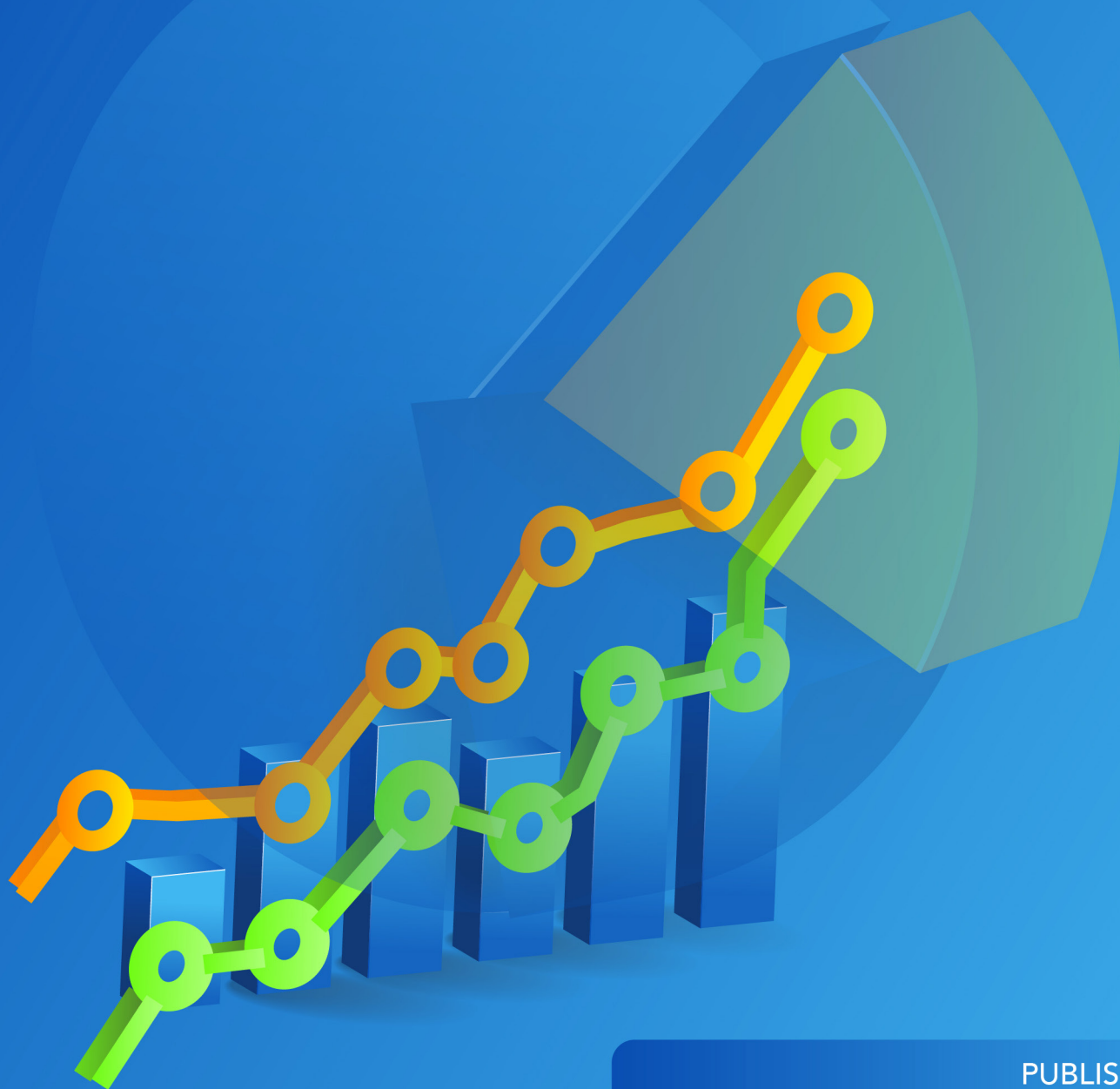


AMERICAN JOURNAL OF APPLIED STATISTICS AND ECONOMICS (AJASE)

ISSN: 2992-927X (ONLINE)

VOLUME 3 ISSUE 1 (2024)



PUBLISHED BY
E-PALLI PUBLISHERS, DELAWARE, USA

The Nexus Between “Village” Banking Model & Women’s Financial Inclusion in Zambia

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Article Information

Received: September 09, 2024

Accepted: October 17, 2024

Published: December 18, 2024

Keywords

Cooperative Microcredit, Frizam Co-Operative, Village Banking Model, Women’s Financial Inclusion, Zambia, E21, G28, B54

ABSTRACT

This study explores the relationship between the ‘Village’ (cooperative microcredit) Banking Model and the financial inclusion of women in Zambia, using the AFRIZAM CO-OPERATIVE as a case study. Multiple regression and correlational analyses were employed as quantitative approaches, while the thematic analysis, elucidated via the saturation strategy, constituted the qualitative approach. The study employed a mixed-method approach, with a sample size of 109 individuals. Findings indicate that co-operative society models significantly promote financial inclusion among women in Zambia. Specifically, savings, access to credit and social capital indicate that holding other factors constant, a 1% increase in each variable significantly increases financial inclusion by 25.5%, 28.1% and 44.3%, respectively. Among the challenges that hinder the financial inclusion of women at Afri-Zam, the study revealed that administrative inefficiencies and inadequate policy support persistently hinder the optimal financial inclusion of women. To mitigate these challenges and augment financial inclusion prospects, the study recommends policy actions that include strengthening savings initiatives among village banking microcredit institutions, enhancing access to credit among women, building and leveraging social capital, addressing administrative inefficiencies by streamlining bureaucratic processes and continuing financial literacy campaigns among women, among others.

