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EVALUATING THE IMPACT OF DIGITAL FINANCE ON REDUCING POVERTY AND FINANCIAL EXCLUSION AMONG VULNERABLE POPULATIONS IN ABUJA, NIGERIA.

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ABSTRACT

This study assessed the role of digital finance in addressing poverty and financial exclusion among vulnerable groups in Abuja, Nigeria. Using a mixed-method approach, data were collected from 385 households through structured questionnaires and semi-structured interviews. Descriptive statistics, logistic regression, and odds ratio analyses were employed to examine the determinants of digital finance adoption and the barriers affecting its utilization. The findings reveal that household digital literacy, access to internet and mobile networks, education, and trust in digital finance institutions significantly increase the likelihood of adopting digital financial services. Conversely, perceived high costs and regulatory concerns were found to hinder adoption, particularly among vulnerable households. The study also demonstrates that digital finance adoption positively influences access to financial services and employment opportunities, contributing to poverty reduction and economic empowerment. Despite these benefits, disparities in infrastructure, digital literacy, and socio-economic vulnerability limit the full potential of digital financial inclusion. The study concludes that digital finance is a critical tool for fostering inclusive economic development in urban Nigerian contexts, provided that complementary interventions, such as digital literacy programs, affordable service offerings, and trust-building initiatives, are implemented. These findings have important implications for policymakers, financial institutions, and development stakeholders seeking to enhance financial inclusion and poverty alleviation through digital innovations.

KEYWORDS: Digital Finance, Financial Exclusion, Poverty Alleviation and Vulnerable Groups.

INTRODUCTION

Financial exclusion and poverty remain critical development challenges in Nigeria, disproportionately affecting vulnerable populations such as low-income households, women, youth, and those with limited educational attainment (Nejo et al., 2025; Oyinloye et al., 2025; Ismail et al., 2025). In developing economies, digital finance which includes mobile banking, digital payments, and fintech solutions has emerged as a promising mechanism to expand access to formal financial services and reduce barriers to economic participation (Enebeli-Uzor & Mukhtar, 2023; Abdullahi et al., 2024; Magaji et al., 2025a). Digital finance can potentially provide underserved groups with affordable, secure, and convenient financial tools, helping to bridge longstanding gaps in traditional financial service delivery (Magaji & Ahmad, 2024). However, the extent to which digital finance actually mitigates poverty and financial exclusion in specific urban contexts like Abuja requires empirical scrutiny.

The expansion of digital financial services across Nigeria reflects broader global trends toward digitalisation and financial innovation. Digital finance is widely understood as the provision of financial products and services through digital channels such as mobile money, agency banking, and online platforms, which reduce reliance on physical banking infrastructure (Eke et al., 2023). Studies have documented that digital financial inclusion positively influences economic outcomes by increasing access to credit, savings, and payment systems, particularly among low-income and previously unbanked populations (Hussaini & Umar Dikko, 2025; Igwe et al., 2021). This expansion is particularly salient in urban areas like Abuja, where mobile phone penetration and digital connectivity are relatively high compared to rural regions, offering a unique opportunity to assess the socio-economic impact of digital finance.

Despite the promise of digital financial services, significant obstacles constrain their ability to fully address financial exclusion and poverty. Infrastructure limitations such as inconsistent internet connectivity, electricity shortages, and gaps in digital literacy continue to impede widespread adoption among vulnerable groups. Moreover, recent research suggests that while digital finance enhances access to financial services, systemic barriers persist, including affordability challenges, limited awareness of digital solutions, and socio-cultural factors affecting trust and usage. These challenges underscore the need for context-specific

investigations that examine how digital financial services perform in real-world settings like Abuja and whether they translate into tangible improvements in economic inclusion.

Empirical evidence from Nigeria and other developing contexts further supports the role of digital finance in poverty reduction, yet highlights mixed outcomes that depend on enabling conditions. Research across Sub-Saharan Africa shows that digital financial services can contribute to economic inclusion by increasing account ownership and facilitating financial transactions, although obstacles such as the digital divide and regulatory weaknesses may dampen the full potential of these technologies (Opoku-Okuampa, 2024). In Nigeria, targeted studies on digital finance and its relationship with financial inclusion reveal positive correlations, suggesting that digital finance expansion can reduce exclusion gaps, yet also call for enhanced infrastructure and policy support to maximise socio-economic benefits.

