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**Empowerment of Women Entrepreneurs in Nairobi County: The Role of Microcredit  
Access Channels**

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## Empowerment of Women Entrepreneurs in Nairobi County: The Role of Microcredit Access Channels



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### Abstract

**Purpose:** Promoting women's empowerment remains a central development priority across Africa and other regions of the Global South, where persistent gender disparities constrain women's participation in economic activities. While global frameworks such as the United Nations Sustainable Development Goal (SDG) 5 emphasize gender equality and equitable access to financial resources, the practical realization of these commitments often depends on how financial services are delivered. Although microcredit is widely recognized as a tool for fostering financial inclusion, many women entrepreneurs still face barriers linked to the channels through which credit is accessed. This study therefore examined the influence of microcredit access channels on the empowerment of women entrepreneurs in Nairobi County, drawing on Feminist Theory to guide its conceptual framing.

**Methodology:** The study adopted a cross-sectional design and employed a quantitative approach to ensure objectivity and accuracy of findings. The target population comprised 921 women entrepreneurs operating licensed microenterprises within 12 rental markets in Nairobi County. Using systematic sampling, 279 respondents were selected and primary data was collected through structured questionnaires. Reliability was assessed using Cronbach's alpha, with coefficients above 0.6 considered acceptable. Data analysis entailed both descriptive statistics (frequencies, percentages, means, and standard deviations) and inferential techniques, that is linear regression, to test the study hypothesis.

**Findings:** Results revealed that the channel used to access microcredit significantly influences the empowerment of women entrepreneurs in Nairobi County ( $\beta = 0.643$ ,  $p = .000$ ). Specifically, flexible and inclusive channels-particularly digital platforms-were associated with improved access and utilization of microcredit, thereby enhancing empowerment outcomes.

**Unique Contribution to Theory, Practice and Policy:** The study recommends that microcredit providers, including commercial banks, microfinance institutions and digital lenders, strengthen digital platforms by investing in user-friendly applications, multilingual support and customized services tailored to women entrepreneurs. Capacity-building initiatives should equip women with the necessary skills to effectively use digital tools, while policymakers should develop supportive fintech infrastructure and regulatory frameworks that promote innovation, consumer protection and inclusion for underserved women borrowers.

**Keywords:** Microcredit, Women Empowerment, Digital Channel, Non-Digital Channel

**JEL Classification:** G21, G23, O16, J16, L86

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## INTRODUCTION

Microcredit, the extension of small loans to economically active low-income individuals, has long been promoted as a pathway to financial inclusion and poverty reduction. Globally, models such as the Grameen Bank in Bangladesh demonstrated that collective guarantees in group-based lending could substitute collateral and expand credit access to the poorest, especially women. Building on this model, countries across the Global South have adopted microcredit in diverse ways, combining traditional group lending mechanisms with emerging delivery channels.

While microcredit initially thrived in rural contexts, the realities of rapid urbanization have shifted demand toward more flexible and accessible channels. Urban women entrepreneurs, who form a critical segment of small-scale enterprise operators, continue to face significant barriers to finance despite the availability of both formal and informal credit options. In Africa, village savings and loan associations (VSLAs) remain prominent in Tanzania and Uganda, while digital credit platforms have expanded in countries such as Kenya and Nigeria. Mobile money innovations, most notably Kenya's M-Pesa ecosystem, have further revolutionized credit access by enabling low-cost, instant microloans through mobile phones (Jack & Suri, 2016; Mbiti & Weil, 2019).

Despite these advances, questions persist regarding the degree to which various channels of microcredit access translate into empowerment for women entrepreneurs. As Kabeer (1999) and Rahman (2013) caution, financial resources alone do not guarantee agency or decision-making power; rather, the mechanisms through which credit is accessed influence how women manage, control, and utilize financial resources for broader socio-economic gains. Recent evidence from Nairobi suggests that empowerment outcomes remain uneven due to multiple intersecting factors, including digital literacy gaps, high transaction costs, unfavourable credit terms and persistent socio-cultural norms that limit women's control over financial decisions (Wambugu, 2022). For instance, although digital lending has grown rapidly, many women struggle with technological adoption, while others remain locked out due to low financial literacy or punitive loan repayment structures (Ndung'u, 2019; Njoroge & Kiraka, 2023).

