

Nigerian Women and Digital Economy: Basis for Self-reliance

Celestine Aghu

Ahmadu Bello University, Zaria, Kaduna State, Nigeria

Otori Joy Ayijimoh

St. Mathew's Secondary School, Kaduna State, Nigeria

Christian K. Cletus

Greenfield University, Kaduna State, Nigeria

Abstract

In an era characterized by rapid technological innovation and expanding global digital economy, it is imperative for Nigerian women to actively engage with digital technologies to enhance their socio-economic status. Despite global efforts to promote inclusivity, women's participation in Nigeria's digital economy remains significantly low. This study explores the place of Nigerian women in the digital economy, emphasizing the need for greater inclusion and empowerment to bridge the prevailing gender digital divide. The study sought to examine the current level of women's participation in Nigeria's digital economy, identify the challenges limiting their engagement, and propose strategies for enhancing women's roles in the digital and technological sectors. The study employs a multidisciplinary approach, combining historical analysis with gender and economic perspectives. Data were sourced from historical records, policy documents, and relevant literature on women's involvement in digital economic activities. Findings indicate that the underrepresentation of women in the digital economy is a result of systemic barriers, including limited access to education, digital infrastructure, and economic opportunities. To address these challenges, the study recommends the implementation of specialized training programs aimed at boosting digital literacy, promoting digital job creation, and encouraging digital inclusion. These interventions are essential to bridging the digital divide and ensuring equitable economic opportunities for women. Ultimately, increased participation of Nigerian women in the digital economy will foster self-reliance, improve access to resources and infrastructure, and contribute to national economic development through the acquisition of new skills and technological empowerment.

Keywords: Women, digital economy, technology, globalization, self-reliance, digital inclusion

Introduction

The digital economy has emerged as a transformative force in the 21st century, reshaping how individuals, businesses, and governments operate globally. Defined by the increasing reliance on digital

technologies, platforms, and services for economic activities, the digital economy encompasses e-commerce, FINTECH, digital communication, and

online service delivery. In developing nations like Nigeria, this digital shift presents a unique opportunity to address long-standing issues of unemployment, poverty, and gender inequality¹.

For Nigerian women, who have historically faced systemic barriers to economic participation ranging from limited access to education and finance to socio-cultural constraints, the digital economy offers a new frontier for empowerment and self-reliance. With the proliferation of mobile technology, internet access, and digital platforms, women are now better positioned to start businesses, engage in remote work, and access global markets.

However, participation in the digital economy is not without challenges. Issues such as digital literacy, infrastructural deficits, and gender-based discrimination still limit the full involvement of women. As such, understanding the intersection between Nigerian women and the digital economy is essential to formulating policies and strategies that promote inclusive growth and sustainable development.

This paper explores how the digital economy can serve as a foundation for self-reliance among Nigerian women. It clarifies key concepts, examines current trends, identifies challenges, and highlights opportunities that can foster economic independence and societal advancement through digital inclusion

Nigerian women play significant role in the economic activities of the country from the activities of their families with regard to exchange in marriage,

participation in agricultural activities and other areas that yield money.² The modern day Nigerian women take part in important economic activities to the benefit of their families and the entire nation. Women manage the home and at the same time participate with their male counterparts in developing the economy of the nation. In rural areas, women participate fully in food production, processing and distribution which they combine with their traditional role of procreation and home management. Women, apart from child rearing and home management, engage in trading, craft and distribution of good and services. Some are importers and marketers of good from other countries.

Women, despite the basic role they play in the economic development in Nigeria, have limited access to socio-economic rights, privileges and digital literacy skills. They enjoy lower social status and are encumbered by harmful traditional practices to exhibit their potentials.³ They still suffer discrimination and marginalization through denials of rights, land ownership, access to education. Women are isolated, abused and restricted in some communities through traditional and religious practices which hamper women's access to digital skills, education and full participation in economic development.

