

Navigating Financial Literacy for Human Security in Nigeria

1st USMAN ALHAJI YUSUF (Department of Sociology University of Abuja, Abuja-Nigeria Sbalamohammed@gmail.com/+2348055120374), 2nd AMIYA BHAUMIK (Department of Sociology Nasarawa State University, Keffi Nasarawa State, Nigeria usmanyusuf@nsuk.edu.ng/alyusuf79@gmail.com +2348065654526), 3rd AMRITA GHOSH (Lincoln University College, Petaling jaya Selangor Malaysia), 4th Shaharuddin bin Mohd Satha (dr.shaharuddin@alfa.edu.my) Faculty of Business, Management, and Social Science ALFA University College), 5th PROF. SULEIMAN BALA MUHAMMAD (Department of Sociology Nasarawa State University, Keffi Nasarawa State, Nigeria)

Cite this paper as: Prof. Suleiman Bala Mohammed and Usman Alhaji Yusuf PhD, (2025) Navigating Financial Literacy for Human Security in Nigeria. *Advances in Consumer Research*, 2 (4), 3405-3411

KEYWORDS

Financial
Literacy,
Security,
Human
Security,
Nigeria.

ABSTRACT

Financial literacy plays a critical role in ensuring human security by empowering individuals with the knowledge and skills necessary to make informed financial decisions. This paper explores the current state of financial literacy in Nigeria, its implications for human security, and the steps necessary to improve financial literacy as a means of enhancing human security. By examining various dimensions of financial literacy and their relationship to human security, this paper provides a comprehensive analysis of how financial education can serve as a catalyst for economic stability and personal well-being in Nigeria. The paper largely utilized secondary data such as books, academic journals, periodicals, and other relevant documents from recognized authorities. The paper reveals that financial literacy informs rational financial decisions, leading to low indebtedness, high savings rates, and adequate investment; financially literate individuals are better able to manage health-related expenses, secure health insurance, and access quality healthcare services; and financial literacy acts as a defense mechanism, enhancing personal security especially in this era that financial scams are prevalent. This paper recommends, among other things, for concerted effort involving education and awareness, public-private partnerships, and exposure utilization of mobile technology and digital platforms to pave the way for a financially literate and secure Nigerian population.

INTRODUCTION

Financial literacy plays a critical role in ensuring human security by empowering individuals with the knowledge and skills necessary to make informed financial decisions. Financial knowledge is pivotal in enabling individuals to navigate complex financial systems and make informed decisions that promote economic stability and personal well-being. Recent studies highlight a troubling disparity in financial literacy across various demographics, with significant implications on human security. For instance, Lusardi and Mitchell (2014) underscore that financial knowledge is crucial for effective savings, investing, and debt management, which are foundational to financial security. Moreover, digital financial platforms have revolutionized the accessibility and delivery of financial education, offering innovative solutions to bridge knowledge gaps (World Bank, 2022). The integration of financial education into broader educational curricula and the adoption of community-based programmes are among the strategies recommended to address these disparities. As the financial landscape evolves, the need for comprehensive financial education becomes increasingly urgent to equip individuals with the skills necessary to thrive in a dynamic economic environment. Financial literacy is a component of human capital that can be used in financial activities to increase expected lifetime utility from consumption (i.e., behaviors that enhance financial wellbeing). Other influences (such as behavioral/cognitive biases, self-control problems, family, peer, economic, community and institutional) can affect financial behaviors and financial wellbeing. A person who is financially literate may not exhibit predicted behaviors or increases in financial well-being because of other influences, such as self-control problems, family, peer, economic, community and institutional pressures. This is the reason some Bankers despite being well paid are indebted perpetually due to institutional pressure to live and dress glamorously. Financial education is an input intended to increase a person's security, specifically financial knowledge and/or application (i.e., financial literacy). A well-designed financial literacy instrument that adequately captures personal finance knowledge and application can provide insight into how well financial education improves the human capital needed to behave appropriately and enhance financial well-being.

