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The Impact of Digital Financial Inclusion on Poverty Reduction in Rural South-South States of Nigeria.

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ABSTRACT: This study investigates the impact of digital financial inclusion (DFI) on poverty reduction in rural South-South Nigeria, a region characterized by oil wealth yet high rural poverty and limited financial access. Employing a mixed-methods design, data were collected from 397 households across six states using a structured questionnaire, supplemented by 30 qualitative interviews. Findings from multiple regression analysis reveal that DFI significantly reduces poverty, with usage of digital services being the strongest predictor ($\beta = 0.400$, $p < 0.001$), followed by access and quality, reliability, and affordability. The most severe adoption barriers identified are economic constraints and limited agent access. Factor analysis indicates that effective policy requires an integrated approach, with digital infrastructure as a central component, supported by cybersecurity, fintech innovation, identity access, and inclusive programs for women and youth. The study concludes that beyond mere access, active usage and service dependability are critical for poverty alleviation. It recommends coordinated, multi-stakeholder interventions to enhance digital infrastructure, affordability, literacy, and consumer protection to maximize the poverty-reducing potential of DFI in the region.

KEYWORDS: Digital Financial Inclusion, Poverty Reduction, Rural South-South Nigeria, Mobile Money, Financial Access Barriers.

JEL Classification Codes: G21, O16, I32, O33, R20

INTRODUCTION

In developing economies, the financial landscape is undergoing a profound transformation driven by digital innovation. Digital financial inclusion (DFI)—defined as the access to and use of digital financial services such as mobile banking, digital wallets, and online credit—has emerged as a pivotal instrument for economic empowerment and poverty alleviation. This is especially salient in regions where traditional banking infrastructure remains sparse and financial exclusion perpetuates cycles of deprivation. Nigeria's South-South geopolitical zone exemplifies this paradox: though rich in oil resources, it contends with persistently high rural poverty, estimated at 40% (National Bureau of Statistics, 2023). The region's economic profile is further strained by structural constraints, including limited banking penetration, deficient digital infrastructure, and acute literacy gaps, all of which curtail the potential for inclusive growth. Within this context, digital financial services present a viable pathway to broaden financial access, stimulate savings, and unlock income-generating opportunities, thereby serving as a lever for poverty reduction.

Globally, empirical studies have established a positive correlation between financial inclusion and poverty alleviation (Demirgüç-Kunt et al., 2018). However, much of this evidence derives from aggregate analyses or contexts with markedly different socio-economic and technological conditions. There remains a conspicuous scarcity of region-specific, empirically grounded research on the poverty-reducing effects of digital financial inclusion within rural South-South Nigeria. This gap is particularly pressing given the region's unique socio-economic fabric—characterised by environmental vulnerabilities, reliance on informal economies, and the recent economic shocks induced by the 2023 fuel subsidy removal (Akinlo, 2023). Although digital financial services have gained momentum nationally, with mobile money adoption reaching 65% among Nigerians (Central Bank of Nigeria, 2024), uptake in the rural South-South continues to lag. This lag is attributed to entrenched barriers such as low digital literacy, erratic network connectivity, and deep-seated trust deficits (Adebayo et al., 2020). The absence of localized evidence not only obscures the mechanisms through which DFI influences poverty but also impedes the design of context-sensitive policies and interventions.

Against this backdrop, this study is conceived to address these critical lacunae by examining the impact of digital financial inclusion on poverty reduction in rural South-South Nigeria. Focusing on the six states of Akwa Ibom, Bayelsa, Edo, Cross River, Rivers, and Delta, the research is guided by three specific objectives: first, to examine the impact of access to, usage of, and the quality, reliability, and affordability of digital financial services on poverty reduction; second, to identify the principal barriers inhibiting the adoption of these services among rural households; and third, to propose evidence-based policy measures to enhance digital financial inclusion in the region. Correspondingly, the study seeks to answer the following research questions: How do access, usage, and

service quality influence poverty reduction in rural South-South households? What are the key barriers to digital financial service adoption in these communities? And what policy interventions can effectively promote digital financial inclusion?