Kenya's microfinance landscape illustrates this complexity. Established institutions such as Kenya Women Microfinance Bank (KWFT) and K-Rep Bank coexist with grassroots self-help groups like Joywo, alongside mobile-based lenders such as M-Shwari, Tala and Branch. Yet, according to the UNICEF Women's Empowerment Index (2020), only about 40% of urban Kenyan women are classified as empowered, reflecting persistent gender inequalities that hinder the achievement of Sustainable Development Goal 5 on gender equality. Recent Nairobi-based studies reinforce this concern, highlighting that structural challenges in microcredit delivery often exacerbate exclusion for women in informal markets (Otieno & Mwaura, 2019; Onyango, 2021; Gichuki & Mulu-Mutuku, 2023).

Against this backdrop, a critical knowledge gap emerges: while previous research has broadly examined women's access to microfinance, limited attention has been given to the comparative effects of different access channels-digital and non-digital-on the empowerment of urban women entrepreneurs in Nairobi County. This study addresses this gap by investigating how the choice of microcredit channel shapes empowerment outcomes. In doing so, it seeks to generate context-specific insights that can guide microfinance institutions, digital lenders, policymakers, and development partners in designing financial delivery models that are inclusive, responsive and

transformative for women entrepreneurs. Ultimately, the study aims to benefit urban women in Nairobi by identifying practical ways to leverage microcredit not only as a financial tool but also as a catalyst for sustainable empowerment.

Based on the stated objective, the following null hypothesis was formulated and tested.

*H<sub>01</sub>: Channel used to access microcredit has no significant effect on empowerment of women entrepreneurs in Nairobi County.*

### **Theoretical and Conceptual Framework**

This study draws on Feminist Theory as the primary lens for examining how microcredit access channels shape the empowerment of women entrepreneurs in Nairobi County. Feminist Theory interrogates the structural and relational gender inequalities that limit women's full participation in economic and social spheres. Central to this perspective is the recognition that women, despite their potential and contributions, have historically been marginalized and denied equitable access to resources and opportunities (Ropers-Huilman, 2002). This framework calls not only for critique but also for transformative action that addresses these disparities and fosters meaningful social change.

The works of Khun (2002) and Kabeer (1999) further enrich this perspective by situating microcredit within the broader discourse on women's economic empowerment. Khun (2002) highlights that many women, especially in developing contexts, are excluded from formal financial systems due to lack of collateral and other structural barriers. Microcredit emerges as an alternative that prioritizes sustainability and the long-term welfare of women and their households. Kabeer's (1999) multidimensional approach—agency, resources, and achievements—offers a useful model for assessing how access to microcredit can expand women's capacity to make strategic life choices, challenge restrictive social norms, and improve economic outcomes.

Importantly, linking Feminist Theory directly to microcredit channels illustrates why the mode of access matters. Conventional non-digital channels—such as banks, microfinance institutions and women's groups—often embed traditional requirements like collateral, guarantors or group membership, which can reinforce existing gendered barriers by privileging women who already possess networks or tangible assets. In contrast, digital channels accessed through mobile platforms such as M-Shwari, KCB M-Pesa, Tala, and Branch can lower entry barriers by simplifying application processes, reducing reliance on physical collateral and offering more flexible access. However, these platforms may introduce new forms of exclusion, particularly for women with limited digital literacy, unstable internet access or insufficient financial education. Feminist Theory thus helps to explain how different channels may either reproduce structural inequalities or create opportunities for dismantling them, depending on their design and accessibility.

