GAS Journal of Economics and Business Management (GASJEBM)
Volume 3 | Issue 2, 2026 Homepage: https://gaspublishers.com/gasjebm-home/ ISSN: 3048-782X

Addressing Gender Disparities in Entrepreneurship through Co-operative Financing in Nigeria

Itodo Emeka Paul[1], Chimezie-Sr Chris[2] & Onyeze Clementina Ngozi[3]

[1&3]Department of Co-operative Economics and Management, Enugu State University of Science and Technology (ESUT), Enugu State, Nigeria
[2]Global Advisory Firm, FCT-Abuja, Nigeria

Received: *11.01.2026* | ***Accepted:*** *02.02.2026* | ***Published:*** *08.02.2026*

***Corresponding Author:** Itodo Emeka Paul

DOI: *10.5281/zenodo.18525107*

Abstract **Original Research Article**

The study centred on addressing gender disparities in entrepreneurship through co-operative financing in Nigeria. Two core objectives guided the research: to determine the effect of loan access on the participation rate of women in entrepreneurship and evaluate the effect of savings on the income gap of women in entrepreneurship in Nigeria. A descriptive survey design was adopted, involving 373 registered co-operatives, sampled through multistage sampling technique. Data were collected using a well-validated questionnaire with a reliability coefficient of 0.85 through Cronbach's Alpha. SPSS 27 facilitated descriptive analysis using frequency, percentage and mean, while inferential statistics of simple linear regression analysis determined the significance of the variables. Results showed that loan access had significant positive effect on the participation rate of women in entrepreneurship [$r^2 = 0.601$, $f = 0.732$, $p < 0.05$] and that savings had significant positive effect on the income gap of women in entrepreneurship in Nigeria [$r^2 = 0.531$, $f = 0.013$, $p < 0.05$]. It concluded that co-operative financing crucially boosts women's entrepreneurship and reduces income disparities in Nigeria by improving loan access and promoting regular savings, thereby fostering sustainable businesses, inclusive economic growth, and long-term financial independence for female entrepreneurs. The study recommended streamlining co-operative loan access through flexible collateral rules and member capacity-building initiatives to empower women entrepreneurs and fostering a robust savings habit by offering financial education programs and accessible digital. The study contributed to knowledge by advancing knowledge on gender-focused economic development on how co-operative financing empowers women, reduces income gaps, and promotes inclusive entrepreneurship.

Keywords: Co-operative Financing, Gender Disparities, Loan Access, Savings, Income Gap, Entrepreneurship, Nigeria.

INTRODUCTION

Entrepreneurship remains a cornerstone of innovation and inclusive economic development, particularly in developing countries. Yet, women's participation continues to lag due to entrenched gender inequalities. The Global Entrepreneurship Monitor (GEM, 2023) reports that women occupy a smaller share of formal enterprises worldwide, constrained by limited financial access, socio-cultural restrictions, and structural discrimination. These challenges are particularly acute in sub-

Saharan Africa, where economic exclusion and gendered social norms combine to limit women's business growth (World Bank, 2023).

In Nigeria, women drive informal commerce, local trade, agro-processing, and small-scale manufacturing. Despite their economic importance, women entrepreneurs often face difficulties accessing credit, savings facilities, and institutional support (Eze & Okoro, 2023). These limitations contribute to low participation rates and widen income disparities between male and female business owners (Onwudiwe & Uche, 2024).

Co-operative financing has emerged as a practical approach to promote financial inclusion and gender-responsive enterprise development (Adeleke, 2022). Co-operative societies pool members' funds for lending and savings, relying on mutual trust rather than collateral or formal credit history (ICA, 2022). Their participatory and flexible structures make them particularly suitable for empowering women where traditional banks fall short (Afolayan & Musa, 2022; ILO, 2023). Through these networks, women access affordable loans, develop savings habits, and expand business capacity, critical steps in reducing gender-based income gaps (Olowu & Osabohien, 2023).

Loan access significantly influences women's entrepreneurial participation by enabling start-ups, business expansion, and adoption of technology. Affordable credit is crucial for women's economic visibility and engagement (Kamberidou, 2022). In Nigeria, co-operative societies provide flexible loans that bypass collateral constraints, boosting female participation and household welfare (Adeleke, 2022). Similarly, savings mobilization helps narrow income gaps. Regular saving strengthens financial discipline, provides reinvestment capital, and buffers against shocks. Studies indicate that structured savings enhance women's business growth, income stability, and decision-making power (Dupas *et al.*, 2023; Tasha & Nabirye, 2024). In Nigeria, co-operative thrift systems enable women to build working capital, sustain enterprises, and reduce gender-linked income inequalities (Eze & Okoro, 2023).