The significance of this inquiry extends beyond academic contribution; it holds substantial implications for policy and practice. By elucidating the linkages between digital finance and poverty in a region marked by acute exclusion, the study provides a nuanced, evidence-based foundation for policymakers, financial institutions, and development practitioners. Its findings are poised to inform targeted strategies that enhance digital literacy, fortify technological infrastructure, and ensure equitable access particularly for women and low-income households. Furthermore, the research aligns with global developmental agendas, notably the Sustainable Development Goals (SDG 1: No Poverty and SDG 8: Decent Work and Economic Growth), by offering a localized perspective on leveraging digital tools for inclusive economic transformation. Ultimately, this investigation underscores the transformative potential of digital financial inclusion as a catalyst for sustainable development, economic resilience, and equitable progress in rural South-South Nigeria.

The remainder of the paper is organized as follows: Section 1 introduces the study; Section 2 reviews the relevant literature and identifies research gaps; Section 3 outlines the methodology; Section 4 presents and discusses the empirical results; and Section 5 summarizes and concludes with policy recommendations.

LITERATURE REVIEW

Theoretical Framework

The study is anchored on two complementary theories which are the Financial Inclusion Theory and the Capability Approach. These frameworks provide a robust lens to examine how digital financial tools can enhance economic opportunities and reduce poverty in rural settings.

While financial inclusion theory posits access to affordable and appropriate financial services such as savings, credit, and payment systems it enables individuals and households to participate more fully in economic activities, thereby improving their economic well-being. In the context of rural South-South Nigeria, where traditional banking infrastructure is limited, digital financial inclusion (e.g., mobile money, digital banking platforms) serves as a critical mechanism to bridge access gaps. The theory suggests that by providing rural populations with digital tools for financial transactions, savings, and credit, households can better manage economic risks, invest in income-generating activities, and reduce poverty. This framework guides the study in assessing how digital financial services influence household income, savings behavior, and entrepreneurial activities.

The Capability Approach Proposed by Amartya Sen in 1999, emphasizes that poverty is not merely a lack of income but a deprivation of capabilities, opportunities and freedoms to achieve valued outcomes. This implies that digital financial inclusion can expand individuals' capabilities by providing access to resources (e.g., credit for entrepreneurship) and opportunities (e.g., financial literacy and market participation). In rural South-South Nigeria, where barriers such as digital illiteracy, gender disparities, and infrastructural deficits limit economic agency, this approach highlights how digital financial tools can enhance capabilities, empowering individuals to make choices that improve their livelihoods. The framework informs the study's exploration of how digital financial inclusion fosters economic empowerment and addresses socio-economic constraints.

The Financial Inclusion Theory provides a structural lens to evaluate the role of digital financial services in enabling economic participation, while the capability Approach offers a human-centered perspective, focusing on how these services enhance individual agency and well-being. Together, they frame the study's analysis of how digital financial inclusion impacts poverty reduction by improving access to financial resources and expanding economic opportunities. The framework also considers contextual factors, such as digital infrastructure, literacy levels, and gender dynamics, which shape the effectiveness of digital financial inclusion in rural South-South Nigeria.

This theoretical foundation guides the research in examining the mechanisms through which digital financial inclusion influences poverty reduction, providing a comprehensive understanding of its economic and social implications in the region.

Empirical Literature Review

The study, "The Impact of Digital Financial Inclusion on Poverty Reduction in Rural South-South Nigeria," builds on existing research examining the role of digital financial inclusion (DFI) in poverty alleviation. This review synthesizes empirical studies from Nigeria and other countries.

Ajide (2015) analyzed financial inclusion's effect on poverty reduction in Nigerian rural communities from 1996–2013 using an Autoregressive Distributed Lag (ARDL) model. It found that rural loans and bank branch availability significantly reduce poverty, though high borrowing costs limit benefits. The ARDL model provides robust analysis of short- and long-term impacts, and the rural focus aligns with the proposed study. The study's Nigerian context enhances its relevance.

