A Comparative Analysis of Financial Inclusion and Financial Literacy: Investigating Their Interrelationship in Selected Urban and Rural Areas of Kano State, Nigeria

Mohammed Aminu Bello
Department of Business Management, Faculty of Economics and Management Sciences,
Bayero University Kano – Nigeria
Email: mabello.bus@buk.edu.ng

Abstract

This study examines the relationship between financial inclusion and financial literacy in urban and rural areas of Kano State, Nigeria. Given the increasing importance of financial inclusion in fostering economic development, this research seeks to explore how financial literacy influences access to and use of formal financial services across different geographical contexts. Using a mixed-methods approach, data were collected from 384 respondents, split equally between urban and rural areas. The study found a significant difference in both financial inclusion and financial literacy levels between urban and rural areas, with urban respondents demonstrating higher levels of both. The results revealed that financial literacy positively correlates with financial inclusion, with stronger relationships observed in urban areas. Socio-demographic factors such as income, education, and age were found to be key determinants of financial literacy and inclusion. The study concludes that while financial literacy plays an important role in enhancing financial inclusion, challenges such as limited access to financial services and lower educational attainment in rural areas hinder broader financial participation. The research highlights the need for targeted financial education programs and the expansion of financial services to underserved rural populations to bridge the financial inclusion gap in Nigeria.

Keywords: *Financial inclusion, financial literacy, socio-demographic factors, economic development.*

1 Introduction

Financial inclusion and financial literacy are widely recognized as critical drivers of economic development, poverty reduction, and social empowerment, particularly in developing economies. Financial inclusion ensures that individuals and households, especially the underserved, can access and utilize formal financial services (Oliviero & Fiss, 2020). In contrast, financial literacy equips people with essential financial skills, such as budgeting, saving, and investing, that are vital for informed decision-making (Lusardi & Mitchell, 2014). Together, these elements enhance financial well-being and support inclusive growth.

Despite significant reforms, Nigeria continues to struggle with gaps in financial access and literacy. According to the EFInA Access to Financial Services Survey (2020), 36% of Nigerian adults remain completely financially excluded, while only 27% are considered financially literate. The situation is worse in rural northern Nigeria, where limited banking infrastructure, cultural barriers, and low educational attainment hinder access to financial services (CBN, 2022). For instance, while urban centers like Lagos report financial inclusion rates above 80%, rural states in the North record less than 40% inclusion, creating a stark disparity in access and usage of formal finance.

Kano State, the most populous state in northern Nigeria and a major commercial hub, exemplifies these challenges. Despite its economic importance, rural communities in Kano continue to face restricted access to banks and limited awareness of financial products, while urban Kano City enjoys greater financial service penetration. The absence of adequate financial literacy compounds these challenges, as many individuals in rural areas struggle to effectively utilize even the limited services available. This urban–rural divide has implications not only for household financial security but also for broader efforts to achieve inclusive and sustainable economic development in Nigeria.

Given these realities, this study investigates the interrelationship between financial inclusion and financial literacy in urban and rural Kano State. It examines the extent of inclusion and literacy, their interaction, and the socio-demographic factors that influence them. By contextualizing global concepts with local realities and presenting evidence from one of Nigeria's most critical states, the study seeks to address the pressing policy challenge of how to design interventions that promote inclusive finance.

2 Literature Review

Financial inclusion and financial literacy are two crucial elements for enhancing the financial well-being of individuals, particularly in developing countries. These factors play an essential role in driving economic growth, reducing poverty, and enabling individuals to make informed decisions about savings, investments, and credit (Oliviero & Fiss, 2020). This section explores the existing literature on financial inclusion and financial literacy, their interrelationship, and how these concepts are manifested in the Nigerian context, specifically in urban and rural areas.

2.1 Concept of Financial Inclusion

Financial inclusion is commonly defined as the process of ensuring that individuals, particularly those in underserved communities, have access to and effectively use a broad range of financial services, such as savings, payments, credit, and insurance at affordable prices (Demirguc-Kunt et al., 2018). Beyond mere access, scholars emphasize that financial inclusion also involves the ability to utilize these services in ways that improve welfare, enhance resilience, and foster participation in economic activities (Sarma, 2012).

In Nigeria, financial inclusion has been institutionalised as a policy priority, notably through the Central Bank of Nigeria's National Financial Inclusion Strategy (NFIS) launched in 2012. This framework sought to raise the share of financially included adults from 46.3% in 2010 to 80% by 2020, with a strong emphasis on digital banking, mobile money, and agent banking channels (CBN, 2020). However, progress has been uneven: urban populations benefit from concentrated banking infrastructure and mobile penetration, while rural communities remain underserved due to weak infrastructure, limited awareness, and socio-cultural barriers.

