



Role of Financial Inclusion in Poverty Alleviation in Jigawa State Nigeria; the Moderating Effect of Financial Literacy

Abdulnasir T. Yola *  

Aminu Hassan Jakada  

Nadira Madaki Iliyasu  

Abdullahi Dayyabu Marmara  

Department of Economics and Development Studies, Faculty of Arts and
Social Science, Federal University, Dutse, Nigeria.

*Corresponding author

Received:14/3/2025

Accepted:1/6/2025

Published: 1/8/2025



© 2025 The authors(s). This is an open-access article under the CC BY license
(<https://creativecommons.org/licenses/by/4.0/>).

Abstract:

A need for research that examines how financial inclusion alleviates poverty in Jigawa state with a specific focus on the moderating effect of financial literacy. The study utilizes Partial Least Squares Structural Equation Modeling (PLS-SEM). Financial inclusion was found to contribute to poverty alleviation by granting access to essential financial amenities like loans, savings, and insurance. Additionally, financial literacy significantly curbs this relationship by enhancing the efficiency of financial inclusion in poverty alleviation. Individuals who utilize financial services more effectively were found to have higher financial literacy, resulting in improved financial stability, increased savings, and investments in income-generating activities. Recommendation from the findings suggests the implementation of financial literacy programs, the promotion of inclusive financial services and the leveraging of digital financial technologies. Furthermore, the vulnerable group should be focused on by integrating financial education into school curricula as a strategy for maximizing poverty alleviation through the impact of financial inclusion.

Keywords: Financial Inclusion, Poverty Alleviation. Financial Literacy, PLS-SEM, Financial Technologies

1. Introduction:

Poverty is one menace that is still trending in Nigeria, particularly in the northern part of the country. Jigawa State, a northern state, is characterized by limited economic opportunities and underdeveloped financial infrastructure. Intentional efforts by the government and international organizations to fight this problem have not yet yielded the fruit needed, as a lot of the citizens are still financially excluded, unable to access essential banking services, credit, or insurance (World Bank, 2021). The provision of accessible and affordable financial services remains one of the best strategies for poverty alleviation while using financial inclusion to combat the menace. Access to financial products like saving, credit facilities and others will aid individual businesses increase economic opportunities, risk management and wealth creation (Demirguc-Kunt, 2017). The success of financial inclusion in aiding in the poverty alleviation fight depends on the financial literacy rate of the area's population. Proper usage and appreciation of financial skills is known as financial literacy, and financial literacy plays a pivotal role in ensuring individuals make informed decisions about savings, investments, and credit (Atkinson, 2013).

Jigawa State has a low education and financial literacy rate, which could be the compass that aids financial inclusion initiatives in alleviating poverty in the region (National Bureau of Statistics, 2020).

Jigawa State, located in northern Nigeria, is one of the country's most impoverished regions, having high impoverished populace, low access to financial services, and substantial lack of financial literacy. These issues build continuous economic trials despite state-level and national efforts to form financial inclusion tools to help alleviate poverty. Countless households in Jigawa state lack financial services access. According to (the National Bureau of Statistics, 2020), few of the state population have access to financial institutions or bank accounts. The rural nature of the state, poor infrastructure, and low-income level are some barriers to financial inclusion associated with the state. Jigawa's economy is subjugated to a large informal sector, which limits individuals' engagement with formal financial services. This could be attributed to the heavy reliance of the populace on subsistence farming and petty trading (World Bank, 2021). Even with policies like the National Financial Inclusion Strategy (NFIS) introduced by the Central Bank of Nigeria, most of the population of Jigawa still are left out of the formal financial system.

Over 80% of Jigawa's population lives below the poverty line, thus making the state one of the most impoverished states in northern Nigeria (National Bureau of Statistics, 2020). Essential like access to education, healthcare and income-generating ventures are a struggle in the state, which helps constitute the poverty rate reported. The bulk of the state income comes from agriculture, but the diversification rate and productivity are low; this, in turn, contributes to economic stagnation. Programs like social welfare programs and agricultural subsidies are government interventions that are aimed at addressing this issue. However, structural issues (infrastructure, limited access to credit and low human capital development) have been setbacks for the success of these initiatives (World Bank, 2021). Financial exclusion worsens these problems, as poor households lack the financial tools to invest in business opportunities, manage risks, or escape debt cycles. Prior studies on financial literacy in Nigeria demonstrated a robust interplay between financial education and prudent financial management, such as increased savings and investment (Demirguc-Kunt, 2017). However, in Jigawa, a prevalent lack of financial literacy continues to hinder the fruition of financial inclusion efforts, making poverty streak the order of the day for many.

This research aims to survey the role that financial inclusion plays in alleviating poverty in Jigawa while focusing on the mitigating effects of financial literacy. The study intends to give insights into how the impact of financial inclusion is enhanced through financial literacy and offer policy recommendations that will help improve participation in and recognition of financial services' impact.

The structure of this paper is as follows: Section 2 reviews the relevant literature. Section 3 analyses the methodology used to conduct empirical research. Section 4 deals with the study's results. Section 5 discusses the results, thus titled "Discussion of the Results." Lastly, the conclusion and recommendation are in section 6 of this study.