According to an International Telecommunication Union (ITU) report, although women are entering ICT-related technical and professional positions,

¹World Bank Development Report 2021. Emphasizes how digital technologies can promote inclusion, efficiency, and innovation, while also widening digital divides if access is unequal, 2021

² Azikiwe U, *Women education and empowerment*. Fulladu publishing company, Nsukka, Enugu State, Nigeria. 1992. P. 23. Esere M. O, *Women Empowerment and its Challenges to gender counseling*. Ahmadu Bello University, J. Couns. Hum. Dev. 1(1):16-31. 2001

³ Federal Government of Nigeria Report 1996, Vision 2010 report, *Federal Government of Nigeria*, Abuja, Nigeria

lower-level jobs are still highly feminized. One of the reasons that ICT industry is seen as heavily male-dominated is that most of the high-value, high-income jobs in the sector are held by men, this is because of the low level or lack of digital literacy skills/knowledge by women. Classic cases of vertical gender segregation are evident in developed and developing countries alike, with women overrepresented in low ICT occupation.

The role of digital economy in empowering Nigerian women are numerous. Firstly, it promotes self-reliance and can increase participation of Nigerian women in the digital economy. It provides opportunities the digital economy presents for women's economic empowerment and independence, as well as the challenges Nigerian women face in accessing and leveraging digital tools and platform. It offers strategies and policy recommendations to enhance women's inclusion and success in the digital economy given that the digital economy has introduced significant opportunities for growth and innovation. However, it has also created or exacerbated several gaps, particularly affecting Nigerian women. These disparities manifest across various levels access, skills, participation, and leadership hindering women's full engagement in the digital landscape:

A substantial number of Nigerian women lack reliable internet access, especially in rural areas. Nationally, only 45% of women have internet access, with the northern regions experiencing higher rates of digital exclusion. In contrast, urban areas like Lagos State report higher female internet access at 65.7%.⁴ There is a notable disparity in digital skills between genders.

For every 100 young men with digital skills, only 65 young women possess similar competencies. This gap limits women's participation in the digital economy, entrepreneurship, and decision-making processes related to technology⁵. Despite constituting 45.5% of Nigeria's labor force, women's participation in the digital economy stands at a mere 24%. This underrepresentation is evident in entrepreneurship, where only 30% of tech companies are owned by women, and over one-third of these companies employ no women at all.⁶ Women are significantly underrepresented in leadership roles within the tech industry. In 2023, only 15.3% of funded startups in Nigeria had a female CEO. Furthermore, for every \$1 raised by male-led startups, female-led startups secured just 7.6 cents, highlighting a stark funding disparity⁷. A lack of comprehensive data on women's participation in the digital economy hampers the development of effective policies. Only 4% of the world's least developed countries have provided suitable data on business use of information and communication technologies, compared to around 85% of developed countries.⁸

Addressing these gaps requires targeted interventions, including improving internet infrastructure in underserved areas, integrating digital literacy into educational curricula, promoting inclusive policies,

⁵ Report on Gender gap in digital skills hinders women's access to employment opportunities online/The Cable 2023

⁶ The Guardian Nigeria, NITDA Describes low women input to digital economy, Nigeria, the Guardian Nigeria New Nigeria and world news, 2024

⁷ World Economic Forum, Here is how technology can help close Nigeria's gender gap/ world economic forum

⁸ UN Trade and Development (UNCTAD) Digital Economy data gap risks widening inequalities, UNCTAD says/UN Trade and World Bank

⁴ LSE Blogs. Women Remain Excluded from the Internet on Nigeria/African at LSE 2017

and ensuring equitable access to funding and leadership opportunities for women. Bridging these divides is crucial for fostering a more inclusive and robust digital economy in Nigeria⁹. Women participation in the pursuit of digital economic skills will bridge the gap and also boost their economic freedom, training programs, empowerment, funding of women economic activities, formation of cooperative societies, soft loan/credit schemes and others are the basic strategies that would enhance more women participation and full contributions in digital economy and others economic activities and growth.

Digital Economy and Self-Reliance

The advent of the digital economy has transformed the global landscape, redefining how individuals access opportunities, create value, and achieve self-reliance. In Nigeria, where structural unemployment, gender inequality, and economic dependence remain persistent issues, the digital economy offers a powerful platform for transformation particularly for women. This discussion explores how the engagement of Nigerian women in the digital economy can significantly promote self-reliance, drawing on practical examples and empirical evidence.

The digital economy encompasses all economic activities that result from billions of daily online connections among people, businesses, devices, data, and processes. It includes digital platforms, e-commerce, freelancing, online education, Fintech, and digital content creation. Self-reliance, in this context, refers to the capacity of individuals to generate sustainable income, make independent economic

decisions, and contribute meaningfully to national development without dependence on state or familial support¹⁰.