Unless an individual becomes wise in making investment and savings decisions, wealth creation and financial stability will remain a distant dream. Financial literacy is helpful for people of all ages; transition of economy from general literacy to financial literacy is really crucial for old and young, men and women, household and working class. Financial literacy has



an important role in enabling individuals to achieve their long-term interests through making financial decisions in a timely, knowledgeable and coherent fashion (Lusardi & Mitchell, 2011). In March 2006, the UK government in partnership with the Financial Services Authority (FSA) launched a seven-point programme aimed at substantially improving the levels of financial literacy among the population (Atkinson et al., 2007). However, some scholars doubt the ability of educators to provide the necessary skills (Willis, 2008; Mandell&Klein, 2009). At the same time, in an attempt to raise economic growth, the various governments of the UK have tried to transform the UK economy into one of the most enterprising in the world (Department for Business, Innovation and Skills, 2010; BERR, 2008).

Following calls for entrepreneurship to be embedded in all subjects and levels of education, initiatives including compulsory provision of entrepreneurship education have been introduced (Gillie, 2012). The Nigerian higher educational institutions have also included entrepreneurial education in all courses. However, the success of entrepreneurship education in increasing business start-up activity is questioned (Thompson&Kwong, 2015), with students often wishing to delay engagement with entrepreneurial activities until they have acquired more experience (Kwong& Thompson, 2016); this often lead them to the unemployment market. This delay can also lead to the dissipation of entrepreneurial intentions as other challenges in life take over (Kwong et al., 2012). Equally, engagement without sufficient skills such as financial literacy is also likely to negatively influence the success or performance of any business (Oseifuah, 2010). An area that is yet to receive adequate attention up until now is whether poor financial literacy is one of the primary factors affecting the pre and post-retirement standard of living of Nigerian employees and to what extent current university courses are enabling students to overcome such barriers or to ensure that students are aware of the need for such skills.

A continuously changing financial market coupled with the increase in individual responsibility to informed financial decision-making is becoming a necessity for economic empowerment. Having financial knowledge is the key element for making sound financial decisions. Financial literacy helps in developing the economy and ultimately encourages growth (Worthington, 2006). Equally, financial literacy helps to grow and manage finances in a proper way. The importance of financial literacy can never be neglected as it not only contributes to the wellbeing of people but also assists them to become economically empowered. Therefore, the paper examines navigating financial literacy for human security in Nigeria with particular reference to economic, health and personal security.

CONCEPTUAL AND THEORETICAL REVIEW

Financial Literacy

The concept of financial literacy must be clearly defined in order to enhance comparability and consistency across the evidence base. Different researchers and organizations have defined financial literacy in many different ways. The Presidents' Advisory Council on Financial Literacy (PACFL, 2008), convened to "improve financial literacy among all Americans," defines financial literacy and financial education as the ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial well-being. It is not clear how widely the PACFL definition is accepted. One of the striking things about the literature is that financial literacy has been variably defined as (a) a specific form of knowledge, (b) the ability or skills to apply that knowledge, (c) perceived knowledge, (d) good financial behavior, and even (e) financial experiences.

Financial literacy as a construct was first championed by the Jump\$Start Coalition for Personal Financial Literacy in its inaugural 1997 study "Jump\$Start Survey of Financial Literacy among High School Students". In that study, Jump\$Start defined financial literacy as "the ability to use knowledge and skills to manage one's financial resources effectively for lifetime financial security." As operationalized in the academic literature, financial literacy has taken on a variety of meanings; it has been used to refer to knowledge of financial products (e.g., what is a stock vs. a bond; the difference between a fixed vs. an adjustable rate mortgage), knowledge of financial concepts (inflation, compounding, diversification, credit scores), having the mathematical skills or numeracy necessary for effective financial decision making, and being engaged in certain activities such as financial planning (Hastings et al, 2013). Financial Literacy is inherent with the human rights and considered as the basic and fundamental privilege of human beings. Thilakam, (2012) stated that financial literacy is the ability to understand finance; more specifically, it refers to the set of skills and knowledge that allows an individual to make informed and effective decisions through their understanding of finances. Financially literate people can make sound financial decisions, so they are more inclined towards achieving their financial goals, have potentials to hedge themselves against economic shocks and associated risks and eventually contribute toward their economic development. In this paper, financial literacy is the ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial well-being.

Key Elements of Financial Literacy

Numerical Skills: Understanding basic arithmetic and mathematical concepts is foundational to financial literacy. These skills are essential for budgeting, calculating interest rates, and comparing financial products (Lusardi & Mitchell, 2011).
Budgeting: The ability to create and manage a budget is a crucial aspect of financial literacy. Budgeting involves tracking income and expenses, setting financial goals, and ensuring that spending aligns with these goals. Effective budgeting helps individuals avoid debt and save for future needs (OECD, 2013).