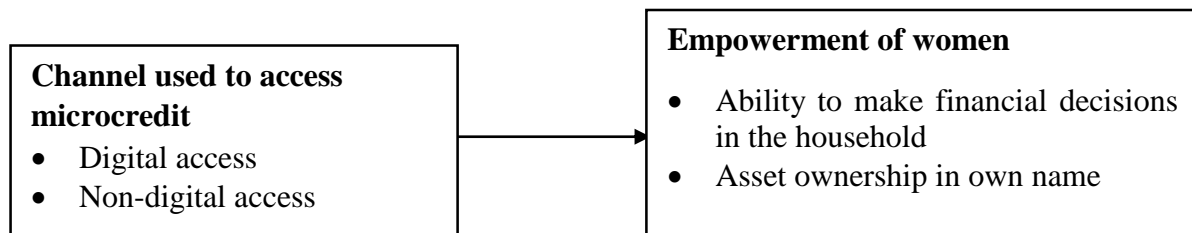
Guided by these insights, this study developed the following conceptual framework. The independent variable, *Channel Used to Access Microcredit*, is categorized into two sub-indicators: digital channels and non-digital channels. Digital channels include microloans requested and accessed via mobile or digital platforms. Key items considered in the study included the microcredit provider, requirements before accessing the loan, purpose of the loan, initial loan limits, any subsequent growth in loan limits and the overall ease of access. Non-digital channels

consist of credit obtained through traditional sources such as banks, microfinance institutions (MFIs) and women's groups (chamas). For these, the study considered collateral requirements, purpose of the loan, frequency of loan access and ease of access.

The dependent variable, *Empowerment of Women*, was operationalized through two dimensions: (1) financial decision-making within the household-specifically regarding savings and expenditures on nutrition and education; and (2) asset ownership, measured by a woman's ability to independently own movable or immovable assets in her name. Empowerment scores were generated using responses to pre-coded closed questions, rated on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). Composite indices were then computed to capture both household financial decision-making and asset ownership, providing a quantifiable measure of empowerment outcomes.

### Independent Variable

### Dependent Variable



*Figure 1: Conceptual Framework*

This framework illustrates the hypothesized relationship between the independent variable-*Channel Used to Access Microcredit* and the dependent variable-*Empowerment of Women Entrepreneurs*. It provides a coherent foundation for analysing how different microcredit access channels facilitate or constrain women's empowerment within the dynamic urban microenterprise environment of Nairobi County.

### Empirical Review

Existing literature demonstrates growing interest in how various channels of microcredit access influence women's empowerment, particularly in Sub-Saharan Africa. The Alliance for Financial Inclusion (2018) found that the expansion of digital credit channels in East Africa has significantly increased the number of women accessing microcredit, while also reducing the cost and time associated with borrowing. This suggests that digital channels can enhance women's ability to obtain timely capital for their businesses, potentially strengthening their economic agency.

Similarly, Hwang and Telez (2016), through case studies across Sub-Saharan Africa, established that mobile-based digital credit plays a crucial role in extending financial services to rural women who were previously excluded. Their findings underscore that digital innovations can widen the reach of microfinance and support the growth of women-owned microenterprises. Ndungu et al. (2016) further explored the rapid expansion of digital microcredit across Kenya, Uganda, Tanzania, Rwanda, Zambia, and Nigeria, and argued that true financial inclusion extends beyond affordable credit to encompass broader access to financial services that unlock economic opportunities for marginalized groups, especially women in the informal sector.

However, not all findings point to unequivocal benefits. Michelle (2016), examining digital microcredit offered by Kenyan banks, found no significant correlation between digital lending and women's empowerment at that time. She noted that while digital channels helped banks reduce operational costs, they did not directly translate into improved empowerment outcomes for women, partly due to the relative novelty of digital lending during the study period.

Prior to the advent of digital channels, non-digital methods such as group lending and in-person loan applications were predominant. Badri (2013) found that group-based microcredit programs in Sudan enhanced women's empowerment by strengthening social networks, improving bargaining power within households, and enabling women to contribute more substantially to family welfare. Likewise, Mukhooli (2015) highlighted positive empowerment outcomes, such as increased self-confidence, asset ownership, and household decision-making, linked to microcredit access in East Africa. However, the study noted that the cumbersome paperwork and procedural requirements often associated with non-digital channels could discourage women or limit their full participation. Kabugi and Karori (2020), focusing on women's groups in Laikipia County, Kenya, confirmed that many women continue to rely on non-digital channels, such as community-based savings groups, to access credit. These groups remain critical for income generation and economic empowerment, especially among women with limited digital literacy or access to digital devices.