Despite recognition of co-operatives as inclusive financial models, empirical research on their impact in reducing gender disparities in Nigeria remains limited, hence the study towards narrowing gender gaps in entrepreneurship and offering evidence to guide more equitable financial policy interventions.

Co-operative financing has the potential to transform women entrepreneurs' prospects by providing fair access to loans and promoting disciplined savings (Sofoluwe *et al.*, 2025). Ideally, such support would enable women to grow businesses sustainably, innovate, and compete effectively in local and regional markets, fostering a more equitable entrepreneurial environment and contributing to economic development and social progress in the state.

In practice, gender disparities in entrepreneurship remain significant in Nigeria. Many women struggle to access co-operative loans due to restrictive policies, low financial literacy, and sociocultural barriers (Musa *et al.*, 2025). Weak savings habits further widen income gaps, limiting reinvestment, financial stability, and enterprise resilience. As a result, women's participation in business ventures remains low, and income inequalities with male entrepreneurs persist, undermining inclusive growth. Neglecting these dynamics risks perpetuating ineffective policies and gendered economic gaps. Understanding how loan access and savings influence women's entrepreneurial engagement is critical for designing interventions that enhance participation, support sustainable growth, and reduce income disparities in Nigeria.

This study, therefore, aims to examine co-operative financing and the reduction of gender disparities in entrepreneurship in Nigeria. Specifically, it seeks to: determine the effect of loan access on the participation rate of women in entrepreneurship, and evaluate the effect of savings on the income gap of women in entrepreneurship.

REVIEW OF RELATED LITERATURE

Conceptual Review

Co-operatives

The International Co-operative Alliance (ICA, 1995) assert that co-operative is the autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise. Onyeze and

Itodo (2021) describe co-operatives as self-governed associations formed by individuals to meet their common needs via a joint and democratically managed enterprise. Co-operative enterprises are member-owned organizations where benefits and responsibilities are shared. They are based on democratic principles, with each member having equal voting power regardless of investment (Novkovic & Miner, 2021).

Co-operative Financing

Co-operative financing is a member-owned financial framework where individuals pool resources to achieve shared economic goals. It provides a democratic and inclusive alternative to conventional banking systems, enabling participants to access credit, savings, and investment opportunities under fair conditions (Mensah & Agyekum, 2023). Globally, co-operatives have been recognized as vital contributors to financial inclusion, particularly for women and low-income groups (Rogers & Tan, 2023). Unlike commercial banks that prioritize collateral and profit maximization, co-operative societies rely on social trust, joint liability, and community ties (Adebisi, 2023). These institutions serve as safe spaces for women to build financial discipline, strengthen collective bargaining, and gain access to microloans essential for enterprise development. In emerging economies such as Nigeria, co-operative financing bridges the gap between formal and informal financial systems, reducing exclusion and encouraging entrepreneurship among vulnerable populations (Okon & Alade, 2024).

Gender Disparities in Entrepreneurship

Gender disparities in entrepreneurship reflect systematic differences between men and women in business ownership, access to finance, and performance outcomes. The persistence of these gaps is often linked to patriarchal structures, unequal property rights, and credit discrimination (Yaro & Anyadike, 2023). Research across Africa indicates that even when women engage in business, they tend to operate smaller firms, have limited access to productive assets, and earn less income than men (Acheampong *et al.*, 2022). In Nigeria, women entrepreneurs continue to face structural exclusion from formal financing channels, which reinforces dependence on informal credit and self-financing (Nwosu & Danjuma, 2024). These inequalities undermine their capacity to grow enterprises and contribute meaningfully to the economy. Thus, gender-responsive financial institutions, including co-operative societies, are increasingly viewed as mechanisms for correcting structural bias and promoting inclusive entrepreneurship (Garba & Ogundipe, 2023).

Loan Access and Women's Entrepreneurial Participation

Access to loans remains a decisive factor influencing women's participation in entrepreneurial activities. Adequate credit enables women to acquire inventory, upgrade technology, and scale production. Yet, limited access to affordable loans has been a persistent obstacle for female entrepreneurs in sub-Saharan Africa (Mujinga, 2023). Recent studies reveal that co-operative loan structures, characterized by peer monitoring and flexible repayment, significantly enhance women's business entry and survival rates (Wanjiru & Kamau, 2022). By lowering financial barriers, co-operatives create a more inclusive entrepreneurial environment that allows women to take calculated risks and diversify income sources. In Nigeria, where many women operate within informal markets, co-operative loans serve as an indispensable financial lifeline that fosters business participation and empowerment (Okon & Alade, 2024).

