Sub County, Kajiado County, Kenya* (Doctoral dissertation, University of Nairobi).

DelSarto, N. (2025). FinTech and financial inclusion in emerging markets: a bibliometric analysis and future research agenda. *International Journal of Emerging Markets*, *20*(13), 270-290.

Demirgüç-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2022). *The Global Findex Database 2021: Financial inclusion, digital payments, and resilience in the age of COVID-19*. World Bank.

Evans, O. (2022). Financial inclusion and digital finance: Evidence from developing economies. Journal of Financial Economic Policy, 14(3), 456–472.

Fernandes, C., Borges, M. R., & Caiado, J. (2021). The contribution of digital financial services to financial inclusion in Mozambique: an ARDL model approach. *Applied Economics*, *53*(3), 400-409.

FSD Kenya. (2024). FinAccess household survey 2024. Financial Sector Deepening Kenya.

Githaiga, J. (2025). *Effect of Fintech on Financial Inclusion of SMES in Nairobi County, Kenya* (Unpublished MBA Project, United States International University).

Herfeld, C. (2022). Revisiting the criticisms of rational choice theories. *Philosophy Compass*, *17*(1), e12774.

Hussain, S., Gupta, S., & Bhardwaj, S. (2025). Determinants inhibiting digital payment system adoption: an Indian perspective. *Qualitative Research in Financial Markets*, *17*(4), 716-748.

Jack, W., & Suri, T. (2021). Mobile money and financial inclusion: Evidence from Kenya. American Economic Review Papers & Proceedings, 111, 366–371.

Kebede, B. (2022). Rational choice theory. In *Encyclopedia of quality of life and well-being research* (pp. 1-3). Cham: Springer International Publishing.

Kiptoo, C. J. (2022). *The Impact of Digital Finance on Financial Inclusion of Vulnerable Individuals in Kenya* (Doctoral dissertation, Masters Dissertation, Ritsumeikan Asia Pacific University).

Kikulwe, E. M., Fischer, E., & Qaim, M. (2021). Mobile money, smallholder farmers, and household welfare in Kenya. World Development, 141, 105–118

Kumar, N. K. (2023). Autocorrelation and heteroscedasticity in regression analysis. *Journal of Business and Social Sciences*, *5*(1), 9-20.

Losanoff, L., & Bonomo, L. (2021). *Nubank: Revolutionizing the Brazilian Banking Industry by Fighting Complexity* (Master's thesis, Universidade NOVA de Lisboa (Portugal)).

Macharia, J. K. (2022). *Mobile banking and financial inclusion among women entrepreneurs in Nairobi city county, Kenya* (Unpublished MBA Project, Kenyatta University).

Mallinguh, E., Zoltan, Z., & Kecskes, H. (2021). Innovative financial digital ecosystem: An evaluative study of Kenya. In *Mirdec-6th international academic conference on social sciences, Lisbon, Portugal: MIRDEC*.

McCarthy, J. (2025). Developments in Financial Services: UK and EU Approaches to Digital Finance. In *The New Relationship between the United Kingdom and the European Union* (pp. 385-404). Cham: Springer Nature Switzerland.

Minarni, E. (2025). Impact of Digital Payment Systems on Financial Inclusion and Small Business Growth in Developing Economies. *International Journal of Innovation and Thinking*, *2*(1), 1-12.

Mula, K. (2025). Financial Inclusion through Digital Payments: How Technology is Bridging the Gap. *Journal of Computer Science and Technology Studies*, *7*(2), 447-457.

Musa, H. G. & Suyanto, M. (2024). Marketing research trends using technology acceptance model (TAM): A comprehensive review of researches (2002–2022). *Cogent business & management*, *11*(1), 2329375.

Nguse, T., Desalegn, G., Oshora, B., Tangl, A., Nathan, R. J., & Fekete-Farkasne, M. (2022). Enhancing women economic empowerment through financial inclusion: Evidence from SMEs in Ethiopia. *Polish Journal of Management Studies*, *25*(1), 270-291.