2. Literature Review:

Utilization of financial products and services when and where required by [parties involved at an affordable price is what is known as financial inclusion (Sarma, 2011). Not limited to only access to credit, it also encompasses access to savings accounts, insurance and payment systems that are not discriminatory. Financial inclusion is a tool that can help reduce income inequalities and promote economic growth by facilitating access to opportunities to save, invest, and manage risks to underprivileged individuals (Demirguc-Kunt, 2017). Financial inclusion is relevant in Nigeria due to the high level of poverty and inequality, especially in Northern and rural areas of the nation like Jigawa. Other scholars have explored the magnitude of financial inclusion and its effect on poverty alleviation. Nigeria has made financial inclusion a vital part of central policies involving poverty alleviation and economic growth initiatives. The Central Bank of Nigeria (CBN) launched the National Financial Inclusion Strategy (NFIS) in 2012, aiming to minimize the fraction of grown-ups that are left out of financial services from 46.35% in 2010 by less than half (20%) in 2020 (CBN, 2018). Despite these efforts, the metrics of financial inclusion remain low, especially in rural areas like Jigawa State (EFInA, 2020). Cultural differences, limited infrastructure, and low-income levels are bottlenecks faced by financial inclusion initiatives in Jigawa State.

Similar studies on financial inclusion in Nigeria highlight a growing body of evidence on the interaction with poverty reduction. The financial inclusion rate in Nigeria is still evidently low when compared to other nations, particularly the northern region, where states like Jigawa struggle with a high rate of financial exclusion (Enhancing Financial Innovation and Access (EFInA, 2020)). Urban areas have improved in their access to financial services, but the rural areas (Jigawa mostly characterized by rural dwellers) remain underserved; thus, there is a need for targeted interventions in these regions. Few studies that have analyzed financial inclusion across Nigeria (Babajide A, 2015) found rural areas, particularly the northern region of the country, to face significant hurdles to financial inclusion. (Kulmie, 2024) argues that financial inclusion is a key factor in reducing multidimensional poverty, increasing income equality, and reducing inequalities. To reduce poverty, governments should improve financial literacy and technology awareness among young people and impoverished communities. Hurdles like cultural constraints, lack of banking infrastructure and low-income levels. The governments see poverty reduction and social development as one of their primary objectives (Kulmie D. A., 2023); (Nor, 2021); (Kulmie, 2023). These findings highlight the significance of addressing these regional disparities in addressing the access to financial services problem, which is crucial for poverty alleviation. Income deprivation is not the only aspect of poverty that needs to be tackled, but also access to basic education, health, and other economic opportunities (Sen, 1999). Studies like those (Gyeke-Dako, 2017), (Abdinur, 2022) and Kummitha (2018) demonstrate that financial inclusion is crucial for poverty reduction and economic development, especially in developing countries like Africa. According to the World Bank (2020), individuals living on less than \$1.90 per day are classified as poor. Jigawa state in Nigeria is disproportionately affected by poverty, with a large portion of the population relying on subsistence farming and informal economic activities (National Bureau of Statistics, 2020)

Copious researchers have advocated financial inclusion usage for the alleviation of poverty (Beck, 2007) and established the premise that access to finance improves welfare outcomes through the management of the savings, investment and risks of people experiencing poverty effectively. Microfinance services help individuals amass assets, smooth consumption, and reduce vulnerability to economic fluctuations (Cull, 2014). Studies (Okoye, 2016) found that better-quality access to financial services can significantly reduce the level of poverty in rural areas. Still hovering over the success of financial services in rural settings are barriers like low financial literacy, resource gaps, and normative cultural values (Oji & Okeleke, 2014). Financial literacy plays a key role in the determination of individuals' utilization of financial products. Jigawa has a low level of literacy, which constitutes a need to address this issue in order to attain the maximum benefit of financial inclusion (National Bureau of Statistics, 2020). Several empirical research has directly connected financial inclusion to improvements in household income and poverty reduction. For example, (Zins, 2016) investigated the connection between financial inclusion and poverty in sub-Saharan Africa and found that poverty is greatly reduced with greater financial inclusion significantly through improved access to savings, credit, and insurance services.

Their findings suggest that in areas like Jigawa, where financial exclusion is prevalent, increasing utilization of financial services could help achieve higher income and reduced vulnerability to economic shocks. Zubair Khan et al. (2021) argue that financial inclusion promotes social inclusivity, fair treatment, and equal opportunities for all. Another study focusing on Nigeria (Okoye, 2016) emphasized the role of microfinance institutions in poverty reduction because they provide households, especially rural area households, with credit. However, alleviation of poverty through the effective use of financial inclusion is moderated by other factors like financial literacy, access to relevant information, and trust in financial institutions. This implies that while financial inclusion can indeed alleviate poverty, it must be complemented by efforts to improve financial literacy, especially in regions like Jigawa, where low literacy levels remain a challenge (NBS, 2021). Overall, the significance of financial inclusion in poverty alleviation is crucial, especially in rural regions like Jigawa. However, its accomplishment depends on addressing complementary issues like financial education, financial amenities, and sociocultural barriers. Strengthening the use of financial services and financial literacy can help poverty reduction through the effective use of financial inclusion.