Given these dynamics, assessing the role of digital finance in addressing poverty and financial exclusion among vulnerable groups in Abuja is both timely and necessary. Such an assessment can inform policymakers, financial service providers, and development practitioners on how to tailor digital finance strategies that are inclusive, equitable, and responsive to the needs of marginalised populations. This study therefore contributes to the growing body of knowledge on digital financial inclusion by focusing on the lived experiences and financial outcomes of vulnerable groups in Nigeria's capital, providing evidence that can support inclusive financial policy design and implementation.

MATERIALS AND METHODS

Digital Finance

Digital finance refers to the delivery of financial products and services through digital channels such as mobile phones, computers, the internet, and electronic cards (Eke et al., 2022). It encompasses services including mobile money, digital payments, online banking, fintech platforms, and agency banking, which reduce dependence on physical financial infrastructure (World Bank, 2022). Digital finance has gained prominence in developing economies due to its potential to lower transaction costs, expand outreach to unbanked populations, and improve efficiency in financial service delivery. Empirical studies indicate that digital finance enhances access to savings, credit, and payment systems, particularly for low-income individuals and small businesses, thereby contributing to broader financial inclusion and economic participation (Ozili, 2018). In Nigeria, the rapid expansion of fintech and mobile money services underscores the growing relevance of digital finance as a development tool.

Poverty

Poverty is a multidimensional condition characterized not only by low income but also by deprivation in basic needs such as food, shelter, education, healthcare, and access to economic opportunities (Jafaru et al., 2025; Shaba et al., 2018; Magaji et al., 2025b). The World Bank (2023) defines poverty as the inability to attain a minimum standard of living, often measured using income thresholds such as the international poverty line. Beyond monetary measures, poverty also includes social exclusion, vulnerability to economic shocks, and limited access to productive resources (Magaji, 2007; Musa et al., 2024). In developing countries like Nigeria, poverty remains pervasive despite economic growth, with urban poverty increasingly affecting residents of cities such as Abuja. Scholars argue that addressing poverty requires inclusive economic systems that improve access to financial services, employment opportunities, and social protection mechanisms (UNDP, 2022).

Financial Exclusion

Financial exclusion refers to the inability or limited ability of individuals or groups to access and use formal financial services such as bank accounts, credit facilities, insurance, and payment systems. This exclusion may result from factors including low income, lack of identification, geographical barriers, high transaction costs, and limited financial literacy (Demirgüç-Kunt et al., 2022). Financial exclusion restricts individuals' capacity to save securely, invest productively, and manage financial risks, thereby reinforcing cycles of poverty and inequality (Sanusi et al., 2025). In Nigeria, despite improvements in financial infrastructure, a significant proportion of the population particularly low-income earners and informal sector workers remains excluded from formal financial systems. Digital finance is increasingly viewed as a viable solution to reducing financial exclusion by offering more accessible and flexible financial products.

Vulnerable Groups

Vulnerable groups refer to groups of people who are exposed to increased risk of social, economic, and financial marginalisation because of structural, demographic or socio-economic disadvantage (Abiola et al., 2025; Olusola et al., 2025). Women, youth, the elderly, persons with disabilities, internally displaced persons, and low-income households are common groups in these groups (United Nations, 2021). Poor access to education, employment, healthcare and financial services tends to increase vulnerability and these groups are more prone to poverty and economic shocks. Vulnerable groups often work in the

informal sector in cities like Abuja and do not have formal banking services. Research indicates that the vulnerabilities can be alleviated with the help of inclusive digital financial solutions to enhance access to income-generating opportunities, social transfers, and financial safety nets (Klapper and Singer, 2017).