Nigerian Women and the Digital Economy

Historically, Nigerian women have faced barriers to economic participation including limited access to capital, educational disparities, cultural constraints, and inadequate representation in formal employment sectors. The digital economy presents an avenue to bypass some of these traditional limitations, offering flexible, low-barrier entry points for income generation and skill development¹¹.

Several case studies underline how Nigerian women are already leveraging digital platforms to build sustainable livelihoods: E-commerce & Online Businesses: Platforms like Jumia, Konga, and Instagram have enabled thousands of Nigerian women to become digital entrepreneurs. A 2023 report by the International Finance Corporation (IFC) noted that over 35% of Nigerian SMEs on social commerce platforms are owned by women, many of whom were previously unemployed or informally employed¹². Websites such as Upwork, Fiverr, and Toptal have become income streams for Nigerian women skilled in writing, graphic design, software

¹⁰ *World Bank Development Report 2021*. Emphasizes how digital technologies can promote inclusion, efficiency, and innovation, while also widening digital divides if access is unequal, 2021

¹¹ UNCTAD (United Nations Conference on Trade and Development) *Digital Economy Report*: focuses on the global digital economy and stresses the importance of data, digital platforms, and e-commerce in development, 2023

¹² McKinsey Global Institute: Reports highlight how digital technologies contribute significantly to GDP growth, productivity, and job creation, especially in emerging economy, 2024.

development, and digital marketing. According to a 2022 Payoneer report, Nigeria ranked among the top 10 freelancing countries globally, with a growing representation of women.

Women in remote areas now access loans and savings via fintech platforms such as PiggyVest and Paystack. These tools help them grow their businesses, improve financial literacy, and avoid reliance on exploitative informal lenders. Initiatives like SheCodes Africa, Tech4Dev's Women Techsters, and Google's Women have trained thousands of Nigerian women in digital skills. Many graduates of these programs now work remotely for global companies, contributing to household incomes and national GDP.

Women's participation in the digital economy promotes self-reliance by in several ways as outlined below. Income from digital ventures allows women to support themselves and their families without dependence thus creating financial independence for women. This is a boost to the confidence and decision-making power women through economic participation which enhances women's voices in household and community matters. By including more women in income-generating activities, digital tools help bridge the gender poverty gap. This stimulates local economies through digital businesses such as local logistics, tech support, or marketing professionals.

The development in economics described above has brought about a new reality, sometimes referred to as Web economics, or Web economy¹³. In a nutshell, Web economics amounts to new economic rules, new forms of currency, and new consumer behavior.

¹³. Schwartz, E. I. *Web economics*, Broadway Books, New York 1997

One of the most important aspects of this phenomenon is the changing economic role of markets. Markets have three main functions: matching buyers and sellers, facilitating the exchange of information, goods, services, and payments associated with market transactions, providing an institutional infrastructure that enables the efficient functioning of the market. In recent years, the markets have seen a dramatic increase in the role of IT and e-commerce. The emergence of electronic marketplaces, called market spaces, especially Internet-based market spaces, changed several of the processes used in trading and in supply chains. These changes, which were driven by IT, resulted in even greater economic efficiencies and lower transaction and distribution costs, leading to more efficient, "friction-free" markets. The process of doing business in the virtual world is completely different from the real world because instead of processing raw materials and distributing them, e-commerce involves gathering, selecting, synthesizing, and distributing information¹⁴.

Therefore, the economics of e-commerce, starting with supply and demand and ending with pricing and competition, are completely different from traditional economic models. Similar to a marketplace, in the market space the parties exchange goods and services for money (or they barter them), but they do it electronically. The major components and players of a market space are: Digital products¹⁵. There is a wide range of products that can be digitized. Basically there

¹⁴. Rayport J.F and Sviokla J.J. "Managing in the Market spaces", *Harvard Business review*, November/December 1994

¹⁵. Turban. E. King D. Lee. J, Warkentin. M and Chung H.M. *Electronic Commerce: A Managerial Perspective*. Prentice Hall 2002, P.46

are three groups of them: information and entertainment products (paper-based documents, product information, graphics, photographs, audio and video, software), symbols, tokens, and concepts (tickets, reservations, and financial instruments), processes and services (government services, electronic messaging, business-value-creation processes, auctions, bartering, distant learning, entertainment), Consumers. Although there are tens of millions of people worldwide that surf the Web, and they are potential buyers, 85% of e-commerce activities are performed by organizations, Sellers. There are hundreds of thousands of storefronts on the Web, advertising and offering millions of items, Intermediaries.