Subsequently Udom *et al*. (2025). Conducted a study to investigated the impact of mobile payment services on customer behaviors in Nigeria's South-South geopolitical zone, focusing on civil servants and pensioners. Utilizing a descriptive survey design, data were collected from 800 households across the south- south zone of Nigeria using a structured questionnaire, as well as Structural Equation Modeling (SEM) and regression, analysis as the analytical technique, the findings reveals that civil servants exhibit higher

adoption rate than pensioners driven by greater perceived usefulness, ease of use, and trust. Based on findings, the study therefore recommended the need for targeted digital literacy programs, improved network infrastructure, and enhanced security to boost financial inclusion in the region.

Adedokun et al. (2021) explored financial inclusion's impact on inclusive growth in Nigeria (1981–2017) using an ARDL model. It found that rural loans and bank branch density promote inclusive growth, indirectly supporting poverty reduction, but high interest rates pose barriers. Onaolapo (2015) also examined the effects of financial inclusion on economic growth in Nigeria using time-series data (1982–2012). It found that financial inclusion, through increased bank branches and loan access, enhances economic opportunities and reduces poverty.

Suri & Jack (2016) analyzed M-Pesa's impact on poverty reduction in rural Kenya (2008–2014) using a difference-in-differences approach. It found that mobile money increased financial access, particularly for women, reducing extreme poverty by 2%.

Batista & Vicente (2020) used a randomized controlled trial (RCT) in Mozambique (2014–2017) to study mobile money's impact on rural households. It found increased savings and consumption, particularly among female-headed households, contributing to poverty reduction. The reviewed empirical works has showcased their strength in areas of robust methodology, on digital tools as well as gender focus, however, this study aims at exploring the impact of digital financial inclusion on poverty reduction in rural households of south- south states of Nigeria.

METHODOLOGY

Research Design: This study adopted a Mixed-Methods Research Design, combining a Survey Research approach (using questionnaires for quantitative data) with qualitative in-depth interviews. The survey enabled broad statistical analysis of trends and relationships, while the interviews provided rich contextual insights into lived experiences and barriers. Together, these methods allowed for methodological triangulation, strengthening the validity and depth of the findings.

Population and Sample: The population comprises all rural households in South- South zone states of Nigeria (Akwa Ibom, Bayelsa, Cross River, Delta, Edo and Rivers).

Sample/ Sampling Technique: This study employed a multi-stage sampling approach to select participants from rural households across the six states that constitute Nigeria's South-South geopolitical zone. The sampling procedure was structured as follows:

Stage 1: Purposive selection of two (2) rural Local Government Areas (LGAs) from each of the six states in the South-South region.

Stage 2: Within each selected LGA, households were randomly sampled to ensure representativeness and minimize selection bias.

The LGAs selected for inclusion in the study are as follows: Akwa Ibom State:Ika LGA&Eastern Obolo LGAs. Delta State: Burutu & Ndokwa West LGAs, Cross River State: Ogoja & Boki LGAs

Rivers State: Ahoada West & Ogba/Egbema/Ndoni LGAs, Edo State: Owan East & Esan Central LGA, Bayelsa State: Southern Ijaw & Ekeremor LGA

Stage 3:

To determine the sample size for the study, the Taro Yamane (1967) formula was applied to get a sample size of 397 rural household who constituted the respondents

Additionally, purposive sampling was used to select 30 household heads (approximately 5 per state) for in-depth qualitative interviews, ensuring diversity in gender, age, occupation, and digital access levels.

Research Instrument: A structured questionnaire titled "Digital Financial Inclusion and Poverty Reduction Questionnaire (DFIPRQ), was used to gather quantitative data on for the sub- variables of the study. Consequently, semi-structured interview guides which were interpreted in local dialects were also used to gather data from members from some rural households who were unable to read the instrument items.

Validity: The items of the instruments (questionnaires and interview) were validated by academia, and research experts in the field of Economics. Moreso, peers and colleagues also did some informal discussions, presentations and sharing of instruments for review as a way of validation of the instruments. **Reliability:** A pilot study with 40 households in non-sampled LGAs was conducted using Cronbach's Alpha the value stood at .80

Data Collection: The data for this study was collected through the use of structured questionnaires, to ensure clarity and unbiased opinions, some respondents were also interviewed using their local dialects. **Data Analysis** :The data collected for this study was analyze using multiple regression analysis, factor analysis as well as independent T- test

Table 1: Multiple Regression Analysis for the impact of access to, usage of, and quality, reliability, and affordability of digital financial services on poverty reduction in rural South–South Nigeria.