In this study, financial inclusion is conceptualized as both access to and usage of formal financial services by adults in urban and rural Kano State. It captures two interrelated dimensions:

1. Access, measured by the availability of financial institutions and services (e.g., banks, mobile money agents, ATMs).

2. Usage, reflected in the extent to which individuals actively engage with these services (e.g., owning bank accounts, saving, borrowing, using digital platforms).

By adopting this dual perspective, the study aligns with global definitions of financial inclusion while contextualizing it to Nigeria's rural–urban divide, thereby enabling a practical assessment of how financial inclusion contributes to financial well-being and inclusive development.

2.2 Concept of Financial Literacy

Financial literacy is widely defined as the ability to understand, evaluate, and apply financial knowledge to make informed decisions regarding savings, borrowing, investments, and risk management (Lusardi & Mitchell, 2014; OECD, 2020). In this study, financial literacy is conceptualized as both knowledge and behavior, encompassing not only the awareness of financial concepts but also the capacity to use this knowledge to engage meaningfully with financial products and services. This dual perspective captures financial literacy as a functional skill set that enables individuals to plan, manage risks, and improve long-term financial well-being (Klapper et al., 2022).

Empirical evidence highlights that financially literate individuals are more likely to avoid over-indebtedness, save consistently, and access formal financial products (Morgan & Long, 2020). Conversely, low levels of financial literacy can result in poor financial decision-making, vulnerability to fraud, and under-utilisation of financial services (Amagir et al., 2020). These risks are particularly evident in developing countries like Nigeria, where limited educational opportunities and structural barriers constrain knowledge acquisition. According to the Central Bank of Nigeria (CBN, 2020), only 27% of Nigerian adults demonstrate basic financial literacy, with rural areas reporting the lowest levels due to weak infrastructure, low schooling, and limited financial education programs.

2.3 Interrelationship Between Financial Inclusion and Financial Literacy

The literature generally positions financial literacy and financial inclusion as mutually reinforcing. On the one hand, financial literacy is a critical enabler of financial inclusion: individuals lacking the knowledge to navigate financial products are less likely to adopt them (Atkinson & Messy, 2012; Xu & Zia, 2022). On the other hand, access to financial services can enhance literacy by offering individuals opportunities to learn through practical engagement, such as using mobile money or credit facilities (Bruhn et al., 2016). This reciprocal relationship reflects a cycle in which knowledge promotes usage, and usage deepens knowledge.

Evidence also suggests that the urban–rural divide mediates this relationship. In urban Nigeria, the proliferation of digital financial products has encouraged greater interaction with financial institutions, thereby improving financial knowledge (Dabla-Norris et al., 2015; Adegbite & Machethe, 2022). In contrast, in rural areas, where infrastructure is weaker and access is limited, financial literacy often becomes the primary driver of inclusion since individuals must rely on awareness and trust to engage with the limited services available (Ozili, 2020). Thus, the balance of influence shifts: in urban areas, financial inclusion may catalyze literacy, while in rural areas, literacy more directly determines inclusion.

2.4 Socio-Demographic Factors Influencing Financial Inclusion and Literacy

Socio-demographic factors further shape patterns of financial inclusion and literacy. Education is consistently linked to higher literacy levels, as individuals with more schooling are better able to understand financial concepts (Lusardi & Mitchell, 2014; Klapper et al., 2022). Age also matters, with younger adults more likely to adopt digital banking tools, though often with weaker financial planning skills compared to older cohorts (OECD, 2020). Income disparities remain a key determinant, as wealthier households can access a broader range of financial services and manage risks more effectively (Beck et al., 2015).

Gender differences are particularly salient in Nigeria, where women in rural areas are disproportionately excluded. Cultural norms, limited property rights, and restricted educational opportunities result in women reporting lower financial literacy and inclusion levels than men (Demirguc-Kunt et al., 2018; Adegbite & Machethe, 2022). Addressing these disparities requires gender-responsive financial literacy initiatives and targeted financial inclusion strategies.

Overall, the literature highlights that financial literacy and financial inclusion are intertwined, context-dependent, and mediated by socio-demographic factors. This study conceptualises financial literacy as a practical capability that influences not only individual financial well-being but also the broader effectiveness of financial inclusion efforts in urban and rural Kano State.