Nonetheless, access through non-digital means can be constrained by delays and stringent collateral or guarantor requirements. Pius (2010) observed that some women face challenges obtaining the full loan amounts requested or securing funds within needed timeframes, particularly when relying on traditional non-digital application processes.

Taken together, these studies indicate that both digital and non-digital channels have unique advantages and constraints in promoting women's empowerment. Yet, notable research gaps remain. First, much of the existing literature has focused on describing access and participation, while limited attention has been given to how different channels specifically influence empowerment outcomes such as decision-making power or asset ownership. Second, empirical findings on digital credit are mixed, with some studies suggesting positive impacts while others show limited or no empowerment effects—highlighting the need for more nuanced, context-specific analyses. Third, the majority of earlier studies have been conducted in either rural settings or across multiple Sub-Saharan countries, often overlooking dynamic urban contexts like Nairobi, where both digital and non-digital channels coexist and compete. Finally, there is a lack of systematic comparative evidence that directly contrasts digital and non-digital access mechanisms in terms of their empowerment effects.

It is within these gaps that the present study is situated. By examining how the choice of microcredit access channel—digital or non-digital—shapes the empowerment of women entrepreneurs in Nairobi County, this research contributes to a deeper understanding of the mechanisms through which financial inclusion can support women's agency and socio-economic advancement in urban African settings.

## **METHODOLOGY**

This study adopted a quantitative, cross-sectional research design to investigate the effect of the channel used to access microcredit on the empowerment of women entrepreneurs in Nairobi

County. The study is grounded in a positivist research philosophy, allowing for objectivity and statistical analysis of relationships between variables.

### **Target Population and Sampling**

The target population for this study comprised 921 women entrepreneurs operating licensed microenterprises within 12 rental markets in Nairobi County. These entrepreneurs conduct their businesses from stalls officially recognized and licensed by the Nairobi County government. The selection of this population is based on the formal categorization of rental markets by the county government, which ensures a defined frame for probability sampling. Using Yamane's formula (1978) at a 95% confidence level and a 5% margin of error, a sample size of 279 respondents was determined. To ensure representation across the 12 markets, the Neyman allocation formula was applied to proportionately distribute the sample relative to the population size of each market. A systematic random sampling method was then employed, with a calculated sampling interval of 3, to ensure unbiased and evenly distributed respondent selection. This technique was chosen due to its simplicity, ease of implementation and its ability to cover the entire population effectively.

### **Data Collection**

Data was collected using structured questionnaires designed to capture detailed and quantifiable information on the channels used to access microcredit and the corresponding empowerment outcomes among women entrepreneurs. The questionnaire consisted of pre-coded closed-ended questions and Likert-scale items, making it suitable for a survey-based study. Primary data was gathered directly from women operating microenterprises in Nairobi County rental markets. The researcher together with trained research assistants, fluent in English and Kiswahili, administered the questionnaires. A research permit from NACOSTI and a formal letter of introduction from JKUAT were obtained to legitimize the data collection process.

### **Data Analysis and Model Specification**

After data collection, the responses were cleaned, coded and entered for statistical analysis. The analysis was guided by the study objective and research hypothesis. Descriptive statistics such as frequencies, percentages, means and standard deviations were used to summarize the characteristics of the sample and key study variables. These descriptive measures helped to contextualize respondent demographics and illustrate patterns in access to microcredit and empowerment dimensions. For inferential analysis, the study applied hierarchical linear regression to examine the cause-effect relationship between the independent variable (microcredit access channels) and the dependent variable (empowerment of women), using a significance level of  $\alpha = 0.05$ . Hierarchical regression was preferred because it allowed variables to be entered in blocks, enabling the researcher to track how each block contributed to explaining the variance in the dependent variable. Prior to regression analysis, diagnostic tests were conducted to assess normality, multicollinearity, linearity, and homoscedasticity, ensuring the robustness and validity of the model. The regression model used in this study is given by:

$$Y = B_0 + B_1X_1 + \varepsilon \dots \dots \dots \text{Equation}$$

Y is the dependent variable given as empowerment of women

X<sub>1</sub> is channel used to access microcredit



$\beta_0$  is the intercept

$\beta_1$  is the constant

## **FINDINGS**

This section presents an overview of the analysis and findings based on the study objective and hypothesis. The study aimed to assess the effect of channel used to access microcredit on the empowerment of women entrepreneurs in Nairobi County. Data were collected using structured questionnaires, yielding a high response rate of 97.8% (273 usable responses out of 279 administered), which significantly enhanced the reliability and generalizability of the findings. To ensure data quality, rigorous screening and cleaning procedures were conducted and the final dataset was analyzed using both descriptive and inferential statistics.

### **Factor Analysis**

#### **Factor Analysis for Channel Used to Access Microcredit**

The factor analysis results for channel used to access microcredit revealed a Kaiser-Meyer-Olkin (KMO) value of 0.845 which surpassed the minimum recommended threshold of 0.60, confirming sampling adequacy (Hair et al., 2014; Yong & Pearce, 2013). A cumulative variance of 74.288% was achieved, exceeding the 60% benchmark generally considered satisfactory in social science research (Field, 2013). Two clear components emerged, digital and non-digital channels, with all items showing factor loadings ranging between 0.698 and 0.901, which is above the commonly accepted threshold of 0.50 for inclusion in factor analysis (Tabachnick & Fidell, 2019). All items were thus retained for further regression analysis. Results are presented in Table 1 below.



**Table 1: Factor Analysis for Channel Used to Access Microcredit**

	Loadings	KMO	Cum %
<b>Channel used to access micro credit</b>		0.845	74.288
<i>Digital</i>			
I can easily access loan using mobile phone	0.884		
I find the digital loan process quick	0.862		
The digital loan amount received is sufficient for my business	0.698		
I am able to access digital loan as an individual	0.888		
The security required for accessing digital loans is available	0.785		
<i>Non-digital</i>	1.000		
I can easily visit the bank and access a loan	0.895		
I find the loan process at the bank branch to be quick	0.817		
I can visit the bank and access a loan as an individual	0.901		
The security required for accessing loans from the bank branch is available	0.722		
Extraction Method: Principal Component Analysis.			

**Factor Analysis for Empowerment of Women****Table 2: Factor Analysis for Empowerment of Women**

<b>Component Matrix</b>	
	<b>Loadings</b>
I make decisions independently on household expenses such as day-today purchases and house repairs	0.742
I determine the amount to spend on my family's nutrition	0.687
I am free to make suggestions about household finances	0.685
I can independently decide to join a financial venture with a peer	0.752
I can independently decide to attend business and social networking sessions	0.798
I feel comfortable to make decisions on my family issues	0.616
My personal income has increased after accessing microcredit	0.828
I contribute to the household savings after accessing microcredit	0.648
I have acquired an asset in my name after accessing microcredit	0.641
My living standards and that of my family have improved	0.601
<b>Total Variance Explained</b>	
Total (Initial Eigenvalues)	3.74
% of Variance	37.404
Cumulative %	60.202
<b>KMO and Bartlett's Test</b>	
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.794
Bartlett's Test of Sphericity, Approx. Chi-Square	1119.585
df	45
Sig.	0.000
Extraction Method: Principal Component Analysis.	

From Table 2 above, factor analysis results for empowerment of women showed a KMO value of 0.794 which exceeds the minimum recommended threshold of 0.60, (Hair et al., 2014). PCA results revealed two components with a cumulative total variance explained of 60.2%, indicating that the factors extracted sufficiently explain the construct of ‘empowerment of women’. All factor loadings exceeded the recommended minimum of 0.50 and were used for further regression analysis.