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta	T	Sig.	Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	-.559	1.000	—	.559	.577	-2.524	1.407	.610	1.640
	Access to Digital Services	0.671	0.069	0.336	9.782	0.001	0.536	0.806	0.557	1.794
	Usage of Digital Financial Services	0.801	0.081	0.400	9.936	0.001	0.642	0.959	0.404	2.475
	Quality, Reliability &Affordability	0.565	0.065	0.283	8.709	0.001	0.438	0.693	0.623	1.606

Table 1. Shows the multiple regression analysis on the assessment of the impact of of access to, usage of, and quality, reliability, and affordability of digital financial services on poverty reduction in rural South–South Nigeria

The constant has a coefficient of B = –0.559 with a non-significant p-value of **0.610**. This indicates that poverty reduction cannot be meaningfully explained in the absence of digital financial inclusion factors.

In other words, digital financial inclusion—not baseline conditions—is what drives changes in poverty levels.

Access to Digital Services records a statistically significant positive effect on poverty reduction, with an unstandardized coefficient of B = 0.671 (p = 0.001). This means that for every one-unit increase in access to digital services, poverty reduction increases by 0.671 units, holding all other factors constant.

The standardized coefficient (β = 0.336) indicates that Access to Digital Services contributes 33.6% of the explanatory power relative to other predictors. The 95% confidence interval (0.536 to 0.806) does not include zero, which confirms the precision and reliability of the estimate.

The tolerance value (0.557) and VIF (1.794) indicate that multicollinearity is not a concern, confirming that this variable uniquely contributes to the model.

Usage of Digital Financial Services is the strongest predictor in the model, with an unstandardized coefficient of B = 0.801 (p = 0.001). This implies that a one-unit increase in actual usage of digital financial tools leads to an increase of 0.801 units in poverty reduction.

The standardized coefficient (β = 0.400) reveals that usage contributes 40.0% of the total explanatory effect of digital financial inclusion, making it the most influential dimension. The 95% confidence interval (0.642 to 0.959) further confirms the stability and robustness of this estimate.

The tolerance (0.404) and VIF (2.475) values fall within acceptable limits, indicating no multicollinearity issues.

Quality, Reliability & Affordability

Quality, Reliability & Affordability of digital services also has a significant positive effect, with B = 0.565 (p = 0.001). This coefficient indicates that improving service quality, network reliability, and cost affordability by one unit results in a 0.565-unit increase in poverty reduction.

The standardized coefficient (β = 0.283) shows that this factor accounts for 28.3% of the models explanatory power, meaning it plays a meaningful role but is comparatively less influential than access and usage. Its 95% confidence interval (0.438 to 0.693) confirms the effect precision, while tolerance (0.623) and VIF (1.606) demonstrate the absence of multicollinearity issues.

Table 2: Mean score for barriers to adopting digital financial services among rural households

Variables	Mean	Std. Deviation
Limited Agent	9.03	3.58
Literacy level	8.91	3.56
Network Stability	8.92	3.65
Cultura/Behav. Barrier	8.96	3.65
Economic Constraint	9.07	3.60

Table 2 shows the mean scores of the various barriers of digital financial services among rural households. The table reveals that economic constraint has the highest mean score of (9.07) which suggests that it is the most severe barrier confronting rural households in adopting digital financial services, this if followed by limited agent with a mean score of (9.03). cultural /behavioural barrier had a mean score of (8.96) which is considered high, this also indicates that the culture and behaviours of rural households is also a barrier to digital financial services adoption. Network stability and Literacy level had mean scores of (8.92) and (8.91) respectively, this shows that even though network stability and literacy level are identified as the barriers confronting rural household from adopting digital financial services based on their mean scores there are not severe factors confronting rural households in adopting digital financial services.