2.5 **Gaps in the Literature**

Existing literature provides valuable insights into financial inclusion and financial literacy in Nigeria, but important gaps remain. For instance, Abdullahi, Othman, and Kassim (2021) examined financial inclusion enhancement through Islamic microfinance adoption, while Sakanko, Yahaya, and Abdullahi (2023) investigated how financial literacy influences financial inclusion among Nigerian households. Similarly, Babatunde (2025) explored the relationship between financial literacy, infrastructure, and financial inclusion among MSME owners in Nigeria. These studies underscore the importance of both concepts but often treat them either in isolation or within broad national or sectoral samples, without explicitly analyzing their dynamic interrelationship across urban and rural settings.

Specifically, there is limited comparative evidence on how financial inclusion and financial literacy interact within northern Nigeria, where infrastructural deficits, cultural norms, and economic disparities create distinct challenges. Kano State, as a major commercial hub with both highly urbanized and deeply rural communities, remains underexplored in this regard. Addressing this gap, the present study provides a comparative analysis of financial inclusion and financial literacy across urban and rural Kano, offering context-specific insights into how these factors jointly influence financial well-being and inclusive growth.

2.6 Hypotheses Development

Based on the literature reviewed and the objectives of the study, the following hypotheses are formulated to guide the investigation of the interrelationship between financial inclusion and financial literacy in selected urban and rural areas of Kano State, Nigeria:

H_1: There is a significant difference in the level of financial inclusion between urban and rural areas of Kano State, Nigeria.

This hypothesis is formulated on the understanding that urban areas generally enjoy better access to financial institutions and services than rural areas, where infrastructural limitations and weaker institutional presence constrain engagement with formal financial systems (Central Bank of Nigeria [CBN], 2020; Adegbite & Machethe, 2022; Sakanko et al., 2023).

H_2: There is a significant difference in the level of financial literacy between urban and rural areas of Kano State, Nigeria.

This hypothesis is based on the premise that individuals in urban areas are typically more exposed to financial education and have greater access to resources that strengthen their financial knowledge, whereas their rural counterparts often face limited opportunities to participate in formal financial literacy programs (Lusardi & Mitchell, 2014; Klapper et al., 2022).

H_3: Financial literacy has a positive and significant effect on financial inclusion in both urban and rural areas of Kano State, Nigeria.

Drawing from literature that consistently demonstrates a positive relationship between financial literacy and financial inclusion (Atkinson & Messy, 2012; Xu & Zia, 2022), this hypothesis posits that individuals with higher financial literacy are more likely to adopt and effectively use formal financial services, irrespective of whether they reside in urban or rural areas.

H_4: Socio-demographic factors (age, gender, education, income) significantly influence financial inclusion and financial literacy in urban and rural areas of Kano State, Nigeria.

This hypothesis is based on the well-established evidence that socio-demographic variables, including age, gender, income, and education are important determinants of both financial inclusion and literacy (Beck et al., 2015; Lusardi & Mitchell, 2014; Morgan & Long, 2020). The study investigates how these factors shape financial behaviors across urban and rural settings in Kano State.

H_5: There is a significant positive correlation between financial inclusion and financial literacy in both urban and rural areas of Kano State, Nigeria.

This hypothesis builds on prior studies that emphasize the interrelationship between financial inclusion and literacy, showing that financially literate individuals are more likely to engage with formal financial systems (Dabla-Norris et al., 2015; Bruhn et al., 2016; Sakanko et al., 2023). It tests whether this positive correlation holds across both urban and rural contexts.

These hypotheses aimed to guide the data analysis and determine the factors affecting financial inclusion and financial literacy in Kano State.

3 Research Methods

This study adopted a comparative descriptive research design to examine both the association between financial inclusion and financial literacy and the differences in these variables across urban and rural populations in Kano State, Nigeria. This design allowed systematic comparison of contexts while considering socio-demographic factors such as age, gender, income, and education. The study population comprised adults aged 18 years and above, drawn from Kano metropolis (urban) and selected rural communities, ensuring diversity in access to and usage of financial services.

A stratified random sampling technique was employed to ensure proportional representation of urban and rural strata based on geographic and socio-economic characteristics. Using Cochran's (1977) sample size formula, a total of 384 respondents were selected - 192 from each area. Primary data were gathered through a structured questionnaire and semi-structured interviews. The questionnaire captured demographic data and measured financial inclusion (access and usage of services) and financial literacy (knowledge of budgeting, saving, borrowing, and investment concepts). To promote comprehension, the survey was administered in both English and Hausa.

Semi-structured interviews were conducted with financial service providers (bank officials, microfinance representatives, and mobile money agents) to complement the survey. The interviews were thematically analysed using content analysis to identify recurring patterns regarding institutional challenges and infrastructural barriers to financial inclusion and literacy. NVivo software was used to support coding and categorisation of themes.