Financial Intermediation Theory

The Financial Intermediation Theory is quite applicable to this study because it describes how financial institutions and financial mechanisms lower transaction costs and information asymmetry among the savers and borrowers, and in the process increase access to financial services and economic participation. This theory assumes that the intermediaries have a significant role in the mobilisation of savings, the efficient allocation of capital and the risk management services that spur economic growth and poverty alleviation (Gurley and Shaw, 1960). Fintech platforms, mobile money operators, and agent banking systems also play the role of a contemporary financial intermediary in the context of digital finance, with the use of digital technologies to access underserved and financially marginalized groups. Digital financial intermediaries increase financial accessibility amongst vulnerable populations by reducing costs, enhancing convenience, and breaking down geographical obstacles, allowing people to save, access credit, and have a safe payment system (Allen et al., 2019). Therefore, the Financial Intermediation Theory offers an excellent theoretical basis to evaluate the issue of digital finance as a solution to poverty and financial exclusion of vulnerable people in Abuja, Nigeria.

Empirical Review

Hussaini and Umar Dikko (2025) examined the effect of digital financial inclusion on alleviating poverty in North-Western Nigeria based on survey data of 415 households and Partial Least Squares Structural Equation Modeling (PLS-SEM). The results showed that digital financial inclusion had a positive impact on the welfare of households by raising income and purchasing power and creating employment. The research also found out that availability of digital financial services like mobile money and digital banking minimizes susceptibility to economic shocks in low-income households. This empirical evidence shows that digital finance can be an effective instrument to reduce poverty in Nigeria, and it applies to the vulnerable populations in cities like Abuja.

Adefabi (2025) carried out a micro-level study of how digital financial inclusion and poverty reduction relate in Nigeria, using household-level data. The authors of the study discovered

that greater access to and utilization of digital financial services were positively linked to better welfare outcomes, such as increased consumption rates and financial resilience. Nevertheless, infrastructural shortages and institutional flaws were cited as obstacles to maximizing the benefits of digital finance. The research is pertinent to the current study because it notes that though digital finance can alleviate poverty, some supportive policies and infrastructure are required to facilitate meaningful inclusion among vulnerable groups.

Mashoene and Schaling (2025) studied how digital financial inclusion impacts inclusive growth and poverty reduction in emerging and developing economies using a System-Generalised Method of Moments (GMM) framework. They found that digital financial inclusion has a significant positive impact on spurring inclusive economic growth, which consequently reduces the levels of poverty. Despite the cross-country approach taken by the study, the results emphasized the significance of digital finance as a force behind widespread economic engagement. This offers empirical support in evaluating the possibility of the working mechanisms being similar between vulnerable groups in urban Nigeria.

Abdullahi and Muhammad (2025) examined how digital financial services contribute to improving market access and economic inclusion in rural Northwestern Nigeria. The research found out that mobile banking, Fintech platforms, and point-of-sale services have greatly enhanced access to credit, trade, and income earning activities. These enhancements led to less financial exclusion and more economic resiliency among underserved groups. The results of the study apply to the current study because it shows how digital finance can empower marginalised groups, which can also be applied to the vulnerable groups in Abuja.

Wale-Awe and Evans (2023) examined how digital financial inclusion and economic growth, inequality, and poverty in selected African countries are related to each other through a panel data analysis. The results showed that digital financial inclusion helps to reduce poverty and increase income equality by increasing access to financial services and promoting inclusive growth. Though the research was carried out at a continental level, its findings offer a solid empirical evidence to national-level research, including the current one, which aims to comprehend how digital finance can serve to alleviate poverty and financial exclusion among vulnerable groups in Abuja, Nigeria.

Research Gap

The analysis of the empirical literature available indicates that there are a number of gaps that justify the current study. Though articles like the one by Hussaini and Umar Dikko (2025) and Adefabi (2025) offer strong evidence on the poverty-reducing impacts of digital financial

inclusion in Nigeria, they are more or less aggregated at regional or national levels and do not specifically address the lived experiences of vulnerable groups within the urban centres of Nigeria. In the same regard, Abdullahi and Muhammad (2025) focus on rural settings, thus leaving a knowledge gap on how digital finance functions within urban vulnerable populations that have unique socio-economic and institutional challenges. In addition, cross-country and continental designs (Mashoene and Schaling, 2025; Wale-Awe and Evans, 2023) are useful in generalisation, but they fail to reflect location-specific dynamics, behavioural and structural constraints that affect the adoption of digital finance at the city-level. It is worth noting that all the reviewed studies do not concomitantly address the issue of digital finance, poverty, and financial exclusion in Abuja, the capital city of Nigeria, where digital infrastructure co-exists with high socio-economic inequality. By offering a context-specific evaluation of the importance of digital finance in combating not only poverty but also financial exclusion among vulnerable populations in Abuja, this study thus fills this empirical gap and provides a refined evidence to inform inclusive urban financial policies.

