



Financial Literacy and Financial Inclusion

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ABSTRACT

The study employed the Probit regression on the National Bureau of Statistics general households survey data to appraise the effect of financial literacy on financial inclusion in Niger State. The estimation result shows that financial literacy positively and statistically influences financial inclusion options (account ownership, bank access, and credit access) in Niger state. Similarly, education status, age, and gender are determinants of financial inclusion. The study concluded that financial literacy is necessary for achieving financial inclusion. To encourage financial inclusion among youth, the government should include financial education in secondary school and tertiary to teach skills and information on how to utilize and manage financial services and products. The central bank should also mandate the financial institutions to establish customer financial advisory units to educate their clients on managing and using financial products and services available to them to create wealth, thus improving living standards.



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INTRODUCTION

Achieving universal financial inclusion and stability is a task that has vast dimensions. Until recently, the primary focus of discussion throughout the world has been on expanding people's access to financial goods and services. Despite the widespread availability of financial goods and services, many people still lack the knowledge and experience to make the most of them (Andarsari and Ningtyas, 2019; Falak et al., 2022). This is particularly true

in emerging nations. Because of their lack of financial knowledge, individuals are easy targets for scams perpetrated by banks and other financial organizations.

Between 2011 and 2017, financial inclusion expanded dramatically from 62% to 69% globally, and from 54% to 63.0% in emerging countries (Demirguc-Kunt et al., 2018). Accordingly, 22% of persons in key developing economies and 57% in Europe are financially literate (Klapper et al., 2016). Increasing people's knowledge of financial matters may help open doors to more banking options. (CBN, 2018). Consumers gain knowledge of their financial options and service providers as a result of increased financial literacy. Garg and Singh (2018) believe that inadequate financial literacy (financial illiteracy) raises significant doubts about people's ability to take charge of their financial lives. It leaves individuals vulnerable to exploitation, greater costs and debt, a lack of investment guidance, credit problems, and retirement savings plans, among other things (Fanta and Mutsonziwa, 2021).

Because of this, several nations have had trouble boosting citizens' financial literacy. In New Zealand, they have the National Strategy for Financial Literacy (NSFL), in Indonesia, it's the National Strategy for Financial Literacy (INSFL), in Australia it's the National Financial Literacy Strategy (NFLS), in India the Reserve Bank of India has established Financial Literacy and Counseling Centers (FLCC), in Malaysia it's the Financial Education Network (FEN), and in the United Kingdom, it's the Financial Services Authority (FSA). Financial education (FE) in Kenya, the Strategy for National Financial Literacy (SNFL) in Uganda, and the National Strategy on Financial Literacy (NSFL) in South Africa are just a few of the financial literacy initiatives underway across the continent.

Attaining financial inclusion in underdeveloped countries depends heavily on financial literacy (Okere et al., 2020). It would be a lifeline for families experiencing a financial crisis as a result of regular household expenses and help them climb out of poverty (Garg and Singh, 2018). Financial literacy boosts savings and demand, as well as stimulates economic activity (Alwee Pg Md Salleh, 2015; Bongomin et al., 2018; Baker et al., 2019), whereas financial inclusion gives access to financial services.

More people need to get involved in the stock market for the economy to thrive in a way that benefits everyone. According to Falak et al. (2022), this is possible only if people have the knowledge to assess financial goods and services. The growth and security of the financial system are influenced by the degree of financial literacy in the public (Blue et al., 2014). Andarsari and Ningtyas (2019) found that higher levels of financial literacy are associated with a healthier financial system and a more prosperous economy. Similar to how financial inclusion is shown to increase with financial literacy, (Ramakrishnan, 2012; Antonia & Lukas, 2017; Kaiser & Lukas, 2017; Berry et al., 2018; Bire et al., 2019) this is an established empirical fact.

Coupled with the COVID-19 pandemic and insecurity, low levels of financial inclusion persist in developing countries like Nigeria. This is despite the proliferation of financial services and products around the world and the launch of numerous public

improvement financial inclusion programs by governments and international organizations (World Bank, United Nations, and Organisation for Economic Cooperation). From 53.7% in 2010 to 60.3% in 2012 and 60.5% in 2014, financial inclusion in Nigeria has increased steadily. (CBN, 2018). More than half of the adult population is financially excluded, as financial inclusion dropped to 58.4% in 2016 and is projected to remain at 40% in 2017, 2019, and 2020. Therefore, the Financial Literacy rate remains at 26%, indicating that 74% of Nigerians do not have enough knowledge of, or experience with, financial services and products (CBN, 2021). Despite the ongoing dangers, this prompts important policy questions about the causes of perverse financial exclusion in Nigeria, particularly at the state level. Nonetheless, when compared to South Africa (42% financial literacy and 69% financial inclusion [access to an account]), Kenya (38%) (82%), Malawi (35%) (34%), and Ghana (58%)] (Demirgüç-Kunt et al., 2018; Sakanko, 2020), Nigeria does poorly.