### **Respondent Characteristics**

The demographic characteristics of the sampled women entrepreneurs provide important context for understanding the relationship between channel used to access microcredit and empowerment of women entrepreneurs in Nairobi County. Majority were aged between 31 and 40 years (37.4%), followed by those below 30 years (31.5%), indicating strong participation from younger women in microenterprises. Most respondents were married (53.8%), while a significant number were single (40.7%), highlighting varying levels of household responsibility and financial autonomy. In terms of academic qualifications, 44.3% had completed secondary school education and 42.5% held diploma qualifications, suggesting that nearly 87% had the minimum education likely needed to understand and manage microcredit services. In terms of business roles, 59.3% were owners and 40.7% were owner-managers, meaning majority had direct control over business operations. Over half (52.7%) had been in business for more than five years, showing strong enterprise stability, while 7% were start-ups operating for less than a year. 45.1% had 1–3 employees, while 17.2% employed more than three people, indicating at least 62% of the micro entrepreneurs under study created employment while 37.7% run the businesses on their own. Results in Table 3 below.

**Table 3: Respondent Characteristics**

Characteristic	Category	Frequency	Percentage (%)
Age	Below 30	86	31.5
	31–40	102	37.4
	41–50	60	22
	51–60	20	7.3
	Above 60	5	1.8
Marital Status	Single	111	40.7
	Married	147	53.8
	Separated/Divorced	4	1.5
	Widowed	11	4
Education Level	Primary	18	6.6
	Secondary	121	44.3
	Diploma	116	42.5
	Degree	16	5.9
	Masters	2	0.7
Business position	Owner	162	59.3
	Owner-Manager	111	40.7
Business age	Below 1 year	19	7
	1–3 years	72	26.4
	3–5 years	38	13.9
	Above 5 years	144	52.7
Number of employees	None	103	37.7
	1–3	123	45.1
	3–5	21	7.7
	Above 5	26	9.5

**Descriptive statistics****Channel Used to Access Microcredit**

The objective of the study was to examine the effect of channel used to access microcredit on empowerment of women entrepreneurs in Nairobi County. Results in Table 4 revealed a strong inclination among women entrepreneurs in Nairobi County toward digital platforms. Overall, the average perception of the microcredit access channels was moderate high (Mean = 3.16, SD = 0.62), clearly highlighting the growing preference for digital solutions as a more efficient and empowering pathway for women entrepreneurs.

**Table 4: Statements on Channel Used to Access Microcredit**

	Mean	Std. Dev
I can easily access loan using mobile phone	3.78	1.28
I find the digital loan process quick	3.79	1.28
The digital loan amount received is sufficient for my business	3.03	1.25
I am able to access digital loan as an individual	3.74	1.20
The security required for accessing digital loans is available	3.21	1.26
I can easily visit the bank and access a loan	2.81	1.34
I find the loan process at the bank branch to be quick	2.51	1.23
I can visit the bank and access a loan as an individual	2.79	1.28
The security required for accessing loans from the bank branch is available	2.82	1.27
<b>Channel Used to Access Credit</b>	<b>3.16</b>	<b>0.62</b>

**Empowerment of Women**

The study assessed women's empowerment outcomes with a focus on decision-making on household matters and asset ownership. Results presented in Table 5 showed generally high mean scores across most empowerment indicators. Overall, the aggregate empowerment score was high (Mean = 4.03, SD = 0.60), demonstrating that microcredit channels positively contribute to empowering women entrepreneurs across multiple dimensions of decision-making.

**Table 5: Statements on Empowerment of Women**

	Mean	Std. Dev
My personal income has increased after accessing microcredit	3.37	1.24
I make decisions independently on household expenses such as day-to-day purchases and house repairs	4.08	1.02
I contribute to the household savings after accessing microcredit	3.63	1.29
I determine the amount to spend on my family's nutrition	4.30	0.75
I have acquired an asset in my name after accessing microcredit	3.38	1.46
I am free to make suggestions about household finances	4.34	0.78
I can independently decide to join a financial venture with a peer	4.22	0.88
I can independently decide to attend business and social networking sessions	4.23	0.89
I feel comfortable to make decisions about issues affecting my family	4.51	0.66
My living standards and that of my family have improved	4.19	1.01
<b>Women empowerment</b>	<b>4.03</b>	<b>0.60</b>



## Regression Analysis

Analysis was done to determine the causal-effect relationships that exists between channels used to access microcredit and empowerment of women, as hypothesized in the model specification given. Results shown in Table 6.