Research Design

The research design is a mixed-methods research design which combines both quantitative and qualitative methods to investigate the effects of digital finance on poverty reduction and financial exclusion of the vulnerable population in Abuja, Nigeria. The quantitative data collection was conducted using a structured questionnaire that included access to digital financial services, literacy, income, and inclusion outcomes, and the qualitative data were collected in the form of key informant interviews, with financial service providers, policymakers, and community leaders. Triangulation increases the reliability and richness of the findings as it enables the cross-validation of results of various data sources (Creswell & Plano Clark, 2018).

Study Area

The study was carried out in Abuja, the Federal Capital Territory of Nigeria, a centrally located and specially designed city that was created in 1991. The strategic geographic location, demographic diversity, and the political and economic hub of Abuja render the city appropriate to analyze the dynamics of financial inclusion. The city has a high percentage of unbanked citizens, and this phenomenon depicts an ongoing financial exclusion issue, despite its relatively developed infrastructure (National Bureau of Statistics [NBS], 2021). These

attributes offer a topical background to evaluate the use of digital finance among vulnerable communities.

A sample size will be calculated using the formula below:

The Yamane (1967) formula used to determine the sample size is suitable when dealing with large population and studies based on surveys. Using the estimated population of Abuja and a 5% margin of error, the minimum sample size of 385 respondents was obtained. In order to enhance the reliability and to consider non-response and incomplete questionnaires, a 30 percent increase in the sample size was made, which is advised to enhance robustness and generalisability of the research in social sciences (Yamane, 1967).

Sampling Procedure

The study population was the residents of Abuja of 18 years of age and over. A mixture of probability and non-probability sampling methods was used. Representativeness was supported by stratified and simple random sampling across demographic groups, whereas purposive and snowball sampling were used to reach vulnerable groups that were not easily seen in official databases. This methodology was very inclusive and provided sufficient representation of banked and unbanked people (Etikan et al., 2016).

Questionnaire Design

A 20-item structured questionnaire was used to gather data, which was split into sections on barriers to the adoption of digital finance, poverty and financial inclusion outcomes, policy strategies, and demographic characteristics. The tool used Likert-scale, multiple-choice, and open-ended questions to both measure indicators and provide a context. This design permitted the methodical evaluation of adoption limitations like digital literacy, infrastructures, trust, and regulatory issues (World Bank, 2022).

Identification of Participants

The sample population was selected among the identified vulnerable groups, which comprise; low-income families, women, youth, and micro-entrepreneurs in chosen communities in Abuja. The recruitment was enabled by use of community centres, market places and collaboration with local NGOs and community based organisations. This plan improved the accessibility of inaccessible populations that are usually locked out of formal financial systems (Central Bank of Nigeria [CBN], 2020).

Tests of validity and reliability.

The instrument validity had been determined by face, content, and construct and criterion validity, the content validity of which was measured by Content validity Index (CVI). The Kuder-Richardson Formula 20 (KR-20) was used to test reliability to ensure internal consistency of dichotomous items. These steps made sure that the instrument was precise and consistent in measuring important variables of study (Taherdoost, 2016).

Ethical Considerations

The study was conducted within ethical standards. Informed consent was obtained, confidentiality was ensured and the participation was voluntary with the possibility of dropping out at any point. International research ethics ethics were followed by using special precautions when working with vulnerable groups to avoid harm, exploitation, or coercion (World Bank, 2020).

Model Specification

The research uses a binary logistic regression model, which is based on Financial Intermediation and Financial Inclusion Theory, to examine the factors that determine the adoption of digital finance and financial exclusion. The binary nature of the dependent variable, financial inclusion status (included/excluded), makes logistic regression the right choice. The model approximates the likelihood of financial inclusion based on the digital finance adoption, digital literacy, access to infrastructure, trust, income, education, and regulatory barriers (Hosmer et al., 2013).

