

Digitalization and Youth Unemployment in Ibadan North Local Government Area, Oyo State

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Certification

This is to certify that **Tuibat Onono ISMAIL**, with matriculation number LCU/PG/005371, carried out this research work titled “**Digitalization and Youth unemployment in Ibadan North Local Government Area of Oyo State**” in the Department of Politics and International Relations, Faculty of Management and Social Sciences, Lead City University, Ibadan, Oyo State, for the award of a Master’s Degree (M.Sc.) in Public Administration and that this work has not been previously submitted.

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Dedication

I dedicate this research to God Almighty and my parents for their unwavering support and guidance.

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Acknowledgement

This research was conducted under the guidance of Lead City University, Ibadan, Oyo State, Nigeria. I acknowledge the use of the university library and facilities during the course of the Research. I also utilized the University of Ibadan's library, the School's environment to collect data for the field work and also the students who significantly contributed to the completion of the research.

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Even though the above-mentioned institutions and persons have assisted in the process of this research work, I alone stand responsible for the errors, if any, found in the work.

Abstract

Nigeria Continues to struggle with high rate of youth unemployment despite rapid global digital advancement and the rapid growth of digital economy. The inability of many young people to access digital tools, affordable internet and relevant digital skills has widened the unemployment gap, leaving a large portion of youth unemployed. This study examined the relationship between digitalization and youth unemployment in Ibadan North Local Government Area, Nigeria. The study filled an empirical gap by providing localized evidence on the relationship between digitalization and youth employability anchored on human capital theory, technological determinism and dual Economy theory. The study adopted descriptive survey design, targeting youths between the age of 18 and 35 years. Stratified random sampling was used to select 300 respondents and data were collected using structured questionnaire of which 210 valid response was analyzed using descriptive statistics through SPSS. The Findings revealed that while most respondents possess basic digital literacy, advanced digital competence significantly enhance employability and access to high level digital jobs in Ibadan North Local government. Digital entrepreneurship also proved to be a strong driver of innovation and self reliance among youths. The study concludes that digitalization, when strategically harnessed, has transformative potential to reduce youth unemployment and drive inclusive economic growth. The study recommends increased investment in digital infrastructure, policy reforms and youth centered digital training initiatives

Keywords: Digitalization, Youth Unemployment, Digital Literacy, Digital skills, Digital Entrepreneurship, Human Capital Theory, Technological Determinism, Dual Economy Theory Ibadan North

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List of Acronyms

Acronyms	Meaning
ICT	Information and Communication Technology
AI	Artificial Intelligence
ITU	International Telecommunication Union
NBS	National Bureau of Statistics
IoT	Internet of Things
UN	United Nations
EFCC	Economic and Financial Crimes Commission
ILO	International Labour Organization
TVET	Technical and Vocational Education and Training
NYIF	National Youth Investment Fund
DFS	Digital Financial Services
EHR	Electronic Health Record
mHealth	Mobile Health
LMS	Learning Management System
ATA	Agricultural Transformation Agenda
RPA	Robotic Process Automation
API	Application Programming Interface
MOOC	Massive Open Online Course
YEDP	Youth Entrepreneurship Development Program
A4AI	Alliance for Affordable Internet
SMEDAN	Small and Medium Enterprises Development Agency of Nigeria

Chapter One

Introduction

1.1. Background to the Study

The advancement of digitalization has transformed economies, labour markets, and employment opportunities worldwide. Digitalization refers to the integration of digital technologies into everyday life, business operations, and government functions, thereby revolutionizing how individuals access information, work, and interact¹. According to a Conference on Trade and Development, digital transformation has enhanced productivity and economic growth, yet its adoption remains uneven, particularly in developing nations such as Nigeria². Africa, for instance, has been relatively slow in adapting to digitalization, with a substantial percentage of its population still lacking internet access³. The digital divide continues to create disparities in economic participation and opportunities, especially for young people who are disproportionately affected by unemployment. The concept of digitalization refers to the process of integrating digital technologies into various aspects of society, including business, communication, governance, and daily life¹. Unlike mere digitization, which involves converting analogue data into digital formats, digitalization fundamentally transforms processes and interactions through the use of advanced digital tools and systems⁴. It encompasses a wide range of technologies such as artificial intelligence, cloud computing, big data analytics, and automation, all of which facilitate efficiency, connectivity, and innovation⁵. The International Telecommunication Union (ITU) defines digitalization as the adoption and application of digital technologies to enhance economic activities, improve service delivery, and create new value chains in industries⁶.

The spread of digitalization across the world, including Nigeria, has revolutionized the global economy, communication, and information dissemination. It has accelerated access to knowledge, improved mobilization strategies, and enhanced real-time communication across

different regions and cultures. Digital platforms such as social media's Facebook, Twitter, Instagram and YouTube have transformed how people interact, conduct business, and access information, making the digital space a key driver of modern socio-economic growth⁷. In addition, digitalization has significantly reshaped labour markets, creating new employment opportunities while rendering some traditional jobs obsolete⁸.

The expansion of the digital economy has given rise to jobs in fields such as software development, digital marketing, e-commerce, and remote work. Studies have shown that digitalization is closely linked to economic growth by enhancing education, healthcare, business operations, and governance⁹. However, the benefits of digitalization are not uniformly distributed, often exacerbating existing inequalities. In Nigeria, the digital divide remains a significant barrier, with disparities in access to digital resources, literacy access to digital infrastructure, and affordability of digital tools limiting the full potential of digital transformation¹⁰. Consequently, while digitalization offers potential solutions to unemployment, it also presents challenges that need to be addressed.

Based on the findings of a report, the unemployment rate for youth aged 15–24 in Nigeria was 8.6% in Q3 2023, which is a 1.4% increase from Q2 2023¹¹. The unemployment rate for youth is higher than other age groups, suggesting that they are less engaged in productive activities¹². Consequently, while digitalization offers potential solutions to unemployment, it also presents challenges that need to be addressed. With the increasing employment opportunities in digitally driven industries across Africa, expanding knowledge and access to digital tools and platforms may contribute to reducing the rate of youth unemployment on the continent¹³.

An analysis claims that more than 100 million young people in Nigeria lacks digital skills, which hinders their capacity to compete in a world that is becoming more reliant on technology¹⁴. While Africa is home to the world's youngest population, with 70% of its

inhabitants under the age of 30, as reported by the United Nations¹⁵. Among this group, around one in five approximately 20.7% are neither employed, enrolled in school, nor pursuing any form of education or training and therefore lack digital skills. This makes the African continent and Nigeria at large vulnerable, particularly due to the overwhelming challenge of youth unemployment. The high levels of youth underutilization and lack digital skills contribute directly to various unemployment and various socioeconomic issues.

Despite global digital growth, Africa lags with only 37% internet access as of 2023¹⁶. In Nigeria, the rising rate of youth unemployment leaves many youths idle and engaging in cybercrime. This has contributed to Nigeria being ranked 5th globally in cybercrime activity¹⁷. While digitalization has the potential to bridge the employment gap by creating new job opportunities, fostering entrepreneurship, and improving access to digital markets. However, the lack of adequate digital infrastructure, high costs of internet access, and insufficient digital education have exacerbated youth unemployment in Nigeria¹⁸. Therefore, this study focuses on the relationship between digitalization and youth unemployment, particularly examining how digital transformation can influence employment opportunities among youths in Ibadan North Local Government Area, Nigeria.

1.2. Statement of the Problem

In recent years Nigeria has experienced persistently high rates of youth unemployment despite the global rise in digital transformation and technological advancement. While digitalization has created new employment opportunities across the world, its full potential remains largely untapped in many developing economies, including Nigeria. A significant number of Nigerian youths still lack access to digital tools, affordable internet, and the necessary skills to compete in a technology-driven labour market. This challenge is particularly evident in Ibadan North Local Government Area, as many young people possess

only basic digital literacy and are unable to leverage digital platforms for income generation or entrepreneurship.

While previous studies had examined digitalization and unemployment at national and regional levels, and others had explored issues such as digital divides, ICT adoption, and youth employability, very few empirical studies focused specifically on how digitalization influenced youth unemployment within Ibadan North Local Government Area using localized field evidence. Existing research had not sufficiently investigated the extent of digital skills among youths in Ibadan North, the role of digital entrepreneurship in reducing unemployment in the area, or the contextual barriers limiting effective participation in the digital economy.

This study therefore addressed this academic gap by providing localized empirical insights into the relationship between digitalization and youth unemployment in Ibadan North LGA. The findings contributed to existing knowledge and informed policy discussions on strengthening youth engagement in the digital economy.

1.3. Aim and Objectives of the Study

The aim of this study examines the relationship between digitalization and unemployment among youth in Ibadan North Local Government Area, Nigeria. The specific objectives were to:

- i. assess the level of digital literacy and ICT adoption among unemployed youths in Ibadan North LGA.
- ii. examine the impact of digital skills training on employment opportunities for youths in Ibadan North LGA.
- iii. assess the role of digital entrepreneurship in addressing youth unemployment in Ibadan North LGA.

- iv. identify the challenges hindering effective digitalization as a tool for employment generation in Ibadan North LGA.

1.4. Research Questions

1. What is the level of digital literacy and digital technology adoption among unemployed youths in Ibadan North LGA?
2. How does digital skills training influence employment opportunities for youths in Ibadan North LGA?
3. What role does digital entrepreneurship play in addressing youth unemployment in Ibadan North LGA?
4. What are the challenges hindering effective digitalization as a tool for employment generation in Ibadan North LGA?

1.5. Significance of the Study

This study is significant in providing policymakers with empirical evidence on the relationship between youth unemployment and digitalization. This knowledge is essential for developing

informed policies that leverage digital technologies to create employment opportunities and reduce crime rates. Addressing youth unemployment and crime is critical for the socio-economic development of Ibadan North, and this study highlights how digitalization can be harnessed to provide sustainable employment for young people, thereby reducing their likelihood of engaging in criminal activities. A digitally skilled and employed youth population can contribute to a more stable and prosperous society with lower crime rates and higher economic participation.

Additionally, this research contributes to the existing body of knowledge on digitalization and unemployment. It will offer a comprehensive analysis specific to the Nigerian context, particularly Ibadan North, an area that has not been extensively studied in this regard. The findings can serve as a foundation for future research in related fields and encourage further exploration of the impact of digitalization on employment trends across different regions. The study underscores the importance of equipping young people with digital skills and opportunities necessary to thrive in a technology-driven economy. By doing so, it helps create a more engaged and productive youth population capable of driving economic growth and innovation.