Nigerian Women in the Digital Economy

The role of women in the development of economic activities of Nigeria can never be overemphasizing due to the significant contributions they make in the economic development of the nation. Economic activities are those activities that are concerned with production, distribution, exchange and consumption of goods and services. It focuses on the way in which individuals, groups, business enterprises and government seek to achieve efficiency in any economic objective.¹⁶ To achieve these objectives women should not be excluded. Reports has it that in Africa, women constitute 52% of the total population, contribute 75% of the agricultural workforce, produce and market, 60 to 80% of food.¹⁷ They play vital role

in the production, processing and marketing of goods/food.¹⁸ They assist on family farm, fetch water and fire wood. Most importantly, they act as health workers to their children by providing health needs. They also provide food, clothing and education to their children.¹⁹

Experience has shown that women have equal abilities with men and can compete favorably when given equal opportunities. Today, over 50% of the world's women still face gender discrimination in laws, policies and practice.²⁰ Their work and contributions have remained largely unnoticed and taken for granted. This remains the fact because societies have traditionally failed to recognize the contributions of women to the economic development of the nations.

The major economic activities performed by Nigerian women are farming, trading, food production and processing, craft, hair dressing, artisan, business, livestock, fishery, sewing, e-commerce, marketing among so many others. It has been observed that women earn income through a range of economic activities such as sales of fire wood, weaving, fashion

¹⁶ Kwesiga J.C. "Central yet peripheral": *The Rural Women farmer and Issues of African development*. Ibadan: International Institute of Tropical Agriculture, 1999. P.15.

¹⁷ Afolabi M.M. "Women as Pillars on National Economy in Nigeria; A study of Economic activity of rural women in 6 local government areas of Ondo

State, Nigeria". A B.Sc. Project Submitted to the Center for Gender and Social Policies Studies, Obafemi Awolowo University, Ile-Ife, Nigeria.2005, p.28

¹⁸ Azikiwe U. *Women Education and Empowerment*. Fulladu Publishing Company, Nsukka, Enugu State, Nigeria. 1992. P.63

¹⁹ Flann D.K and Oldham, L. "Women's Economic Activities in Jordan; Research findings on Women's Participation in Micro Enterprise Agriculture, and the Formal Sector". *A project report submitted to the office of Women in Development, Bureau for Global Programmes*, Field Support and Research, U.S. Agency for International Development. 2007. P. 71

²⁰ Osuala J.O. "Enhancing Women's Economic Potentials through Appropriate Technology". In: Ijere, M.O. (ed), *Women in Nigeria Economics*. ACENA Publishers, Enugu. 1991. pp. 70-77

designing, farming and the likes.²¹ Women are the backbone of agricultural and economics production in Africa. Women perform a lot of economic activities for the purpose of generating income for their family activities in form of production, distribution, trading, food processing and others.²² The major economic activities that directly add to the incomes of women include fish production and processing/smoking, marketing, meat selling, hair dressing, fashion designing, soap making, mat production and so on. In most cases, the women use this income to supplement household upkeep, pay rent, school fees and training of children. These activities undertaken by the women provide avenue for them to contribute to the family and community maintenance and development.

Women participate in the economic activities and services to promote societal development, education, skill acquisition, sanitation, health promotion, and food supply and so on. Nigerian and African women make meaningful contributions to the development of their societies through the significant proportion of workload in food production, processing and distribution.²³ Women are responsible for the bulk of

production in southern Nigeria in local food crop distribution from the rural to the urban areas.²⁴

Nigerian women contribute immensely to health development in the society through their unwavering and relentless effort in promoting healthcare delivery. Women are often first in healthcare delivery especially to children.²⁵ They are at the forefront of child survival revolution and the success of the expanded program on immunization launched in Nigeria in 1985 depended much on the high participation and cooperation of the women in the program. Women also come together to form cooperative societies through which they reach out to embark on numerous developmental projects. The benefits of these activities are innumerable within and around the communities where they are located. Such societies undertake programs that enhance economic and educational development, skills acquisition, agricultural development, healthcare delivery among others. For example, the educational cooperative society (ECS) established by women in Ogun state.²⁶ The group embarked on the establishment of rural development centers for the provision of basic catering services, agricultural methods and processing practices, health centers and the likes. It is obvious that women are indispensable in promoting community development. Women are at the center of development processes and that complete and