Fundamental expertise necessary for informed judgment and efficient financial decisions is what financial literacy is about (Lusardi, 2014). Knowing how financial products and services work an essential information needed for individuals to make informed financial decisions. Individuals with high levels of financial literacy make better financial decisions (Klapper, 2015). Education in Nigeria's rural areas is low, which also affects the financial literacy rate. Enhancing Financial Innovation and Access ((EFInA), 2018) discovered that only about 28.9% of grown-ups in Nigeria are financially literate. This is even worse for the northern states like Jigawa, where cultural dynamics and low formal education limit financial awareness (Adeola, 2017). Although financial inclusion gives the needed services and infrastructure for improvements in economic situations, the moderating effect of financial literacy helps individuals effectively utilize financial services (Grohmann, 2018). (Xu, 2012) accentuate that financial literacy expands individuals' ability to manage financial services which will help in amplifying poverty with effective financial inclusion.

In the framework of a state like Jigawa, financial literacy is a moderator in the determination of the proportion of inclusive finance that translates to improved welfare and reduced poverty. Past research has revealed that adequate financial education helps in reducing over-indebtedness, which could result from availability and access to financial services, mismanagement of funds, and financial distress (Atkinson, 2013). Contrariwise, individuals who have high financial literacy use financial services better, thus leading to longer-term economic well-being (Grohmann, 2018) (Aker, 2016). Their study demonstrated that a combination of financial services and financial literacy training will lead to greater outcomes in savings and investment and a reduction in vulnerability to economic fluctuations.

Pairing initiatives of financial inclusion with augmented financial literacy initiatives will effectively alleviate poverty in Jigawa state. Quite a few research has emphasized the importance of financial education in the fight against financial exclusion. Studies (Grohmann, 2018) found financial literacy to be an enabler for individuals leveraging financial services, thus optimizing the impact of finances on alleviating poverty. This is especially relevant to the context of Jigawa state because the financial literacy level is low, and most of the rural populace lacks a basic understanding of financial services and products (EFInA, 2020). Correspondingly, (Xu, 2012) reported that the financial decisions made by individuals with financial education are more effective in the reduction of poverty. Their study recommended inculcating financial literacy programs into financial inclusion policies in Jigawa, thereby aiding the populace to make informed financial decisions that will benefit them.

Despite the potential benefit of this, several barriers hinder the impact of financial inclusion and financial education in the alleviation of poverty in Jigawa state. Lack of infrastructure, poor banking facilities, and limited mobile network coverage are some of the challenges faced by financial services, especially in rural areas (EFInA, 2020). Prior studies have established the relevance of the availability of banking agents and reliable network connectivity in expanding financial inclusion in underserved regions like Jigawa (Allen, 2016). Also, religious and cultural norms are barriers that need tackling; this is because most residents in Jigawa state are reluctant to engage in the conventional banking system for fear of prohibitions of Islamic principles against interest-based transactions. This leads to a preference for an informal financial system that lacks the security and efficiency of formal institutions (Usman, 2021). In tackling this, Sharia-complaint Islamic finance products could be used to foster broader participation and acceptance of financial services.

Apart from the above barriers, language diversity and limited education also hinder financial literacy, which in turn affects the success of financial inclusion. Several residents of Jigawa are not fluent in English which is the primary language of instruction for most financial programs (Adeola, 2017). The language barrier and low educational attainment undermine the effectiveness of financial literacy initiatives. This should be addressed by having tailored programs using local languages and cultural contexts to overcome these challenges and ensure financial literacy efforts reach their intended audiences. Infrastructural and cultural barriers should be properly tackled for the effectiveness of financial inclusion impact in the fight against poverty through financial literacy.

The impact of financial inclusion in alleviating poverty is momentous, particularly in underserved areas like Jigawa State. However, for financial inclusion to be effective, it must be complemented by financial literacy, which serves as a moderator and enables individuals to make wise financial decisions. Addressing the barriers to both financial inclusion and financial literacy is vital for achieving sustainable poverty reduction in Jigawa State. As such, future policy efforts should focus on intensifying access to financial services while concurrently investing in financial literacy education.

3. Methodology:

3.1 Sample:

Using simple random sampling, data was collected using a mixture of questionnaires and interviews. Interactions about their basic living standard, source of income and how they understand financial services tools. The sample of 384 people each across 13 selected Local Government Areas in Jigawa State, Nigeria (totalling 4992 samples). The study area was chosen since they lack financial institutions that will promote financial inclusion, institutions like insurance companies, banks etc.

3.2 Measurement of Variables:

In achieving the set-out objectives of this study, researchers adopted scales from prior studies to measure dependent, independent, and moderating variables. For example, the financial inclusion scale was adopted from the Global Financial Inclusion (Global Findex) Database (Demirguc-Kunt, 2017). The indicators were categorized based on four sets: formal accounts, saving behaviours, sources of borrowing (informal and formal), and insurance products for health and agriculture.