Lastly, understanding the dual role of digitalization in both enabling and preventing crime is essential. This study provides insights into how digital tools and strategies can be utilized to enhance law enforcement, cybercrime prevention, and digital security measures in Ibadan and Nigeria as a whole. These insights can guide the development of more effective policies and programs that maximize the benefits of digitalization while mitigating its associated risks, ultimately fostering a safer and more digitally inclusive society.

1.6. Scope of the Study

Geographically, this study focused on the city of Ibadan, the capital of Oyo State, Nigeria with specific focus on Ibadan North Local Government Area, Ibadan. The choice of Ibadan as the study area is due to its significant population of youth, diverse socio-economic activities, and the presence of both urban and peri-urban settings. This makes it an ideal location to explore the interplay between digitalization and unemployment. Temporally, the study covers a period of ten years, from 2013 to 2023. This time frame was chosen to provide a comprehensive understanding of the trends and developments in youth unemployment and digitalization adoption in Ibadan. By analyzing data over this period, the study aims to

capture the effects of recent technological advancements and policy changes on these variables.

1.7. Limitations of the Study

While this study has contributed valuable insights, it is not without limitations. One of the major limitations was that the study was limited to Ibadan North LGA, and findings may not be generalizable to rural or other urban settings with different socioeconomic realities. The research relied on self-reported responses, which may be subject to social desirability bias or inaccuracies due to personal perceptions.

Also the lack of qualitative depth limits understanding of the nuanced experiences behind the numbers. Lastly the study focused more on unemployed youths. Including employed youths in future research might provide broader perspectives on how digitalization supports career progression and entrepreneurship.

1.8. Operational Definition of Terms

Digitalization: Digitalization refers to the process of integrating digital technologies into various aspects of society, including business, education, governance, and everyday life¹. It involves the use of digital tools such as the internet, artificial intelligence, cloud computing, and mobile technologies to enhance efficiency, accessibility, and innovation²⁰. In the context of this study, digitalization encompasses the adoption and utilization of digital skills, platforms, and infrastructures that influence employment opportunities and economic participation among youths in Ibadan North. It plays an important role in transforming job markets, enabling digital entrepreneurship, and addressing challenges related to youth unemployment and crime prevention.

Youth Unemployment: Youth unemployment refers to the condition in which individuals aged 15 to 24 are without jobs, actively seeking work, and available for employment. This study considers youth unemployment in Ibadan, focusing on the factors contributing to it and the potential role of ICT in mitigating this issue.

Socio-Economic Development: Socio-economic development is the process of social and economic improvement in a community or region. This includes enhancements in education, healthcare, employment, income levels, and overall quality of life. In this study, socio-economic development focuses on how ICT influences these aspects in Ibadan.

Digital Economy: Digital economy refers to an economy that is based on digital computing technologies, encompassing a wide range of economic activities that result from billions of online connections among people, businesses, devices, data, and processes. The study looks at how the digital economy in Ibadan is impacted by ICT and its role in addressing youth unemployment.

Socio-Economic Challenges: Socio-economic challenges refer to issues that affect the economic and social well-being of a population, such as unemployment, poverty, inequality, and crime. This study focuses on the socio-economic challenges faced by the youth in Ibadan and how ICT can address these challenges.

Digital Adoption: Digital adoption refers to the process by which individuals, businesses, and governments begin to use and integrate digital tools and systems into their daily operations and activities. These includes social media, internet and others for communication, information, entertainment and skill developmental purposes. The study examines the level of digitalization adoption in Ibadan and its implications for youth employment.

Youth: Youth refers to individuals between the ages of 18 and 35 years, aligning with the definition provided by the African Youth Charter and the National Youth Policy of Nigeria (2019). This age range captures a critical phase of transition from dependence to

independence, characterized by active engagement in education, skill acquisition, job-seeking, entrepreneurship, and identity formation. The focus on this demographic is relevant given their high exposure to digital technologies, susceptibility to both the opportunities and threats of digitalization, and their central role in national development agendas.

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Chapter Two

Literature Review

2.1. Conceptual Review

2.1.1. Digitalization

The advent of digitalization has significantly transformed the way knowledge, information, and economic activities are conducted globally. Digitalization, defined as the integration of digital technologies into everyday life, business operations, and governance, has played a central role in shaping the modern world¹. Historically, digitalization gained prominence with the rise of computing technologies in the mid-20th century and was further accelerated by the internet boom in the 1990s². Today, billions of people across the world rely on digital tools and services for communication, commerce, education, and governance.

Digitalization involves the conversion of processes and interactions into a digital format, enabling efficiency and innovation across industries³. This transformation extends beyond mere technological advancements; it reshapes economic structures, societal interactions, and individual lifestyles. As businesses and governments embrace digital solutions, the global economy increasingly relies on digital infrastructure to drive productivity and economic growth.

The impact of digitalization is evident across various sectors. In education, digital platforms facilitate remote learning, providing students and educators with access to vast educational resources⁴. In healthcare, telemedicine and digital health records enhance service delivery⁵. Likewise, digital banking and e-commerce have revolutionized financial transactions, making services more accessible and efficient⁶. The role of digitalization in employment creation is particularly significant, as it enables remote work, gig economy participation, and the rise of digital entrepreneurship⁷.

2.1.1.1. Digitalization in Africa

While digitalization has become a global phenomenon, Africa lags in its adoption compared to developed regions. The continent has experienced a gradual but steady increase in internet penetration and digital infrastructure. As of 2021, approximately 43% of Africa's population had internet access, compared to over 90% in Europe and North America⁸. Despite this gap, digitalization in Africa presents immense opportunities for economic transformation. Digital financial services, such as mobile money, have revolutionized financial inclusion, allowing millions of previously unbanked individuals to participate in the formal economy⁹.

Moreover, the expansion of digital entrepreneurship has enabled young Africans to leverage technology for job creation. Start-ups in fintech, agritech, and e-commerce are thriving, driven by digital innovation. However, challenges such as inadequate infrastructure, high data costs, and digital illiteracy hinder widespread adoption. The digital divide remains a major concern, as access to digital tools is unevenly distributed across urban and rural areas¹⁰.

2.1.1.2. Digitalization in Nigeria

Nigeria, Africa's largest economy, has experienced significant strides in digitalization over the past two decades. The telecommunications revolution of the early 2000s marked a turning point, with mobile phone penetration increasing rapidly. Today, Nigeria has one of the largest digital economies in Africa, driven by a growing internet user base and a vibrant tech ecosystem¹¹. Lagos, often referred to as the "Silicon Valley of Africa," hosts numerous start-ups that contribute to employment generation and economic growth¹².

However, despite these advancements, digitalization in Nigeria faces several challenges. A 2023 analysis by Nairametrics highlights that over 100 million young Nigerians lack digital skills, limiting their ability to compete in the evolving job market¹³. Digital illiteracy remains a key barrier to youth employment, as many graduates lack the necessary technical skills

required in the digital economy¹⁴. Additionally, infrastructural deficits, unreliable internet connectivity, and limited government policies on digital skills development further hinder progress¹⁵.

The significance of digitalization in addressing youth unemployment cannot be overstated. By fostering digital literacy and expanding access to digital tools, Nigeria can bridge the employment gap and empower young people to participate actively in the digital economy. Policies aimed at integrating digital skills training into education curricula and supporting digital entrepreneurship will be crucial in leveraging digitalization for economic development.

2.1.1.3. Types of Digitalization

Digitalization occurs in multiple domains and manifests in various forms depending on the sector and the technology applied, and their roles are important for development, especially in economies such as Nigeria. These are explained below:

1. **ICT-Based Digitalization:** This form of digitalization involves the integration of information and communication technologies (ICT) in economic, social, and cultural processes. It includes the use of devices such as computers, smartphones, and software applications for communication, data processing, and information dissemination¹⁶. The widespread adoption of internet technologies and mobile platforms exemplifies this form, particularly in areas like education, business, and public administration. ICT-based digitalization is foundational, as it underpins other digital transformation efforts by enabling access to digital platforms and services. The internet is the backbone of ICT-based digitalization. It enables almost all forms of digital interaction, including communication, data sharing, and online access to services¹⁷. Social media platforms (e.g., Facebook, X, TikTok, Instagram, and LinkedIn) are a form of internet-enabled communication technology. They support digital content creation, distribution,

networking, and engagement, making them critical tools in education, marketing, politics, and even public health campaigns.

2. **Industrial Digitalization (Industry 4.0):** Industrial digitalization refers to the integration of advanced digital technologies such as automation, robotics, Artificial Intelligence (AI), and the Internet of Things (IoT) into industrial operations¹⁸. This transition—often described as the Fourth Industrial Revolution enables smart manufacturing, predictive maintenance, and real-time data-driven decision-making. For example, smart farming uses sensors and data analytics to enhance agricultural productivity¹⁹. In manufacturing, digital twins and AI-driven systems increase efficiency and reduce operational costs²⁰.
3. **E-Government and Digital Public Services:** E-Government refers to the use of digital platforms to deliver government services to citizens in an efficient, transparent, and accessible manner²¹. This includes online tax filing, e-voting, digital identity systems, and open government portals. E-government improves service delivery in public sectors and lowers bureaucracy by simplifying administrative procedures. In Nigeria, the National e-Government Master Plan (2019–2023) is one such initiative aimed at improving government efficiency through digitalization²².
4. **Digital Financial Services (DFS):** Digital financial services include mobile money, internet banking, cryptocurrencies, and fintech platforms that enable financial inclusion.
²³These services are particularly important in developing countries, where traditional banking infrastructure is limited. Platforms like M-Pesa in Kenya and OPay in Nigeria illustrate how DFS can bridge the financial gap for underserved populations. Digital wallets, peer-to-peer lending, and blockchain-based remittance systems also fall under this category.
5. **Digital Health (eHealth):** Digital health refers to the application of digital technologies in healthcare to improve service delivery, diagnostics, patient monitoring, and health

education. This includes telemedicine, electronic health records (EHRs), mobile health (mHealth) applications, and AI-based diagnostic tools²⁴. During the COVID-19 pandemic, digital health technologies became critical in remote care delivery, especially in rural and underserved communities²⁵. The World Health Organization (WHO) has emphasized the importance of integrating digital health tools into national health strategies²⁶.