²¹. Flann D.K and Oldham, L. "Women's Economic Activities in Jordan; Research findings on Women's Participation in Micro Enterprise Agriculture, and the Formal Sector". *A project report submitted to the office of Women in Development, Bureau for Global Programs, Field Support and Research, U.S. Agency for International Development*. 2007. P. 71

²². Adefarison H. "Mobilizing Nigerian Women for Participation in National Development": *In Report of the National Seminar on Social Development Policy of Nigeria, Bauchi*, 2: 1987, pp. 14-25.

²³. Akubue F. "Women in Society": *Status, Education and Contribution to National Development. J. Liberal Study.*, 1999, pp. 1-6

²⁴. Bellany C. "Women and the Environment: Water Front", 1(8): 2006 pp. 25 -40.

²⁵. Azikiwe U. *Women Education and Empowerment*, Fulladu Publishing Company, Nsukka, Enugu State, Nigeria. 1992

²⁶. Nwanesi P.K. "Development, Micro-Credit and Women's Empowerment: A Case Study of Market and Rural Women in Southern Nigeria". A PhD Dissertation, Department of Sociology, University of Canterbury, 2006 pp. 85-81

harmonious economic development cannot be without them.

Challenges and Recommendations

Nigeria's Information and Communication Technology (ICT) sector contributed 18.44% to the country's GDP in the second quarter of 2022, up from less than 1% in 2001. However, the sector remains male-dominated. Only about 30% of 93 surveyed technology companies in Nigeria are owned by women, and more than one-third of these companies employed no women at all.

In terms of entrepreneurship, women occupy only 39% of Nigeria's entrepreneurial landscape as of 2022, despite making up nearly half of the population. Their participation in the digital economy falls below 24%, which is inadequate in an era where digital transformation fuels the nation's economy.

Barriers

Digital Access and Affordability: Only 45% of Nigerian women have internet access, with significant disparities across regions. In northern Nigeria, cultural norms and poverty contribute to higher rates of digital exclusion among women.

Digital Literacy and Education: Women account for nearly 60% of Nigeria's uneducated population. Only 22% of graduates from Nigerian universities majoring in science, technology, engineering, and mathematics (STEM) are female, limiting their entry into tech-related fields.

Online Safety and Harassment: A report by the Cherie Blair Foundation for Women revealed that 57% of women entrepreneurs in low- and middle-income countries have experienced online harassment,

leading 41% to limit their digital presence, which hampers business growth.

Cultural and Social Norms: Societal expectations often prioritize men's access to technology and education, restricting women's opportunities to engage with digital tools and platforms.

Funding and Representation: In 2023, only 22.6% of funded startups in Nigeria had at least one female co-founder and a mere 15.3% had a female CEO. For every \$1 raised by male-led startups, female-led startups raised only 7.6 cents.

Challenges

Women's participation in Nigeria's digital economy is limited by a combination of structural, socio-cultural, economic, and educational challenges. The challenges involve balancing childcare responsibilities and limited access to digital infrastructure, the challenges include:

Digital Gender Gap: There is a significant disparity between men and women in terms of internet access and digital device ownership. Women, particularly in rural areas, are less likely to own smartphones or have reliable internet access²⁷.

Low Digital Literacy: Many Nigerian women, especially those in underserved regions, lack basic digital skills. This makes it difficult for them to engage in online education, e-commerce, or remote work.

Socio-Cultural Barriers: Patriarchal norms and traditional gender roles often discourage women from pursuing careers in technology or entrepreneurship. In

²⁷ Digital 2024: Nigeria data report-Global Digital insight 2024

some communities, digital engagement by women may be frowned upon or seen as inappropriate.

Limited Access to Financial Services: Women have less access to formal financial services such as bank accounts, loans, and digital payment platforms, which are essential for participating in the digital economy.

Education and STEM Representation: Female underrepresentation in science, technology, engineering, and mathematics (STEM) education translates to fewer women in tech-related jobs and leadership roles within the digital sector²⁸.