Data analysis combined descriptive and inferential statistics. Descriptive statistics (frequencies, percentages, means, and standard deviations) summarized demographic and response patterns. For inferential analysis, chi-square tests were used to examine associations between socio-demographic characteristics and the key constructs. Pearson's correlation assessed the strength and direction of the relationship between financial inclusion and financial literacy. Independent samples t-tests compared mean differences between urban and rural populations. This dual focus on association and difference strengthened the robustness of the analysis.

Ethical considerations were rigorously observed. Participants were informed of the study's objectives, gave written consent, and were assured of confidentiality and voluntary participation. Compliance with standard ethical protocols ensured the credibility and integrity of the research process.

4 Data Presentation and Analysis

This section presents the analysis of the data collected from the survey and interviews conducted in both urban and rural areas of Kano State, Nigeria. The data analysis is structured around the following key areas: descriptive statistics, inferential statistics, and interpretations of the findings.

4.1 Demographic Characteristics of Respondents

The total number of respondents surveyed was 384, with 192 participants from urban areas and 192 from rural areas.

Table 1: Demographic Characteristics of Respondents

Demographic Variable	Urban (n = 192)	Rural (n = 192)	Total (n = 384)
Age			
18-35 years	65%	62%	63%
36-50 years	20%	22%	21%
51+ years	15%	16%	16%
Gender			
Male	48%	50%	49%
Female	52%	50%	51%
Education Level			
Primary Education	12%	32%	22%
Secondary Education	43%	41%	42%
Tertiary Education	45%	27%	36%
Income Level (per month)			
Below ₦30,000	30%	55%	42%
₦30,001 - ₦50,000	14%	10%	12%
Above ₦50,000	56%	30%	46%

Financial inclusion is assessed based on access to and use of formal financial services, such as bank accounts, mobile money, savings, and credit. The following findings were observed:

The findings revealed substantial disparities between urban and rural populations in terms of financial inclusion. In urban areas, 85% of respondents reported having a bank account, compared with only 45% of their rural counterparts. A similar pattern was observed in the adoption of mobile money services, where 72% of urban respondents reported usage, while only 28% of rural respondents did the same. Access to credit facilities also reflected this divide, as 63% of urban respondents indicated they had access to credit compared with just 30% in rural areas. These differences highlight the persistent urban–rural gap in access to and utilisation of financial services in Kano State.

Table 2: Financial Inclusion Indicators by Area

Financial Inclusion Indicator	Urban (n = 192)	Rural (n = 192)	Total (n = 384)
Bank Account Ownership	85%	45%	65%
Mobile Money Usage	72%	28%	50%
Access to Credit Facilities	63%	30%	47%
Use of Savings Accounts	70%	35%	53%

Financial inclusion in rural areas is significantly lower, with only 45% of respondents having access to a bank account, 28% using mobile money, and 30% having access to credit.

4.2 Financial Literacy:

Financial literacy was measured based on respondents' ability to understand key financial concepts such as saving, investing, budgeting, and borrowing. The results showed that 76% of urban respondents demonstrated a high level of financial literacy, particularly in knowledge of budgeting, saving, and investing. In addition, 14% of respondents exhibited a moderate understanding of financial concepts, while only 10% were found to have low levels of financial literacy.

Table 3: Financial Literacy Levels by Area

Financial Literacy Level	Urban (n = 192)	Rural (n = 192)	Total (n = 384)
High Literacy	76%	52%	64%
Moderate Literacy	14%	28%	21%
Low Literacy	10%	20%	15%

In contrast, only 52% of rural respondents demonstrated high financial literacy, while 28% had moderate financial literacy, and 20% were considered to have low financial literacy.

The following presents the demographic characteristics of the respondents:

4.3 Inferential Statistics

4.3.1 Chi-Square Test: Financial Inclusion and Socio-Demographic Variables

A chi-square test was conducted to assess the relationship between socio-demographic variables (age, gender, income, and education) and financial inclusion in both urban and rural areas. The results show the following:

Table 4: Results of Chi-Square Test for Socio-Demographic Variables and Financial Inclusion

Socio-Demographic Variable	χ^2 Value	p-Value	Significance ($p < 0.05$)
Age	12.45	0.005	Yes
Gender	0.45	0.50	No
Income Level	22.35	0.000	Yes
Education Level	19.87	0.002	Yes

The analysis revealed that age has a significant relationship with financial inclusion ($\chi^2 = 12.45$, $p < 0.01$), as younger individuals aged 18–35 were more likely to access formal financial services in both urban and rural areas. By contrast, gender did not show a statistically significant effect ($\chi^2 = 0.45$, $p = 0.50$), suggesting that male and female respondents had relatively similar levels of financial inclusion within this context. Income level demonstrated a strong positive relationship with financial inclusion ($\chi^2 = 22.35$, $p < 0.001$), indicating that individuals with higher earnings were more likely to engage with financial services across both urban and rural populations. Similarly, education emerged as a significant factor ($\chi^2 = 19.87$, $p < 0.01$), with respondents holding higher educational qualifications more likely to access and utilise financial services compared to those with lower levels of education.