6. **Educational Digitalization (EdTech):** This type of digitalization applies digital tools to the educational sector through platforms for online learning, virtual classrooms, digital content development, and learning analytics²⁷. With platforms like Coursera, Google Classroom, and local initiatives such as Nigeria's National Open University e-learning programs, students can now access high-quality learning materials remotely, thereby democratizing education.
7. **E-Commerce and Digital Marketplaces:** E-commerce refers to the buying and selling of goods and services through digital platforms²⁸. From online retail to social commerce (e.g., WhatsApp and Instagram selling), e-commerce platforms like Jumia, Konga, and Shopify are transforming the retail landscape. Digital marketplaces have opened new entrepreneurial opportunities for small and medium enterprises (SMEs), many of which operate without physical storefronts.

2.1.1.4. Characteristics of Digitalization

Digitalization is more than just the adoption of digital tools; it reflects a transformation in how individuals, organizations, and societies function. Its defining characteristics capture the depth of its impact and the mechanisms through which it operates across various sectors.

1. **Connectivity and Interoperability:** One of the core features of digitalization is its ability to connect people, devices, and systems seamlessly²⁹. Through internet protocols and interoperable digital platforms, digitalization fosters real-time communication,

collaboration, and information sharing across geographies and sectors³⁰. This characteristic underpins innovations such as the Internet of Things (IoT), cloud computing, and mobile communication.

2. **Automation and Efficiency:** Digitalization introduces automation into various processes, reducing human intervention and enhancing productivity. Tasks that were once manual, such as data entry, customer service, and manufacturing processes, are now handled by digital systems like robotic process automation (RPA) and artificial intelligence (AI)³¹. This not only improves efficiency but also minimizes human error and operational costs.
3. **Data-Driven Decision-Making:** At the heart of digitalization is data. The capacity to collect, analyse, and interpret large volumes of data (big data) enables informed decision-making in governance, business, health, and education³². Predictive analytics, business intelligence tools, and machine learning algorithms help institutions anticipate trends and tailor services accordingly.
4. **Ubiquity and Accessibility:** Digitalization is characterized by its pervasive nature that is enabled through mobile devices, Wi-Fi, and cloud infrastructure which allows individuals to access information and services anywhere and anytime. This ubiquitous connectivity enhances digital inclusion, especially in previously marginalized or remote areas.
5. **Disruption and Innovation:** Digitalization constantly disrupts traditional models, often replacing legacy systems with innovative approaches³³. For example, e-commerce platforms have transformed retail, fintech has altered banking, and digital health solutions are reshaping healthcare delivery. This disruptive potential makes digitalization a catalyst for innovation and redefinition across sectors.
6. **Scalability and Flexibility:** Digital systems are scalable and adaptable, allowing organizations to expand operations or pivot strategies without significant infrastructural

changes³⁴. Cloud services, for instance, enable businesses to scale storage or computing capacity on demand.

7. **Decentralization and User Empowerment:** Digitalization often leads to decentralization, giving end-users more power and control³⁵. Users can now generate content (user-generated content), conduct peer-to-peer transactions, and engage in decentralized finance (DeFi), and bypassing traditional intermediaries.
8. **Security and Risk Sensitivity:** While offering numerous advantages, digitalization also raises concerns about data privacy, cybersecurity, and digital ethics³⁶. These concerns necessitate robust legal and technological frameworks to ensure digital trust and resilience.

2.1.1.5. The Role and Impact of Digitalization

Digitalization is a driving force in reshaping economies, governance, education, and societies at large. Its impact is multi-dimensional, influencing how value is created, shared, and sustained across sectors.

1. **Economic Growth and Productivity:** Digitalization has been a major enabler of economic growth and enhanced productivity in both developed and developing economies³⁷. By automating industrial and service processes, digital tools help reduce production costs and increase efficiency³⁸. The emergence of digital financial services, e-commerce platforms, and digital logistics has further integrated global markets, allowing businesses even small enterprises in rural areas, to access international customers³⁹.
2. **Transformation of the Labour Market:** The integration of digital technologies into workplaces has created new employment opportunities, especially in fields such as software development, data analysis, cybersecurity, and digital marketing⁴⁰. However, it also disrupts traditional jobs through automation and AI, making it imperative for

workers to continually update their skills⁴¹. According to the World Bank, digitalization has the potential to improve labour productivity and create inclusive labour markets if appropriately managed⁴².

3. **Enhancement of Education and Learning:** Digitalization has transformed the educational landscape by facilitating e-learning, digital classrooms, and open-access educational resources⁴³. Learning Management Systems (LMS), virtual libraries, and video conferencing tools now allow for real-time and asynchronous learning beyond physical school boundaries⁴⁴. This is especially vital for marginalized and geographically isolated communities. Moreover, digital literacy itself has become a core component of 21st-century education curricula, enabling students to navigate an increasingly complex digital world.
4. **Public Sector Governance and Service Delivery:** Governments are increasingly adopting digital platforms to enhance transparency, service efficiency, and citizen participation⁴⁵. E-governance initiatives—such as online tax filing, e-voting, digital ID systems, and open-data portals promote accountability and reduce bureaucratic bottlenecks⁴⁶. Digitalization also improves the delivery of social services like healthcare, education, and welfare benefits by using centralized databases and real-time tracking⁴⁷.
5. **Empowerment of Entrepreneurship and Innovation:** Digitalization empowers entrepreneurs through access to digital tools, cloud-based software, mobile payment systems, and online marketplaces⁴⁸. Start-ups and small businesses can scale operations, reach broader audiences, and optimize supply chains using affordable digital solutions. Furthermore, digital platforms like YouTube, Instagram, and TikTok have enabled the rise of a creator economy where individuals monetize content and skills directly⁴⁹.
6. **Social Connectivity and Inclusion:** Digital technologies foster social inclusion by enabling people to stay connected and informed⁵⁰. Social media platforms, online

communities, and digital collaboration tools bridge geographical and social divides, allowing individuals and groups to engage, collaborate, and advocate for shared interests. In developing countries, mobile technologies in particular have narrowed the digital divide and increased access to banking, education, and healthcare.

7. **Environmental and Sustainability Impacts:** Digitalization also has environmental implications. On the positive side, it contributes to sustainability through smart grids, e-governance, and virtual work arrangements that reduce physical infrastructure demand and emissions⁵¹. However, there are also concerns about energy-intensive data centres and e-waste, calling for responsible and eco-friendly digital innovation.

2.1.1.6. Positive Consequences of Digitalization

Digitalization has brought numerous benefits to societies, economies, and individual lives. Its positive consequences are evident across employment, information access, service delivery, and innovation ecosystems.

1. **Job Creation in Tech Fields:** One of the most evident benefits of digitalization is the creation of new jobs in technology-driven sectors. Roles in software development, cybersecurity, data science, digital marketing, and UI/UX design are in high demand globally. In many developing countries, these digital jobs offer alternatives to traditional employment paths and provide access to global freelance markets. According to the International Labour Organization (ILO), digital economies are expanding job opportunities for youth and women by lowering entry barriers⁵². Moreover, tech hubs in places like Lagos, Nairobi, and Cape Town are contributing to Africa's rising digital workforce.
2. **Access to Information:** Digitalization has significantly democratized access to information, making knowledge and learning resources available at unprecedented scales.

Tools such as search engines, open-access journals, online courses (MOOCs), and virtual libraries enable learners and professionals to access real-time, global information regardless of geographical limitations⁵³. This accessibility supports lifelong learning and knowledge equity. For instance, platforms like Coursera and Khan Academy offer high-quality education content that was previously restricted to elite institutions. As a result, digitalization is not only reducing knowledge gaps but also empowering individuals with self-education and skill-building tools.

3. **Improved Service Delivery:** In sectors such as healthcare, education, and financial services, digitalization has improved efficiency, coverage, and responsiveness. In healthcare, digital platforms allow for telemedicine consultations, electronic health records, and real-time patient monitoring²⁴. In education, digital tools enable remote learning and interactive classrooms²⁷. Mobile money services such as M-Pesa have revolutionized access to banking for unbanked populations in Sub-Saharan Africa, fostering financial inclusion and economic participation⁵⁴. Governments also leverage digital tools to deliver welfare programs more transparently and efficiently, reducing corruption and administrative delays²¹.
4. **Stimulation of Innovation:** Digitalization fosters an ecosystem of continuous innovation by enabling individuals and organizations to develop new solutions to longstanding societal issues. From smart agriculture to AI-powered health diagnostics and mobile education platforms, digital tools support context-specific innovations that address real needs. Cloud computing, APIs, and open-source software frameworks have also lowered the barrier to innovation, allowing start-ups and innovators to build and scale solutions faster than ever. Digital platforms also encourage collaboration across borders, fuelling co-innovation and knowledge exchange⁵⁵.

2.1.1.7. Negative Consequences of Digitalization

While digitalization offers numerous benefits, it also presents significant challenges that must be addressed to ensure inclusive and sustainable development. These negative consequences affect employment, equity, security, privacy, and mental well-being.

1. **Job Displacement:** Digitalization and automation often result in the displacement of traditional jobs, particularly in low-skill sectors such as manufacturing, retail, and agriculture. Tasks that were once performed by humans, such as cashiering, data entry, or assembly-line work are now increasingly automated through the use of robotics and artificial intelligence. The World Economic Forum warns that while technology creates new jobs, it also renders others obsolete, especially among older and less digitally literate workers⁵⁶. In developing countries like Nigeria, the shift toward automation may exacerbate unemployment and underemployment, particularly in the informal economy where upskilling opportunities are scarce.
2. **The Digital Divide:** Digitalization is not experienced equally by all. The digital divide, the gap between individuals and communities with access to digital tools and those without remains a major concern, especially in low-income regions. Factors such as poor internet infrastructure, high costs of digital devices, and limited digital literacy restrict participation in the digital economy⁵⁷. In Africa, only about 36% of the population had access to the internet as of 2022, which hinders progress toward digital inclusion⁵⁸. This divide further entrenches social inequalities, especially for rural dwellers, women, and persons with disabilities.
3. **Rise in Cybercrime:** The rapid expansion of digital infrastructure has been paralleled by a sharp rise in cybercrime, including hacking, identity theft, online fraud, and ransomware attacks⁵⁹. Criminals exploit vulnerabilities in poorly secured systems, often targeting individuals and institutions with limited cybersecurity awareness or infrastructure. In

Nigeria, for instance, the Economic and Financial Crimes Commission (EFCC) has recorded a significant increase in cybercrime cases, particularly involving youth⁶⁰. This trend undermines trust in digital platforms and poses a threat to digital financial systems and e-governance efforts.