INTRODUCTION

This study explores the link between the Village Banking Model (or Cooperative Microcredit) and women’s financial inclusion in Zambia, focusing on the AFRIZAM CO-OPERATIVE as a case study. Access to financial services is vital for economic development and poverty reduction (Omar & Inaba, 2020). However, women in developing countries often face barriers to formal banking, such as limited collateral, discriminatory practices, and low financial literacy (Morsy, 2020). Micro-financing, especially through village banking, has proven effective in enhancing women’s financial inclusion (Gideon *et al.*, 2020). Micro-financing provides small loans and savings to those excluded from traditional banking (Bhusare & Chanda, 2017). Village banking involves community members forming a savings and lending group and pooling resources to offer financial services, particularly to marginalized women (Sibeso, 2022). This model fosters mutual trust and cooperation, allowing members to contribute to a common fund for loans aimed at business, education, healthcare, or emergencies (Chisenga, 2018; Yan *et al.*, 2024). By improving access to credit, village banking empowers women to manage their finances, build assets, and enhance their livelihoods (Fula, 2023). Grameen Bank, founded by Muhammad Yunus in Bangladesh in 1983, is a pioneering microfinance institution recognized for its innovative approach to poverty alleviation. It provides small, collateral-free loans, or microcredit, primarily to economically disadvantaged women who struggle to access traditional financial services. Yunus (1983) developed the concept of microcredit in the 1970s, believing that financial access is crucial for

empowering the poor. The bank operates on principles of trust and community, with borrowers organized into small groups to support each other in loan repayment. A notable model that has emerged is Village Banking, which focuses on localized, community-oriented microfinance services (Yunus, 1983; Asif, 2021).

Chisenga (2018) notes that Village Banking emphasizes group lending and social collateral, allowing community members to form savings and lending cooperatives. In Zambia and many African countries, women face significant barriers to accessing formal financial services, including limited banking access, low financial literacy, socio-cultural norms, and gender discrimination (World Bank, 2017). As a result, women often rely on informal financial systems that may not meet their needs or provide adequate security. Village banking offers a grassroots approach to improving financial inclusion by delivering banking services directly within communities (Mponzi *et al.*, 2023). Village banking programs often prioritize women as beneficiaries, recognizing their role as key agents of change in their families and communities (Sibeso, 2022). Village banks in Zambian context are operated as “Chilimba” in the Zambian informal financial sector (Mukulu & Qutieshat, 2021). Chilimba rotational savings groups have been found to be easy to operate despite their high risk. On a more regulated and formal platform, Village banks in Zambia are registered as financial cooperatives under the Ministry of Commerce, Trade and Industry (MCTI), which are seen as a more suitable structure to support poor people in rural areas with financial services in their farming activities (DFID, 2012).

The Government of Zambia has acknowledged the vital

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role of cooperatives in national development through the Seventh National Development Plan (7NDP), which emphasizes their potential for job creation and poverty alleviation. The government aims to expand the cooperative model beyond agriculture, positioning cooperatives as viable business entities. Since 2015, all cooperative activities have been moved from the Ministry of Agriculture to the Ministry of Commerce, Trade and Industry (MCTI) to encourage diversification. Additionally, the government is revising the Cooperative Act to strengthen the legal framework for cooperatives. New empirical data are also needed to better understand the current landscape of cooperatives (7NDP, 2018). Financial cooperatives have long served as a key savings option for Zambians.

Recently, Zambia has made significant strides in financial inclusion, with the percentage of financially included adults rising from 33.7% in 2005 to 59.3% in 2015, surpassing the 2013 target of 50% and aiming for 80% by 2022. Urban areas saw a notable increase from 42% in 2009 to 70.3% in 2015, while rural areas rose from 34.4% to 50.1%. Informal financial services, such as savings groups and 'Chilimbos,' have been key drivers of this growth, with informal inclusion increasing from 22% to 38% during the same period. Many find these services more accessible and beneficial than formal financial institutions, with village banks being easy to set up and typically charging only a minimal membership fee (ZIPAR Policy Brief No. 30-2019). For many years, the popular savings group that Zambians have known pre- and post-independence are the financial cooperatives. At the time of independence, Zambia had an estimated 6 financial cooperatives registered during the colonial era. By 1976, the number of registered financial cooperatives had risen to approximately 500. The growth in financial cooperatives saw the need for the creation of a regulating body to oversee the operations of the cooperatives in the country, and in 1977, the Credit Unions and Savings Association (CUSA) was born (7NDP, 2018).

Recent studies have highlighted the positive impact of Village Banking models on financial inclusion, particularly for women (Addai, 2017; Rahman *et al.*, 2017; Pakkanna *et al.*, 2020). Access to financial services can empower women economically, allowing them to start or expand small businesses, invest in education and healthcare, and improve their overall quality of life (Magali, 2021). Village banks in Zambia are a form of informal credit unions (CU) or savings and credit cooperatives (SACCOs) and have improved the economic status and quality of life for women (Chisenga, 2018). In addition, the Bank of Zambia (BOZ) and other key stakeholders have been working towards greater financial inclusion and gender equality, in line with the Zambia Vision 2030 (7NDP, 2018; Bank of Zambia, 2022). These efforts have been integrated into the country's first national financial inclusion strategy (FNFIS), which aims to halve the gender gap and increase women's financial inclusion to 70 per cent by 2025 from 30 percent in 2015.