4.3.2 T-Test: Comparison of Financial Literacy Between Urban and Rural Areas

An independent samples t-test was conducted to compare the mean financial literacy scores between urban and rural respondents. The results indicate:

Table 5: Independent Samples t-test for Financial Literacy Between Urban and Rural Areas

Variable	Urban (n = 192)	Rural (n = 192)	t-Value	p-Value
Financial Literacy Score	4.12 (SD = 0.85)	3.15 (SD = 1.12)	8.32	0.000

The mean financial literacy score for urban respondents is 4.12 (SD = 0.85), while the mean score for rural respondents is 3.15 (SD = 1.12).

The t-test results show a significant difference between urban and rural areas ($t = 8.32$, $p < 0.001$), indicating that urban respondents have significantly higher levels of financial literacy compared to their rural counterparts.

4.3.3 Pearson Correlation: Financial Inclusion and Financial Literacy

A Pearson correlation analysis was conducted to examine the relationship between financial inclusion and financial literacy in both urban and rural areas. The results show:

Table 6: Pearson Correlation Between Financial Inclusion and Financial Literacy

Area	Pearson Correlation (r)	p-Value	Significance (p < 0.05)
Urban	0.65	0.000	Yes
Rural	0.48	0.003	Yes

The results indicate a clear positive association between financial inclusion and financial literacy across both urban and rural contexts. In urban areas, the correlation was strong and statistically significant ($r = 0.65$, $p < 0.001$), suggesting that individuals with higher levels of financial literacy were more likely to access and effectively utilise formal financial services. In rural areas, a moderate yet significant correlation was observed ($r = 0.48$, $p < 0.01$), highlighting that although financial literacy also promotes financial inclusion in less developed settings, the strength of this relationship is comparatively weaker. Overall, these findings confirm that financial literacy plays an important role in enhancing financial inclusion, with its influence more pronounced in urban than rural areas.

The findings indicate that financial inclusion is significantly higher in urban areas compared to rural areas in Kano State. Urban respondents have better access to formal financial services such as bank accounts, mobile money, and credit facilities. This is likely due to better infrastructure, availability of financial institutions, and more advanced technology in urban settings, which facilitates financial inclusion.

The level of financial literacy is also higher in urban areas. This can be attributed to greater exposure to financial education, more access to information, and higher educational attainment in urban areas. Rural respondents, on the other hand, face significant barriers to financial literacy, likely due to limited access to financial education programs and lower levels of formal education.

Furthermore, the study reveals a positive relationship between financial literacy and financial inclusion in both urban and rural areas, with a stronger correlation in urban areas. This suggests that increasing financial literacy could lead to greater financial inclusion, particularly in rural areas, where access to formal financial services remains limited.

These findings provide a comprehensive understanding of the current state of financial inclusion and financial literacy in Kano State and highlight the significant disparity between urban and rural areas. The study underscores the importance of enhancing financial literacy programs and improving access to financial services, particularly in rural areas, to foster greater financial inclusion.

5 Discussion of Findings

The empirical findings of this study contribute substantively to the growing body of literature on the dynamics between financial inclusion and financial literacy in developing economies, with a specific focus on the urban–rural dichotomy in Kano State, Nigeria. The results provide compelling evidence of significant disparities across geographic regions and socio-demographic groups, underscoring the structural and informational barriers that shape financial behaviour and access.

5.1 Urban–Rural Disparities in Financial Inclusion

The study revealed a marked disparity in financial inclusion between urban and rural areas, with 85% of urban respondents maintaining formal bank accounts compared to only 45% in rural areas. These results are consistent with global and Nigerian trends that associate urban residency with greater financial access due to denser banking infrastructure, proximity to institutions, and broader uptake of mobile financial services (Demirgüç-Kunt et al., 2018; Klapper et al., 2022). Recent evidence highlights that rural Nigeria continues to lag significantly behind urban areas in both bank penetration and fintech adoption, with infrastructural challenges and low trust in formal institutions as major constraints (Adegbite & Machethe, 2022; Sakanko et al., 2023). The relatively limited penetration of digital finance and low levels of digital literacy in rural communities further exacerbate this divide (Morgan & Long, 2020), suggesting that both physical and informational infrastructures remain critical determinants of financial inclusion.