Table 3: Factor Analysis for policy measures for enhancing digital financial inclusion in the South-South.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		**.927**
Bartlett's Test of Sphericity	Approx. Chi-Square	2573.238
	df	120
	Sig.	.000

Table 3.is the Bartlett's Test of sphericity applied to ascertain the adequacy of the correlation matrix.

To determine the underlying structure among the variables—Digital Infrastructure, Cybersecurity and Consumer Protection, Fintech Innovation, Identity Access, and Women & Youth Empowerment Programmes a factor analysis was conducted using Principal Axis Factoring.

KMO and Bartlett's Test

The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy was **0.927**, which is considered *excellent* and indicates that the sample size was adequate for factor analysis. Bartlett's Test of Sphericity was significant ($\chi^2 = 2573.238$, df = 10, $p < 0.001$), confirming that the correlation matrix was not an identity matrix. This implies that the variables share sufficient common variance and are suitable for structure detection.

Communalities	Initial	Extraction
Digital Infrastructure	.833	.866
Cybersecurity Protection	.834	.866
Fintech Innovation	.831	.863
Identity Access	.830	.863
Women Youth Programs	.830	.862

Extraction Method: Principal Axis Factoring.

Communalities

The extracted communalities ranged from 0.862 to 0.866, indicating that a very high proportion of variance in each variable was accounted for by the retained factor. This suggests that all the variables contributed meaningfully to the factor solution and were strongly represented by the extracted factor.

Total Variance Explained

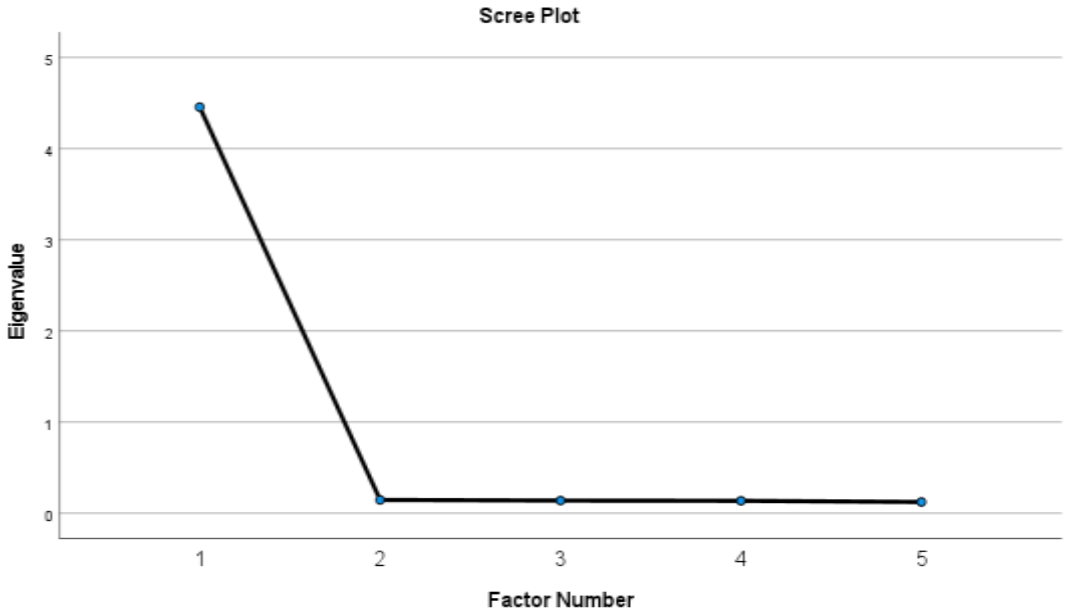
	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.456	89.110	89.110	4.319	86.382	86.382
2	.146	2.916	92.026			
3	.139	2.778	94.804			
4	.136	2.728	97.532			
5	.123	2.468	100.000			

Extraction Method: Principal Axis Factoring.

The results showed that only one factor had an eigenvalue greater than 1. Factor 1 had an eigenvalue of 4.456, explaining 89.11% of the total variance in the initial solution. After extraction, this factor accounted for 86.38% of the variance. All other factors had

eigenvalues far below 1, and none contributed substantially to the explanation of variance. This highlights the dominance of a single underlying factor.