Saving and Investment: Financial literacy includes knowledge of different saving and investment options. This feature

¹ In this study, the words "app" and "platform" are used interchangeably.



involves understanding the risks and returns associated with various investment vehicles, such as savings accounts, stocks, bonds, and mutual funds. It also entails knowing how to diversify investments to minimize risk (Hilgert, Hogarth, & Beverly, 2003).

Credit and Debt Management: Understanding how credit works, including interest rates, credit scores, and the implications of taking on debt, is another vital component. Financially literate individuals know how to use credit responsibly, avoid excessive debt, and manage existing debts effectively (Lusardi & Tufano, 2009).

Financial Products and Services: Being knowledgeable about various financial products and services, such as insurance, retirement accounts, and mortgages, is crucial. This knowledge enables individuals to choose the products that best meet their needs and to understand the terms and conditions associated with them (OECD, 2013).

Risk Management: Financial literacy involves understanding how to identify and manage financial risks. This includes knowledge of insurance options, emergency savings, and strategies to protect against financial fraud and scams (Klapper, Lusardi, & Panos, 2013).

Consumer Rights and Responsibilities: An awareness of consumer rights and responsibilities in financial transactions is another essential feature. Financially literate individuals know their rights regarding financial products and services and understand the processes for addressing disputes and complaints (OECD, 2013).

Financial Planning: The ability to plan for short-term and long-term financial goals, including retirement planning and estate planning, is a critical aspect of financial literacy. This involves setting financial objectives, developing strategies to achieve them, and regularly reviewing and adjusting plans as necessary (Mandell & Klein, 2009).

Concept of Security

There are divergent approaches to conceptualizing security which is the antithesis of insecurity. Several attempts have been made since the cold war ended to redefine the concept of security from a state-centric perspective to a broader view that places premium on individuals, in which human security that embodies elements of national security, human rights and national development remain major barometer for explaining the concept. At the heart of this debate, there have been attempts to deepen and widen the concept of security from the level of the states to societies and individuals, and from military to non-military issues (Kruhmman, 2003). Annan (2000) defined security from the human security perspective as “Freedom from want, freedom from fear, and freedom of future generations to inherit a healthy natural environment”. These freedoms are construed as the inter-related building blocks of human and national security. This definition is of prime importance, given the tendency of limiting the capacity of or rolling back the state as part of donor conditions for reform and assistance.

Buzan (1991) in an attempt to explain the concept of security noted that security is taken to be about the pursuit of freedom from threat and the ability of states and societies to maintain their independent identity and their functional integrity against forces of change, which they see as hostile, he further argues that the bottom line of security is survival, but it also reasonably includes a substantial range of concerns about the conditions of existence. Buzan (1991) in his book, *People, States, and Fear*, points out that the concept of security was “too narrowly founded”, his vision was to offer a more encompassing framework of security which has to do with integrating concepts that were not previously considered to be part of the security puzzle such as regional security, or the societal and environmental sectors of security. Furthermore, Alemika (2015) puts forward that the term security is a concept used in diverse ways from divergent contexts he further went on to state Security may be conceived as protection from danger, violence, fear, and want that impair, or capable of impairing the full development and existential wellbeing of citizens. Security implies the absence of fear and want. Until recently, security was conceived in both academic literature and government policies in narrow and state-centric terms as the protection of a nation from foreign aggression and internal insurrection. As a result, the armed forces, police, and intelligence agencies were seen as the primary tools for preserving national sovereignty against foreign aggression and defending domestic regimes and governments. This narrow and state-centric conception of security has become anachronistic.

Within the context of the paper, security is the state of being safe and the absence of fear, anxiety, danger, poverty, and oppression. It is the preservation of core values and the absence of threats to these values. It is the freedom from threats to a nation's capacity to defend and develop itself, promote its values and lawful interest.