Efforts to improve financial inclusion have been made globally, but women in developing countries like Zambia still face significant barriers to accessing formal financial services due to socioeconomic inequalities, cultural practices, and poor banking infrastructure (Sibeso, 2022). Village banking has emerged as a promising solution to enhance financial inclusion for women. Research by Mbiro and Ndlovu (2021); Bhatia and Singh (2019), for instance, shows that access to financial services can significantly improve women's economic status and quality of life, enabling them to start or grow businesses, save, and invest in education and healthcare. The AFRIZAM Co-operative in Lusaka is an example of a village banking initiative aimed at supporting women's financial well-being. However, there are still gaps in understanding the effectiveness and linkages of such initiatives, particularly regarding the African Financial cooperatives. While studies have highlighted the benefits of saving groups for women's empowerment, more research is needed to explore the relationship between the village banking model and women's financial inclusion in Zambia. Therefore, this study fills this gap by conducting a thorough assessment of the effects of village banking on financial inclusion for women, focusing on the Afri-Zam Financial Co-operative in Lusaka. This research presents important ramifications for the microfinance sector and the financial inclusion of women in Zambia. The following objectives guided the study.

i. To analyse the factors that tend to promote financial inclusion (via the Women Co-operative models) such as the Afri-Zam co-operative.

ii. To assess the level of financial inclusion for women in Zambia using Women's Cooperative models, such as the Afri-Zam co-operative Society in Lusaka.

iii. To unravel the challenges that hinder financial inclusion for women at the Afri-Zam co-operative.

The study tests the composite hypothesis that savings, access to credit, and social capital have a significant negative impact on the financial inclusion of women in Zambia.

LITERATURE REVIEW

Theoretical Review

The Microfinance Theory of Change

In "Banker to the Poor," Muhammad Yunus (1983) presents a transformative view through the Microfinance Theory of Change, critiquing traditional banking's neglect of marginalized populations. He argues that conventional banks often exclude low-income individuals from essential financial services, perpetuating poverty. Yunus (1983) introduces microfinance as a solution, offering small, collateral-free loans to those deemed too risky by mainstream banks, particularly empowering women facing additional barriers to financial inclusion. These microloans enable women to invest in small businesses, fostering economic resilience and self-esteem. Yunus emphasizes community trust and mutual accountability through group lending, where borrowers support

each other in repaying loans, reducing default risk and promoting financial discipline. This approach enhances social connections and support networks, amplifying microfinance's positive impact on individual and community welfare. In the short term, microfinance helps borrowers improve their living conditions by addressing urgent needs like food security, housing, and healthcare. Microfinance offers benefits beyond individual financial security, as Yunus suggests it can drive societal progress in education, health, and gender equality. In the context of Village Banking for Women's financial inclusion in the Afrizam Co-operative Lusaka, the Theory of Change is vital for understanding how these initiatives can lead to positive outcomes. This framework outlines the steps that lead to lasting impacts, such as improved financial literacy, increased access to credit, and income-generating activities. Utilizing the Theory of Change is crucial for designing and evaluating village banking programs, providing insights into how specific actions can foster economic improvement and reduce poverty. Ultimately, microfinance empowers individuals, particularly women, to take control of their finances, contributing to a more equitable and just society.

The Strategic Default Theory

In "The Subprime Solution," Shiller (2008) explores strategic default, where borrowers stop mortgage payments despite being able to pay. This often occurs when a property's market value drops below the mortgage balance, leading borrowers to view continued payments as economically unwise. Shiller (2008) argues that strategic default is typically motivated by self-interest rather than true financial hardship, as homeowners with underwater mortgages may find it more advantageous to stop payments and face foreclosure rather than invest further in a declining asset. Economic factors like the housing market, interest rates, and personal finances affect decision-making regarding mortgage defaults. Shiller (2008) notes that societal attitudes towards defaulting have changed, with a diminished stigma prompting borrowers to consider this option more readily. As perceptions shift, individuals may feel less moral obligation to meet mortgage commitments, especially when facing financial challenges. Strategic defaults not only impact borrowers but also challenge financial institutions, as lenders often underestimate the likelihood of such defaults, leading to unexpected losses and increased systemic risks in the housing market.

Empirical Review

Microcredit schemes have been practised in many parts of the world to alleviate poverty. According to Sharma (2000) and Harvey and Cristani (2022), many microcredit services in Asia and Africa target women on the assumption that empowering women and providing services to them leads to better allocation and use of household resources. Microfinance, as defined by Meki and Quinn (2024), provides banking services to low-income individuals and

the unemployed, aiming to integrate the unbanked into the financial system by offering access to credit and savings. Van Maanen (2004) asserts that microfinance helps those without adequate collateral. Kagan (2024) describes village banking as offering small loans to low-income individuals who cannot access traditional credit. Tria *et al.* (2022) contends that microfinance or microcredit often targets women facing financial barriers, while Wakunuma *et al.* (2019) highlight that this limited access significantly excludes women from the financial system. Additionally, inadequate financial literacy among women is a major challenge, with Adera and Abdisa (2023) contending that financial literacy initiatives are often underfunded or poorly executed, leaving many women unprepared to manage financial transactions.

Mchembe *et al.* (2023) highlight significant challenges women face in accessing financial resources, primarily due to cultural and social barriers that hinder their participation in microfinance. Deep-rooted cultural norms often restrict women's economic involvement and mobility, leading to resistance from family and community leaders when they seek financial services. These constraints, along with the requirement for collateral—which many women cannot meet due to a lack of asset ownership—further marginalize them economically. To address these issues, innovative solutions like group lending and character-based lending are essential to enhance women's access to financial services. Many conventional microfinance models require collateral to secure loans, a stipulation that many women are unable to meet due to insufficient ownership of personal or real property. This condition greatly restricts their capacity to acquire loans and other financial products, consequently limiting their potential to invest in businesses or engage in income-generating activities (Banerjee & Jackson, 2017).

Niaz & Iqbal (2019) studied the impact of microfinance on women's empowerment and poverty alleviation in Pakistan using robust methodologies like Ordinary Least Squares (OLS) and Propensity Score Matching (PSM) with a dataset of 670 participants. They developed a Multidimensional Poverty Index (MPI) to assess poverty dimensions. The findings showed that microfinance significantly enhances women's empowerment, reduces poverty, and improves social status through increased income. The study concluded that microfinance and Microfinance Institutions (MFIs) effectively promote Sustainable Development Goals (SDGs) in Pakistan.