Savings Mobilization and the Gender Income Gap

Savings mobilization plays a pivotal role in women's financial empowerment and income stability. Beyond credit, consistent savings provide the capital base for investment and future business expansion. Folarin and Dike (2023) observed that regular savings among co-operative members significantly improved their capacity to withstand market volatility and invest in productive ventures. Moreover, Kisaka and Otieno (2024) found that collective savings schemes in women-led co-operatives increased income levels and improved financial autonomy in Kenya. Savings accumulation enables women to reinvest earnings, manage business risks, and reduce vulnerability to financial shocks. In Nigeria, women's participation in thrift and savings co-operatives not only promotes financial literacy but also narrows the income gap between male and female entrepreneurs by providing sustained access to revolving capital.

Study's Conceptual Framework

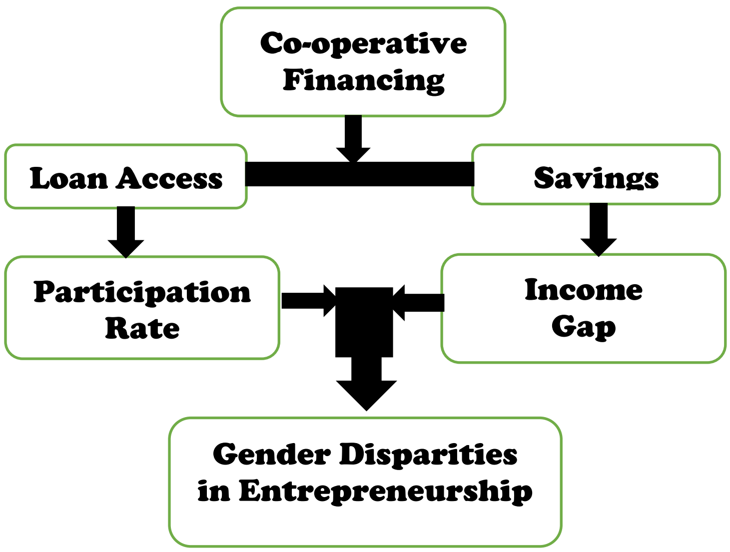

Fig 1 Conceptual Framework
Source: Researchers' Model, 2025.

The conceptual framework illustrates that co-operative financing plays a crucial role in strengthening women's involvement in entrepreneurship and narrowing gender inequalities. It operates mainly through two interconnected channels, access to loans and savings mobilization. By providing affordable credit, co-operatives enable women to establish or grow their enterprises, while consistent savings foster financial security and resilience. Together, these mechanisms promote equitable income distribution and support gender-balanced entrepreneurial growth.

Theoretical Review

The study anchored on the Financial Inclusion Theory, advanced by Demirgüç-Kunt and Klapper (2012), posits that extending equitable access to financial services, such as credit, savings, and insurance, enables broader economic participation and fosters inclusive growth. By designing financial systems that are affordable, adaptable, and responsive to marginalized populations, particularly women entrepreneurs, societies can stimulate business creation, enhance income generation, and strengthen household welfare. Nonetheless, scholars argue that access alone does not automatically translate into empowerment. Chibba (2009) notes that factors like low financial literacy, socio-cultural barriers, and institutional weaknesses often restrict the transformative potential of inclusion efforts. Empirical evidence from Demirgüç-Kunt *et al.* (2018) further shows that financial inclusion mechanisms, especially microfinance and co-operative models—play a crucial role in promoting women's entrepreneurial engagement and reducing gender-based income disparities. This theory provides a strong analytical foundation for the present study by illustrating how equitable access to credit and structured savings can empower women economically. It also highlights how co-operative financing can function as a catalyst for business expansion, financial discipline, and resilience. Within the Nigerian context, the theory guides policymakers and co-operative institutions in shaping interventions that promote gender-balanced entrepreneurship and sustainable development.

Empirical Review

Chowdhury *et al.* (2018) explored how women entrepreneurs in Sylhet, Bangladesh, perceived access to bank financing. Drawing insights from surveys and detailed interviews, their findings revealed that excessive collateral requirements, high interest charges, and stringent banking procedures severely constrained women's access to formal loans, thereby limiting their participation and growth in entrepreneurial ventures.

Boateng and Poku (2019) assessed financing challenges faced by women-owned small enterprises in the Lower Manya Krobo Municipality of Ghana using a combination of qualitative interviews and quantitative data analysis. The research showed that women lacking tangible collateral faced severe credit restrictions, which in turn curtailed their ability to start or grow their businesses.