4. **Privacy and Data Protection Concerns:** Digital platforms collect vast amounts of personal data, raising serious concerns about privacy and surveillance⁶¹. Without robust data protection laws and enforcement mechanisms, user information is vulnerable to misuse by corporations, governments, or malicious actors. Cases of data breaches, unauthorized tracking, and misuse of personal information have become increasingly common. In many African countries, including Nigeria, comprehensive data protection frameworks are either weak or not properly enforced, leaving citizens exposed⁶². The misuse of personal data not only erodes public trust but also threatens individual autonomy and civil liberties.
5. **Mental Health Implications:** Overexposure to digital platforms, including social media and gaming apps, has been linked to several mental health issues, such as anxiety, depression, and digital addiction⁶³. Studies have shown that excessive screen time, online comparison, and cyberbullying contribute to emotional distress, especially among youth⁶⁴. The World Health Organization recognizes internet addiction and problematic use of technology as emerging health issues requiring global attention⁶⁵. Moreover, the "always-on" culture associated with digital work environments can lead to burnout and reduced productivity⁶⁶.

2.1.2. Youth Unemployment

Youth unemployment in Nigeria is a critical socio-economic issue with profound implications for the country's development. As of recent years, the rate of unemployment

among Nigerian youths has been alarmingly high, reflecting broader structural challenges within the economy⁶⁷. The National Bureau of Statistics (NBS) reported that the unemployment rate for youth aged 15–24 was 53.4% in Q4 2020, indicating that more than half of the young population was without jobs during this period⁶⁸. This figure underscores the gravity of the youth unemployment crisis in Nigeria, which has been exacerbated by a combination of factors including economic instability, inadequate educational outcomes, and insufficient job creation.

The International Labour Organization (ILO) defines youth unemployment as the share of the labour force aged 15–24 that is without work but available for and seeking employment⁶⁸. High youth unemployment rates are often linked to social unrest, poverty, and economic instability⁶⁹. One of the primary contributors to youth unemployment in Nigeria is the mismatch between the skills acquired by young people and the demands of the labour market. The Nigerian education system, despite producing a significant number of graduates annually, often fails to equip students with the practical skills needed in the contemporary job market. Many graduates find themselves unemployable because their qualifications do not align with the needs of employers, particularly in industries that are critical for economic growth, such as technology, manufacturing, and services.

Economic instability and policy inconsistencies have also played a significant role in worsening youth unemployment⁷⁰. Nigeria's economy, heavily dependent on oil exports, is vulnerable to global oil price fluctuations. The volatility of oil prices has led to periods of economic recession, during which the private sector traditionally a significant employer of labour has been unable to expand or maintain its workforce. This has left many young people without opportunities for formal employment, pushing them into informal sectors where job security and earnings are low.

The high rate of youth unemployment has far-reaching social and economic consequences. Economically, it represents a significant loss of potential productivity and innovation. Youths constitute a large proportion of the Nigerian population, with over 60% of the population being under the age of 30⁷¹. When such a significant segment of the population is unemployed, the country loses out on the economic contributions they could make through productive work, innovation, and entrepreneurship.

Socially, youth unemployment is linked to a range of negative outcomes, including increased poverty, social unrest, and crime. The lack of employment opportunities can lead to frustration and disillusionment among young people, making them more susceptible to engaging in criminal activities such as cybercrime, drug trafficking, and armed robbery as alternative means of income⁷². This not only undermines social cohesion but also places additional burdens on law enforcement and the criminal justice system.

Moreover, prolonged unemployment among youths can have detrimental effects on their mental health, leading to issues such as depression, anxiety, and a sense of hopelessness⁷³. This can further reduce their chances of securing employment, creating a vicious cycle of unemployment and social exclusion.

2.1.2.1. Global Trends in Youth Unemployment

Globally, youth unemployment has been persistently higher than adult unemployment, signalling deep-rooted economic and labour market inefficiencies. According to the ILO, the global youth unemployment rate stood at 14.9%, nearly twice the adult unemployment rate of 7.1%⁶⁹. This reflects systemic barriers preventing young people from successfully entering the workforce.

1. **The Gig Economy and Informal Work:** One of the most significant trends in youth employment is the rise of the gig economy, where young people increasingly take on

short-term, freelance, or contractual work rather than securing full-time employment⁷⁴. Platforms like Uber, Upwork, Fiverr, and Deliveroo have provided job opportunities but also introduce job insecurity, lack of benefits, and wage instability. The ILO (2022) estimates that over 46% of young workers globally are engaged in informal employment, highlighting the vulnerability of youth in labour markets⁷⁵.

2. **Automation and Job Displacement:** Technological advancements, particularly artificial intelligence (AI) and automation, have transformed industries but also displaced many low-skilled and routine-based jobs, which are traditionally entry points for young workers. In developed economies, robotics and AI-driven automation have reduced job opportunities in sectors like manufacturing, retail, and customer service, necessitating a shift toward digital and knowledge-based skills.
3. **Education-Employment Mismatch:** Another global issue is the disconnect between educational curricula and labour market demands. Many young graduates lack industry-relevant skills, resulting in high unemployment rates among educated youth⁷⁶. Countries with outdated educational systems struggle to produce graduates equipped with digital skills, critical thinking, and adaptability qualities, which are increasingly demanded by employers.
4. **Economic Recessions and Post-Pandemic Effects:** The COVID-19 pandemic exacerbated youth unemployment, disproportionately affecting young workers due to job losses in service-based industries (hospitality, tourism, and retail) and the slowdown in business hiring. Even as economies recover, youth employment levels remain below pre-pandemic levels, with millions of young workers forced into underemployment or informal work.

2.1.2.2. Youth Unemployment in Africa and Nigeria

Africa has one of the highest youth unemployment rates in the world, driven by rapid population growth, economic stagnation, and limited industrialization⁷⁷. With over 200 million people aged 15–24, Africa has the youngest workforce globally but faces a severe youth employment crisis⁷⁸.

Table 2.1. Youth Unemployment Rates in Selected African Countries (2023)

Country	Youth Unemployment Rate (%)
South Africa	61.0%
Nigeria	8.6% (official), estimated 42% (underemployment included)
Kenya	18.4%
Ghana	19.7%
Egypt	23.1%

(Source: ILO 2023)

In Nigeria, Africa’s largest economy, faces a severe youth unemployment crisis. According to the National Bureau of Statistics, Nigeria’s official youth unemployment rate is 8.6%,⁷⁹ but this figure does not fully capture underemployment and informal work, which push the real unemployment rate closer to 42%.

2.1.2.3. Challenges of Youth Employment in Africa and Nigeria

Africa, including Nigeria, faces a severe youth unemployment crisis driven by multiple structural, economic, and social factors. With Africa’s youth population projected to exceed 830 million by 2050 ⁸⁰, the need for sustainable employment solutions is urgent. Despite the continent’s immense potential for economic growth, young people continue to struggle with limited job opportunities, skills mismatch, economic downturns, and inadequate policy

frameworks. Nigeria, as Africa's largest economy, exemplifies these challenges. The National Bureau of Statistics reports an official youth unemployment rate of 8.6%⁷⁹, but when considering underemployment and informal work, the actual rate rises to over 42%. These figures highlight the severity of the crisis, which is compounded by economic instability, weak educational systems, and inadequate digital infrastructure.

1. **Rapid Population Growth vs. Slow Job Creation:** Africa is experiencing one of the world's fastest-growing youth populations, yet job creation is not keeping pace. The continent's labour force grows by over 12 million people annually, but only 3 million formal jobs are created each year⁸¹. This imbalance has exacerbated youth unemployment as millions of young graduates struggle to transition from education to employment. In Nigeria's case, Nigeria's population exceeds 220 million, with young people under 35 years making up over 60%⁷¹. Despite this demographic advantage, economic policies have failed to generate enough jobs, resulting in widespread underemployment and informal work. Young people are often forced into low-paying, unstable jobs in agriculture and informal trading, which offer limited career growth and financial security.
2. **Weak Educational System and Skills Mismatch:** The disconnect between educational curricula and labour market demands is a significant factor contributing to youth unemployment. Many young Africans graduate without the skills required by employers, particularly in science, technology, engineering, and mathematics (STEM) fields, which are in high demand. In Nigeria's case, Nigeria's tertiary education system remains outdated, with many universities and polytechnics lacking modern facilities, research funding, and industry linkages⁸². Employers frequently complain about graduates lacking problem-solving skills, digital literacy, and practical experience, making them unfit for high-value jobs in the tech-driven global economy. Example: The Nigerian tech industry

has seen rapid growth, but many Nigerian graduates struggle to secure jobs because universities still emphasize theoretical knowledge over practical, industry-relevant skills⁸³.

3. **Economic Recession, Inflation, and Job Losses:** Frequent economic downturns have severely impacted employment levels in Africa. Recessions lead to business closures, job losses, and reduced government spending, all of which contribute to higher youth unemployment rates. In Nigeria's case, Nigeria has experienced multiple recessions (2016, 2020, and 2023), leading to job losses across key sectors such as banking, manufacturing, and oil & gas. The devaluation of the naira, high inflation (above 27%), and weak investment climate have further worsened the labour market. For example, the COVID-19 pandemic led to massive job losses, particularly in hospitality, transport, and small businesses⁸⁴. Many young Nigerians who depended on these sectors were forced into informal employment or self-employment, often with low wages and no job security.
4. **Political Instability, Corruption, and Nepotism:** Political instability and corruption are major obstacles to employment growth in Africa. Many governments mismanage resources, fail to implement policies that support job creation, and favour political elites over economic reforms. In Nigeria's case, Nigeria ranks high on the corruption index, with nepotism and bribery influencing job recruitment⁸⁵. Government job openings often go to connected individuals rather than qualified candidates, locking out talented youth from public sector employment. For example, in 2021, the Nigerian Immigration Service (NIS) recruitment exercise attracted hundreds of thousands of applicants for just 4,000 positions, with many alleging favouritism and bribery in the selection process.
5. **Limited Access to Finance and Entrepreneurship Support:** While entrepreneurship is widely promoted as a solution to youth unemployment, many young people struggle to access capital, mentorship, and business support. African banking systems are risk-averse, and many financial institutions require high collateral, making it difficult for youth-led

businesses to grow. In Nigeria's case, Nigeria has introduced programs such as N-Power, YouWiN, and the Central Bank's Youth Entrepreneurship Development Program (YEDP), but these initiatives have failed to reach the majority of unemployed youth due to bureaucratic inefficiencies and limited funding. For example, a survey conducted by the SMEDAN (Small and Medium Enterprises Development Agency of Nigeria) in 2022 found that over 75% of young entrepreneurs lack access to loans, significantly hindering business growth and job creation.