Pare (2021) conducted a study investigating the effectiveness of microfinance in empowering women, specifically analyzing the correlation between women's autonomy and microfinance initiatives. This research provided valuable insights into both the potential benefits and drawbacks of microfinance. Utilizing ordinary least squares (OLS) regression analysis, the study examined data from 45 developing countries, drawing on information from the World Bank and the United Nations. To ensure the robustness of the findings, women's autonomy was assessed through multiple indicators, including

rates of female secondary school enrolment, women's involvement in decision-making processes, and statistics on female unemployment and labour force participation. The results revealed that microfinance has negligible positive effects on women's autonomy. Evidently, the only significant factor associated with microfinance was the proportion of female borrowers, which influenced both female secondary school enrolment and the poverty headcount ratio.

Islam *et al.* (2020) examined the impact of financial inclusion on female entrepreneurs in SMEs in Bangladesh, involving 207 women. Data was collected via a structured questionnaire using a 5-point Likert scale and analyzed with multivariate techniques. Key findings identified factors influencing financial inclusion, such as accessible payment methods, simple transactions, job creation through agent roles, minimal network challenges, and broad geographical coverage, all significantly affecting female SME entrepreneurs.

Frisancho and Valdivia (2020) investigated the effects of implementing savings groups on poverty alleviation, vulnerability reduction, and financial inclusion in rural Peru. Employing a cluster randomized control trial and utilizing both survey data and administrative records, the research assessed the impact of savings groups over a two-year period. The results demonstrated that savings groups enable households to make significant investments, such as improvements to housing, while also mitigating their vulnerability to specific shocks, particularly in economically disadvantaged districts.

Maganga (2021) aimed to explore the impact of village savings and loan associations (VSLAs) on the socio-economic development of women and their resilience to vulnerabilities in Malawi. The study utilized a descriptive research design, collecting data through household surveys in two districts: Chiradzulu Traditional Authority Maoni and Blantyre Rural Traditional Authority Kapeni. A multi-stage sampling method was employed to identify a sample of 70 women from VSLA groups. The findings revealed that VSLAs positively influence the economic and social status of women. However, the research also pointed out that VSLA members encounter difficulties in obtaining loans from external financial institutions and face a significant lack of training opportunities.

Adai and Rashid (2023) conducted a study titled "A Study on Sociocultural Features among Turkish and Iraqi Women," published in the *Journal of Current Research on Social Sciences*. The research explores the sociocultural similarities and differences between women in Turkey and Iraq, focusing on gender roles, family dynamics, traditional customs, and modern influences. Key findings indicate that while both groups face gender inequality, their experiences differ due to varying political, economic, and historical contexts. Turkish women generally have better access to education and job opportunities, whereas Iraqi women face more limitations due to sociopolitical unrest and cultural conservatism. Traditional gender roles persist in both societies, impacting women's

public participation and financial inclusion. The study underscores the importance of understanding these sociocultural factors to promote gender equality and improve women's financial inclusion. The authors call for enhanced policy initiatives and cross-cultural dialogue to empower women and address cultural barriers.

Mbiakop and Oyekale (2017) highlight that access to credit is crucial for enhancing agricultural productivity and reducing poverty among smallholder farmers. This study investigated the impact of village bank membership on the welfare of smallholder farmers in the Ngaka Modiri Molema District Municipality (NMMDM). Using cross-sectional data from three villages with active village banks, a sample of 200 farmers was surveyed through structured questionnaires. Data analysis employed descriptive statistics and a simultaneous equation model (SEM). Findings indicated that village bank membership led to an 83.85% increase in per capita expenditure, significantly influenced by income per capita and technology use. The study concluded that village bank members exhibited improved socio-economic characteristics, suggesting that establishing more community-based village banks could greatly enhance welfare in South Africa.

Fula (2023) examined the effects of village banking on women's economic well-being in Lusaka district through a qualitative survey of 21 women—12 village banking members and 9 non-members. Descriptive statistics revealed that participation in village banking significantly improved women's livelihoods, leading to increased business revenue, better access to credit, and enhanced social connections. Additionally, members reported boosts in self-esteem and decision-making skills, positively impacting their entrepreneurial activities.

Lwengo (2021) conducted a study on the effects of village banking on the financial inclusion of women marketers at the Main Masala market in Ndola, Zambia. The research aimed to identify the socioeconomic challenges faced by women marketeers (small-scale women traders), evaluate village banking's potential to reduce poverty, and assess its benefits. Employing a qualitative methodology, data was gathered from 80 women marketers and five stakeholders through questionnaires and interviews, which were analyzed using descriptive statistics. The findings underscored the necessity for stricter regulations to address loan defaults, suggesting police involvement to ensure compliance. The study concluded that effective village banking can empower women economically and improve financial inclusion for those without banking services.

Banda *et al.* (2022) studied the impact of village banking on the financial well-being of women in the formal sector in Lusaka's Matero zone, Zambia. The research aimed to assess the benefits of village banking and its role in enhancing savings. Using a descriptive multiple-case study approach, the study focused on two village banking groups with a purposive sample of 25 participants. Data was collected through telephone interviews with 14 participants and a focus group discussion with 11

participants during a monthly meeting. Thematic analysis revealed that village banking significantly improved the financial status of these women, enabling them to start businesses, access affordable loans, build homes, pay for education, and purchase household items. It also encouraged savings, as women anticipated sharing investment returns after the project cycle.

While numerous studies have explored the impact of microfinance and village banking on women's empowerment and financial inclusion globally, there is limited research specifically focusing on Zambia. Extant literature, including works by Niaz and Iqbal (2019) in Pakistan and Pare (2021) across various developing nations, fails to address the unique context of Zambia, where socio-economic and cultural dynamics may vary considerably. While numerous studies highlight the beneficial effects of microfinance and village banking, such as enhanced income and greater financial autonomy (Islam *et al.*, 2020; Mengstie, 2022), there remains a notable gap in the thorough examination of the socio-economic obstacles encountered by women involved in village banking groups in Zambia. Mwaka (2020) briefly acknowledged this issue in the Katete district but did not

explore the in-depth specific challenges faced by women marketers in other areas, including the Ndola district.