**Table 6: Model Summary for Effect of Channel Used to Access Microcredit on Empowerment of Women Entrepreneurs in Nairobi**

<b>Model Summary</b>				
<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
1	.643a	0.414	0.412	0.68391

a Predictors: (Constant), channel used to access microcredit

Approximately 41.4% of the variance in empowerment of women can be explained by the independent variable, channel used to access microcredit, which submits a moderately strong positive relationship. This means that digital and non-digital access to microcredit plays a significant role in shaping empowerment outcomes among women entrepreneurs. The Adjusted R Square which adjusts for potential overfitting is at 0.412, a slight reduction from the R Square value implying that the model maintains stability and reliability even after adjusting for sample size and complexity. According to Hair et al. (2014), an adjusted R Square above 0.40 in social science research is considered acceptable and indicative of a meaningful model.

To determine whether the regression model as a whole provides a statistically significant fit to the data, F Statistic Test was used (Field 2013, Kothari 2015). Table 7 presents the results.

**Table 7: ANOVA for Effect of Channel Used to Access Microcredit on Empowerment of Women Entrepreneurs in Nairobi**

<b>ANOVA<sup>a</sup></b>					
<b>Model</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Regression	89.479	1	89.479	191.304	.000b
Residual	126.756	271	0.468		
<b>Total</b>	<b>216.235</b>	<b>272</b>			

a Dependent Variable: women empowerment

b Predictors: (Constant), channel used to access microcredit

The results show a high F-statistic of 191.304 and a corresponding p-value of .000, which indicates that the regression model is statistically significant and provides a good fit to the data. A significant F-test confirms that the independent variable contributes meaningfully to explaining the variance in the dependent variable (Field, 2013 and Kothari, 2015). In addition, the extremely low p-value ( $p < 0.001$ ) allows for the rejection of the null hypothesis and affirms that the model explains a substantial portion of the variation in women's empowerment. These findings validate the statistical strength of the model, confirming that the channel used to access microcredit is a significant predictor.

To assess the relative contribution of the channel used to access microcredit in predicting the empowerment of women entrepreneurs in Nairobi, a linear regression analysis was conducted. Table 8 presents the regression coefficients, including the unstandardized coefficients (B), standard error, standardized beta coefficient (Beta), t-statistic, and significance values (p-values). These values help determine whether the predictor variable significantly contributes to the model.

**Table 8: Coefficient of Estimates for Effect of Channel Used to Access Microcredit on Empowerment of Women Entrepreneurs in Nairobi**

	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
(Constant)	1.449	0.173		8.363	0.000
Channel used to access credit	0.754	0.055	0.643	13.831	0.000

a Dependent Variable: women empowerment

Based on the results in Table 8, the following regression equation was generated:

$$Y_1 = 1.449 + 0.754X_1 + \varepsilon \dots \dots \dots \text{Equation}$$

$Y_1$  is the dependent variable, given as empowerment of women

$X_1$  is channel used to access microcredit

The study hypothesis (H01) sought to assess whether channel used to access microcredit influences empowerment of women entrepreneurs in Nairobi. The results reveal a strong, positive and statistically significant relationship ( $\beta = 0.643$ ,  $p = .000$ ). Thus, the null hypothesis was rejected.

This finding demonstrates that convenient, flexible and inclusive access mechanisms, particularly digital platforms, substantially enhance women's ability to secure microcredit, which in turn promotes their empowerment.

This result resonates with insights from the Alliance for Financial Inclusion (2018) and Hwang and Telez (2016), who underscored the transformative capacity of digital credit solutions in lowering borrowing barriers and fostering financial autonomy among women.

## SUMMARY AND RECOMMENDATIONS

### Summary

The study revealed that the choice of microcredit access channels plays a significant role in shaping empowerment outcomes for women entrepreneurs. A majority of respondents (57%) reported relying on digital platforms to secure microcredit, while 42% continued to use traditional, non-digital methods. This highlights the steady shift towards digital financial services among women entrepreneurs in Nairobi County, even as conventional channels remain relevant for a considerable segment.