Njoroge, D. K. (2025). Financial Inclusion through Mobile Banking: Evaluating the Impact of Digital Payment Systems in Kenya. *Mustard Journal De Ecobusin*, *2*(2), 120-136.

Ocharive, M. M., & Iworiso, J. (2024). Financial inclusion and digital banking in developing economies: Panel data evidence. International Journal of Finance & Economics, 29(2), 1234–1250.

Ocharive, A., & Iworiso, J. (2024). The impact of digital financial services on financial inclusion: A panel data regression method. *International Journal of Data Science and Analysis*, *10*(2), 20-32.

Peter, S., Elangovan, G., & Vidya Bai, G. (2025). Unveiling the nexus: Financial inclusion, financial literacy, and financial performance as catalyst for women-owned enterprises in India. *Journal of the International Council for Small Business*, *6*(4), 721-751.

Putrevu, J., & Mertzanis, C. (2024). The adoption of digital payments in emerging economies: challenges and policy responses. *Digital Policy, Regulation and Governance*, *26*(5), 476-500.

Raghunath, A., Ndubuisi-Obi, I., Mpogole, H., & Anderson, R. (2024). Beyond digital financial services: Exploring mobile money agents in Tanzania as general ICT intermediaries. *ACM Journal on Computing and Sustainable Societies*, *2*(1), 1-26.

Raheem, S., Addo, A., Shaffakat, S., & Lunberry, D. (2024). Designing for financial inclusion in developing countries: Digital financial service for low-income women in Ghana. *The Information Society*, *40*(5), 376-394.

Rani, V. S., & Sundaram, N. (2023). Impact of financial inclusion on women entrepreneurs in India: An empirical study. *International Journal of Professional Business Review: Int. J. Prof. Bus. Rev.*, *8*(6), 24.

Sara, B. A. (2024). Financial intermediation: an exploration of the theoretical foundations. *African Scientific Journal*, *3*(22), 893-893.

Shair, W., Jabeen, F., Zafar, M. B., & Hassan, R. U. (2024). Assessing the impact of digitalization and digital payments in advancing financial inclusion. *iRASD Journal of Economics*, *6*(3), 776-785.

Sherwani, F. K. & Siddiqui, M. S. (2024). Determinants of financial inclusion among women-owned enterprises: a case study of the informal sector. *Arab Gulf Journal of Scientific Research*, *42*(4), 1340-1358.

Sommer, C., Mader, A., & Mußhoff, O. (2025). *How to make mobile money and digital financial services work for consumers: Lessons from Kenya* (No. 10/2025). IDOS Policy Brief.

Srivastava, D. A. K. (2024). Questionnaire & Interview in Research: Tool & Technique. *Legal Research Methodology, Dr. Ashish Kumar Srivastava (Ed.), Satyam Law International, New Delhi*.

Suri, T. (2021). Mobile money and financial inclusion. Annual Review of Economics, 13, 497–520.

Thomas, K. J., Baumer, E. P., & Loughran, T. A. (2022). Structural predictors of choice: Testing a multilevel rational choice theory of crime. *Criminology*, *60*(4), 606-636.

Tiony, O. K. (2023). The impact of digital financial services on financial inclusion in Kenya. *American Journal of Industrial and Business Management*, *13*(6), 593-628.

Tiwari, D., Katrodiya, P., Khetrapal, M., Sangada, J., Yadav, S., & Rajput, J. (2025). A study on financial inclusion for women entrepreneurs: Understanding the key determinants of credit access for women-owned/led micro-enterprises. In *International Conference on Research into Design* (pp. 225-237). Singapore: Springer Nature Singapore.

Tubastuvi, N., & Purwidianti, W. (2023). Performance of women-led SMEs in Indonesia: The role of financial inclusion, financial literacy, and technology adoption. *Journal of Law and Sustainable Development*, *11*(12), e1899-e1899.