Freda *et al.* (2020) analyzed the role of microfinance bank services in empowering women entrepreneurs in Kaduna State, Nigeria, using Partial Least Squares Structural Equation Modeling (PLS-SEM). They discovered that micro-savings products had a marked positive effect on women's business performance and access to further financing, contributing meaningfully to economic empowerment and narrowing gender income gaps.

Hambolu *et al.* (2021) investigated how microfinance banks affect rural women's entrepreneurial advancement in Oyo State, Nigeria. Using questionnaire data and statistical evaluation, the study established that the presence of micro-credit and micro-savings facilities significantly enhanced women's business performance, although factors such as age and marital status influenced their levels of participation.

Cherotich *et al.* (2021) examined women farm entrepreneurs' access to credit in Kericho County, Kenya, through a double-hurdle econometric model. Their results indicated that involvement in table-banking groups, financial literacy, and supplementary income activities outside farming positively influenced both the likelihood of taking loans and the volume accessed, thereby strengthening women's entrepreneurial engagement.

Alawode and Adelere (2021) studied the connection between income diversification and savings practices among rural women in Oyo State, Nigeria, employing multivariate regression analysis. Their results showed that women with several income sources achieved higher savings rates (average 28.08%), leading to improved financial security and a gradual reduction in income inequality.

Bashir and Danlami (2022) analyzed gender-based differences in credit accessibility among women entrepreneurs in Kano Metropolis, Nigeria, employing a logit regression approach. They found that high lending rates and collateral conditions were major barriers that hindered women's access to financing, consequently restricting their business expansion and income potential.

Chitumbiko and Jagongo (2023) analyzed how savings accumulated after the repayment of Women Enterprise Fund loans affected the profitability of women-owned firms in Kajiado County, Kenya. Applying multiple linear regression, they observed a strong positive association ($\beta = 2.255$, $p < 0.001$) between post-loan savings and business profitability, indicating that regular saving behavior significantly enhanced financial stability and enterprise growth.

Ademola *et al.* (2024) explored the factors shaping savings habits among women entrepreneurs in Oyo State, Nigeria, using binary logistic regression. Findings revealed that income level, educational attainment, and entrepreneurial experience were key determinants of saving behavior, suggesting that a stronger savings culture fosters economic independence and narrows gender income disparities.

Ogundare *et al.* (2024) examined how self-control mediates the relationship between financial literacy and saving behavior among rural women entrepreneurs in Northern Nigeria through structural equation modeling. The study concluded that both financial knowledge and personal discipline substantially improved women's savings consistency, strengthened business resilience, and supported long-term income equality.

MATERIALS AND METHODS

Research Design

The study adopted a descriptive survey research design method, and took place in Nigeria, specifically in Abis State, situated in the Southeastern part of Nigeria. The state shares its borders with Imo State on the west, Cross River and Akwa Ibom States to the east, Rivers State to the south, and Ebonyi and Enugu States to the north. Umuahia is the state capital, while Aba stands out as the largest city and the main center of commerce and industry. Abia covers roughly 6,320 square kilometers, spanning areas such as the Imo River Basin and the Cross River Plains.

Population of the Study and Sample Size

The population of the study comprised 12372 registered co-operatives (Office of the Director of Co-operatives, Abia State). The study's sample size was derived using Cochran's (1963) statistical equation, which provided a systematic framework for achieving precision and estimating confidence levels, as presented below.

$$n = \frac{n_o}{1 + \frac{(n_o - 1)}{N}}$$

$$n_o = \frac{Z^2pq}{e^2}$$

Where:

n = Sample Size
n_o = Representative Sample for Proportion
N = Total Population = 12372
Z^2 = The abscissa of the normal curve = 1.96
p = Proportion of success in the population from pilot survey = 0.5
q = Proportion of failure in the population from pilot survey = 0.5
e = error limit = 0.05

$$n_o = \frac{(1.96)^2 (0.5 \times 0.5)}{(0.05)^2}$$

$$n_o = \frac{3.8416 \times 0.25}{0.0025}$$

$$n_o = 384.16$$

$$n = \frac{384.16}{1 + \frac{(384.16 - 1)}{12372}}$$

$$n = \frac{384.16}{1 + \frac{383.16}{12372}}$$

$$n = \frac{384.16}{1+0.0309709321}$$

$$n = \frac{384.16}{1.0309709321}$$

Therefore, $n = 373$

Sampling Procedure

The study utilized a multistage sampling method to maintain fairness and efficiency in selecting respondents throughout Nigeria. First, the State was stratified into its three senatorial districts to ensure balanced regional representation. The choice was informed by their administrative recognition by the State Government, each covering about a third of the State's population and area. Subsequently, one LGA per district was chosen randomly, which helped minimize bias, ensuring all LGAs had an equal opportunity for inclusion. Finally, two communities were conveniently chosen from each of the selected LGAs - for through simple random sampling. These communities were randomly picked to reflect areas with strong entrepreneurial activities, ensuring that the data collected represented real economic conditions at the grassroots level. The sampling method also helped guarantee that every community had a fair chance of being included to maintain fairness and objectivity and the expected outcome, making it possible to draw meaningful comparisons among different localities. See table1 below