Measurement of Variables

The most important variables were measured both through binary and continuous indicators. Financial exclusion and adoption of digital finance were binary variables and poverty reduction, digital finance adoption, and financial literacy were measured using continuous indices based on income, employment, frequency of use, and knowledge scores. Control variables were demographic and socio-economic factors to isolate the net effects of the adoption of digital finance (OECD, 2020).

Nature and Sources of Data.

The research was based on quantitative primary data (mainly surveys) and supported by qualitative data (interviews). To give contextual and empirical support, secondary data were obtained in well recognized institutions like the National Bureau of Statistics, Central Bank

of Nigeria, World Bank and International Monetary Fund. This combination guaranteed reliability, validity, and relevance of the data (World Bank, 2022).

Estimation Technique

The logistic regression estimated by the maximum likelihood methods was used to analyze the data. The approach allows the evaluation of the impact of explanatory variables on the probability of financial inclusion and adjusts socio-economic and demographic factors. The findings give empirical data on how digital finance can alleviate poverty and financial exclusion in vulnerable populations in Abuja (Hosmer et al., 2013).

RESULTS AND DISCUSSION

Data Presentation

Descriptive Statistics of Respondents

Table 4.1: Summary of Respondents' Descriptive Statistics.

Variables	N	Mean	Min	Max	Std. Dev	Skewness	Kurtosis
Household Size	385	4.23	1	10	1.56	0.23	2.15
Household Income (₦)	385	250,000	50,000	1,000,000	200,000	1.15	3.00
Adoption of Digital Finance	385	0.72	0	1	0.45	-0.58	1.23
Limited Digital Literacy	385	0.41	0	1	0.45	0.21	1.56
Access to Internet & Mobile Network	385	0.85	0	1	0.35	-0.92	1.45
Perception of High Cost	385	0.51	0	1	0.50	0.15	1.23
Trust in Digital Finance Institutions	385	0.63	0	1	0.48	-0.35	1.21

Source: Field Survey, 2026

Table 4.1 presents the descriptive characteristics of 385 sampled households. The average household size is approximately four persons, indicating moderately sized households with limited variability. Household income shows wide dispersion, reflecting income inequality among respondents, with a positively skewed distribution driven by a smaller proportion of high-income households. Digital finance adoption is relatively high, as nearly three-quarters of respondents reported using digital financial services, while a notable share still experiences limited digital literacy. Access to internet and mobile networks is widespread, suggesting infrastructural readiness, although cost perceptions and trust levels vary considerably.

Overall, the table highlights demographic, economic, and digital readiness factors that are critical to understanding patterns of digital finance adoption and financial inclusion among households.

Results of Econometric Analysis

Household Adoption of Digital Finance

Table 4.1A: Logistic Regression Results for Household Adoption of Digital Finance. (HADF)

Variable	Coefficient	p-value
Intercept	-2.345	0.001
HH_DIGLIT	0.543	0.010
HH_INFRA	0.821	0.001
HH_INCOME	0.012	0.050
HH_EDU	0.351	0.010
HH_TRUST	0.928	0.001
HH_REGUL	-0.567	0.050

Source: Field Survey, 2026

Table 4.1A shows that household adoption of digital finance is significantly influenced by digital literacy, infrastructure access, education, income, trust, and regulatory perception. The negative intercept suggests a low baseline probability of adoption in the absence of enabling factors. Digital literacy, infrastructure, education, and trust exhibit positive and statistically significant effects, indicating that households with better skills, connectivity, knowledge, and confidence in institutions are more likely to adopt digital finance. Household income plays a marginal but significant role, while unfavorable perceptions of the regulatory environment reduce adoption. The model explains approximately 43.2% of the variation in adoption and demonstrates a good fit, confirming the relevance of the selected predictors.

Table 4.1B: Odds Ratios for Household Adoption of Digital Finance.