5.2 Financial Literacy across Urban and Rural Populations

Parallel to the inclusion gap, financial literacy levels were also significantly higher in urban areas, with 76% of urban respondents demonstrating adequate financial knowledge compared with 52% of their rural counterparts. This finding aligns with Lusardi and Mitchell (2014) and more recent evidence that exposure to formal education and targeted financial awareness programmes, more prevalent in urban areas, significantly enhances literacy (OECD, 2020; Klapper et al., 2022). Urban populations are more likely to encounter financial knowledge through schools, media, institutions, and digital platforms, while rural residents remain disadvantaged by limited access to such resources (Amagir et al., 2020). This disparity reinforces financial exclusion in rural areas, as individuals with limited knowledge are less equipped or motivated to use formal financial services (Xu & Zia, 2022).

5.3 Socio-Demographic Determinants of Financial Behavior

The study's inferential analysis identified age, income, and education as statistically significant predictors of both financial inclusion and literacy. Younger and more affluent individuals were more likely to engage with formal financial services, echoing findings from Lusardi and Mitchell (2014) and more recent work by Morgan and Long (2020), who emphasize that disposable income and higher education enhance financial capability and confidence. Educational attainment emerged as especially salient, consistent with evidence from Sub-Saharan Africa showing that individuals with tertiary education demonstrate higher literacy and increased usage of financial services (Adegbite & Machethe, 2022).

5.4 Interrelationship between Financial Inclusion and Literacy

A critical contribution of this study lies in its validation of a positive, statistically significant relationship between financial literacy and financial inclusion, as shown by Pearson correlation coefficients of 0.65 and 0.48 for urban and rural areas, respectively. These findings are consistent with prior research confirming that financial knowledge enhances individuals' ability and willingness to interact with formal finance (Atkinson & Messy, 2012; Sakanko et al., 2023). However, the weaker correlation in rural areas suggests that literacy alone may not suffice; systemic barriers such as poor infrastructure, low income, and cultural constraints may dampen the ability of knowledge to translate into meaningful inclusion. This supports recent arguments that addressing financial exclusion in Nigeria requires a dual approach: enhancing financial literacy while simultaneously tackling infrastructural and institutional deficits (Ozili, 2020; Xu & Zia, 2022).

6 Policy Implications

The pronounced urban–rural gaps in both financial inclusion and literacy carry profound implications for financial policymakers, regulators, and service providers. Targeted interventions must be geographically sensitive, addressing not only the informational deficits but also the infrastructural shortcomings that limit financial participation in rural communities. The expansion of agent banking models and mobile financial services could serve as critical tools for overcoming physical access barriers (Demirgüç-Kunt et al., 2018). Simultaneously, scaling community-based financial education programmes delivered in local languages and adapted to rural socio-cultural contexts can help mitigate the knowledge gap and foster more inclusive financial ecosystems.

Overall, the study affirms that while financial literacy is a strong enabler of financial inclusion, its efficacy is context-dependent. Effective financial inclusion strategies in Nigeria must therefore be multi-pronged, combining financial education with infrastructural investments and targeted technological innovations to bridge the urban–rural divide.

7 Recommendations for Future Research

Building upon the findings and limitations of this study, several strategic directions are proposed for future research to deepen the understanding of financial inclusion and financial literacy, particularly within the Nigerian context:

First, **investigating the role of digital financial services** in bridging the inclusion gap presents a fertile area for further inquiry. Future studies could critically assess the impact of the proliferation of mobile banking, digital wallets, and fintech platforms on access to and usage of financial services among underserved populations, particularly in rural areas. Such research would help evaluate the scalability and efficacy of digital solutions in overcoming infrastructural limitations in low-income settings.

Second, it is imperative to explore the **long-term effects of financial literacy programs** on individuals' financial behavior and inclusion status. Rigorous evaluations, preferably through experimental or quasi-experimental designs, should assess the effectiveness of literacy interventions in enhancing financial decision-making, savings habits, credit utilisation, and investment behaviour among marginalised populations.

Third, future research should focus on the **gender dimension of financial inclusion and literacy**, as existing evidence suggests that women, especially in rural communities, encounter distinct barriers due to socio-cultural norms and structural inequality. Gender-disaggregated analyses could uncover specific constraints and inform the design of more inclusive financial products and educational campaigns.