Human Security

Human Security is not a new concept in social science. Human security is the essential ingredient of our international system around which nation-states originated and sustained. Human security refers to the value of life of the people of a particular society. Anything that reduces the quality of life, which could include; conflict, scarcity of vital resources, environmental degradation or demographic pressures, infringes on human security is considered a threat to human security (Dhirathiti, 2011). In its simplest form, issues ranging from poverty, unemployment, conflict, violence, sicknesses and diseases, to environmental degradation, natural disasters, domestic violence, transnational crimes, and human rights abuses constitute factors which cause insecurity in individuals thereby leading to displacement of these persons from their habitual homes (Betts, et al., 2006). Human security relates to much more than security from violence and crime. The concept of human

¹ In this study, the words “app” and “platform” are used interchangeably.



security addresses security in a broad sense that includes all of these political, economic, social, and environmental dangers. The term was coined by the United Nations Development Programme (UNDP) in its 1994 Human Development Report (UNDP 1994). It emerged from the fusing of a number of different concepts; the first concept is human development.

UNDP (1994) defines the concept human security as the safety from chronic threat of hunger, diseases and repression. It also entails the protection from hurtful and disruptive pattern of daily life. Kerr (2007), further pointed out that human security is the protection of individuals and communities from war and other forms of violence. Human security means absence of insecurity and threats. It therefore means to be secured and free from both fear (of physical, sexual and psychological abuse, violence or death) and from wants (of gainful employment, food, health). As noted by Tadjbakhsl (2005), human security connotes the capacity not only to identify threats but avoiding the man if possible mitigate their adverse consequences if it does happen. What this implies is that victims of armed conflicts suffering from human right violations and massive underdevelopment should be assisted. Therefore, human security in this study means absence of insecurity and threats. It therefore means to be secured and free from both fear (of physical, sexual and psychological abuse, violence or death) and from wants (of gainful employment, food, health).

Theoretical Framework

The study is anchored on the Human Capital Theory. Human Capital Theory is a foundational concept in economics and social sciences that focuses on the value of investing in human capabilities, particularly through education and training. The theory posits that just as physical capital enhances productivity and economic growth, human capital embodied in individuals' skills, knowledge, and competencies plays a crucial role in advancing personal and societal prosperity (Becker, 1964). Gary Becker, an American economist and Nobel laureate, is credited with formalizing Human Capital Theory in the 1960s. Becker's pioneering work, particularly his seminal book, *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*, laid the groundwork for understanding how investments in education and skill development can yield economic returns. Becker (1964) emphasized that education increases an individual's productivity and income potential, thereby benefiting society through increased economic output and innovation.

Human Capital Theory operates on several core assumptions. First, it assumes that individuals are rational actors who invest in their education and skills development to maximize their lifetime earnings (Schultz, 1971). This investment is akin to acquiring physical capital, such as machinery, which improves productivity and efficiency. Second, the theory posits that education and training enhance cognitive and non-cognitive skills, leading to higher productivity and better economic outcomes (Mincer, 1974). The theory also assumes that the labor market rewards individuals based on their skills and competencies, creating a direct link between education and income levels. In this framework, education is not merely a consumption good but an investment that yields dividends over time. The measurement of human capital typically involves indicators such as years of schooling, literacy rates, and skill acquisition (Hanushek & Woessmann, 2020). These metrics provide insights into the quality and quantity of human capital available in a society and help policymakers design strategies to enhance human capital development.

Financial literacy is a critical component of human capital, as it equips individuals with the knowledge and skills necessary to manage personal finances, make informed financial decisions, and participate effectively in the economy (Lusardi & Mitchell, 2014). In Africa, where financial literacy rates are often low, enhancing human capital through financial education can lead to significant economic empowerment and inclusion. The theory underscores the importance of investing in financial education as a means of improving individual and societal well-being. By leveraging innovative approaches such as digital platforms, community-based programs, and tailored financial literacy initiatives, the study aims to address the unique challenges faced by African populations, thereby fostering economic growth and development. Human Capital Theory provides a robust framework for understanding the potential returns on investment in financial education and highlights the importance of aligning educational initiatives with the diverse cultural and socioeconomic contexts of African communities.

IMPACT OF FINANCIAL LITERACY ON HUMAN SECURITY IN NIGERIA

Financial literacy—the understanding of basic financial concepts such as savings, investments, budgeting, debt management, and risk management—is critical for the socio-economic well-being of individuals and nations. In Nigeria, a country with a high rate of financial exclusion and economic challenges, improving financial literacy has a significant impact on several dimensions of life, including economic, health, and personal security. The following discussion provides a detailed exploration of these impacts.