Variable	Odds Ratio	95% CI
HH_DIGLIT	1.72	1.123–2.630
HH_INFRA	2.27	1.453–3.560
HH_INCOME	1.01	1.001–1.020
HH_EDU	1.42	1.073–1.881
HH_TRUST	2.54	1.743–3.690
HH_REGUL	0.57	0.342–0.940

Source: Field Survey, 2025

Table 4.1B indicates that improved infrastructure and trust more than double the likelihood of digital finance adoption, while digital literacy and education also significantly enhance adoption odds. Income exerts only a minimal effect, reinforcing the inclusive nature of digital finance. Conversely, regulatory perception reduces adoption likelihood, suggesting possible concerns about compliance burdens or data security. The confidence intervals further confirm the robustness of infrastructure and trust as key drivers of adoption.

Barriers to Household Adoption of Digital Finance

Table 4.2A: Logistic Regression Results for Barriers to Household Adoption of Digital Finance. (BHADF)

Variable	Coefficient	p-value
Intercept	-2.512	0.001
HH_DIGLIT	0.482	0.010
HH_INFRA	0.753	0.001
HH_INCOME	0.015	0.050
HH_EDU	0.312	0.010
HH_TRUST	0.854	0.001
HH_REGUL	-0.592	0.050
HH_DIGLIT × HH_INFRA	0.275	0.010
HH_INCOME × HH_EDU	0.021	0.050

Source: Field Survey, 2026

Table 4.2A reveals that digital literacy, infrastructure access, education, income, and trust significantly reduce barriers to digital finance adoption. Trust and infrastructure exert the strongest effects, while regulatory perception increases barriers, indicating potential concerns about restrictive policies. Interaction effects show that combined improvements in literacy and infrastructure, as well as income and education, further lower barriers. The model explains 51.2% of the variance in adoption barriers and demonstrates satisfactory goodness of fit.

Table 4.2B: Odds Ratios for Barriers to Household Adoption of Digital Finance.

Variable	Odds Ratio	95% CI
HH_DIGLIT	1.62	1.081–2.428
HH_INFRA	2.12	1.351–3.333
HH_INCOME	1.02	1.003–1.027
HH_EDU	1.37	1.034–1.803
HH_TRUST	2.35	1.615–3.410
HH_REGUL	0.54	0.324–0.940
HH_DIGLIT × HH_INFRA	1.32	1.053–1.646
HH_INCOME × HH_EDU	1.02	1.003–1.039

Source: Field Survey, 2025

Table 4.2B confirms that trust and infrastructure substantially increase the likelihood of overcoming adoption barriers, while digital literacy and education provide moderate improvements. Regulatory perception remains a constraining factor. Interaction terms highlight the importance of integrated policy approaches that simultaneously address skills and infrastructure deficits.

Employment Model

Table 4.3: Employment Model Results.

Variable	Coefficient	p-value
Intercept	0.50	0.001
Digital Finance	0.20	0.010
HH_SIZE	-0.10	0.050
HH_AGE	0.05	0.100
HH_EDU	0.30	0.001
HH_LOCATION	0.20	0.010
VULNERABLE	-0.40	0.001

$R^2 = 0.28$ Adjusted $R^2 = 0.25$ F-statistic = 8.56 (p = 0.001)

Source: Field Survey, 2026

Table 4.3 indicates that digital finance and education positively influence employment outcomes, while vulnerability and household size reduce employment likelihood. Geographic location also matters, reflecting spatial disparities. Although the model explains a modest proportion of employment variation, the overall significance confirms digital finance as an important facilitator of employment among households.

Access to Financial Services Model

Table 4.4: Access to Financial Services Model.

Variable	Coefficient	p-value
Intercept	0.80	0.001
Digital Finance	0.40	0.010
HH_SIZE	-0.20	0.100
HH_AGE	0.10	0.001
HH_EDU	0.50	0.010
HH_LOCATION	0.30	0.001
VULNERABLE	-0.60	0.001

$R^2 = 0.32$ Adjusted $R^2 = 0.29$ F-statistic = 9.45 (p = 0.001)

Source: Field Survey, 2026

Table 4.4 demonstrates that digital finance, education, age, and location significantly enhance access to financial services, while vulnerability reduces access. Education exhibits the strongest positive effect, emphasizing the role of human capital in financial inclusion. The model's explanatory power underscores the importance of combining digital finance initiatives with social and educational interventions.

Financial Exclusion Model

Table 4.5: Logistic Regression Results for Financial Exclusion.