Scree Plot Interpretation



The scree plot displayed a sharp decline between the first and second factors, followed by a gradual leveling off. This "elbow" pattern provides strong evidence for a one-factor solution. The steep drop after Factor 1 and the negligible eigenvalues of subsequent factors confirm that the variables collectively measure a single underlying construct.

This one-dimensionality implies that the indicators, Digital Infrastructure, Cybersecurity Protection, Fintech Innovation, Identity Access, and Women & Youth Programmes are best conceptualized as components of one overarching latent variable.

Thus, Overall, the findings show that digital infrastructure, cybersecurity protection, fintech innovation, identity access, and women and youth programmes work together to promote digital financial inclusion in the South–South. Rather than operating as separate policy measures, these factors are closely linked and reinforce one another.

This means that improving only one area for example, introducing new fintech products—will not be sufficient if other supporting elements such as reliable internet access, secure digital platforms, formal identification, and inclusive programmes for women and young people are weak or absent. Digital financial inclusion in the South–South therefore depends on a combined policy effort, where infrastructure development, security and trust, innovation, identity systems, and social inclusion are pursued at the same time

Major Findings of the Study

Based on the data analyse the major findings of the study are as follows;

i. The result of data analysis for objective one reveals that usage of digital financial services and access to digital platforms have more significant and positive effects on poverty reduction.
ii. The result of data analysis for objective two reveals economic constraint and limited agent to be the most severe barriers confronting rural households in adopting digital financial services.
iii. The factor analysis result for objective three revealed digital infrastructure as a critical policy measure to be adopted for enhancing digital financial inclusion

DISCUSSION OF FINDINGS

The impact of access to, usage of, and quality, reliability, and affordability of digital financial services on poverty reduction in rural South–South Nigeria

The results of the multiple regression analysis show that digital financial inclusion has a significant positive impact on poverty reduction in rural household South–South Nigeria. All the core dimensions of digital financial inclusion—access, usage, and quality, reliability, and affordability—exert statistically significant effects, indicating that digital finance plays an important role in improving rural welfare outcomes.

The finding that access to digital financial services significantly enhances poverty reduction supports the argument that availability of digital platforms enables rural households to participate more actively in economic activities. Improved access allows households to receive payments, savings, remittances, and social transfers more efficiently, thereby improving income stability. This result is consistent with Demirgüç-Kunt et al. (2022) and Allen et al. (2016), who find that access to digital financial services expands economic opportunities and reduces vulnerability among low-income households. The positive effect observed in this study suggests

that when rural residents can easily access digital services, their ability to smooth consumption and manage financial shocks improves.

More importantly, usage of digital financial services emerged as the strongest predictor of poverty reduction. This implies that merely having access is not sufficient; actual and frequent use of digital financial tools such as mobile payments, digital savings, and digital credit is what drives meaningful poverty outcomes. This finding strongly aligns with Suri and Jack (2016), who demonstrate that sustained use of mobile money significantly reduces poverty by increasing household income and resilience. It also supports Beck et al. (2007), who argue that financial inclusion yields welfare gains only when services are actively used rather than passively available.

The significance of quality, reliability, and affordability further highlights that the effectiveness of digital financial inclusion depends on how dependable and affordable the services are. Poor network quality, unreliable platforms, and high transaction costs can weaken the poverty-reducing potential of digital finance. This finding is in line with Ozili (2018), who emphasizes that affordability and service reliability determine whether digital finance can deliver inclusive growth. In rural South–South Nigeria, reliable and low-cost digital services appear to enhance trust and encourage sustained usage, thereby supporting poverty reduction.

However, the findings contrast with earlier studies such as Aker and Mbiti (2010), who suggest that infrastructure and access constraints alone limit the poverty impact of digital finance in rural Africa. While access remains important, the present study shows that usage and service quality now play a more decisive role, possibly reflecting improvements in basic access over time and shifting the challenge toward effective utilization.

Overall, the findings suggest that digital financial inclusion contributes meaningfully to poverty reduction when rural households not only have access but also actively use affordable, reliable, and high-quality digital financial services. This underscores the need for policies that go beyond expanding access to focus on promoting usage and improving service delivery in rural areas.