Cyber Security and Online Harassment: Women face a higher risk of cyber bullying, online harassment, and digital fraud. Fear of abuse can discourage active engagement in digital platforms.

Policy and Institutional Gaps: There is a lack of gender-responsive policies and programs that specifically aim to include women in the digital economy²⁹. Few initiatives are designed with women's unique challenges in mind.

Economic Inequality: Widespread poverty disproportionately affects women, limiting their ability to afford digital tools and services or invest in digital ventures.

Language and Content Barriers: A large portion of digital content is in English, which may be a barrier for women who are more fluent in local languages. There's also a lack of digital tools and platforms

tailored to women's needs and interests in local languages³⁰.

Recommendations

To address these, the Nigerian government and the private sector should expand broadband access and digital infrastructure, particularly in rural areas. Fund inclusive digital literacy programs targeting women and girls. Provide startup grants and digital business mentorship for women entrepreneurs. Implement policy reforms that protect women's rights in digital spaces and support work-from-home models.

Women entrepreneurs emphasize the need for more accessible funding options (65%), enhanced business training (55%), and greater access to grants and public funding (47%)³¹. These statistics highlight the pivotal role Nigerian women play in the digital economy and underscore the importance of targeted support to overcome existing challenges. To empower Nigerian women and foster their self-reliance through participation in the digital economy, several strategic recommendations can be made

Government and NGOs should implement targeted digital literacy programs for women, including training in coding, digital marketing, data analysis, and e-commerce. Equipping women with relevant skills enhances their ability to work remotely, launch tech-driven businesses, or access freelance and gig economy opportunities.

There is need to create access to digital infrastructure through improved access to affordable internet, smartphones, and ICT tools, particularly in rural and

²⁸ Nigeria education statistics market data report 2025

²⁹ Rural Nigerian women transform economy with digital wallets report 2025

³⁰ Rural Nigerian women transform economy with digital wallets report 2025

³¹ Digital 2024: Nigeria data report-Global Digital insight 2024

underserved areas. Bridging the digital divide allows more women to participate in online business, education, and finance³².

Women entrepreneurs should be supported through providing them with grants, low-interest loans, and business mentorship programs tailored for women-owned tech and online businesses. Financial and mentorship support can scale women-led startups and reduce dependency on traditional employment.

Government should enact and enforce policies that promote gender equality in tech spaces and protect women from cyber harassment and exploitation. A safe and inclusive digital environment encourages sustained female participation in the economy. In addition, efforts should be made to promote the success stories of Nigerian women in the digital economy to inspire and motivate others. Positive role models increase participation and break stereotypes about women in tech.

There is also need to foster partnerships between women, tech hubs, universities, and private sector innovators. Collaborative ecosystems provide resources, networks, and exposure that enhance women's digital entrepreneurship potential. In all, women should be encouraged to join digital platforms such as Upwork, Fiverr, Uber, and social media monetization tools. Basis for Self-Reliance, Gig platforms offer flexible, scalable income options for women with various skills.

Conclusion

The digital economy offers a powerful platform for Nigerian women to achieve self-reliance and

economic empowerment. By harnessing the opportunities presented by digital technologies such as e-commerce, digital finance, online education, and remote work, women can overcome traditional barriers to participation in the workforce. However, for this potential to be fully realized there must be deliberate efforts to bridge the digital divide through access to technology, digital literacy training, and supportive policies. Empowering Nigerian women in the digital economy is not just a step toward gender equality; it is a strategic move toward national development and inclusive growth.

Bibliography

- Akubue, F. "Women in Society": Status, Education and Contribution to National Development. *Journal of Liberal Study*. (1999)
- Bellany, C. "Women and the Environment: Water Front", (1(8): 2006).
- Azikiwe, U. *Women Education and Empowerment*. (Nsukka, Enugu State: Nigeria Fulladu Publishing Company 1992)
- Adefarison, H. "Mobilizing Nigerian Women for Participation in National Development". In: *Report of the National Seminar on Social Development Policy of Nigeria*, Bauchi, (2: 1987).
- Afolabi, M.M. "Women as Pillars on National Economy in Nigeria; A study of Economic activity of rural women in 6 local government areas of Ondo State, Nigeria". *A B.Sc. Project Submitted to the Center for Gender and Social Policies Studies*, (Obafemi Awolowo University, Ile-Ife, Nigeria. 2005)