Similarly, financial literacy measures were adopted (Lusardi, 2011), and some of the key dimensions include understanding basic financial concepts, knowledge of saving, budgeting, debt management, investments, and risk diversification. Lastly, the Multidimensional Poverty Index (MPI) was employed for the poverty alleviation scale. The MPI is used to address a wide range of deprivations people face across three major identified dimensions such as education, health, and living standards.

3.3 Reliability and Validity:

Composite reliability and discriminant validity are the measures used for the (Lusardi, 2011) reliability and validity test. The results show that the scales were valid and dependable. Lastly, Smart PLS 4 was used to capture the structural equation modelling and analyze the measurement and structural models.

4. Results:

The PLS-SEM path model results for the collected data were analyzed using Smart PLS version 4.0.9. A two-stage process was adopted, as suggested by (Hair, 2014) and (Henseler, 2009). These stages include: (1) measurement model assessment and (2) structural model assessment.

4.1 Measurement Model:

The measurement model explains the connection between measurable indicators and their latent dimensions (Chin, 1998) and involves an analytical association between each latent variable and its observed indicators (Hair *et al.*, 2011). When indicators are highly correlated and interchangeable, they are considered reflective, requiring cautious valuation of their reliability and validity (Haenlein, 2004); (Hair, 2014). Specifically, we assessed “individual item reliability, internal uniformity, convergent validity, and discriminant validity” (Hair (Hair, 2014); (Henseler, 2009)

Table 1: Loading, Composite Reliability and Average Variance Extracted

Latent Constructs and Indicators	Standardized Loadings	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
Poverty Alleviation		0.927	0.930	0.666
POV_ALV1	0.730			
POV_ALV2	0.832			
POV_ALV5	0.741			
POV_ALV6	0.784			
POV_ALV7	0.804			
POV_ALV8	0.886			
POV_ALV9	0.867			
POV_ALV10	0.868			
Financial Inclusion		0.801	0.819	0.555
FIN_INC_1	0.812			
FIN_INC_2	0.820			
FIN_INC_3	0.657			
FIN_INC_4	0.699			
FIN_INC_5	0.723			
Financial Literacy		0.918	0.926	0.677
FIN_LTR_1	0.852			
FIN_LTR_2	0.875			
FIN_LTR_3	0.909			
FIN_LTR_4	0.888			
FIN_LTR_5	0.862			
FIN_LTR_6	0.657			
FIN_LTR_7	0.680			

Source: Prepared by researchers.

Assessing the outer loading which helps check the reliability of the items (Hair J. F., 2019); Hulland, 1999). As depicted in Table 1 and Figure 1, all the items were above the threshold of 0.6 (Hair, 2014), corresponding to the mean individual item reliability has been established. Furthermore, we used the reliability coefficient to assess the degree to which the entire scale in the test aligns with the same construct or idea. Unlike Cronbach's Alpha, composite reliability does not rely on the premise that all indicators are equally reliable, thereby making it the best while using PLS-SEM, which ranks gauges according to their corresponding reliability during model estimation (Hair Ringle, 2011). Accordingly, the result in Table 1 presents that measure of the overall reliability of a set of indicators (composite reliability) of each latent variable as 0.819 and 0.930 signifying internal consistency reliability has been established (Hair J. F., 2019). Similarly, convergent validity was assessed using average variance extracted (AVE). Accordingly, an AVE score of 0.5 and above designates a degree of convergent validity (Chin, 1998); (Hair Ringle, 2011)). This indicates that the "dormant construct explain more than half of its gauges/ indicators" (Hair J. F., 2019). Following (Hair J. F., 2019), the AVE scores of this study (see Table 1) displayed high loadings (>.50) on their respective latent constructs, demonstrating sufficient convergent validity among the latent constructs.