6. **Poor Infrastructure and Digital Divide:** Africa's inadequate infrastructure including electricity shortages, poor road networks, and weak internet connectivity hinders job creation, particularly in technology and online-based work. In Nigeria's case, Nigeria's electricity generation remains below 5,000MW, far less than what is required to power businesses⁸⁶. Unstable power supply and slow internet connections make it difficult for remote work, e-commerce, and digital entrepreneurship to thrive. For example, many young Nigerians struggle to access online freelancing jobs due to poor broadband penetration and expensive internet costs⁸⁷.

2.1.3. Unemployment

Unemployment, a critical socio-economic issue, refers to the condition in which individuals actively seeking employment are unable to find work. The International Labour Organization (ILO) defines unemployment using three criteria: an unemployed person must be jobless, actively seeking employment, and available to work within a specified period⁸⁸. These criteria distinguish different categories of unemployment, including frictional, structural, and cyclical unemployment, each of which has specific causes and economic implications.

Youth unemployment, in particular is a pressing issue in Nigeria. According to Nigeria's National Bureau of Statistics (NBS), youth unemployment among individuals aged 15–34

years has remained significantly high, reaching 42.5% in 2020⁸⁹. This crisis is exacerbated by economic instability, rapid population growth, and a persistent mismatch between education and labour market demands. The demographic structure of Nigeria, where over 60% of the population is under 30, intensifies the urgency of addressing youth unemployment. These demographic trends increase competition for scarce job opportunities, contributing to widespread poverty, crime, and social unrest. Research suggests that prolonged unemployment among young people can lead to higher rates of substance abuse, cybercrime, and even insurgency, as economic desperation forces many into illegal activities⁹⁰.

Structural challenges such as corruption, lack of infrastructure, and limited access to capital for entrepreneurship further aggravate unemployment in Nigeria. The recruitment process in government institutions and private firms is often marred by nepotism, bribery, and favouritism, making it difficult for qualified but unconnected young people to secure decent jobs⁸⁵. Additionally, the education system's failure to equip graduates with industry-relevant skills has resulted in many degree holders being unemployable in sectors that require digital and technical expertise. The rise of automation and artificial intelligence (AI) is also eliminating traditional jobs, worsening the unemployment situation.

Economic downturns have further worsened Nigeria's employment crisis. Recessions in 2016, 2020, and 2023 led to mass layoffs in banking, manufacturing, and oil industries, leaving thousands of young professionals jobless. Inflation, currently exceeding 27%, has eroded the purchasing power of consumers and forced many businesses to cut costs by reducing their workforce⁹¹. The informal sector, which accounts for over 60% of employment in Nigeria, is highly unstable, offering low wages, no job security, and limited career advancement.

Despite government efforts such as the N-Power program, YouWiN, and the Central Bank's Youth Entrepreneurship Development Program (YEDP), these initiatives have failed to create long-term employment solutions due to bureaucratic inefficiencies and inadequate funding.

Many young people still struggle to access loans and start-up capital, making self-employment an unviable option for many graduates.

To tackle this crisis, Nigeria must implement structural reforms by improving education, supporting youth entrepreneurship, increasing digital literacy, and enhancing governance transparency. Without urgent interventions, the youth unemployment crisis will continue to threaten national stability and economic development.

Structural unemployment, a significant concern in Nigeria, is often driven by the disconnection between the skills youths acquire in educational institutions and the skills demanded by employers, particularly in the rapidly evolving Information and Communication Technology (ICT) sector⁹². The lack of investment in technical and vocational education contributes to this skills gap, leaving many youths unqualified for available job opportunities. This disconnect is particularly pronounced in the ICT sector, where technological advancements require expertise in digital literacy, coding, and data analytics. Without access to relevant training, many Nigerian youths remain locked out of job opportunities, perpetuating high unemployment rates.

Moreover, economic policies and macroeconomic instability in Nigeria have compounded youth unemployment⁹³. High inflation rates, fluctuating oil prices, and limited diversification of the economy have restricted job market growth, leading to a higher incidence of both formal and informal unemployment. Additionally, limited access to financing for small businesses and entrepreneurial ventures restricts job creation in the private sector, which could otherwise absorb a significant portion of the unemployed youth population. In this context, ICT has emerged as a potential solution, offering employment opportunities through digital entrepreneurship and online job platforms. However, these benefits have not reached many Nigerian youths due to the digital divide.

The relationship between youth unemployment and socio-economic issues such as cybercrime is particularly relevant in Nigeria. High youth unemployment correlates with an increase in internet fraud and other cyber-related crimes⁹⁴. The anonymity of the internet and accessibility of ICT tools have enabled some young Nigerians to engage in cybercrime as a source of income. This unemployment-cybercrime nexus indicates the extent to which economic hardship can push youths toward illegal activities. Studies suggest that addressing youth unemployment through ICT-driven initiatives, skill development, and economic diversification could reduce reliance on cybercrime as a livelihood strategy⁹⁵.

In conclusion, unemployment in Nigeria, especially youth unemployment, poses significant socio-economic challenges, impacting both individual livelihoods and national stability. Addressing this issue requires a multi-faceted approach, including policy reforms, investment in education, and training aligned with labour market demands. Bridging the digital divide to maximize ICT benefits is also essential. By integrating digital skills training into education and fostering an environment conducive to digital entrepreneurship, Nigeria can create more job opportunities for its youth. This will reduce unemployment and its associated socio-economic consequences, ensuring sustainable economic growth. Addressing the structural roots of unemployment through ICT adoption holds great potential for alleviating youth unemployment and promoting a more stable and prosperous economy.

2.1.3.1. Types of Unemployment

1. **Frictional Unemployment:** This type of unemployment occurs when individuals are temporarily between jobs or are entering the workforce for the first time. Frictional unemployment is typically short-term and reflects the time lag in matching job seekers with suitable employment opportunities. It can also result from individuals voluntarily leaving one job in search of another⁹⁶. Frictional unemployment occurs when individuals

are temporarily between jobs or are entering the workforce for the first time. It's a natural form of unemployment that can arise when someone leaves a job to find a better opportunity or when new graduates are searching for their first job. For example, in Nigeria, frictional unemployment is common among university graduates who are in the process of securing positions in their desired fields. For instance, a graduate of the University of Lagos may spend months applying for jobs to find one that aligns with their qualifications, causing a period of temporary unemployment.

2. **Structural Unemployment:** Structural unemployment arises when there is a fundamental mismatch between the skills of job seekers and the requirements of available jobs, often due to technological advancements or shifts in the economy⁹⁷. For example, automation and digitalization in various industries require workers with technical skills, leaving those without these skills unemployed. This form of unemployment is more persistent than frictional unemployment and poses a significant challenge in developing countries where educational institutions may not keep up with industry needs. Structural unemployment arises from a mismatch between the skills workers have and the skills needed in the job market⁹⁸. This is often due to technological changes, such as automation or shifts in industry demand, which can render certain skills obsolete. For example, in Nigeria, the rise of digital technology and automation has led to a higher demand for digital and technical skills, leaving those without these skills unemployed. Workers in the textile industry, for instance, may face structural unemployment as production processes become automated, reducing the need for manual labour and increasing the demand for technology-oriented roles. This issue highlights a need for re-skilling and up-skilling programs to prepare the workforce for new types of jobs in sectors like ICT.
3. **Cyclical Unemployment:** Cyclical unemployment is linked to the economic cycle and typically rises during recessions when demand for goods and services decreases⁹⁹. When

businesses cut back on production during economic downturns, layoffs increase, resulting in higher unemployment. This form of unemployment is closely tied to macroeconomic factors such as inflation, interest rates, and global economic trends¹⁰⁰. Cyclical unemployment is closely tied to economic downturns and occurs when demand for goods and services declines, leading to reduced production and job losses. This form of unemployment fluctuates with the business cycle. For example, during the COVID-19 pandemic, cyclical unemployment increased in Nigeria as lockdowns and restrictions caused businesses, particularly in tourism, retail, and hospitality, to close temporarily or permanently. This economic downturn led to significant job losses, as companies faced reduced demand and were unable to retain their employees

4. **Seasonal Unemployment:** This occurs in industries where demand for labour fluctuates with seasons, such as agriculture, tourism, and retail. Seasonal unemployment is usually predictable and tends to be temporary, though it can have a lasting impact on workers' annual income¹⁰¹. Seasonal unemployment occurs in industries where demand for labour varies at different times of the year, based on seasonal factors. For example, in Nigeria's agricultural sector, seasonal unemployment is prevalent during off-peak periods. Another instance, farm workers engaged in planting and harvesting during the rainy season may be unemployed during the dry season when agricultural activity is reduced. Similarly, in Nigeria's tourism industry, there is often an influx of employment opportunities during the festive season, but demand decreases afterward, leading to job reductions.

Additional types of unemployment include:

5. **Technological Unemployment:** While not always categorized as a separate type, technological unemployment arises specifically when technology replaces certain jobs, either through automation or advancements that reduce the need for human labour¹⁰². For example, Nigeria's banking sector has experienced technological unemployment due to

the adoption of Automated Teller Machines (ATMs), mobile banking, and online banking services. This shift reduces the need for traditional tellers and customer service staff, leading to job losses for individuals in these roles and highlighting the need for new, technology-related skill sets.

6. **Long-Term Unemployment:** Long-term unemployment refers to individuals who have been out of work for an extended period, typically 12 months or more¹⁰³. This type is especially problematic because the longer people remain unemployed, the harder it can be to find new jobs due to skill deterioration or stigma. For example, in Nigeria, long-term unemployment is common among older workers who lack the digital skills increasingly required in modern jobs. For example, middle-aged individuals who previously held positions in sectors with low digital integration, like manual labour or low-skilled administrative jobs, may struggle to find employment in a job market that favours younger, tech-savvy candidates.

2.1.3.2. Youth Unemployment and Socio-Economic Implications

Youth unemployment is a significant challenge worldwide but is especially pronounced in developing countries. The United Nations (2018) reports that young people are disproportionately affected by unemployment, with Africa being home to some of the highest youth unemployment rates globally. Nigeria, for example, struggles with youth unemployment rates over 40%, which impacts its economy and social fabric¹⁰⁴. High youth unemployment has several socio-economic consequences, including increased crime rates, social unrest, and economic dependency.