Therefore, growing financial exclusion in Nigeria has increased focus on financial literacy and inclusion. Also, it has been suggested that a lack of financial literacy is a contributing issue (for examples, see Shibia (2012), Antonia (2017), Lukas (2018), Hussain (2018), Adetunji (2019), and Falak et al. (2022)). This is the first research to use microdata and World Bank financial inclusion metrics such as account ownership, loan availability, and bank access to investigate the influence of financial literacy on inclusion in Nigeria at the state level. There are four parts to this study. The first part is the preface. Next comes the introduction, then the methods, then the results, then the discussion of the results, and finally the conclusion and suggestions.

LITERATURE REVIEW

Consumers who are equipped with the knowledge and tools necessary to make sound financial choices are said to be financially literate (Shibia, 2012). By providing the information and skills necessary to make informed decisions about the use and management of limited financial resources, financial education helps people make the most of their money (Nelson & Wambugu, 2008). Access to a safe and reliable financial system that is simple to use is what we mean when we talk about financial inclusion.

The research originates from the work of financial literacy theorists (Simpson & Buckland, 2009). They argue that people don't see the value in joining in because they have a limited view of the services and goods available to them financially. Therefore, the financial system may be strengthened via people's increased knowledge of the goods and services available to them. Recent empirical investigations, such as (Falak et al., 2022; Lahiri and Biswas 2022) lend credence to the positive. They discovered that spreading financial education may help more people get access to banking services.

A weakening correlation between financial literacy and financial inclusion in China was shown by Liu et al. (2021) using SmartPLS. Using dynamic panel techniques, Hussain et al. (2021) found that financial education improves people's chances of being included in the financial system. Morgan and Long (2020) investigated the relationship between financial

literacy, financial inclusion, and savings. Statistics show that financial education has a positive impact on people's ability to save and get access to financial services. Bongomin et al. (2020) used a structural equation model to find that financial education positively impacts financial inclusion. Financial literacy was shown to be a major driver of both formal and informal saving habits across financial institutions by Adetunji and David-West (2019). Kodongo (2018) used Probit and fixed effect regression analysis to determine that learning about personal finance increases one's likelihood of gaining access to conventional banking services. When examining the relationship between financial literacy and financial inclusion, Antonia et al. (2018) and Antonia & Lukas (2017) employed OLS methods and discovered a positive and statistically significant correlation. Using partial least squares, Shen et al. (2018) discovered a favorable correlation between financial literacy and economic participation. Using MedGraph, Bongomin et al. (2018) found that financial literacy has a major impact on rural Ugandans' access to banking services. Using a similar approach, Okello et al. (2016) found the exact reverse, arguing that financial literacy does not influence financial inclusion. In addition, Shibia (2012) used Multinomial Probit regression to investigate the connection between financial literacy and access to financial services in Kenya and found that financial literacy significantly affects financial inclusion (Tufail, M et.al., 2022, Khan, S., Ali, S., & Urooge, S. 2019)..

Garg and Singh (2018) utilized OLS to investigate the relationship between financial inclusion and financial literacy in Nigeria and discovered that it is determined by financial inclusion. This is despite the fact that there are many studies on financial inclusion and financial literacy throughout the world but very few in Nigeria. This survey is distinct from its predecessor since it is undertaken at the state level.

METHODOLOGY

The study used the National Bureau of Statistics (2018/2019) general household survey-panel data in Nigeria in collaboration with the World Bank group. The National Bureau of Statistics (NBS) is one of Nigeria's major household data collection banks, with branches in every state. The survey-panel data covered all the states in Nigeria except the Bornu state in North-East Nigeria. However, this study extracted data for financial literacy and financial inclusion indicators (access to financial institutions, credit, ownership of account). Since the data are binary, the data collected were analyzed using the Probit model. The model is specified in equation 1. Where FI is the financial inclusion, j represents financial inclusion indicators, FL is used for financial literacy, X connotes control variables in the model, α is the constant variable, and δ and β are the coefficients estimated.

$$FI(j) = \alpha + \delta FL + \beta X \quad (1)$$

Equation 1 expressed a functional relationship between financial inclusion and financial literacy. The model is formulated based on the (Simpson and Buckland, 2009) theoretical framework and adapted (Antonia *et al.*, 2018) methodology. The Probit model is given as follows;

$$Pr\left(FI = \frac{1}{x}\right) = \beta_0 + \beta_1 FL_i + \beta_2 X_i + \mu_i \quad (2)$$

Where: $Pr\left(FI = \frac{1}{x}\right)$ = Probability of the financial inclusion, FI = Response variable, FL and X_i = Explanatory variables vector, β_0 = equation Intercept, $\beta_1 - \beta_2$ = parameters estimated Vector and μ_i = stochastic term

According to Demirguc-Kunt et al. (2018), financial inclusion is having access to financial institutions or banks, account ownership, and credit. Financial inclusion is also influenced by educational attainment, age, and gender (Bongomin et al., 2018; 2020; Sakanko et al., 2018). Equation (3) specified financial inclusion, financial literacy, and other financial inclusion determining variables estimated.

$$FI(j) = f(FL, Edu, Age, Gen) \quad (3)$$

Where: FI = Financial literacy, Edu = Educational status of respondents, Age = Age, Gen = Gender

$$FI = (AWA, A2b, A2c) \quad (4)$$

Where financial inclusion is measured as AWA is the account ownership, A2b represents access to a bank, and A2c is given as access to credit.