A significant portion of current research utilizes quantitative methodologies (Niaz & Iqbal, 2019; Islam *et al.*, 2020). Although these approaches are rigorous, they often overlook the intricate, qualitative dimensions of women's experiences and perceptions. Banda *et al.* (2022) initiated a shift towards this area by conducting qualitative interviews; however, there remains a significant need for more extensive and detailed qualitative investigations to fully understand the lived experiences of women participating in village banking in Zambia. The beneficial effects of village banking on financial inclusion and poverty reduction have been acknowledged in the literature (Frisancho & Valdivia, 2020; Mbiakop & Oyekale, 2017). However, there remains a significant gap in empirical research regarding the nexus or link between village banking models and women's financial inclusion within the Zambian context, combining both qualitative and quantitative methods.

MATERIAL AND METHODS

Conceptual Framework

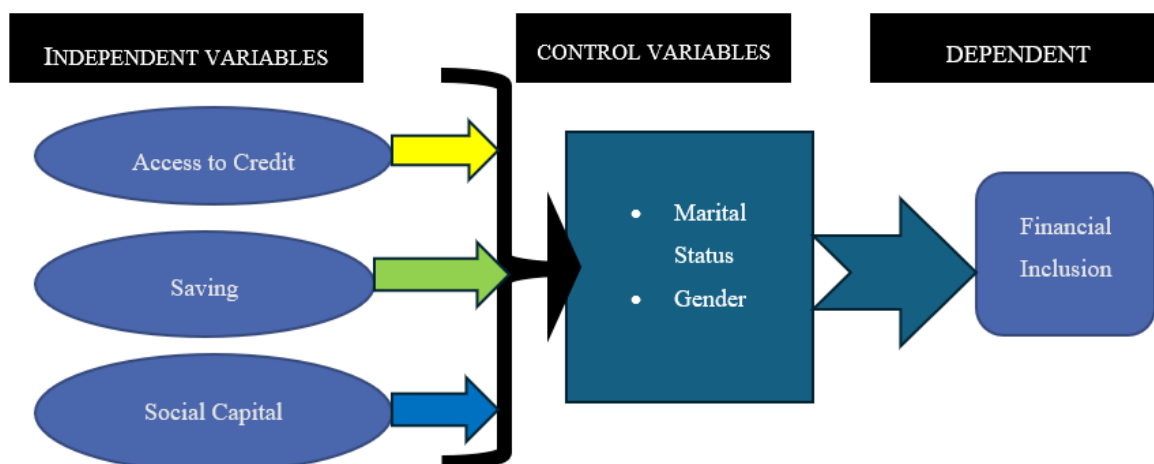


Figure 1: Conceptual Framework

Source: Author's elaboration

Figure 1 shows how the variables interact in this study . Financial inclusion refers to the availability and use of financial services by individuals and businesses, particularly in underserved communities (World Bank, 2023). It ensures access to affordable financial products like savings accounts, loans, insurance, and payment systems, which are vital for effective financial management and risk mitigation. Access to credit is a key component, enabling individuals and businesses to secure loans from financial institutions, thereby supporting goals such as starting or expanding a business, buying a home, or handling unexpected expenses (Tomaselli *et al.*, 2013). Savings denote to the portion of income that is not spent on immediate consumption of goods and services but is instead set aside or stored for future use (Aidoo-Mensah,

2018). In the context of financial inclusion for women, savings are a relevant factor as they reflect women's ability to accumulate financial resources and build assets over time. A higher savings indicates a greater capacity for women to save and invest in their future, which can contribute to their financial stability and well-being (Adera & Abdisa, 2023).

Social capital refers to the networks, relationships, and norms of reciprocity and trust that exist within a community or group (Kenton, 2022; Oyinloye, 2024). In the context of financial inclusion for women, social capital plays a crucial role in facilitating access to financial services and resources. Women who are part of strong social networks are more likely to have access to information about financial services, receive support

from others in accessing credit or saving, and benefit from collective action and advocacy efforts (Ikhar *et al.*, 2022).

Research Design, Data Collection and Data Analysis

This research employed a case study methodology, focusing on the members of the Afri-Zam Cooperative located in Lusaka, Zambia. A case study methodology is characterized by a thorough and detailed investigation of a singular case or a limited number of cases within their authentic context (Priya, 2021). The selection of the case study methodology is justified by its capacity to yield a profound, contextualized, and nuanced insight into the effects of village banking on the livelihoods of women in Lusaka, rendering it a suitable research strategy for this investigation. The target population for this study was all members of the Afri-Zam Cooperative in Lusaka, Zambia, comprising 150 members. In this study, the sample size for the quantitative analyses was determined using the Yamane’s (1967) formula:

$$n = \frac{N}{1 + N(e)^2}$$

$$n = \frac{150}{1 + 150(0.05)^2}$$

$$n = 109$$

Where:

N = 150

e = 0.05

n = 109

At 95% confidence interval.

Therefore, the sample size that was used was 109.

In this study, purposive sampling was employed. This method, also referred to as judgmental or selective sampling, is a non-probability sampling technique wherein the researcher intentionally selects participants based on characteristics, knowledge, or expertise that are relevant to the research focus (Campbell *et al.*, 2020). By utilizing this sampling strategy, the study aimed to ensure that the sample is representative of the population. The qualitative analysis was guided by the principle of saturation, which refers to the stage at which the collection of additional data ceases to yield new insights or themes pertinent to

the investigation. Both primary and secondary data were used. Primary data were collected through a survey of selected respondents. Secondary data was collected through document review of relevant documents.