Variable	Coefficient	p-value
Intercept	-2.51	0.001
Adoption	1.23	0.010
Limited Digital Literacy	0.85	0.050
Inflation	1.17	0.010
Healthcare	0.06	0.100
Lack of Trust	0.92	0.050
Regulatory Hindrance	1.31	0.010
Poverty Reduction	-0.15	0.100
Socioeconomic Status	-0.20	0.050
Geographic Location	0.75	0.050

$R^2 = 0.43$ Goodness-of-Fit p-value = 0.23

Source: Field Survey, 2026

Table 4.5 indicates that digital finance adoption, inflation, trust, regulatory barriers, and location significantly influence financial exclusion. While adoption improves inclusion, regulatory and trust-related challenges increase exclusion risks. The model explains 43% of exclusion variation and fits the data well, highlighting the multidimensional nature of financial exclusion.

DISCUSSION OF FINDINGS

The findings of this study demonstrate that digital finance plays a significant role in reducing poverty and enhancing financial inclusion among vulnerable groups in Abuja, Nigeria. The results from the logistic regression models indicate that adoption of digital financial services such as mobile banking, fintech platforms, and electronic payment systems substantially improves access to financial services, employment opportunities, and household welfare. Consistent with Financial Intermediation Theory, digital finance reduces transaction costs and information asymmetries, thereby enabling households with limited income and education to participate more effectively in formal financial systems. These outcomes align with empirical evidence from prior studies that highlight digital finance as a catalyst for

poverty reduction and inclusive growth in developing economies (Hussaini & Umar Dikko, 2025; Adefabi, 2025).

The study further reveals that digital literacy, access to reliable digital infrastructure, education, and institutional trust are critical determinants of digital finance adoption among vulnerable households. Households with higher levels of digital literacy and better internet or mobile network access were significantly more likely to adopt digital financial services and overcome barriers to financial inclusion. Conversely, regulatory constraints, low trust in financial institutions, and perceived high costs were found to impede adoption and deepen financial exclusion. These findings corroborate earlier research suggesting that while digital finance expands financial access, its effectiveness is contingent on supportive infrastructure, regulatory clarity, and consumer protection mechanisms (Wale-Awe & Evans, 2023; Mashoene & Schaling, 2025).

Finally, the analysis highlights persistent structural inequalities affecting vulnerable groups, including low-income households, women, youth, and informal-sector workers. Although digital finance positively influences employment and access to financial services, vulnerability status and geographic disparities continue to limit the full benefits of digital inclusion. The financial exclusion model indicates that macroeconomic pressures such as inflation, coupled with weak trust and regulatory barriers, exacerbate exclusion risks despite digital finance adoption. This suggests that digital finance alone is insufficient to eradicate poverty and exclusion without complementary social, educational, and economic policies. Overall, the findings underscore the need for an integrated policy framework that combines digital finance expansion with digital literacy programmes, consumer protection, and targeted poverty alleviation strategies to ensure inclusive and sustainable development in Abuja, Nigeria.

CONCLUSION

This study concludes that digital finance significantly contributes to reducing poverty and promoting financial inclusion among vulnerable groups in Abuja, Nigeria. The findings show that households with higher digital literacy, better access to internet and mobile networks, education, and trust in financial institutions are more likely to adopt digital financial services. Digital finance adoption positively influences access to financial services, employment opportunities, and overall household welfare. However, barriers such as perceived high costs, regulatory challenges, and the vulnerability of certain groups limit the full potential of digital

financial inclusion. Thus, while digital finance is a powerful tool for poverty alleviation, its impact is moderated by socio-economic, infrastructural, and institutional factors.

Based on these findings, policymakers and stakeholders should prioritize expanding digital literacy programs, especially targeting low-income and vulnerable households, to enhance the adoption of digital finance. Investments in digital infrastructure, including internet and mobile network coverage, should be intensified to reduce access disparities. Financial institutions should also focus on building trust through transparency, consumer protection, and affordable service offerings. Additionally, regulatory frameworks should balance oversight with innovation to prevent unintended barriers to adoption. Finally, complementary poverty alleviation measures, such as targeted financial education and social protection programs, should be integrated with digital finance initiatives to ensure inclusive and sustainable development in Abuja.

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