Fourth, studies are encouraged to conduct **policy impact evaluations**, particularly of initiatives such as the National Financial Inclusion Strategy (NFIS) and Central Bank of Nigeria's regulatory frameworks. Such research would offer insights into the extent to which these policies have succeeded in expanding financial access and reducing the urban-rural divide, and highlight areas requiring strategic realignment.

Fifth, **cross-regional and cross-national comparative studies** would enrich the literature by illuminating contextual differences and commonalities in financial inclusion and literacy strategies across Nigeria's geopolitical zones or within the broader Sub-Saharan African region. These studies can identify best practices and innovative policy models that could be adapted to local contexts.

Sixth, there is a compelling need to examine **socio-cultural determinants of financial behaviour**, including trust in financial institutions, community saving norms, and the role of informal financial networks. Such qualitative insights are critical for understanding the behavioural dimensions that underlie formal financial exclusion.

Finally, the deployment of **longitudinal research designs** would enable scholars to track how financial literacy influences financial outcomes over time. These studies would be instrumental in assessing the sustainability and evolution of financial behaviors across different life stages and socio-economic transitions.

Collectively, these future research pathways hold the potential to generate actionable knowledge for the design of inclusive financial systems, tailored interventions, and robust policy frameworks aimed at advancing financial equity and empowerment across Nigeria.

References

Abdullahi, A., Othman, A. H. A., & Kassim, S. (2021). Financial inclusion enhancement through the adoption of Islamic microfinance in Nigeria. *International Journal of Ethics* *and Systems, 37*(3), 486-505. https://doi.org/10.1108/IJOES-02-2021-0040 IDEAS/RePEc

Adegbite, O. B., & Machethe, C. L. (2022). Financial inclusion, digital finance, and economic development in Africa. *Journal of African Business, 23*(1), 1–24. https://doi.org/10.1080/15228916.2020.1804512

Akinyemi, O., & Olayemi, A. (2020). *Financial inclusion and literacy in urban and rural Nigeria: A comparative analysis*. Journal of African Financial Studies, 12(2), 115–132.

Amagir, A., Groot, W., van den Brink, H. M., & Wilschut, A. (2020). A review of financial-literacy education programs for children and adolescents. *Citizenship, Social and Economics Education, 19*(3), 191–215. https://doi.org/10.1177/2047173420935133

Atkinson, A., & Messy, F. A. (2012). *Measuring financial literacy: Results of the OECD / International Network on Financial Education (INFE) pilot study*. OECD Working Papers on Finance, Insurance and Private Pensions, No. 15. https://doi.org/10.1787/5k9csfs90fr4-en

Babatunde, A. A. (2025). Financial literacy, infrastructural facility and financial inclusion of micro, small and medium enterprise (MSME) owners in Nigeria. *Journal of Business Management and Accounting, 15*(1), 79-90. https://doi.org/10.32890/jbma2025.15.1.5 e-journal.uum.edu.my

Beck, T., Demirgüç-Kunt, A., & Peria, M. S. M. (2015). Banking services for everyone? Barriers to bank access and use around the world. *The World Bank Economic Review, 29*(1), 1–25. https://doi.org/10.1093/wber/lht020

Beck, T., Pamuk, H., Ramrattan, R., & Uras, B. R. (2015). *Mobile money, financial inclusion, and development*. World Bank Policy Research Working Paper No. 7291. https://doi.org/10.1596/1813-9450-7291

Bruhn, M., de Souza Leão, L., Legovini, A., Marchetti, R., & Zia, B. (2016). *The impact of high school financial education: Experimental evidence from Brazil*. World Bank Policy Research Working Paper No. 7723. https://doi.org/10.1596/1813-9450-7723

Central Bank of Nigeria. (2018). *2018 Financial Literacy Baseline Survey Report*. Central Bank of Nigeria.

Central Bank of Nigeria. (2020). *National Financial Inclusion Strategy (Revised)*. Central Bank of Nigeria. https://www.cbn.gov.ng/Out/2020/NFIS/NFIS%202020.pdf

Central Bank of Nigeria. (2022). *Financial inclusion strategy: Progress report*. Central Bank of Nigeria. https://www.cbn.gov.ng

Cochran, W. G. (1977). *Sampling techniques* (3rd ed.). John Wiley & Sons.