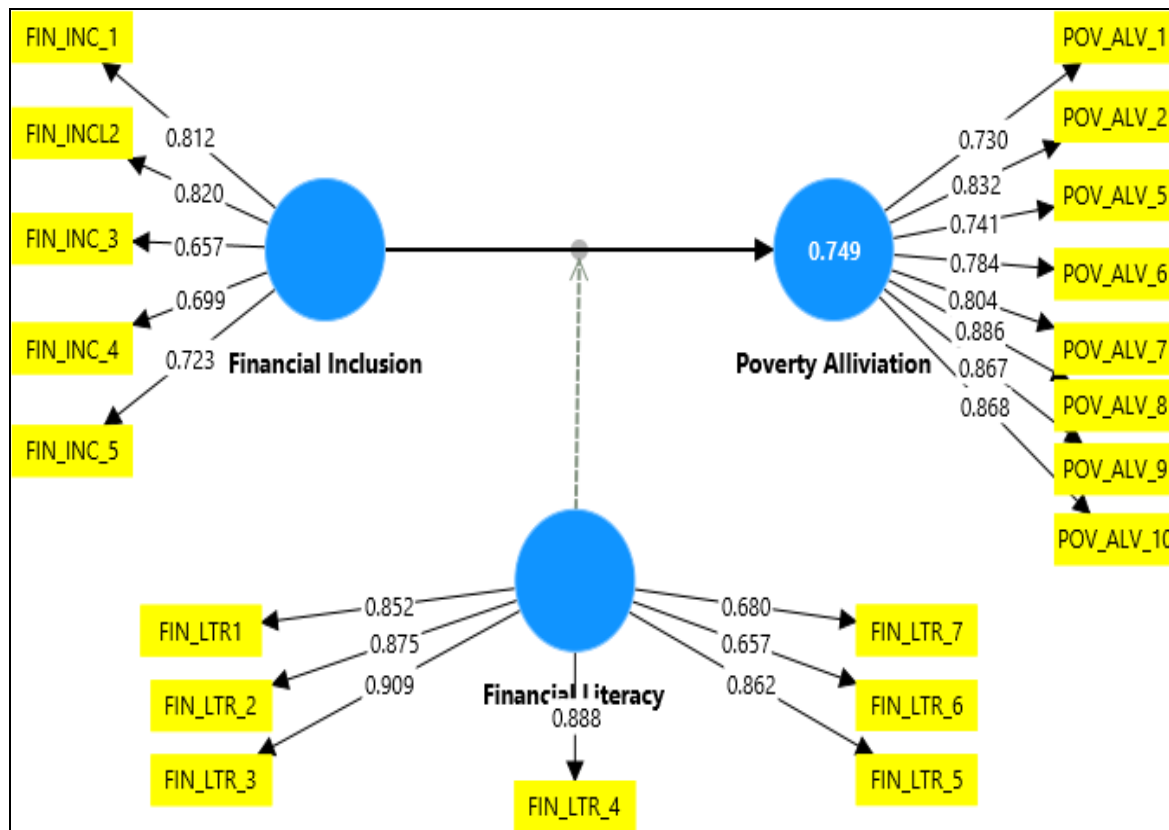


Figure 2 Measurement Model

Source: Prepared by researchers.

Furthermore, discriminant validity was assessed which accounts for the extent to which a variable is empirically different from other variables in the structural equation model (SEM). Traditionally, Fornell-Lacker criterion, (Fornell, 1981) and cross loading (Chin, 1998) were the two measures for evaluating construct's discriminant validity. Lack of clear distinction based on the discriminant validity of the set data in the scope of this study data (see Ronkko and Everman, 2013) necessitated the use of "Heterotrait-monotrait (HTMT) ratio of correlations" as a replacement in detecting discriminant validity (Henseler, 2009). Table 2 demonstrates the HTMT ratio criterion.

Table 2: Heterotrait-Monotrait (HTMT) Ratio Criterion of Discriminant Validity

	Financial Inclusion	Financial Literacy	Poverty Alleviation
Financial Inclusion	0.728		
Financial Literacy	0.812	0.833	
Poverty Alleviation	0.632	0.738	0.755

Source: Prepared by researchers.

Results from Table 1 above show that all the HTMT values are less than the cutoff of 0.85. This means that discriminant validity was established (Clack and Watson, 1995; Kline, 2011).

4.2 Structural Model:

The structural model of this study would be reported under this section. The major criteria for this are the coefficient of determination R-square (R^2) measure, the blindfolding-based cross-validated idleness measure or Model Predictive Relevance Q-Square (Q^2), Variance Inflation Factor (VIF) and the level of significance of the path coefficient (Hair J. F., 2019). Standard bootstrapping process was employed to achieve this, through the creation of huge samples (that is, 4,992) (Hair J. F., 2014). Table 3 below present the results of R square (R^2) of the study.

Table 3: Variance Explained in the Endogenous Latent Variables

Latent Variable	Variance Explained (R^2)
Poverty Alleviation	75%

Source: Prepared by researchers.

From Table 3 above, it could be explained that the research model found about 75% of the total variance in Poverty alleviation. This backs the advocacy that the three sets of exogenous latent constructs (financial inclusion and financial literacy) 75% of the variance in Poverty alleviation. Consequently, following the recommendation given by Hair et al. (2019) as the criterion for judging R-Square, the endogenous latent variable for this study demonstrates an acceptable (substantial) R^2 value. An additional assessment of the structural model encompasses the model's capacity to predict. Accordingly, StoneGeisser's Q^2 is the most common measure of predictive relevance (Geisser, 1974; Stone, 1974; as cited in (Hair Ringle, 2011)), predicting the model must be able to estimate each endogenous latent variable's indicators satisfactorily.

Table 4: Cross validated Redundancy

	SSO	SSE Q^2	$Q^2 (=1-SSE/SSO)$
Poverty Alleviation	968.00	713.55	.26

Source: Prepared by researchers.

The result in Table 4 depicts that endogenous latent construct's Q^2 is greater than zero, thus indicating predictive relevance of the model has been achieved (Chin, 1998) ; (Henseler, 2009).