³² Rural Nigerian women transform economy with digital wallets report 2025

- Agwu, N.M. "Institutional Barriers on Women in Agricultural Production: Implications for food supply". In C.V. & M.C. Aniekwe (eds.). *Towards gender equality in Nigeria in the 21 st Century*. (Proceedings of National Conference Organized by Federal College of Education (Technical) Umunze, Anambara State Nigeria, 16(6): 2001).
- Amali, E. "Gendernomics of Women, Work and Economics". (An Inaugural Lecture Presented at the University of Ilorin. 2017).
- Asogwa, C.U. "Managing Stress among Rural Women". In: Bernice Ezeilo (Ed.). *Family Stress Management*. (Enugu: ABIC Publishers 1995)
- Bloch, M. and Segev, A. "Leveraging Electronic Commerce for Competitive Advantage: A Business Value Framework". (EDI-IOS, Bled 2016).
- Choi, Y.S. and Whinston B.A. "The Internet Economy: Technology and Practice", (Austin: Sniartecon.com, 2010)
- Esere M.O. "Women Empowerment and its Challenges to Gender Counseling". *Journal of Counseling and Human Development* (Zaria: Ahmadu Bello University Press. 1(1): 2011)
- FGN Report. "Vision 2010 Report". (Federal Government of Nigeria, Abuja, Nigeria. 1996)
- Flann, D.K and Oldham, L. "Women's Economic Activities in Jordan; Research findings on Women's Participation in Micro Enterprise Agriculture, and the Formal Sector". A project report submitted to the office of Women in Development, Bureau for Global Programmes, Field Support and Research, (U.S. Agency for International Development. 2017)
- Ijere, M.O. "Women in Co-operation". *Journal of Centre Rural Dev. Cooperatives*, (University of Nigeria, Nsukka. 1991).
- Ikeduru, N.G. "Women Entrepreneurship and Development: The Gendering of Microfinance in Nigeria". A paper presented at the 8th International Interdisciplinary Congress on Women, 21 - 26 July, 2002. (Makerere University, Kampala, Uganda. 2022)
- Kwesiga, J.C. "Central yet peripheral: The Rural Women farmer and Issues of African development". *International Institute of Tropical Agriculture*. (Ibadan. 2019)
- Lederer, A.L. et al. "Using Web-based Information Systems to Enhance Competitiveness". (Communications of the ACM, July 2018).
- Longwe, S. "Education for Women's Empowerment or Schooling for Women's Subordination". Paper presented at the International Seminar-Workshop on promoting the Empowerment of Women through Adult Learning. (Chiangmain Thailand, February 24 - 28, 2017).
- Mosher, A.T. "Creating a Progressive Rural Structure to Serve a Modern Agriculture". (The Agricultural Development Council Inc. 1978)

Nworgu, B.G. *Educational Research: Basic Issues and Methodology*. (Nsukka, Enugu State, Nigeria: Second Edition, University Trust Publishers 2016)

Greenfield University, Kaduna State, Nigeria
and can be reached at:
christiancletus1972@gmail.com

Nwanesi, P.K. “Development, Micro-Credit and Women’s Empowerment: A Case Study of Market and Rural Women in Southern Nigeria”. (A Ph.D Dissertation, Department of Sociology, University of Canterbury. 2018)

Ocholi, E. “Empowering Nigerian Women for the 21st Century”: *Education a Significant Tool. Counselor*, 17(1): (1999).

Odukoye, T. “The Law and the Women”. *A Paper presented at the Training Workshop on Income Generation and Women's Role in Nation Building*, (Ilorin 2017)

Osuala, J.O. “Enhancing Women’s Economic Potentials through Appropriate Technology”. In: Ijere M.O. (ed), *Women in Nigeria Economics*, (Enugu: ACENA Publishers, Enugu. 2021)

- **Celestine Aghu** is of the Department of History, Ahmadu Bello University, Zaria, Kaduna State, Nigeria and can be reached at: aghucelestine@gmail.com
- **Otori Joy Ayijimoh** teaches at St. Mathew’s Secondary School, Television G.R.A, Kaduna State, Nigeria and can be reached: otorijoy6@gmail.com.
- **Christian K. Cletus** is of the Department of Political Science and International Relations