Table 1: Sampling Procedure

Senatorial District	Local Government Area (LGA)	communities / towns	Sample
Abia North	**Bende**	Bende Town	79
		Igbere	54
Abia Central	**Umuahia South**	Apumiri	62
		Umuopara	58
Abia South	**Aba North**	Eziama	70
		Osusu	50
Total			**373**

Source: Field Survey, 2025.

Method of Data Collection and Analysis

Data were collected through a structured questionnaire. Descriptive statistics such as frequencies, percentages and mean were used to analyze variables with observable facts. The data collected were descriptively analyzed in frequency tables, simple percentages and mean based on a 4-point Likert scale through SPSS (27). The formulated hypotheses were tested using inferential statistics of linear regression analysis to determine their significance.

RESULTS AND DISCUSSION

Table 2: Questionnaire Response Rate

Features of Questionnaire	Number	Percentage (%)
Questionnaire administered	**373**	**100.00**
Questionnaire collected	**354**	**94.91**
Questionnaire withheld	**19**	**5.09**

Source: Field Survey, 2025.

Table 2 indicates that 373 copies of the questionnaire were administered, 354(94.919%) were retrieved, and 19(5.09%) were not, giving a 94.91% response rate, as it is deemed sufficient and reliable for meaningful analysis.

Table 3: Effect of loan access on the participation rate of women in entrepreneurship

Item	Opinion	SA	A	D	SD	Mean
1	Improved access to credit strongly encourages women's entry into business activities.	136 (38.4%)	104 (29.1%)	54 (15.3%)	60 (16.9%)	2.89
2	Affordable financing enables women to grow and sustain their ventures	122 (34.5%)	130 (36.7%)	58 (16.4%)	44 (12.5%)	2.93
3	Easier credit access inspires greater female participation in entrepreneurship	123 (34.7%)	100 (28.2%)	61 (17.2%)	70 (19.8%)	2.78
4	Microfinance interventions play a vital role in enhancing women's entrepreneurship	125 (35.3%)	110 (31.1%)	52 (14.7%)	67 (18.9%)	2.83
5	Flexible lending terms without collateral promote women's inclusion in business ownership	107 (30.2%)	121 (34.2%)	65 (18.4%)	58 (17.2%)	2.77
	AGGREGATE					2.84

Source: Field Survey, 2025.

Table 4.2 shows the respondents' opinion on effect of loan access on the participation rate of women in entrepreneurship in Nigeria, with aggregate mean of 2.84.

Table 4: Effect of savings on the income gap of women in entrepreneurship

Item	Opinion	SA	A	D	SD	Mean
6	Steady saving practices contribute to narrowing income differences of women entrepreneurs	130 (36.7%)	101 (28.5%)	63 (17.8%)	60 (16.9%)	2.85
7	Regular savings foster financial resilience and promote income balance	127 (35.9%)	108 (30.5%)	70 (19.8%)	49 (13.8%)	2.88
8	Improved access to savings services reduces income inequality among women entrepreneurs	128 (36.2%)	105 (29.7%)	62 (17.5%)	79 (16.7%)	2.85
9	Savings empower women to reinvest profits and enhance earnings capacity	126 (35.6%)	115 (32.5%)	47 (13.3%)	66 (18.6%)	2.85
10	Promoting saving habits supports a more equitable income distribution among female entrepreneurs	119 (33.6%)	103 (29.1%)	71 (20.1%)	61 (17.2%)	2.89
	AGGREGATE					2.86

Source: Field Survey, 2025

Table 4.3 shows the respondents' opinion on effect of savings on the income gap of women in entrepreneurship in Nigeria, with aggregate mean of 2.86.