Youth unemployment can lead to what is termed the "lost generation," where young people are unable to gain work experience, which hinders their future employability and income potential¹⁰⁵. In Nigeria, this issue is particularly concerning given the country's "youth bulge".

This large, unemployed youth population can become susceptible to involvement in negative social behaviours like cybercrime and political unrest, often seen as alternative avenues for income and social expression.

2.1.3.3. Factors Contributing to Unemployment among Youth in Nigeria

Several factors contribute to high unemployment rates in Nigeria and other developing nations.

1. **Skills Mismatch:** The rapid pace of technological change often outstrips the ability of educational institutions to prepare students for the workforce. This results in a mismatch between available skills and job requirements, particularly in technology-driven sectors¹⁰⁶. For instance, Nigeria has seen growth in its ICT sector, yet many youths lack the digital skills needed to take advantage of these opportunities. The absence of updated curriculums and industry-relevant training in educational institutions exacerbates this issue, leaving many graduates unemployed despite available job openings.
2. **Economic Instability:** Frequent economic fluctuations, often due to dependence on volatile resources like oil, create instability in the job market. Nigeria, as an oil-dependent economy, is highly vulnerable to global oil price shocks, affecting government revenue, job creation, and investment in other sectors¹⁰⁷. The lack of economic diversification means that when oil prices drop, the economy contracts, leading to retrenchment and unemployment. This has been evident in recession periods, where private and public sector job losses surged.
3. **Population Growth:** Rapid population growth without commensurate job creation puts pressure on the job market. Nigeria's youthful population exacerbates the unemployment challenge, as the economy struggles to create enough job opportunities to match the influx of new entrants to the workforce annually. The United Nations projects that

Nigeria's population will surpass 400 million by 2050⁸⁰, further intensifying unemployment if proactive measures are not taken.

4. **Lack of Infrastructure:** Poor infrastructure, particularly in rural areas, limits access to job opportunities. This is evident in Nigeria, where inadequate transportation, inconsistent power supply, and limited internet connectivity hinder job creation and reduce workforce participation, particularly in the ICT sector. For instance, Nigeria's electricity generation remains below 5,000 MW, significantly less than what is required to power industries and businesses efficiently⁸⁶. The absence of stable electricity makes digital entrepreneurship, remote work, and industrial growth difficult, thereby constraining employment opportunities.

2.1.3.4. Policy Approaches to Address Unemployment

Governments and organizations have developed multiple strategies to address unemployment, particularly focusing on skills development, economic diversification, and the promotion of entrepreneurship.

1. **Skills Development:** Investing in education that aligns with current job market demands is crucial. Technical and Vocational Education and Training (TVET) programs are becoming central to bridging the skills gap, equipping individuals with practical skills relevant to the modern economy¹⁰⁸. In Nigeria, government initiatives like the Digital Literacy Programme aim to provide young people with digital skills to improve employability in ICT-related fields¹⁰⁹. However, challenges such as limited funding, outdated curricula, and inadequate facilities hinder the effectiveness of these programs, necessitating greater investment and private sector collaboration.
2. **Economic Diversification:** Reducing dependence on a single sector, such as oil, can help create a more resilient job market. By promoting sectors like agriculture, manufacturing,

and ICT, Nigeria can create a more diversified economy that can absorb a larger share of the workforce, particularly young people. Agriculture remains one of Nigeria's largest employers, yet limited mechanization, poor infrastructure, and inadequate financing restrict its potential to generate sustainable employment¹¹⁰. Government initiatives such as the Agricultural Transformation Agenda (ATA) have been introduced to boost productivity and encourage youth participation in agribusiness,¹¹¹ but more strategic implementation is required.

3. **Promotion of Entrepreneurship:** Encouraging entrepreneurship can help address unemployment by enabling individuals to create their own jobs. Government-backed schemes like the Youth Enterprise with Innovation in Nigeria (YouWiN) provide grants and support to young entrepreneurs, thereby stimulating job creation and economic growth¹¹². However, challenges such as bureaucratic bottlenecks, corruption, and limited access to business capital hinder the full potential of these initiatives. Strengthening financial support for start-ups, simplifying business registration processes, and integrating digital entrepreneurship training could further enhance youth employment prospects in Nigeria.

2.1.3.5. The Role of Digitalization and Youth Unemployment

The role of digitalization in addressing youth unemployment is significant, especially in regions where traditional employment opportunities are limited. Digitalization encompasses a broad range of technologies that facilitate communication, information sharing, and remote access to various resources. In the context of youth unemployment, digitalization provides new avenues for skill acquisition, entrepreneurship, and employment, helping young people overcome geographic and socio-economic barriers to economic participation¹¹³. However,

access to and effective use of digital tools are critical, as disparities in digital access can limit their impact on youth employment, particularly in developing countries like Nigeria.

Digitalization has transformed the labour market, making remote work, digital marketing, and freelancing viable employment options. Platforms such as Upwork, Fiverr, and Toptal enable young Nigerians to offer services to a global clientele, reducing reliance on formal employment sectors¹¹⁴. However, challenges such as poor broadband penetration, high internet costs, and digital illiteracy continue to limit the reach of digital employment opportunities. Inadequate access to affordable internet and digital infrastructure particularly affects rural communities, where youth unemployment rates are often higher.

Governments and private sector stakeholders have recognized the potential of digitalization to curb unemployment and have launched initiatives to equip young people with digital skills. Programs such as Google Digital Skills for Africa, Microsoft's AI Skilling Initiative, and Nigeria's Digital Economy Policy and Strategy aim to enhance digital literacy and create employment pathways for young people. However, scalability, funding constraints, and lack of policy continuity remain key barriers to the success of digitalization-driven employment solutions¹¹⁵.

Despite these challenges, digital entrepreneurship is gaining momentum, with many young Nigerians leveraging social media, e-commerce platforms, and digital payment systems to launch their businesses. Platforms like Instagram, Facebook Marketplace, and Jumia have enabled youth to sell products and services without needing physical storefronts¹¹⁶. Expanding access to digital financial services and strengthening policies that support e-commerce growth will be critical in maximizing the employment potential of digitalization.

1. Digitalization as a Tool for Skill Development and Employment

Digitalization enables young people to acquire valuable skills through online training platforms, educational resources, and vocational training. These technologies provide youth

with opportunities to develop digital literacy, technical expertise, and specialized skills such as coding, digital marketing, and e-commerce, which are increasingly valuable in today's digital economy. According to the International Labour Organization (ILO), access to digital-based training has been shown to increase employment prospects for young people, as digital skills are in high demand across industries¹¹⁷. In Nigeria, organizations like Andela and Jobberman leverage digitalization to provide skills training, mentorship, and job matching services specifically aimed at youth, contributing to the country's digital economy¹¹⁸. Moreover, digital learning platforms such as Coursera, Udemy, and LinkedIn Learning offer accessible, often low-cost educational opportunities for youths. This form of digital learning has empowered many to upskill or reskill for digital job markets and remote work opportunities that might otherwise be inaccessible. In Sub-Saharan Africa, for example, the World Bank has recognized the value of digitalization in expanding vocational training, reaching over one million youth with digital skills programs by 2018.

2. Digitalization and Entrepreneurship Opportunities for Youth

Digitalization has also facilitated entrepreneurship among young people by lowering entry barriers for starting businesses¹¹⁹. With minimal capital, youths can establish online businesses, such as digital marketing agencies, freelance platforms, and e-commerce ventures, catering to both local and international markets. This trend is notable in Nigeria, where social media platforms like Instagram, Twitter, and WhatsApp are commonly used by young entrepreneurs to market and sell products, especially in urban areas like Lagos and Abuja¹²⁰. Furthermore, digital payment systems, such as Paystack and Flutterwave, support e-commerce by allowing entrepreneurs to reach a broader customer base and conduct transactions securely.

For instance, the Federal Government of Nigeria's National Youth Investment Fund (NYIF), which provides financial support for youth-run businesses, is an example of policy-driven

support for digitalization-enabled entrepreneurship¹²¹. By promoting digital access, the government aims to empower young people to create their own jobs rather than rely on limited formal employment opportunities.

3. Digitalization and Remote Work Opportunities

The rise of remote work, facilitated by digitalization, has opened up global job markets to Nigerian youth, who can now access international freelance opportunities through platforms like Upwork, Fiverr, and Freelancer.com. These platforms connect youths to clients worldwide, reducing reliance on traditional, location-based employment and allowing them to earn income from anywhere with internet access. Research shows that remote work has grown in popularity among African youth, with over 73% reporting they would prefer remote opportunities due to flexibility and accessibility¹²².

Remote work opportunities are particularly relevant in Nigeria's context, where formal sector jobs are limited and youth unemployment remains high. Young Nigerians can obtain well-paying jobs without leaving their country by using digitalization to work remotely, which could lessen the pressure on emigration.

2.1.3.6. Challenges of Digitalization in Reducing Youth Unemployment

The role of digitalization in reducing youth unemployment, while promising, faces several challenges that limit its impact, especially in developing countries like Nigeria. These challenges including infrastructure deficits, the digital divide, inadequate digital literacy, high costs, and a lack of supportive policies—hinder digitalization's effectiveness as a solution to youth unemployment. Addressing these barriers is critical to realizing digitalization's full potential for economic empowerment and youth employment.

Despite its potential, digitalization faces significant challenges that limit its ability to mitigate youth unemployment. The digital divide, or uneven access to digital infrastructure between

urban and rural areas, prevents equal opportunities for all youth¹²³. In Nigeria, where broadband internet coverage is concentrated in urban centres, rural youth are often excluded from digitalization benefits, including remote work and online education. Additionally, a lack of digital literacy and technical skills hampers digital adoption among youth in Nigeria¹²⁴.

For digitalization to be a viable solution to youth unemployment, foundational skills in computer literacy and internet usage are necessary. Programs such as Nigeria's Digital Skills for Africa Initiative and various private-sector initiatives aim to bridge this skills gap, yet the demand for these skills continues to outpace supply.

1. Infrastructure Deficits

Access to reliable digital infrastructure is essential for leveraging digital opportunities, but in many regions, such infrastructure is inadequate. In Nigeria, for example, there are severe limitations in electricity supply, internet connectivity, and telecommunications infrastructure, particularly in rural and underdeveloped areas¹²⁵. According to the World Bank, only about 20% of Nigeria's population has access to broadband internet, with most of this concentrated in urban areas¹²⁶. These infrastructure gaps limit the ability of youth in rural areas to participate in digital activities such as remote work, online training, and digital entrepreneurship, effectively side-lining a significant portion of the population from digital-based employment opportunities.