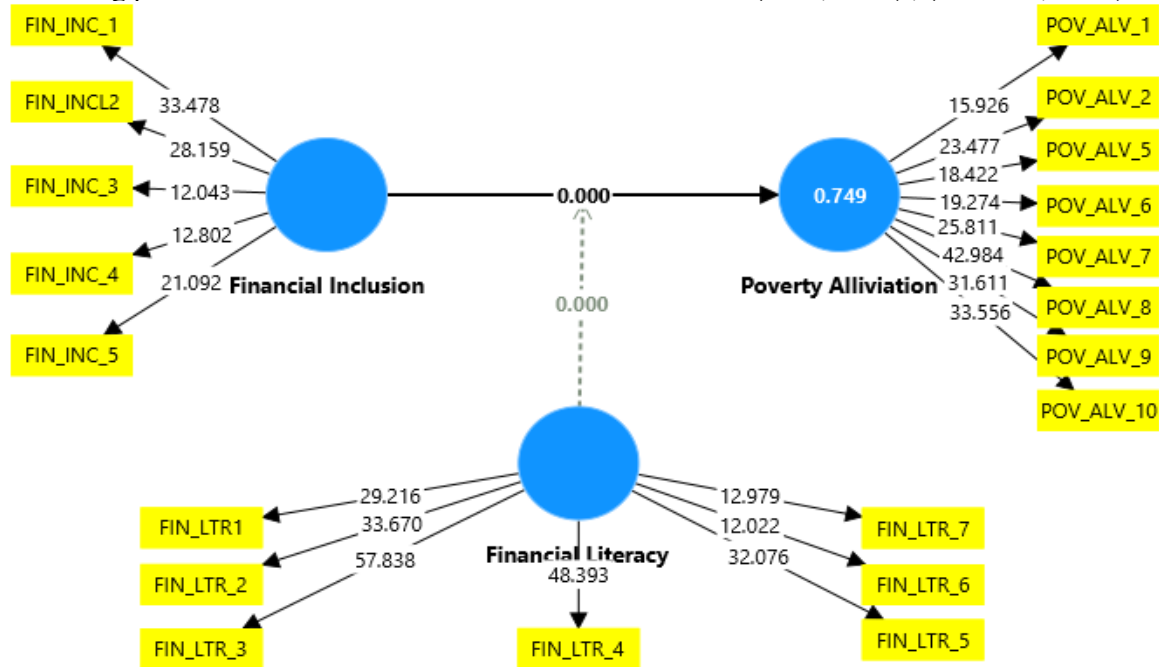


Figure 3: Structural Model

Source: Prepared by researchers.

Table 5: Structural Model Assessment with Moderator (Full Model)

Hypotheses Relation		Beta	Std.Dev	T-Statistics	P-Value	Decision
H1	Financial Inclusion->Poverty Alleviation	0.391	0.064	6.110	0.000	Supported
H2	Financial Inclusion*Financial Literacy-> Poverty Alleviation	0.167	0.045	3.711	0.000	Supported

Note* significant at $P < 0.000$.

Source: Prepared by researchers.

5. Discussion of Results:

Structural model analysis (using PLS-SEM) was done to comprehend the direct and moderated effect among the study variables. Within the PLS structural model, the "standardized beta value" represents the individual contribution of each exogenous variable (Chin, 1998) and again, the significance level was set at $P < .05$ (Hair J. F., 2019). The significance of inclusive finance in the alleviation of poverty in Jigawa state was the focus of this study with the upshot of financial literacy. To achieve these two (2) hypotheses were proposed; H1 proposed that financial literacy is significantly related to poverty alleviation. Subsequently, the finding ($\beta = 0.391$ $t = 6.110$ $P < .000$) depicts that financial literacy and poverty alleviation have a positive significant relationship, meaning a change in financial inclusion by 1 unit will lead to a change in poverty alleviation by almost 40%. In other words, those who use financial services such as banks will have the availability of financial services that might enable them to invest and pursue entrepreneurial activities and certainly eradicate poverty among them; thus, hypothesis 1 is supported. The result conforms with reality; earlier studies have continuously shown a positive connection between financial education and poverty alleviation.

For improved economic well-being, financial literacy allows individuals to make efficient decisions about investing, borrowing, and saving. For instance, Lusardi and Mitchell (2014) argued that financial education augments the ability of individuals to manage resources proficiently, access credit, and invest in productive activities, all of which contribute to poverty reduction. Similarly, (Klapper, 2015) emphasized that financially literate individuals are better equipped to utilize financial services effectively, thus improving their economic conditions. Moreover, financial literacy acts as a reagent for maximizing the benefits of financial inclusion. (Xu, 2012), in their study, posits that financial literacy increases individuals' participation in the formal financial sector and financial products. Translating to financial stability, allocation of resources for educational needs, health and entrepreneurial ventures are decisive trails out of poverty. Jigawa State has a noteworthy progressive connection between financial literacy and poverty alleviation; this accentuates the importance of individual training and familiarity with the financial system. This finding is supported by studies like (Aterido, 2013), whose study established that financial services, when combined with financial literacy, are instrumental in the fight against poverty, specifically in underserved regions.