The Econometric Model

The study adopted a cross-sectional design, capturing a snapshot of financial inclusion at a single point in time. Econometrically, the overall regression model is specified as shown in Equation 1:

$$Fin_Inclusion_t = \beta_0 + \beta_1 Access_Credit_t + \beta_2 Savings_t + \beta_3 Social_Capital_t + \beta_4 \varphi_t + \beta_5 \delta_t + \varepsilon_t \tag{1}$$

Where; $Fin_Inclusion_t$ is financial inclusion at time t, $Access_Credit_t$ is access to the credit at time t, $Savings_t$ refers to the savings by the participants, $Social_Capital_t$ is social capital, at time t. The parameter β_0 represent the different intercepts for the independent (predictor) variables,

$\beta_1 - \beta_5$ represent the coefficient estimates for three dependent variables (Financial inclusion, Access to Credit and Savings) and the two control variables, marital status and gender represented by the parameters φ_t and δ_t respectively. Finally, the ε_t denotes the error term or the impact on the model of estimates of the unobserved variables.

The regression models were estimated separately as model 1, model 2, model 3 and model 4. The regression models are estimated separately, and variables were progressively added. Regressions in model 1 only included control variables. In In model 2, saving as an independent variable was added to model 1. In model 3, access to credit as a predictor variable was added to model 3. Finally, in model 4, all the independent or predictor variables along with the control variables were all regressed on the financial inclusion simultaneously.

RESULTS AND DISCUSSIONS

Quantitative Analysis

Demographic Profile

Table 1 shows the demographic profile of the people in the sample of this study.

Table 1: Demographic Profile

Variables	Description	Frequency	Per cent
Gender	Male	28	25.9
	Female	80	74.1
	Total	108	100
Age	18-24 years	6	5.6
	25-34 years	53	49.1
	35-44 years	41	38
	45-55 years	8	7.4
	Total	108	100
Marital Status	Single	55	50.9
	Married	41	38
	Divorced	11	10.2
	Widowed	1	0.9
	Total	108	100

Educational Level	Less than High School	2	1.9
	High school graduate	11	10.2
	Certificate	20	18.5
	Bachelor's degree	63	58.3
	Masters	12	11.1
	Total	108	100
Occupation	Employed (Full-time)	5	4.6
	Employed (Part-time)	45	41.7
	Unemployed	46	42.6
	Student	11	10.2
	Retired	1	0.9
	Total	108	100

The investigation into village banking's impact on women's financial inclusion revealed that 80 participants (74.1%) were female, while 28 (25.9%) were male. The age distribution showed a majority of younger adults, with 49.1% (53 individuals) aged 25-34 and 38% (41 individuals) aged 35-44. Young adults aged 18-24 made up 5.6% (6 individuals), and those aged 45-55 were the least represented at 7.4% (8 individuals). Majority participants were single (50.9%, 55 individuals), followed by married (38%, 41 individuals), divorced (10.2%, 11 individuals), and widowed (0.9%, 1 individual). In terms of education, the largest group held degrees (58.3%, 63 individuals), followed by certificate holders (18.5%, 20 individuals), master's degree holders (11.1%, 12 individuals), and

those with less than a high school education (1.9%, 2 individuals). Regarding employment, 42.6% (46 individuals) were unemployed, 41.7% (45 individuals) worked part-time, 10.2% (11 individuals) were students, 4.6% (5 individuals) were full-time employees, and 0.9% (1 individual) were retired.

Correlational Analysis

Table 2 reports the correlation matrix. It provides insights into the relationships between financial inclusion and the independent variables (savings, access to credit, and social capital) while considering gender and marital status as control variables.

Table 2: Correlation Matrix

	Mean	Standard Deviation	1	2	3	4	5	6
1. Financial Inclusion	4.288	0.56	-0.008					
2. Gender	1.74	0.44	0.043					
3. Marital Status	1.61	0.71	0.614	-0.21*				
4. Savings	4.33	0.56	0.64**	0.133	-0.132			
5. Access to Credit	4.36	0.49	0.69**	0.143	-0.21*	0.65**		
6. Social Capital	4.41	0.53	0.53**	-0.086	-0.071	0.511**	0.61**	

Note: * and ** denote that the correlation is statistically significant at 0.05 and 0.01, respectively (2-tailed).

In terms of the correlation of the control variables, gender has a very weak and non-significant negative correlation with financial inclusion ($r = -0.008$). Marital status shows a weak positive correlation with financial inclusion ($r = 0.043$), which is not statistically significant. The correlation between savings and financial inclusion is positive and significant ($r=0.614^{**}$, $p<0.01$). This suggests that higher savings are associated with greater financial inclusion. Participants who have higher levels of savings are more likely to experience enhanced financial inclusion, indicating that savings play a crucial role in accessing financial services and opportunities.

Access to credit also shows a strong positive correlation with financial inclusion ($r=0.640$, $p<0.01$). This indicates that individuals with better access to credit are more financially included. This relationship highlights the

importance of credit availability in enabling individuals to participate more fully in the financial system, likely by providing resources for investment and economic activities. Social capital has the highest positive correlation with financial inclusion ($r = 0.693$, $p < 0.01$). This significant relationship underscores the critical role of social networks and community connections in promoting financial inclusion. Strong social capital can facilitate trust, information sharing, and collective action, which are essential for accessing and utilizing financial services.

Regression Analysis

A series of regression models were constructed to examine various predictors, including gender, age group, savings, access to credit, and social capital. The models

are progressively added, with each additional predictor contributing to the explanatory power of the regression.

Table 3 reports the overall regression outcomes of the four (4) models.