2. The Digital Divide

The digital divide is the gap between those with and without access to digital technology, and this is another significant challenge¹²³. In Nigeria, this divide is pronounced, with urban youth generally having better access to digital resources than their rural counterparts. This digital divide results not only from infrastructure disparities but also from socio-economic inequalities, where youths from low-income families struggle to afford smartphones, computers, or internet subscriptions. The International Telecommunication Union (ITU)

highlights that the digital divide reinforces existing inequalities and restricts social mobility, as access to technology is increasingly linked to employment and education opportunities. This divide leaves many young people without the basic tools needed to engage with the digital economy, perpetuating cycles of unemployment and poverty.

3. Inadequate Digital Literacy and Skills Gap

Possessing digital tools alone is insufficient without the necessary skills to use them effectively. In many developing countries, the level of digital literacy among youth remains low, particularly among those from disadvantaged backgrounds. In Nigeria, while many young people use mobile phones for social media, few possess advanced digital skills required for employment, such as coding, digital marketing, or data analysis¹²⁷. This skills gap, exacerbated by an outdated education system, limits youths' ability to compete in a global digital economy where technological proficiency is crucial.

Programs aimed at digital skills development, such as the Digital Skills for Africa initiative, attempt to bridge this gap but are often under-resourced or unable to reach the most underserved youth. The African Development Bank (AfDB) highlights that while such initiatives exist, many young people in rural areas remain disconnected due to lack of infrastructure, affordability issues, and limited awareness¹²⁸.

4. High Costs and Financial Barriers

The cost of digital devices and internet services in Nigeria is a barrier for many young people who may be unemployed or underemployed. The cost of internet data in Nigeria is among the highest in Africa, and with a large percentage of the population living below the poverty line, consistent access to the internet is unaffordable for many¹²⁹. Furthermore, the cost of

acquiring devices like laptops, tablets, and smartphones also excludes low-income youth, reducing their ability to access online work, training, and digital entrepreneurial opportunities. These financial barriers hinder digitalization's role in reducing youth unemployment, as only those who can afford these technologies can benefit from the opportunities they provide. The Alliance for Affordable Internet (A4AI) estimates that internet affordability in Nigeria remains a major constraint, with data costs exceeding 2% of the average monthly income, making digital participation challenging for low-income households¹³⁰.

5. Lack of Supportive Policies and Regulations

Supportive government policies are essential for creating an enabling environment where digitalization can thrive and contribute to youth employment. In Nigeria, while there have been various efforts to promote digital skills development, challenges remain in policy implementation, regulation, and consistency¹²⁴. For example, the National Digital Economy Policy and Strategy 2020-2030 aims to improve digital infrastructure and digital literacy,¹³¹ but its impact has been slow due to bureaucratic inefficiencies and limited resources. Additionally, inconsistent regulatory practices can deter investment in digital sectors, affecting the development of the necessary infrastructure and programs that would support youth employment. Without supportive policies that promote affordable internet, digital education, and digital literacy, the potential of digitalization to reduce youth unemployment remains underutilized.

6. Cybersecurity Risks and Negative Perceptions

As digitalization becomes increasingly associated with cybercrime in Nigeria, it can also carry a stigma that discourages investment and government support. Youth involvement in cybercrime, such as fraud and identity theft, has tarnished the perception of digital opportunities among Nigerian youths and has contributed to a societal distrust of online activities¹³².

This perception can deter youth from pursuing legitimate digital jobs and businesses due to the risk of being viewed with suspicion. Moreover, cybersecurity threats themselves can be a barrier to digital adoption, as potential entrepreneurs and businesses may feel their data and assets are at risk in an insecure digital environment. The National Information Technology Development Agency (NITDA) acknowledges that cybersecurity challenges pose a significant obstacle to digitalization, affecting trust and participation in the digital economy¹³³.

2.1.3.7. Digitalization as a Driver of Youth Employment

1. Creation of New Job Opportunities: Digitalization has become a transformative force in creating new employment opportunities for young people across various sectors. In the context of Nigeria, the digital economy has enabled the emergence of industries such as digital marketing, software development, e-commerce, and online services, which have become critical avenues for youth employment. Digitalization allows young entrepreneurs to establish businesses with relatively low capital, leveraging digital platforms such as social media, e-commerce websites, and mobile applications. For example, platforms like Instagram, Twitter, and Jumia have allowed Nigerian youths to launch online businesses, offering services ranging from fashion retail to digital marketing consultancy, thereby contributing to economic diversification¹²⁰.

The rise of fintech companies in Nigeria is a notable example of how digitalization has spurred job creation. Companies like Paystack, Flutterwave, and Paga have not only revolutionized the financial services sector but have also provided significant employment opportunities for tech-savvy youths. These companies have created jobs for software developers, digital marketers, data analysts, and customer service professionals, among others. The fintech sector has become a major employer in Nigeria, attracting a significant portion of

the country's youth workforce and contributing to the economy's diversification away from oil dependence¹³⁴.

Moreover, the digitalization sector itself is a significant employer, particularly for young graduates with skills in programming, network management, and digital content creation. This trend is evident in the expansion of tech hubs and innovation centres across Nigeria and other parts of Africa. Cities like Lagos have become vibrant tech ecosystems, hosting numerous start-ups and innovation centres such as Co-Creation Hub (CcHub) and Andela, where young people participate in developing digitalization solutions tailored to local needs¹³⁵. These hubs not only provide jobs but also foster a culture of innovation and entrepreneurship among the youth, further driving economic growth.

The rise of cloud computing, machine learning, and big data for example has created high-demand roles such as software developers & engineers who are responsible for designing applications, websites, and systems for businesses across sectors. AI and Machine Learning Specialists who develop intelligent systems for automation, healthcare diagnostics, and personalized digital experiences. Data Analysts & Data Scientists who process and interpret large datasets to help businesses make informed decisions. Cybersecurity Analysts who ensure online safety by protecting businesses and individuals from cyber threats. Blockchain developers who design decentralized financial systems, smart contracts, and secure digital transactions, and Digital Marketing Professionals who use SEO, social media, and online advertising to drive business growth.

2. Digital Entrepreneurship and Online Work: Digitalization has fundamentally transformed entrepreneurship, allowing individuals to launch businesses with minimal capital investment¹³⁶. Unlike traditional businesses that require substantial start-up costs for physical infrastructure, digital entrepreneurship enables individuals to create and manage enterprises through digital platforms. Social media networks, e-commerce marketplaces, and digital

service platforms have become essential tools for modern entrepreneurs¹³⁷. Young Nigerians have increasingly turned to online business opportunities through platforms such as Jumia, Konga, Instagram, and Facebook Marketplace, where they can sell a wide range of products, including fashion items, handmade crafts, digital goods, and consulting services¹²⁰. These platforms provide accessibility to a broad customer base without the need for a physical storefront, thereby reducing overhead costs and increasing profitability.

The rise of digital entrepreneurship has also facilitated the growth of the gig economy, allowing individuals to earn a living through online freelance work. Platforms such as Upwork, Fiverr, and Toptal have given young Nigerians access to global freelance markets, where they can work as graphic designers, writers, virtual assistants, software developers, and digital marketers¹³⁸. This shift has significantly reduced geographical barriers to employment, as freelancers can secure projects from clients across the world while working remotely from Nigeria. The ability to earn in foreign currencies has made online freelancing particularly attractive, especially in an economy where local job opportunities may be limited.

Moreover, digitalization has expanded opportunities for specialized online work beyond traditional freelancing. Content creation, for example, has become a lucrative career path, with YouTube, TikTok, and podcasting platforms providing revenue streams through ad placements, sponsorships, and audience monetization. Many young Nigerians have built thriving digital brands, offering educational content, entertainment, and product reviews to a global audience. Similarly, online coaching and digital consulting have grown in popularity, allowing professionals to offer expertise in fields such as business strategy, career development, and technology without geographical constraints.

The growing digital economy has also fuelled the rise of dropshipping, affiliate marketing, and print-on-demand businesses. These models allow entrepreneurs to sell products without managing inventory, as third-party suppliers handle manufacturing and shipping. By

leveraging platforms like Shopify, WooCommerce, and Amazon, many Nigerian entrepreneurs have built successful e-commerce brands targeting both local and international markets. Digital advertising through Google Ads and Facebook Ads has further enabled these businesses to reach potential customers efficiently, optimizing marketing efforts through data-driven strategies¹³⁹.

Despite the numerous advantages of digital entrepreneurship, certain challenges persist. Many young Nigerians face barriers to entry, such as limited access to reliable internet, digital payment constraints, and inadequate digital skills. Although mobile technology has expanded internet penetration, the high cost of data and inconsistent network services continue to hinder widespread participation in the digital economy. Furthermore, the lack of access to international payment gateways such as PayPal and Stripe limits the ability of Nigerian freelancers and e-commerce entrepreneurs to receive payments from global clients, necessitating reliance on intermediaries or alternative solutions¹⁴⁰.

To fully harness the potential of digital entrepreneurship, initiatives that promote digital literacy, financial inclusion, and policy reforms are essential. Organizations such as Google, Facebook, and the National Information Technology Development Agency (NITDA) have introduced training programs aimed at equipping young Nigerians with digital skills in areas such as social media marketing, coding, and e-commerce management. Additionally, fintech innovations such as Flutterwave and Paystack have simplified online payment processing, enabling more entrepreneurs to conduct business seamlessly across borders¹⁴¹.

Digital entrepreneurship and online work represent a transformative shift in the employment landscape, offering young people in Nigeria unprecedented opportunities for financial independence and career growth. With the continued expansion of digital tools, improved internet infrastructure, and supportive government policies, the digital economy is poised to become a major driver of youth employment and economic development in Nigeria. By

embracing digital opportunities, young entrepreneurs can position themselves competitively in both local and international markets, ensuring sustainable economic growth in the digital era.

3. Automation and Increased Efficiency in Traditional Jobs: Automation, despite often being associated with job displacement, has simultaneously fostered the creation of new employment opportunities by enhancing productivity and transforming job roles¹⁴². The integration of digital tools across various industries has led to increased efficiency, necessitating a workforce skilled in digital operations. In sectors such as agriculture, manufacturing, and banking, automation has not only streamlined processes but also generated a demand for professionals who can manage, maintain, and optimize these advanced systems. The shift towards automation, therefore, does not eliminate jobs entirely but rather modifies existing roles and introduces new career paths that require digital expertise.