Test of Hypotheses

Hypothesis I: Loan access has no significant effect on the participation rate of women in entrepreneurship in Nigeria

Table 4a Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.637[a]	.601	.601	1.37330	1.866

a. Predictors: (Constant), Loan access

b. Dependent Variable: Participation rate of women

Table 4b ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.821	1	.821	.732	.000[b]
	Residual	629.605	353	1.122		
	Total	630.426	354			

a. Dependent Variable: Participation rate of women
b. Predictors: (Constant), Loan access

Table 4c Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	2.664	.162		22.569	.000
	Loan access	1.007	.042	.871	.174	.862

a. Dependent Variable: Participation rate of women

R = 0.637
R^2 = O.601
F = 0.732
T = 0.172
DW = 1.866

The model explained a significant portion of the variation in "loan access and participation rate of women" ($R^2 = 0.601$, $F = 0.732$, $p < 0.05$), indicating that the model accounted for 60.1% of the variance. . The results showed that “loan access” predicted “participation rate of women”, $\beta = 1.007$, $n = 563$, $t = 0.172$, $p < 0.05$. A Durbin Watson 1866 statistic not exceeding 2 indicates no autocorrelation. The null hypothesis is rejected, indicating that loan access has significant effect on the participation rate of women in entrepreneurship in Nigeria.

Hypothesis II: Savings has no significant effect on the income gap of women in entrepreneurship in Nigeria

Table 5a Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.556[a]	.531	.531	.90296	1.959

a. Predictors: (Constant), Savings
b. Dependent Variable: Income gap of women

Table 5b ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.007	1	.007	.013	.000[b]
	Residual	272.977	253	.487		
	Total	272.984	354			

a. Dependent Variable: Income gap of women
b. Predictors: (Constant), Savings

Table 5c Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
1 (Constant)	2.099	.093		22.691	.000
Savings	.257	.041	.556	.606	.545

a. Dependent Variable: Income gap of women

R = 0.556
R^2 = 0.531
F = 0.013
T = 0.606
DW = 1.959

The model explained a significant portion of the variation in "Savings and income gap of women" (R^2 = 0.531, F = 0.013, $p < 0.05$), indicating that the model explained 53.1% of the variation generated in profitability. The results show that "savings" predicted "income gap of women", β = 0.257, n = 563, t = 0.606, pA Durbin Watson statistic for 1959 not exceeding 2 indicates no autocorrelation. As a result, the null hypothesis is rejected, and the alternative that savings has significant effect on the income gap of women in entrepreneurship in Nigeria

DISCUSSION OF FINDINGS

The result established that loan access had significant effect on the participation rate of women in entrepreneurship [$r^2 = 0.601$, $f = 0.732$, $p < 0.05$]. This supports previous research by Hambolu *et al.* (2021), Cherotich *et al.* (2021), and Wanjiru and Kamau (2022), who all found that having access to affordable and flexible credit encourages women to engage more actively in business by lowering financial entry barriers. For example, Hambolu *et al.* (2021) noted that micro-credit availability directly improved women's business performance, while Cherotich *et al.* (2021) showed that participation in table-banking and co-operative credit schemes increased both the likelihood of receiving loans and the amount accessed by women in Kenya. Unlike prior studies that mostly focused on microfinance or rural banks, this study sheds light on the role of co-operative societies as community-based financial institutions that directly stimulate grassroots entrepreneurship. The strong positive relationship observed may be linked to the trust-based and participatory nature of co-operatives, which provide credit with minimal collateral requirements, making it easier for women to participate. Overall, the findings indicate that co-operative financing helps remove systemic barriers to formal credit, empowering women to start and grow their businesses. This evidence contributes to the broader discussion on financial inclusion by showing how co-operative loans can boost gender-sensitive economic participation, particularly in regions where conventional financial institutions fail to serve marginalized women entrepreneurs effectively.

Result also showed that savings had significant effect on the income gap of women in entrepreneurship [$r^2 = 0.531$, $f = 0.013$, $p < 0.05$]. This finding aligns with those of Freda *et al.* (2020), Alawode and Adelere (2021), and Chitumbiko and Jagongo (2023), who found that regular savings among women entrepreneurs improve income stability, support business growth, and strengthen long-term financial independence. Specifically, Freda *et al.* (2020) emphasized that micro-savings empower women and improve access to further financing, while Alawode and Adelere (2021) noted that disciplined savings and diversified income streams help reduce income gaps. This study further extends understanding by situating savings within co-operative structures, emphasizing how group-based thrift systems foster accountability, social trust, and financial literacy. The observed positive effect is likely due to the communal saving approach of co-operatives, where women pool resources, access revolving credit, and reinvest profits into their ventures. Unlike individual microfinance savings schemes, co-operative savings encourage peer motivation and consistent contributions, enhancing resilience against financial setbacks. These findings demonstrate that co-operative savings not only provide financial security but also serve as a tool for narrowing gender income gaps, promoting inclusive entrepreneurship, and supporting sustainable livelihoods for women in Nigeria.