Economic Security

Financial illiteracy contributes to poor financial decisions, leading to over-indebtedness, low savings rates, and inadequate investment. These factors can perpetuate poverty and economic instability, making it difficult for individuals to achieve economic security (Lusardi & Mitchell, 2014). Financial literacy is directly linked to economic stability and growth at both the individual and national levels. In Nigeria, low financial literacy rates have been identified as one of the key factors contributing to poor economic planning, inefficient use of resources, and increased poverty. Each of these affects the social conditions of the people. Poverty was recognized as a social problem by successive leaders leading to the introduction of

¹ In this study, the words “app” and “platform” are used interchangeably.



several poverty alleviation measures in areas of micro- credits scheme. Others were gender/family support initiatives such as Better Life Programme 1987, Family Support Programme 1994, Family Economic Advancement Programme, and employment drive through National Directorate of Employment (NDE) NAPEP 2001 (Mohammed & Ibrahim, 2020).

Improved Savings and Investment: Financially literate individuals are more likely to save and invest. This increases personal wealth and contributes to the overall financial ecosystem, leading to improved economic security. A study conducted by the Central Bank of Nigeria (CBN) revealed that low financial literacy contributes to the poor savings culture in the country, affecting access to capital and investments.

Reduction in Debt and Financial Distress: A financially literate population is less likely to fall into bad debt, as they are better equipped to understand loan terms and conditions. This can help reduce financial stress and improve the standard of living, promoting economic stability.

Entrepreneurial Development: Financial literacy is also crucial for entrepreneurship, which is a significant driver of economic growth. Entrepreneurs with better financial knowledge are more likely to make informed business decisions, access credit, and manage risks effectively, contributing to the overall economy. For example, access to microloans through programs aimed at financially empowering women has been shown to significantly increase household income in rural Nigeria .

Health Security

Financial literacy impacts health security as well. Financially literate individuals are better able to manage health-related expenses, secure health insurance, and access quality healthcare services. Conversely, financial illiteracy can lead to financial stress and poor health outcomes (Kim, 2011). Financial literacy plays a pivotal role in health security, as it affects individuals' ability to afford healthcare services, make informed decisions about health insurance, and plan for medical emergencies.

Access to Healthcare: Financially literate individuals are more likely to understand the importance of health insurance and savings for medical emergencies. The National Health Insurance Scheme (NHIS) in Nigeria has witnessed low participation, partly due to a lack of financial awareness. When individuals understand how to manage their finances, they are more capable of setting aside resources for health-related expenses, reducing vulnerability to health shocks.

Preventive Health: A financial literate population is more likely to invest in preventive healthcare, reducing long-term health costs. For example, individuals who understand budgeting and health economics are more likely to prioritize balanced nutrition, regular medical check-ups, and health insurance coverage, reducing the chances of chronic health conditions that could lead to poverty due to high medical costs.

Health Crisis Management: During health crises like the COVID-19 pandemic, financially literate individuals were better equipped to manage the economic strain of health-related expenses. They were more likely to have emergency funds or insurance, which eased their access to medical treatment and helped them cope with the pandemic's economic fallout.

Personal Security

Understanding financial matters can protect individuals from fraud and financial abuse. In a country where financial scams are prevalent, financial literacy acts as a defense mechanism, enhancing personal security (Klapper, Lusardi, & Panos, 2013). Personal security is closely linked to financial well-being, as financial hardship can lead to increased vulnerability to crime, domestic violence, and other forms of exploitation. Financial literacy can play a vital role in ensuring personal security in Nigeria in the following ways:

Crime Prevention: Poverty and unemployment are significant contributors to crime in Nigeria. Financial literacy programs that promote savings, entrepreneurship, and responsible borrowing can help reduce these socio-economic vulnerabilities that often push individuals into crime. Studies have shown that areas with higher financial inclusion tend to experience lower crime rates, as people are more economically empowered.

Protection Against Fraud and Scams: Financially illiterate individuals are more vulnerable to fraud, scams, and financial exploitation. In Nigeria, where financial scams (popularly known as 419) are rampant, financial literacy can equip individuals with the skills to identify fraudulent schemes and protect their financial assets.

Improved Social Stability: Financial literacy empowers individuals to manage their financial lives better, reducing the stress and anxiety that often leads to personal conflict or instability. For instance, families that can effectively manage their finances tend to experience lower levels of domestic conflict related to financial issues. This contributes to greater personal security and well-being within households.