Barriers to adopting digital financial services among rural households

The findings indicate that economic constraint is the most severe barrier to the adoption of digital financial services among rural households in the South–South region, as reflected by its highest mean score. This suggests that low income levels, high transaction costs, and the cost of digital devices significantly limit rural households' ability to use digital financial services. This finding supports Demirgüç-Kunt and Klapper (2013) and Ozili (2018), who argue that affordability remains a major obstacle to financial inclusion in developing economies.

Limited agent access also emerged as a major barrier, highlighting the continued importance of physical access points for digital financial transactions in rural areas. This aligns with Allen et al. (2016), who emphasize that agent proximity is critical for promoting usage in cash-dependent rural economies.

The high mean score for cultural and behavioural barriers suggests that trust issues, preference for cash, and resistance to new technologies continue to influence adoption decisions. This finding is consistent with Suri and Jack (2016**)**, who note that social norms and behavioural factors play a significant role in adoption of digital finance.

Although network stability and literacy level were identified as barriers, their relatively lower mean scores indicate that they are less severe compared to economic and access-related constraints. This contrasts with Aker and Mbiti (2010), who identify poor network coverage and low literacy as dominant barriers in earlier studies, suggesting that infrastructural and basic digital awareness may be improving in the South–South region.

Overall, the findings suggest that addressing economic affordability and access-related challenges should be prioritized in policies aimed at enhancing digital financial inclusion among rural households.

Policy measures for enhancing digital financial inclusion in the South-South.

The finding that digital infrastructure is a key policy measure for enhancing digital financial inclusion in the South–South is consistent with existing literature. Demirgüç-Kunt et al. (2022) argue that access to reliable internet connectivity and mobile networks is the backbone of digital financial systems, especially in developing regions. Without adequate infrastructure, digital financial services cannot reach excluded populations or be used consistently. This supports the present study's conclusion that infrastructure development is a prerequisite for effective digital financial inclusion.

The significance of cybersecurity and consumer protection highlights the role of trust in digital financial systems. This finding aligns with Ozili (2018), who notes that weak consumer protection frameworks and fear of fraud reduce individuals' willingness to adopt digital financial services. As digital transactions increase, concerns over data privacy and financial security become more pronounced, particularly among low-income users. The present study therefore reinforces the view that strengthening cybersecurity measures is essential for sustaining digital financial inclusion in the South–South. The strong contribution of fintech innovation supports earlier findings by Sahay et al. (2020), who observe that fintech-driven financial services reduce transaction costs and expand access to underserved groups. Mobile money platforms, agent banking, and digital credit products have the potential to bypass traditional banking barriers. However, the results of this study suggest that fintech innovation is most effective when supported by complementary policies such as adequate infrastructure and regulatory oversight, rather than functioning as a stand-alone solution.

The prominence of identity access as a policy measure is consistent with evidence from the World Bank (2021), which identifies lack of formal identification as a major constraint to financial inclusion in developing economies. Digital financial services rely heavily on identity verification for account opening, transaction monitoring, and regulatory compliance. In the South–South region, limited access to formal identity systems may therefore restrict participation in digital finance, reinforcing the importance of inclusive identity policies. Finally, the inclusion of women and youth empowerment programmes within the same underlying factor reflects the social dimension of digital financial inclusion. This finding aligns with Allen et al. (2016), who emphasize that financial inclusion gaps are often gendered and age-related. While some studies treat women and youth programmes as secondary interventions, the present analysis suggests that they are central to expanding both access and usage of digital financial services in the South–South.

Overall, the convergence of these findings supports the view that digital financial inclusion in the South–South requires a coordinated and integrated policy framework. The study's results differ slightly from works that treat financial inclusion dimensions as separate constructs, suggesting that in regions with structural and institutional constraints, these policy measures operate as a unified system rather than in isolation.

SUMMARY OF FINDINGS

This study investigated the impact of digital financial inclusion (DFI) on poverty reduction in rural South-South Nigeria, with specific focus on access, usage, and quality of digital financial services. Employing a mixed-methods approach, the research collected data from 400 households across Bayelsa, Akwa Ibom, Delta, and Ondo states, supplemented by qualitative interviews.