CONLUSION AND RECOMMENDATIONS

Co-operative financing crucially boosts women's entrepreneurship and reduces income disparities in Nigeria by improving loan access and promoting regular savings, thereby fostering sustainable businesses, inclusive economic growth, and long-term financial independence for female entrepreneurs. In line with the key findings and conclusion, the study recommends streamlining co-operative loan access through flexible collateral rules and member capacity-building initiatives to empower women entrepreneurs fostering a robust savings habit by offering financial education programs and accessible digital savings platforms for women. The study contributed to knowledge by advancing knowledge on gender-focused economic development on how co-operative financing empowers women, reduces income gaps, and promotes inclusive entrepreneurship.

REFERENCES

Acheampong, E., Boateng, R. & Tandoh, M. (2022). Women entrepreneurship and structural inequality in sub-Saharan Africa. *Development Practice Review*, 19(3), 122–136.

Adebisi, K. (2023). Community-based co-operatives and rural financial inclusion in Nigeria. *Journal of African Economic Studies*, 15(2), 88–104.

Adeleke, A.O. (2022). Co-operative finance and gender inclusivity in small-scale enterprises in Southern Nigeria. *Journal of Development Finance,* 18(1), 45–59.

Ademola, A., Kazeem, B. & Oladejo, T.M. (2024). Examining the drivers of savings behavior among women entrepreneurs in Oyo State, Nigeria. *Jurnal Manajemen Indonesia*, 24(2), 257–269.

Afolayan, B. & Musa, M. (2022). Women's access to co-operative credit and empowerment in rural Nigeria. *African Review of Economics and Finance*, 14(2), 102–121.

Agyeman, L. (2023). Social networks and women's entrepreneurial finance in West Africa. *African Journal of Social Sciences*, 11(2), 73–89.

Alawode, O.O. & Adelere, O.E. (2021). Income diversification and savings pattern among rural women in Oyo State, Nigeria. *Journal of Management and Social Sciences*, 10(1), 1–14.

Bashir, A. & Danlami, I. (2022). Gender accessibility to credit among women entrepreneurs in Kano Metropolis, Nigeria. *European Journal of Gender and Entrepreneurship Research*, 11(1), 18-32.

Boateng, S. & Poku, K.O. (2019). Access to finance among women-owned small businesses: Evidence from Lower Manya Krobo

Municipality, Ghana. *Journal of Global Entrepreneurship Research*, 9(1), 1-17.

Cherotich, J., Sibiko, K.W. & Ayuya, O.I. (2021). Credit access among women farm-entrepreneurs: Evidence from table banking groups in Kericho County, Kenya. *African Journal of Agricultural Research*, 16(4), 551-563.

Chibba, M. (2009). Financial inclusion, poverty reduction and the millennium development goals. *European Journal of Development Research*, 21(2), 213–230.

Chitumbiko, M.C. & Jagongo, A. (2023). Effect of savings generated after repayment of women enterprise fund loan on profitability of women-owned enterprises in Kajiado County, Kenya. *Journal of Finance and Accounting*, 7(2), 45–58.

Chowdhury, S., Yeasmin, F. & Ahmed, S. (2018). Women entrepreneurs' perceptions of bank credit access: Evidence from Sylhet, Bangladesh. *Journal of Innovation and Entrepreneurship*, 7(1), 12-25.

Demirgüç-Kunt, A. & Klapper, L. (2012). Measuring financial inclusion: The Global Findex Database. *World Bank Policy Research Working Paper* No. 6025.

Demirgüç-Kunt, A., Klapper, L., Singer, D. & Van Oudheusden, P. (2018). *The Global Findex Database 2017: Measuring financial inclusion and the fintech revolution.* World Bank.

Dupas, P., Karlan, D., Robinson, J. & Ubfal, D. (2023). Microfinance and savings behavior in developing economies: Evidence from field experiments. *World Development*, 163,

Eze, O.N. & Okoro, I.C. (2023). Financial inclusion and gender inequality among entrepreneurs in Nigeria, Nigeria. *Nigerian Journal of Economic Studies*, 21(3), 89–107.

Folarin, T. & Dike, A. (2023). Savings behavior and income resilience among female co-operative members in Nigeria. *International Review of Economics and Management*, 8(1), 55–70.

Freda, F.I., Inusa, A. & Aliyu, M.S. (2020). Impact of microfinance bank services on women empowerment: The case for women entrepreneurs in Sabon Gari Local Government Area of Kaduna State. *International Journal of Intellectual Discourse*, 3(2), 120–135.