In a nutshell, the importance of financial literacy in Nigeria cannot be overstated. Its impact spans multiple dimensions, from enhancing economic security to improving health outcomes and promoting personal security. By empowering individuals with the knowledge to manage their finances effectively, financial literacy can help reduce poverty, improve access to healthcare, and lower vulnerability to crime and financial fraud. Given the low levels of financial inclusion in Nigeria, there

¹ In this study, the words "app" and "platform" are used interchangeably.



is a pressing need for government initiatives, private sector partnerships, and educational institutions to prioritize financial literacy programs that will ultimately drive sustainable development and national security.

CONCLUSION AND RECOMMENDATIONS

Improving financial literacy in Nigeria is essential for enhancing human security. By equipping individuals with the knowledge and skills to make informed financial decisions, financial literacy can contribute to economic stability, health security, and personal protection. A concerted effort involving education, public-private partnerships, and technology can pave the way for a financially literate and secure Nigerian population. Navigating financial literacy and human security. By leveraging technology, gamification, community-based programmes, and supportive policies, can enhance financial literacy across all demographics, fostering economic stability, human security and personal financial well-being. Economies are leveraging innovative approaches to enhance financial literacy, addressing unique regional challenges and opportunities. In order to achieve all these, the paper recommends as follows:

For concerted effort involving education and awareness, public-private partnerships, and exposure utilization of mobile technology and digital platforms to pave the way for a financially literate and secure Nigerian population.

Use gamification to enhance motivation and engagement in financial learning and invest in community-based programs that address local needs and cultural contexts.

Government and non-governmental organizations should sponsor programmes and research on various areas of personal finance targeted at various sub groups. Education programmes targeted specifically to particular subgroups may be better suited to address substantial differences in preferences, investment and saving needs.

Integrating financial education into the national education curriculum at all levels can ensure that young Nigerians develop essential financial skills early in life.

REFERENCES

1. Adepoju, A., & Adeyemi, S. (2020). "Financial Literacy and its Impact on Economic Empowerment in Nigeria." *Journal of Economic Studies*, 15(2), 101-121.
2. Atkinson, A., & Messy, F. A. (2012). Measuring financial literacy: Results of the OECD / International Network on Financial Education (INFE) pilot study. OECD Working Papers on Finance, Insurance and Private Pensions, No. 15, OECD Publishing. <http://dx.doi.org/10.1787/5k9csfs90fr4-en>
3. Atkinson, A., McKay, S., Kempson, E., & Collard, S. (2017). Levels of financial capability in the UK: Results of a baseline survey. Financial Services Authority.
4. Becker, G. S. (1964). Human capital: A theoretical and empirical analysis, with special reference to education. University of Chicago Press.
5. Central Bank of Nigeria. (2021). Central Bank Digital Currency (CBDC) and its impact on the Nigerian economy. Retrieved from [https://www.cbn.gov.ng/Out/2021/CCD/Central%20Bank%20Digital%20Currency%20\(CBDC\)%20and%20its%20Impact%20on%20the%20Nigerian%20Economy.pdf](https://www.cbn.gov.ng/Out/2021/CCD/Central%20Bank%20Digital%20Currency%20(CBDC)%20and%20its%20Impact%20on%20the%20Nigerian%20Economy.pdf)
6. Central Bank of Nigeria (CBN). (2022). Financial Literacy Report.
7. Demircuc-Kunt, A., Klapper, L. F., Singer, D., Ansar, S., & Hess, J. (2018). The Global Findex Database 2017: Measuring financial inclusion and the fintech revolution. The World Bank. <https://doi.org/10.1596/978-1-4648-1259-0>
8. Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011). From Game Design Elements to Gamefulness: Defining "Gamification". In *Proceedings of the 15th International Academic MindTrek Conference: Envisioning Future Media Environments* (pp. 9-15). ACM.
9. Henderson, R. M., & Clark, K. B. (2023). Architectural innovation: The reconfiguration of existing product technologies and the failure of established firms. *Administrative Science Quarterly*. Retrieved from <https://journals.sagepub.com/doi/abs/10.2307/239354>
10. Hughes, N., & Lonie, S. (2007). M-PESA: Mobile money for the "unbanked" turning cellphones into 24-hour tellers in Kenya. *Innovations: Technology, Governance, Globalization*, 2(1-2), 63-81. <https://doi.org/10.1162/itgg.2007.2.1-2.63> ILO. (2018).
11. International Monetary Fund (IMF). (2022). Ghana: Financial Inclusion and Development Strategy. Retrieved from <https://www.imf.org/en/Publications/CR/Issues/2022/05/17/Ghana-Financial-Inclusion>
12. Kempson, E., & Whyley, C. (2018). Measuring the impact of financial capability interventions: The case of Money Advice Service. *International Journal of Bank Marketing*, 36(5), 950-969. <https://doi.org/10.1108/IJBM-01-2018-0010>
13. Khan, M., & Tan, E. (2023). Digital Platforms and Financial Literacy: The Power of Online Communities. *Journal of Financial Innovation*, 9(1), 101-117. Lopez, G., & Williams, T. (2024). Integrating Behavioral Finance into Financial Literacy Programs. *Behavioral Finance Journal*, 12(3), 334-350.
14. Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, 52(1), 5-44. <https://doi.org/10.1257/jel.52.1.5>