Table 3: Additive Regression Outcomes

Control Variables	MODEL 1		MODEL 2		MODEL 3		MODEL 4		VIF
	Beta	SE	Beta	SE	Beta	SE	Beta	SE	1.112
Gender	0.001	0.126	-0.088	0.099	-0.102*	0.089	-0.009*	0.082	1.083
Marital Status	0.034	0.078	0.088	0.063	0.13***	0.056	0.124**	0.05	1.829
Savings			0.633***	0.077	0.35***	0.090	0.255**	0.082	2.212
Access to credit						0.103	0.281***	0.102	1.731
Social Capital							0.443*	0.085	
F	0.096		22.82***		27.248***			2.704***	
F change	0.096		68.15		24.833			27.008	
R	0.043		0.63		0.717			0.785	
R ²	0.002		0.39		0.514			0.616	
Adj R ²	-0.017		0.37		0.117			0.597	
R ² Change	0.002		0.36					0.102	

Notes: VIF denotes variance inflation factor, *, ** and *** denote statistical significance at 5%, 1% & 0.1% respectively

Financial inclusion was taken as the dependent variable across the four models. The regression examined the impact of savings, access to credit, and social capital on financial inclusion, with gender and marital status as control variables.

Regressions in Model 1 regressed only control variables. The beta coefficient for gender is 0.001, which is positive but not significant, indicating that gender alone does not significantly influence financial inclusion. The beta coefficient for marital status is 0.034, which is positive but also not statistically significant. This suggests that marital status alone does not significantly impact financial inclusion.

In model 2, saving was added as an independent variable. The beta coefficient is positive (0.633) and significant, indicating that savings have a significant positive impact on financial inclusion. This suggests that increasing savings by 1% causes a positive increase in financial inclusion by 63.3%, holding other factors constant. However, gender, statistically significant at the 5% level, has a negative impact on financial inclusion.

In model 3, adding access to credit yielded a significant positive beta coefficient of 0.512, showing a significant positive effect on financial inclusion. This implies that a 1% increase in access to credit is likely to cause a positive increase in financial inclusion among women of 51.2% ceteris paribus.

In model 4, the study regressed all the independent and control variables on financial inclusion. For every 1% increase in gender differences, financial inclusion significantly reduces by 0.9% ceteris paribus. However, marital status, savings, access to credit and social capital indicate that holding other variables constant, a 1% increase in each variable significantly increases financial inclusion by 12.4%, 25.5%, 28.1% and 44.3%, respectively. In model 2, saving was added as an independent variable. The beta coefficient is positive (0.633) and significant,

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Table 4 reports a model summary of regressions. This is basically the analysis into the overall model fit.

The model regression summary indicates the progressive improvement in the predictive power of the model as additional variables are included. Starting with an R-squared of 0.002 in the initial model with marital status as a control variable, the R-square steadily increases with each subsequent model iteration, reaching 0.607 in the final model incorporating marital status, gender, savings, access to credit and social capital.

Table 5 reports a summary of the analysis of variance (ANOVA). It is observed from Table 5 that the F-statistic

Table 4: Regression-Model Summary

Model	R	R ²	Adjusted R ²	Standard Error of the Estimate	Change Statistics				
					R ² Change	F Change	df1	df2	Sig. F Change
1	.043 ^a	.002	.017	.56202	0.002	0.096	2	105	.908
2	.063 ^b	.397	.380	.43892	0.395	68.135	1	104	.000
3	.717 ^c	.514	.495	.3959	0.112	24.833	1	103	.000
4	.785 ^d	.616	.597	.35375	0.102	24.008	1	102	.000

Source: Authors' elaboration

- a. Predictors: (Constant), Marital Status, Gender
- b. Predictors: (Constant), Marital Status, Gender, savings
- c. Predictors: (Constant), Marital Status, Gender, savings, Access to credit
- d. Predictors: (Constant), Marital Status, Gender, Savings, Access to Credit, Social Capital

is not significant in the first model. In model 2, 3 and 4 (p < 0.001) indicate that the models collectively explain a significant portion of the variance in financial inclusion.

As predictors are added, the F-statistic and significance levels consistently improve, suggesting that the expanded models better capture the variability in financial inclusion.

Table 5: Summary of the analysis of variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.061	2	.030	.096	.908 ^b
	Residual	33.166	105	.316		
	Total	33.227	107			
2	Regression	13.191	3	4.397	22.823	.000 ^c
	Residual	20.036	104	.193		
	Total	33.227	107			
3	Regression	17.083	4	4.271	27.248	.000 ^d
	Residual	16.144	103	.157		
	Total	33.227	107			
4	Regression	20.463	5	4.093	32.704	.000 ^e
	Residual	12.764	102	.125		
	Total	33.227	107			

Source: Authors elaboration on Data

Testing the Main Hypothesis of the Study

The study set out to test the composite hypothesis that savings, access to credit, and social capital have a significant negative effect on women's financial inclusion in Zambia as the null hypothesis. The findings from the regression analyses indicate that savings, access to credit and social capital indicate that, ceteris paribus, a 1% increase in each variable, significantly increases financial inclusion by 25.5%, 28.1% and 44.3%, respectively. The study, therefore, rejects the null and accepts the alternative because savings, access to credit, and social capital have significant positive effects on the financial inclusion of women in Zambia.

Qualitative Analysis

Under this section, data collected from the 10 participants using the interview guide was presented and interpreted into the specific objectives, which were; to analyze the factors that tend to promote financial inclusion for the women in micro-credit co-operative models such as the Afri-Zam co-operative, to assess the level of financial

inclusion for women in Zambia to investigate the challenges that hinder financial inclusion for women at the Afri-Zam co-operative. Under each objective, a theme was developed.

Perceived Benefits of Financial Inclusion Initiatives on Women's Empowerment

Table 6 presents a thematic analysis of the perceived benefits of financial inclusion initiatives on women's empowerment and financial independence in the Afri-Zam Co-operative. The analysis revealed five main themes, as reported in Table 7.

Access to financial services (B1)

Eight (8) Participants reported that access to loans and savings accounts significantly affected their ability to expand businesses and support their families. Participant 3 highlighted that financial inclusion initiatives provided essential resources for business growth, thereby contributing to economic stability and empowerment.