Garba, U. & Ogundipe, A. (2023). Gender-inclusive financing and co-operative performance in Northern Nigeria. *Journal of Policy and Development Research*, 17(4), 44–61.

Hambolu, O.G., Nwabufor, C. & Tony-Okeme, S. (2021). Influence of microfinance banks on rural women's entrepreneurial success in Oyo State, Nigeria. *European Journal of Business and Management*, 13(5), 45-57.

International Co-operative Alliance (1995). *Centennial Congress and General Assembly*

International Co-operative Alliance (ICA). (2022). *Co-operatives for an inclusive future: Global trends and opportunities*. ICA Publications.

International Labour Organization (ILO) (2023). *Advancing women's empowerment through co-operative models: Global evidence and policy directions.* ILO Publications.

Kamberidou, I. (2022). Women entrepreneurs: 'We cannot have change without them'. *Journal of Innovation and Entrepreneurship*, 11(1), 12–29.

Kisaka, J. & Otieno, S. (2024). Savings co-operatives and gendered income inequality in Kenya. *East African Economic Journal*, 22(1), 97–113.

Lin, H. (2023). Social capital and financial participation in emerging economies. *Journal of Development Theory and Practice*, 14(2), 131–147.

Mensah, A. & Agyekum, J. (2023). Co-operative microfinance and female entrepreneurship in Ghana. *Africa Development and Finance Journal*, 27(2), 33–50.

Mujinga, P. (2023). Credit access, gender, and business survival among co-operative members in Zimbabwe. *Southern African Business Review*, 24(1), 71–87.

Musa, F., Dauda, A., Abdulazeez, D.A., Baba, K. & Shitu, S. (2025). Digital entrepreneurship and e-commerce in the shea butter industry: Innovations in agroforestry, women's co-operatives, and climate-smart value chains. *Lapai Journal of Economics*, 9(1), 412-424.

Novkovic, S. & Miner K. (2022). Co-operative governance fit to purpose: Instrumental rationality and member engagement in large co-operatives. Journal of Co-operative Studies, 54(1):5-18.

Nwosu, E. & Danjuma, A. (2024). Barriers to formal finance and women's entrepreneurial participation in Nigeria. *Contemporary African Economic Perspectives*, 9(2), 115–130.

Ogundare, J.A., Zhiri, D.D., Van der Merwe, S., Ogundare, P.K. & Abubakar, S.A. (2024). Mediating effect of self-control on financial literacy and savings behaviour of rural women entrepreneurs. *Southern African Journal of Entrepreneurship and Small Business Management*, 16(1), 1–11.

Okon, O. & Alade, T. (2024). Co-operative financing and women's enterprise performance in South-East Nigeria. *Nigerian Journal of Business and Social Innovation*, 6(1), 21–39.

Olowu, D. & Osabohien, R. (2023). Savings mobilization, co-operative finance, and women's financial resilience in Nigeria. *African Journal of Business and Economic Research*, 18(4), 77–93.

Onwudiwe, E. & Uche, L. (2024). Bridging the gender gap in Nigerian entrepreneurship through inclusive financing. *International Journal of Gender and Development Studies*, 9(2), 33–49.

Onyeze, C.N. & Itodo, E.P. (2021). Co-operative: a positive growth driver in a pandemic economy. *Institute of Co-operative Professionals of Nigeria (ICOPRON) Book of 5th National Conference Investiture and Award.*

Rogers, M. & Tan, L. (2023). Inclusive co-operative finance and gender equality in Southeast Asia. *Asia-Pacific Journal of Economic Inclusion*, 12(3), 142–159.

Sofoluwe, N.A., Adelanwa, T.T. & Ologbon, O.C. (2025). Co-operative membership and entrepreneurial orientation of women palm-oil sellers in Ogun State, Nigeria. *Jurnal Sosial Ekonomi Pertanian dan Agribisnis*, 21(3), 45–59.

Tasha, J. & Nabirye, C. (2024). Savings and credit co-operatives as tools for women's empowerment in Uganda. *Eastern African Journal of Social Sciences*, 5(1), 61–76.

Wanjiru, K. & Kamau, D. (2022). Co-operative lending and women's entrepreneurship: Evidence from East Africa. *Journal of Microfinance and Development Studies*, 10(4), 88–103.

World Bank. (2023). *Women, business, and the law 2023: Removing barriers to economic inclusion.* World Bank Publications.

Yaro, I. & Anyadike, I. (2023). Gender inequality and entrepreneurship in West Africa: A policy perspective. *African Journal of Gender and Society*, 8(1), 47–62.