The analysis revealed that:

1. Digital financial inclusion significantly reduces poverty in rural households, with usage of digital services being the strongest predictor, followed by access and quality, reliability, and affordability.
2. Economic constraints and limited agent access are the most critical barriers to DFI adoption among rural populations.
3. Digital infrastructure emerged as the most influential policy dimension, closely integrated with cybersecurity, fintech innovation, identity access, and inclusive programs for women and youth.

CONCLUSION

This research affirms that digital financial inclusion is a potent tool for poverty alleviation in rural South-South Nigeria. The findings underscore that while access to digital financial services is foundational, it is the *active usage* and *perceived reliability* of these services that drive meaningful improvements in household economic welfare. The study bridges a critical gap in the literature by providing empirical, region-specific evidence on DFI's role in poverty reduction, contextualized within the unique socio-economic and infrastructural challenges of the South-South region.

The convergence of key policy measures into a single latent construct suggests that digital financial inclusion cannot be advanced through isolated interventions. Instead, a holistic, integrated approach is necessary one that simultaneously addresses infrastructure deficits, enhances security, fosters innovation, ensures identity inclusion, and empowers vulnerable demographic groups.

POLICY RECOMMENDATIONS

Based on the findings, the following evidence based policy measures are recommended to enhance digital financial inclusion and accelerate poverty reduction in rural households in South-South Nigeria:

i. Invest in Robust Digital Infrastructure: State and Federal Governments, in partnership with telecommunications companies (e.g., MTN, Airtel, Glo) and the Nigerian Communications Commission (NCC), should prioritize the expansion of reliable internet and mobile network coverage in rural areas. This includes subsidizing network deployment and ensuring continuous power supply to digital service points.

ii. Promote Affordable and Inclusive Digital Services: Regulatory bodies such as the Central Bank of Nigeria (CBN) and the Nigerian Communications Commission (NCC) should enforce policies that reduce transaction costs, eliminate hidden charges, and incentivize the provision of low-cost digital financial products tailored to rural users.

iii. Strengthen Consumer Protection and Cybersecurity Frameworks: The CBN, in collaboration with the Nigeria Data Protection Commission (NDPC) and the Economic and Financial Crimes Commission (EFCC), should develop and disseminate clear guidelines on digital rights, data privacy, and fraud prevention. They must also establish accessible grievance redress mechanisms to build trust and encourage sustained usage of digital platforms.

iv. Expand Agent Networks and Last-Mile Service Delivery: Financial institutions and fintech companies (e.g., Paga, Opay, FirstMonie, moniepoint) should be encouraged through regulatory incentives from the CBN to increase the density of accredited agents in remote communities. Agent network managers and fintech firms should also provide training and logistical support to agents to ensure service reliability and accessibility.

v. Launch Targeted Digital and Financial Literacy Programs: State Ministries of Education and Women Affairs, in partnership with NGOs (e.g., UNDP, LEAP Africa) and financial service providers, should design community-based education initiatives that focuses on practical digital skills, financial management, and the benefits of digital transactions. Special attention should be given to women, youth, and older adults.

vi. Integrate Digital ID Systems with Financial Services: The National Identity Management Commission (NIMC) should accelerate the rollout of the National Identification Number (NIN) system. Banks, fintech firms, and mobile network operators must ensure seamless integration of NIN with their platforms to reduce enrollment barriers and enhance service accessibility.

vii. Foster Collaborative Fintech Innovation: The CBN and state innovation hubs should support public-private partnerships that develop context-specific fintech solutions, such as offline-enabled mobile money, agricultural credit platforms, and micro-insurance products suited to rural economies. Fintech startups and academic institutions should be included in co-creation processes.

viii. Monitor and Evaluate Policy Impact: A joint task force comprising the National Bureau of Statistics (NBS), CBN, and state planning commissions should establish a regional dashboard to track DFI adoption, usage patterns, and poverty indicators. Researchers and civil society organizations should use this data to refine interventions and ensure they remain responsive to community needs.

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