Among digital microcredit providers, M-Shwari emerged as the most preferred, cited by 46% of digital borrowers, followed by KCB M-Pesa (29%), with Tala, Branch, and Timiza accounting for 8%, 8%, and 9% respectively. The amounts accessed through digital channels were predominantly in the Kes 3,000–10,000 range (65% of respondents), with 12% able to secure loans exceeding

Kes 10,000. This indicates a preference for small, short-term loans to meet immediate business needs, consistent with the flexible and low-collateral nature of mobile lending.

By contrast, access to non-digital microcredit often involved more traditional forms of security. Notably, 77.5% of respondents who used non-digital loans reported securing credit using non-personal assets, such as pledging business income or providing personal guarantees from friends, rather than formal collateral like titled land or vehicles. This aligns with broader evidence of gender disparities in asset ownership that continue to limit women's access to conventional secured lending.

When empowerment outcomes were compared between the two groups, digital borrowers reported slightly higher mean empowerment scores ( $M = 4.12$ ,  $SD = 0.58$ ) than non-digital borrowers ( $M = 3.92$ ,  $SD = 0.62$ ). This suggests that while both channels contribute meaningfully, digital access is associated with somewhat stronger empowerment effects, particularly in relation to decision-making autonomy and financial confidence. The aggregate empowerment score ( $M = 4.03$ ,  $SD = 0.60$ ) therefore reflects a generally positive influence of microcredit access across channels, with digital lending showing greater potential for expanding financial inclusion and enhancing women's agency.

Cross-tabulation with demographic characteristics further revealed that empowerment effects were not uniform across all respondents. Younger women (aged 18–35) and those with post-secondary education reported higher empowerment scores from digital credit, consistent with their higher levels of digital literacy and smartphone access. Conversely, older women and those managing smaller, informal enterprises tended to derive greater empowerment benefits from non-digital channels, such as savings groups, which rely on trust and social networks rather than technological access. These variations point to the importance of tailoring microcredit delivery to the diverse needs of different demographic sub-groups.

Overall, the findings indicate that digital channels are perceived as convenient, quick, and accessible, qualities that have boosted their uptake among women entrepreneurs. Findings from the predictive model confirm this advantage, showing a strong, positive and statistically significant relationship between choice of access channel and empowerment. The unstandardized coefficient ( $B = 0.754$ ) suggests that for every one-unit increase in the effectiveness or use of microcredit access channels, particularly digital access channels, the empowerment level of women entrepreneurs in Nairobi County increases by approximately 0.754 units, assuming all other factors remain constant.

## **Recommendations**

Drawing from the study's findings, it is recommended that microcredit providers expand the reach and functionality of digital lending channels to better serve women entrepreneurs in an efficient and inclusive manner. Providers should invest in intuitive mobile applications, multilingual customer support and locally relevant services that streamline both loan application and repayment. Additionally, targeted efforts should be made to enhance digital literacy among women entrepreneurs, equipping them with the skills to confidently use mobile credit tools and platforms. It is essential that these digital solutions are designed with the specific needs of women in informal markets in mind, offering flexible repayment options and minimal documentation requirements.

At the same time, recognizing that a considerable number of women entrepreneurs continue to rely on traditional, non-digital means of accessing microcredit, providers should strengthen these conventional channels to ensure they remain accessible, affordable and responsive to women's diverse circumstances. This could include expanding the presence of community-based lending offices, simplifying procedures and improving outreach and support for women who may have limited digital access or prefer face-to-face interactions.

At the policy level, the government and relevant partners, should establish robust infrastructure and regulatory frameworks that encourage responsible innovation in financial technology (fintech) while also safeguarding consumer protection for women borrowers, particularly those in low-income and underserved areas, while ensuring that non-digital microcredit services remain reliable and widely available.

### **Areas of Further Research**

Future research could explore the barriers that still lead a significant proportion of women to depend on non-digital credit channels; this could offer insights into structural and cultural factors affecting digital access.



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