Table 6: Thematic Analysis of the Perceived Benefits of Financial Inclusive Strategies

Theme	Code	Representative Statement/Quote
Access to financial services	B1	"Access to loans and savings has enabled me to expand my business and support my family." Frequency score: 80% (8/10)
Increased financial security	B2	"Having a savings account gives me a sense of financial security and stability." Frequency score: 60% (6/10)
Enhanced financial literacy	B3	"The training sessions have improved my understanding of financial management and budgeting." Frequency score: 50% (5/10)
Economic empowerment	B4	"With the financial support, I have been able to start a small business and generate income." Frequency score: 90% (9)
Improved standard of living	B5	"My family's standard of living has improved significantly due to the financial resources provided by the cooperative." 80%

Source: Authors' elaboration

Increased financial security (B2)

Six (6) participants, or 60% of the sample size, emphasized the sense of financial security and stability gained from having a savings account. This theme underscored the importance of financial inclusion in fostering a secure financial environment for women, enabling them to better manage their resources and plan for the future.

Enhanced financial literacy (B3)

Training sessions conducted by the cooperative played a mild role in enhancing participants' financial literacy as only five (5), representing 50% of the sample. Participants noted an improved understanding of financial management and budgeting, which contributed to better financial decision-making and planning.

Economic empowerment (B4)

Financial support from the cooperative empowered participants economically by enabling them to start or expand small businesses. 90% of the participants reported that such initiatives were instrumental in generating income and fostering economic independence.

Improved standard of living (B5)

The financial resources provided by the cooperative significantly improved participants' standard of living. Eight participants, or 80%, reported that their family's quality of life had improved due to the financial stability and opportunities created through the cooperatives' support.

Challenges Hindering Financial Inclusion

The analysis revealed several themes regarding the challenges faced by women in accessing financial services. Table 7 presents a thematic analysis of the main challenges hindering financial inclusion for women at the Afri-Zam Co-operative.

Lengthy loan application process (C1)

Up to 80% of the participants (8/10) reported that the loan application process was often lengthy, causing delays in accessing the necessary funds. Participant 1 mentioned that the extended application periods hindered timely financial support.

Table 7: Challenges Hindering Financial Inclusion

Theme	Code	Representative Statement/Quote
Lengthy loan application process	C1	"Sometimes, the loan application process is lengthy." Frequency score: 80% (8/10)
Delays in loan disbursement	C2	"There are occasional delays in loan disbursement." Frequency score: 60% (6/10)
Limited availability of financial products	C3	"Limited availability of financial products." Frequency Score: 80% (8/10)
High demand for loans causes wait times	C4	"High demand for loans causes long waiting periods." Frequency score: 90% (9/10)
Difficulty understanding financial terms	C5	"Difficulty in understanding some financial terms and conditions." Frequency score: 60% (6/10)

Delays in loan disbursement (C2)

Participants (60%) reported occasional delays as a significant challenge. Such delays affected participants' ability to use the funds effectively for their intended purposes.

Limited availability of financial products (C3)

Eight participants, or 80% of the sample, expressed concerns about the limited availability of financial products. These participants reported that the cooperative needed to offer a wider range of financial products to meet diverse needs.

High demand for loans causing wait times (C4)

Up to 90% of the participants (9/10) reported that the high demand for loans resulted in waiting periods delaying access to financial resources. This theme underscored the need for the Afri-Zam cooperative to manage loan demand more efficiently.

Suggested Strategies for Overcoming Barriers to Financial Inclusion for Women

Table 8 reports the suggested strategies by participants for overcoming barriers to financial inclusion for women at the Afri-Zam Co-operative.

Table 8: Strategies for Overcoming Barriers

Theme	Code	Representative Quote
Financial education and awareness	S1	"Providing more financial education and awareness programs." Frequency score: 70% (7/10)
Family support for women's involvement	S2	"Encouraging family support for women's financial involvement." Frequency score: 60% (6/10)
Increased outreach and information dissemination	S3	"Increasing outreach and information dissemination." Frequency score: 70% (7/10)
Training in financial management	S4	"Offering more training on financial management." 90% (9/10)
Inclusive and supportive environments	S5	"Creating more inclusive and supportive environments." 100% (10/10)

Source: Authors' elaboration

CONCLUSION

This study explores the link between the "Village" (microcredit) Banking Model and women's financial inclusion in Zambia, using the AFRIZAM CO-OPERATIVE as a case study. It employs multiple regression and correlational analyses for quantitative data alongside thematic analysis for qualitative insights. The findings reveal that cooperative models significantly enhance women's financial inclusion, with key factors like savings, credit access, and social capital contributing to a 61.6% explanatory power in the regression model. Specifically, a 1% increase in these variables correlates with increases in financial inclusion of 25.5%, 28.1%, and 44.3%, respectively. Additionally, gender disparities negatively affect women's financial inclusion, supporting previous research by Frisancho & Valdivia (2020) on the positive impact of savings and credit access in rural Peru. The study identified challenges to women's financial inclusion at Afri-Zam, particularly administrative inefficiencies and lack of policy support, aligning with the broader literature on microfinance limitations (Pare, 2021). Qualitative data underscored the importance of capacity-building and policy advocacy in promoting inclusive financial practices for women. Similar issues were noted in Village Savings and Loan Associations in Zimbabwe and Malawi (Mbiro & Ndlovu, 2021; Maganga, 2021), highlighting the need for regulatory reforms and community solutions. Policy recommendations include enhancing savings initiatives, improving women's credit access, streamlining bureaucratic processes, and continuing financial literacy campaigns. The study's context in Zambia may not reflect the diverse experiences of women in other regions or countries. The study recommends that future studies conduct longitudinal studies that will employ diverse sampling strategies beyond convenience sampling and undertake comparative studies.

Acknowledgements

The authors wish to express their sincere gratitude to the anonymous reviewers for their constructive criticisms of the earlier versions of this paper. Their criticisms significantly improved the quality of this research article. All errors and omissions are attributed to the authors, not the publisher.

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