¹ In this study, the words "app" and "platform" are used interchangeably.



15. Lusardi, A., & Mitchell, O. S. (2019). Financial literacy and the need for financial education: evidence and implications. *Swiss Journal of Economics and Statistics*. Retrieved from <https://sjes.springeropen.com/articles/10.1186/s41937-019-0027-5>
16. Lusardi, A., & Tufano, P. (2015). Debt literacy, financial experiences, and overindebtedness. *Journal of Pension Economics & Finance*, 14(4), 332-368. <https://doi.org/10.1017/S1474747215000238>
17. Mandell, L. (2007). Financial literacy of high school students. In J.J. Xiao (Ed.), *Handbook of Consumer Finance Research* (pp. 163-183). New York, NY: Springer. Moore, D. (2003). Survey of Financial Literacy in Washington State: Knowledge, Behavior, Attitudes, and Experiences. Technical Report n. 03-39, Social and Economic Sciences Research Center, Washington State University.
18. Mohammed, S. B. & Ibrahim, A. H. (2020). Poverty Reduction as a Panacea for Violence-Free Elections in Nigeria. *FUWukari International Journal of Sociology and Development*, Vol. 1(2), (p.1-13).
19. Murphy, J. L. (2013). "Psychosocial Factors and Financial Literacy" *Bulletin of Social Security Administration Social Security Bulletin*, Vol. 73, No. 1, 2013 Accessed March 25, 2014 at <http://www.socialsecurity.gov/policy>
20. National Health Insurance Scheme (NHIS). (2021). Annual Report on Health Insurance in Nigeria.
21. Olaniyi, O. (2022). "Entrepreneurship, Financial Literacy, and Economic Growth in Nigeria." *African Development Review*, 34(1), 55-70.
22. Osei-Assibey, E. (2021). Financial inclusion in Ghana: An analysis of the determinants and the implications for financial sector policy. *African Review of Economics and Finance*, 13(1), 54-76.
23. Oseifuah, E. K. (2010) 'Financial literacy and youth entrepreneurship in South Africa', *African Journal of Economic and Management Studies*, 1 (2), 164-182.
24. Schwab, K. (2023). The Fourth Industrial Revolution: what it means, how to respond. World Economic Forum. Retrieved from <https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/>
25. Shen, C., Garnett, R., & Hagerman, M. (2016). Experiential Games for Financial Literacy: A Field Study of Monetta Kids. *Simulation & Gaming*, 47(4), 437-455.
26. Smith, J., & Patel, R. (2021). Gamification and Financial Literacy: Engaging and Educating Consumers. *Journal of Financial Education*, 47(4), 22-37
27. Taylor, S. H, Cam, N, Boris, P, and David G. (2016) The Role of Financial Literacy in Financial Decisions and Retirement Preparedness among Seniors and Near-Seniors. Ontario: Social Research and Demonstration Corporation
28. Thompson, P. & Kwong, C. (2015) 'Compulsory school-based enterprise education as a gateway to an entrepreneurial career', *International Small Business Journal*, DOI:10.1177/0266242615592186.
29. Willis, L. E. (2011). The financial education fallacy. *The American Economic Review*, 101(3), 429-434. <https://doi.org/10.1257/aer.101.3.429>
30. World Bank. (2022). The World Bank Annual Report 2022: Supporting Countries in Challenging Times. Retrieved from <https://www.worldbank.org/en/about/annual-report>
31. World Bank. (2023). Financial Inclusion and Literacy in Africa: Challenges and Opportunities

¹ In this study, the words "app" and "platform" are used interchangeably.