Dabla-Norris, E., Deng, Y., Ivanova, A., Karpowicz, I., Unsal, D. F., VanLeemput, E., & Wong, J. (2015). *Financial inclusion: Zooming in on Africa*. International Monetary Fund. https://doi.org/10.5089/9781513501118.001

Dabla-Norris, E., Ji, Y., Townsend, R., & Unsal, D. F. (2015). *Identifying constraints to financial inclusion and their impact on GDP and inequality: A structural framework for policy*. IMF Working Paper No. 15/22. https://doi.org/10.5089/9781498390759.001

Demirgüç-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2018). *The Global Findex Database 2017: Measuring financial inclusion and the fintech revolution*. World Bank Group. https://doi.org/10.1596/978-1-4648-1259-0

Enhancing Financial Innovation & Access (EFInA). (2020). *Access to financial services in Nigeria 2020 survey*. EFInA. https://www.efina.org.ng

Hastings, J. S., Madrian, B. C., & Skimmyhorn, W. L. (2013). *Financial literacy, financial education, and economic outcomes*. Annual Review of Economics, 5, 347–373. https://doi.org/10.1146/annurev-economics-082312-125807

Klapper, L., Lusardi, A., & van Oudheusden, P. (2022). *Financial literacy around the world: Insights from the 2021 Global Financial Literacy Survey*. World Bank. https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099530503162233766

Lusardi, A., & Mitchell, O. S. (2014). *The economic importance of financial literacy: Theory and evidence*. Journal of Economic Literature, 52(1), 5–44. https://doi.org/10.1257/jel.52.1.5

Mandell, L. (2008). *Financial education in high school*. In A. Lusardi (Ed.), *Overcoming the saving slump: How to increase the effectiveness of financial education and saving programs* (pp. 257–279). University of Chicago Press.

Mandell, L., & Klein, L. S. (2009). *The impact of financial literacy education on subsequent financial behavior*. Journal of Financial Counseling and Planning, 20(1), 15–24.

Morgan, P. J., & Long, T. Q. (2020). Financial literacy, financial inclusion, and savings behavior in Laos. *Journal of Asian Economics, 68,* 101197. https://doi.org/10.1016/j.asieco.2020.101197

Musa Abdullahi Sakanko, Sufiyanu Umma Yahaya, & Salihu Abdullahi. (2023). Financial literacy and financial inclusion. *Zakariya Journal of Social Science, 2*(1), 1-10. https://doi.org/10.59075/zjss.v2i1.227

OECD. (2020). *OECD/INFE 2020 international survey of adult financial literacy*. OECD Publishing. https://www.oecd.org/financial/education/oecd-infe-2020-international-survey-of-adult-financial-literacy.pdf

Okoye, L. U., Adetiloye, K. A., & Erin, O. (2017). *Financial inclusion as a strategy for enhanced economic growth and development*. Journal of Internet Banking and Commerce, 22(S8), 1–16.

Okunade, S., & Alimi, O. Y. (2019). *Financial literacy and financial inclusion in Nigeria: A study of rural communities*. Journal of Economics and Development Studies, 7(2), 45–60. https://doi.org/10.15640/jeds.v7n2a5

Oliviero, T., & Fiss, P. C. (2020). Financial inclusion and development: Concepts, measurement, and evidence. *Journal of Business Research, 119*, 1–13. https://doi.org/10.1016/j.jbusres.2020.07.037

Oliviero, T., & Fiss, T. (2020). *Financial inclusion and the socio-economic determinants: Evidence from developing economies*. Journal of Development Policy and Practice, 5(1), 89–110.

Ozili, P. K. (2018). *Impact of digital finance on financial inclusion and stability*. Borsa Istanbul Review, 18(4), 329–340. https://doi.org/10.1016/j.bir.2017.12.003

Ozili, P. K. (2020). Financial inclusion research around the world: A review. *Forum for Social Economics, 49*(3), 457–479. https://doi.org/10.1080/07360932.2019.1701714

Sakanko, M. A., Yahaya, S. U., & Abdullahi, S. (2023). Financial literacy and financial inclusion. *Zakariya Journal of Social Sciences, 2*(1), 1–10. https://doi.org/10.59075/zjss.v2i1.227

Sarma, M. (2012). *Index of financial inclusion: A measure of financial sector inclusiveness*. Berlin Working Papers on Money, Finance, Trade and Development, No. 07/2012.

Xu, L., & Zia, B. (2022). Financial literacy and inclusive finance in the developing world. *Annual Review of Financial Economics, 14*(1), 133–155. https://doi.org/10.1146/annurev-financial-101820-114754

Xu, L., & Zia, B. (2022). Financial literacy and inclusive finance in the developing world. *Annual Review of Financial Economics, 14*(1), 133–155. https://doi.org/10.1146/annurev-financial-101820-114754