The Financial Intermediation Theory supports the findings of this study. The theory argues that microfinance and other banking institutions (financial intermediaries) reduce transactional costs and information asymmetry, which will trickle down to efficient resource allocation in the economy. Financial inclusion allows the impoverished to invest in enterprises, education, and health, thereby enhancing income levels and reducing poverty by providing them with access to credit, savings, insurance, and payment services. This finding supports some previous studies like that of (Beck, 2007) (Burgess, 2005). This was due to the fact that individuals were able to invest in income-generating activities and were less susceptible to economic shocks as a result of having access to financial resources.

Hypothesis 2 proposes that financial literacy significantly moderates the role of financial inclusion in alleviating poverty. As anticipated, the finding ($\beta=0.167$ $t=3.711$ $P<.000$) indicates a significant moderation of financial literacy. This signifies that the utilization of financial services such as credit, savings, and insurance aids in eradicating poverty more when people have basic financial literacy. In another sense, it suggests that the efficiency of financial inclusion in reducing poverty is dependent on the level of financial education of the populace. In addition, the significant moderating effect indicated that elevated financial literacy correlates with a greater likelihood of effective utilization of financial services among people who have access to them. For example, they can better evaluate loan terms, avoid high-interest debt, budget their income, and make sound investment decisions. Increased financial literacy enhances the likelihood that individuals will translate access to financial services into significant economic results, such as increased savings, investments in education or business ventures, and improved financial stability. This can lead to more sustainable poverty alleviation.

Education and skills constitute capital, as the Human Capital Theory purports to enhance individuals' productivity and economic results. The findings from this study support financial literacy as a human capital development that aids individuals in using financial products effectively. A lack of financial literacy may hinder the effective utilization of financial services even when they are accessible.

Results from this study are supported by (Grohmann, 2018), whose study underscored that financial literacy improves the influence of financial inclusivity and economic well-being; this is so because literate people financially use better financial services. (Van Rooij, 2012) established that individuals with financial practice engagements are mostly possible with people with developed levels of financial literacy; this will, in turn, reduce the poverty rate of the region. Furthermore, (Mehrotra, 2015) found that financial literacy is crucial for financial inclusion paybacks because it aids individuals in navigating and understanding the effectiveness of financial institutions, thus improving economic growth.

6. Conclusion and Policy Recommendations:

This research focused on the importance of financial inclusion in the fight against poverty in Jigawa State, mitigating the upshot of financial literacy. Results point towards financial inclusion's contribution to poverty alleviation by providing means for the effective utilization of crucial financial services. Nonetheless, the study also established the effectiveness of financial inclusion in the poverty alleviation struggle coupled with financial literacy. Financial literacy better equips individuals with ways of effectively utilizing financial services, leading to enhanced financial stability, increased savings, and investments in income-generating activities. This accentuates the importance of financial education as a crucial enabler in maximizing the benefits of financial inclusion. The findings of this study align with theoretical frameworks like Financial Intermediation Theory and Human Capital Theory. These theories emphasize the role of intermediaries and the importance of education and skills in achieving economic outcomes. This study establishes the interconnectedness of financial inclusion and financial literacy in driving sustainable poverty alleviation in Jigawa state.

From the findings of the study, the study recommends policy makers to implement financial literacy programs, integrate financial education into school curricula and promote accessible financial products tailored to underserved communities. This will enhance the influence of financial inclusion on poverty alleviation in Jigawa state. Leveraging digital technologies like mobile banking can further extend financial services to rural areas. The susceptible group (women, youths, and small-scale entrepreneurs) should be given special privileges of tailored initiatives. Lastly, regular tracking and assessment of the programs should be inculcated to ensure their efficiency and guide incessant development.

Authors Declaration:

Conflicts of Interest: None

-We Hereby Confirm That All the Figures and Tables in The Manuscript Are Mine and Ours. Besides, The Figures and Images, which are Not Mine, Have Been Permitted Republication and Attached to The Manuscript.

- Ethical Clearance: The Research Was Approved by The Local Ethical Committee in The University.

References:

- Abdinur, A. (2022). Determinants of Financial Inclusion of Female Entrepreneurs in Somalia. *Global Social Welfare DOI* <https://doi.org/10.1007/s40609-023-00311-9>, 1-12.
- Adeola, O. a. (2017). Financial inclusion and inclusive growth in Nigeria. *Journal of Innovation & Knowledge*, 2(3), <https://doi.org/10.1016/j.jik.2017.08.007>, 193-198.
- Aker, J. C. (2016). Payment mechanisms and antipoverty programs: Evidence from a mobile money cash transfer experiment in Niger. . *Economic Development and Cultural Change*, 65(1) <https://doi.org/10.1086>, 1-37.
- Allen, F. D.-K. (2016). The foundations of financial inclusion: Understanding ownership and use of formal accounts. *Journal of Financial Intermediation*, 27 <https://doi.org/10.1016/j.jfi.2015.12.001>, 1-30.
- Aterido, R. B. (2013). Access to finance in Sub-Saharan Africa: Is there a gender gap? . *World Development*, 47,<https://doi.org/10.1016/j.worlddev.2013.02.013>, 102-120.
- Atkinson, A. a. (2013). Promoting Financial Inclusion through Financial Education OECD/INFE evidence, Policy and Practice. *OECD Working Paper on Finance, Insurance and Private Pension*, 34.
- Babajide A, A. A. (2015). Financial Inclusion and economic growth in Nigeria. *International Journal of Economic and Financial Issues* 5(3), 629-637.
- Beck, T. D.-K. (2007). Finance, inequality and the poor. *Journal of Economic Growth*, 12(1), <https://doi.org/10.1007/s10887-007-9010-6>, 27-49. .
- Burgess, R. &. (2005). Do rural banks matter? Evidence from the Indian social banking experiment. *American Economic Review*, 95(3), , 780-795.
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. . In *In G. A. Marcoulides (Ed.), Modern Methods for Business Research* (pp. 295-336). Mahwah, New Jersey: Laurence Erlbaum Associates.
- Cull, R. D.-K. (2014). Banks and microbanks. *Journal of Financial Services Research*, 46(1), . <https://doi.org/10.1007/s10693-013-0177->, 1-53.
- Demirguc-Kunt, A. K. (2017). *The Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution*. Washington: world bank.
- EFInA, E. F. (2020). *Access to financial Services in Nigeria*. Lagos.
- (EFInA), E. E. (2018). *Financial literacy in Nigeria*. Lagos: Financial literacy in Nigeria: 2018 survey results.
- Fornell, C. a. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*,, 382-388.
- Grohmann, A. K. (2018). Does financial literacy improve financial inclusion? Cross-country evidence. *World Development*, 111, <https://doi.org/10.1016/j.worlddev.2018.06.020>, 84-96.
- Gyeke-Dako, A. &. (2017). Financial inclusion and poverty reduction in Sub-Saharan Africa. . *African Finance Journal*, 19(1), 1-22.
- Haenlein, M. (2004). A beginner's guide to partial least squares analysis.), . *Understanding statistics*, 3(4), 283-297.
- Hair Ringle, C. M. (2011). PLS-SEM: Indeed a Silver Bullet. *Journal of Marketing Theory and Practice*, 18, 139-152.

- Hair, J. F. (2014). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. *Long Range Planning*, 46, , 1-12.
- Hair, J. F. (2019). When to use and how to report the results of PLS-SEM. *European business review*, 31(1),, 2-24.
- Henseler, J. R. (2009). *The use of partial least squares path modeling in international marketing. In New challenges to international marketing*. Emerald Publishing Limited.
- Klapper, L. L. (2015). *Financial literacy around the world: Insights from the Standard & Poor's Ratings Services Global Financial Literacy Survey*. . World Bank Development Research Group.
- Kulmie. (2023). Socioeconomic Consequences of Corruption and Financial Crimes. *International Journal of Economics and Financial Issues*, 13(5), <https://doi.org/10.32479/ijefi.14714>, 88-95.
- Kulmie, D. A. (2023). Entrepreneurship training, job creation and youth empowerment. *Asian Social Science*, 19(6), <https://doi.org/10.5539/ass.v19n6p111>, 111.
- Kulmie, D. A. (2024). The impact of participatory Islamic finance on Shari'ah banks' profitability. *Asian Economic and Financial Review*, 14(7), DOI: 10.55493/5002.v14i7.5083, 482-496.
- Lusardi, A. a. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, 52(1), , 25-44.
- Lusardi, A. a. (2011). Financial literacy around the world: An overview. *Journal of Pension Economics & Finance*, 10(4), <https://doi.org/10.1017/S1474747211000448>, 497-508. .
- Mehrotra, A. &. (2015, March). Financial inclusion: Issues for central banks. *BIS Quarterly Review*, pp. 83–96.
- National Bureau of Statistics. (2020). *Financial Inclusion Initiatives* . Abuja: NBS.
- Nor, A. I. (2021). Alleviating poverty through youth and women entrepreneurship Developments. *European Journal of Business and Management*, 13(11), 37-46.
- Okoye, L. U. (2016). Financial inclusion as a strategy for enhanced economic growth and development. . *Journal of Internet Banking and Commerce*, 21(1), 1-16.
- Sarma, M. .. (2011). Financial inclusion and development. *Journal of International Development*, 23(5), 613–628. <https://doi.org/10.1002/jid.1698>.
- Usman, A. a. (2021). Financial inclusion in Northern Nigeria: The role of Islamic finance. *Journal of Islamic Finance*, 10(2), 45-60.
- Van Rooij, M. L. (2012). Financial literacy, retirement planning, and household wealth. . *The Economic Journal*, 122(560), , 449–478. .World Bank. (2021).
- Xu, L. &. (2012). Financial literacy around the world: An overview of the evidence with practical suggestions for the way forward. *The World Bank Policy Research Working Paper*, No. 6107. <https://doi.org/10.1596/1813-9450-6107>.
- Zins, A. a. (2016). The determinants of financial inclusion in Africa. *Review of Development Finance*, 6(1), <https://doi.org/10.1016/j.>, 46-57.