The estimated econometrics model is presented in equation 5;

$$Pr\left(FI(j) = \frac{1}{0}\right) = \delta_0 + \delta_1 FL_i + \delta_2 EDU_i + \delta_3 AGE_i + \delta_4 GEN_i + \mu \quad (5)$$

DISCUSSION OF RESULTS AND FINDINGS

Table 1 shows the results of the probit regression. The result revealed that financial literacy has a positive and statistically significant effect on the financial inclusion measured by bank access, account ownership, and credit access. Educational status is a positive and significant determinant of account ownership and access to the bank. Still, it is negatively reported for access to credit. At the same time, age is a positive and significant determinant of credit availability and a declining determinant of account ownership and access to a bank in Nigeria. The dash (-) signifies the insignificance of the variable.

Table 1: Probit result of financial literacy and financial inclusion

ACCOUNT OWNERSHIP (AWA)				
MODELS	FL	EDU	AGE	GEN
1	0.727***			
2	0.474***	0.133***		
3	0.340***	0.139***	-0.015***	
4	0.285**	0.139***	-0.016***	0.240**
ACCESS TO BANK				
1	0.389***			

2	-	0.119***		
3	0.006**	0.126***	-0.016***	
4	-	0.129***	-0.017***	0.120*
ACCESS TO CREDIT				
1	-			
2	0.212*	-0.076**		
3	0.266**	-0.079**	0.005*	
4	0.287**	-0.080**	0.006*	-

Source: Author Computation extracted from STATA 14.2 (2022)

Specifically, a unit-level increase in financial literacy would lead to a probability of a 73% increase in the ownership of accounts, a 39% increase in access to banks, and a 21% increase in access to credit. A percentage increase in financial literacy would cause a cumulative probability of 1.33% improvement in financial inclusion among households in Niger state.

Correspondingly, improving educational qualifications would bring about a probability of 13% and 12% increases in financial inclusion (account ownership and access to bank) while decreasing the access to credit by 8%. Furthermore, an appreciation in household age deflated account ownership and access to credit by a probability of 2% and inflated access to credit by 1%. Lastly, the gender of the household decreases the account ownership and access to credit by a probability of 24% and 12%.

Implications of the Findings

When evaluated by account ownership, access to a bank, and credit, financial inclusion is positively correlated with and statistically significant for financial literacy. Insinuating that expanding access to financial education would help expand the sector in Niger State. One of the prerequisites for attaining financial inclusion in Nigeria is educating individual households on the skills and knowledge needed to utilize and manage accessible financial services and products. According to a number of studies (Antonia and Lukas, 2017; Antonia et al., 2018; Morgan and Long, 2020; Hussaini et al., 2021; Lahiri and Biswas, 2022; Falak, 2022), having a good grasp of money matters may have a significant impact on people's chances of gaining access to financial services. On the other hand, as shown by (Okello et al., 2016; Liu et al., 2021), the opposite is also true. Researchers discovered that raising financial awareness actually reduces opportunities for financial participation.

There is a statistically significant positive correlation between education and both account ownership and bank access, but a negative correlation between education and access to credit. That is to say, a rise in educational attainment favorably affects economic participation. Therefore, having a higher level of education increases the likelihood of having a bank account and using a bank's services, but decreasing the likelihood of having access to credit. These connections are supported by research by Blue et al. (2014), Alwee Pg Md Salleh (2015), and Sakanko (2018).

There is a strong and declining relationship between age and having a bank account and using that account. Symbolic of the decline in bank account ownership and accessibility that occurs as a population ages. Therefore, old age is a dampening factor on economic participation. Together, these findings complement the one made by (Sakanko, 2018). Credit availability tends to improve with increasing age, implying that one may get a loan from a financial institution for the sake of health or financial business even if one is already in their senior years. Credit eligibility is hence increasingly dependent on age.

There is a clear and statistically significant gender gap in bank account ownership and access. The importance of gender equality in the financial sector is implied. The same results were found by Filipiak and Walle (2015) and Falak et al. (2022).

CONCLUSION AND RECOMMENDATIONS

Using data from the National Bureau of Statistics' survey of all American households, this research looks at how better financial education affects people's ability to participate in the financial system. Probit regression methods were used to examine the implemented structural model. Empirical findings in Niger state showed that financial literacy positively and significantly predicted financial inclusion opportunities (account ownership, bank access, and loan access). In Niger, factors such as age, gender, and educational attainment all play a role in deciding who has access to banking services.

According to the study's findings, the best way to increase access to financial services and products among young people is to include financial education in secondary and postsecondary curricula. In order to help their customers better understand and use the many financial products and services available to them, financial institutions should be required by the central bank to form consumer financial advising units. Finally, pension programs and college enrolment for both sexes should be promoted because of their impact on economic participation.

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