One prominent example of automation-driven job creation is seen in smart farming and precision agriculture, where the adoption of digital technologies such as drones, sensors, and AI-driven analytics has significantly improved productivity¹⁹. Traditional farming, once labour-intensive and heavily dependent on manual processes, has evolved into a data-driven industry that requires agritech specialists, drone operators, and data analysts to optimize agricultural output. The deployment of automated irrigation systems, soil monitoring sensors, and AI-powered pest control has led to increased demand for professionals who can develop, program, and maintain these technologies. In Nigeria, where agriculture remains a crucial sector of the economy, the rise of agritech start-ups has created employment opportunities for young professionals who possess expertise in geospatial mapping, machine learning, and IoT-based farm management systems¹⁴³. Rather than replacing farmers, automation has equipped

them with advanced tools to enhance crop yields, reduce resource waste, and increase profitability, demonstrating how digital transformation can coexist with traditional industries. Similarly, in the banking sector, automation has revolutionized operations, leading to the emergence of new job roles in fintech operations, cybersecurity, and digital finance consulting. The rapid growth of digital banking, mobile payment systems, and AI-powered financial services has necessitated the recruitment of professionals who can ensure the security, efficiency, and accessibility of financial platforms. Fintech companies such as Flutterwave, Paystack, and Opay have introduced seamless payment solutions, requiring a workforce adept in blockchain technology, artificial intelligence, and financial data analytics. The automation of routine banking services such as customer verification, fraud detection, and credit risk assessment has also expanded job opportunities for AI specialists, ethical hackers, and regulatory compliance experts. As financial institutions continue to integrate automation to improve customer experience and transaction security, the demand for digital finance professionals continues to rise.

Beyond banking and agriculture, automation has also transformed manufacturing and logistics, creating demand for engineers, software developers, and robotics specialists. Smart factories, powered by robotic process automation (RPA) and AI-driven quality control systems, have optimized production processes while simultaneously requiring human expertise to monitor and refine these operations¹⁴⁴. Similarly, the logistics industry has witnessed the rise of automated warehouses, AI-driven supply chain management, and drone delivery systems, necessitating a skilled workforce capable of managing these technologies¹⁴⁵. Instead of leading to widespread unemployment, automation has generated a skills-based employment shift, where workers must adapt to emerging technological trends to remain relevant in the labour market. While automation does pose challenges, particularly for workers in low-skilled positions, it also presents opportunities for those who acquire the

necessary digital competencies. The transition to a more automated economy underscores the importance of continuous learning, upskilling, and digital literacy to ensure that individuals can thrive in the evolving job market. Governments, educational institutions, and private organizations must collaborate to provide training programs, certifications, and policy frameworks that prepare the workforce for the demands of automation. In doing so, automation can be leveraged as a tool for job creation rather than job displacement, fostering economic growth and innovation in various industries.

4. Enhancement of Employability: In addition to creating new job opportunities, digitalization plays a crucial role in enhancing the employability of young people by equipping them with essential digital skills¹⁴⁶. The proliferation of online learning platforms has democratized access to education and skills development, enabling youths to acquire new skills at their own pace and often at a lower cost compared to traditional education. This development has been particularly beneficial in Nigeria, where access to quality education is often limited by factors such as geographical location and financial constraints.

For example, online platforms such as Coursera, Udemy, and edX offer courses in various digitalization-related fields, including programming, digital marketing, and data science¹⁴⁷. These platforms have made it possible for Nigerian youths to gain proficiency in high-demand skills, thereby improving their job prospects in the digital economy. The availability of such resources has empowered many young Nigerians to pursue careers in digitalization without necessarily having to enrol in formal educational institutions, which may be out of reach for some due to cost or accessibility issues.

In Nigeria, government and private sector initiatives have also contributed to improving digital literacy among youths. One such initiative is the Digital Literacy Programme (DLP), which has been instrumental in providing digital skills training to students across the country.

¹⁴⁸This program is designed to prepare students for employment in Information

Communication Technology (ICT)-related fields by offering training in basic computing, coding, and digital entrepreneurship. By gaining proficiency in ICT, young people are not only prepared for jobs within the tech industry but also become more competitive in non-ICT sectors, as digital literacy becomes increasingly important across all industries.

The impact of these initiatives is reflected in the growing number of young Nigerians who are successfully transitioning into the digital workforce. For instance, the Nigerian tech start-up ecosystem has produced numerous success stories, with many young entrepreneurs and tech professionals gaining international recognition for their innovative contributions. This trend highlights the potential of ICT to not only create jobs but also to enhance the employability of youths, thereby addressing the broader issue of youth unemployment in Nigeria.

2.1.3.8. Challenges Posed by Digitalization to Youth Employment

1. Skill Mismatches: While digitalization has created new job opportunities, it also presents significant challenges, particularly in the form of skill mismatches¹⁴⁹. As technology evolves rapidly, the skills required in the digital sector change accordingly, often outpacing the ability of educational institutions to keep their curricula up to date. This results in a gap between the skills that young people acquire in school and those demanded by employers in the digital economy. Technological advancements can create a situation where there are job vacancies in digital-related fields, but young people are unable to fill these positions due to a lack of relevant skills.

In Nigeria, this challenge is further exacerbated by systemic issues within the education sector. The underfunding of educational institutions, coupled with a slow pace of curriculum reforms, has left many Nigerian graduates ill-prepared for the demands of the digital economy⁸². Educational curricula often focus on outdated technologies, and there is a lack of emphasis on emerging fields such as data science, artificial intelligence, and cybersecurity.

As a result, even though there are growing job opportunities in these areas, many Nigerian youths find themselves unemployable because their skills do not match the needs of the industry.

2. Digital Divide: Another significant challenge to leveraging digitalization for youth employment in Nigeria is the digital divide, which refers to the disparity in access to digital technologies and the internet between different segments of the population¹⁵⁰. The digital divide is particularly pronounced in developing countries like Nigeria, where access to digital infrastructure is unevenly distributed, with urban areas being more connected than rural areas¹⁵¹.

In Nigeria, the digital divide manifests in several ways. Many young people in rural areas or from low-income families do not have access to the internet, computers, or even basic electricity, which limits their ability to participate in digital-related activities or benefit from online educational resources. This lack of access effectively excludes them from the opportunities presented by the digital economy, such as remote work, online entrepreneurship, and access to global markets.

3. Cybercrime and Ethical Concerns: The rise of digitalization has also been accompanied by an increase in cybercrime, which poses a significant challenge to youth employment. Cybercrime includes activities such as hacking, identity theft, and online fraud, and it disproportionately involves young people, particularly in countries where youth unemployment is high⁵⁹.

In Nigeria, cybercrime has become a major concern, with the country ranking among the top five globally in terms of cybercrime activities¹⁵². The proliferation of cybercrime not only tarnishes Nigeria's international reputation but also undermines the positive potential of digitalization for youth employment. Instead of using digital tools to engage in productive economic activities, some young people are drawn into illegal activities, which can lead to

long-term consequences such as criminal records, social stigma, and the perpetuation of a cycle of poverty and unemployment.

4. Job Displacement due to Automation: The increasing adoption of digitalization, while offering new employment opportunities, has simultaneously led to the displacement of traditional job roles through automation and AI-driven processes¹⁵³. Industries that once relied heavily on manual labour and human intervention are now integrating digital solutions to enhance efficiency, reduce costs, and improve service delivery³¹. However, this shift often comes at the expense of workers in roles that can be easily automated, such as clerical work, factory assembly, and customer service. As businesses prioritize digital transformation, employees in these sectors face the challenge of job redundancy, requiring them to either adapt to new roles or risk unemployment. The replacement of human labour with AI-powered systems is particularly evident in industries that have embraced robotic process automation (RPA), artificial intelligence, and machine learning, significantly reducing the demand for traditional workers³¹.

A clear example of this transformation is evident in the banking sector, where automation has drastically reduced the need for bank tellers and administrative staff. The widespread adoption of mobile banking, automated teller machines (ATMs), and AI-driven customer service platforms has streamlined banking operations, enabling customers to perform financial transactions without human assistance¹⁵⁴. Previously, banking halls were filled with employees handling routine tasks such as deposits, withdrawals, and account inquiries. However, with the emergence of AI-powered chatbots and self-service kiosks, these functions have been digitized, leading to the downsizing of traditional banking roles. This shift has compelled financial institutions to restructure their workforce, prioritizing professionals with expertise in digital banking, cybersecurity, and data analytics, while gradually phasing out positions that depend solely on manual operations¹⁴.

Similarly, the manufacturing industry has undergone a massive transformation with the integration of robotic automation into production lines. Factories that once employed thousands of assembly-line workers now operate with industrial robots programmed to perform repetitive tasks with precision and speed. Unlike human workers, these machines can function 24/7 without breaks, reducing operational costs and increasing efficiency²⁰. As a result, many manufacturing companies have significantly reduced their reliance on manual labour, leading to widespread job displacement among low-skilled workers. While automation enhances productivity and quality control, it also raises concerns about the future employability of individuals whose roles can be easily replaced by machines¹⁵⁵. To remain relevant in the evolving job market, displaced workers are increasingly being encouraged to reskill and transition into roles that involve managing, programming, and maintaining automated systems.

Beyond banking and manufacturing, automation has also impacted the customer service industry, where AI-driven chatbots and virtual assistants have taken over traditional customer support roles. Many businesses now use automated call centres¹⁵⁶. AI-powered email responders, and virtual assistants to handle customer inquiries, reducing the need for human agents. While this improves response times and cost efficiency for businesses, it also means fewer opportunities for customer service representatives who previously handled these tasks manually. However, this shift does not entirely eliminate human involvement in customer service but rather redefines the nature of work, creating new positions such as AI trainers, chatbot developers, and user experience (UX) specialists, who ensure that automated systems function effectively and align with customer expectations. Despite the disruptive effects of automation on employment, it is essential to recognize that digitalization is not solely a threat to job security but also an enabler of new career paths. The challenge lies in ensuring that workers are adequately equipped with digital skills to transition into the new labour market.

Governments, educational institutions, and private organizations must invest in reskilling and upskilling initiatives, providing workers with the tools needed to adapt to the digital economy.

2.1.3.9. Policy Responses and Mitigation Strategies against Youth Unemployment in the Digital Era

The unemployment crisis among Nigerian youth has been linked to a range of socio-economic problems, including an increase in criminal activities such as cybercrime, theft, and other forms of delinquency⁵⁹. The relationship between unemployment and crime is well-documented, suggesting that the lack of economic opportunities can drive individuals, particularly young people, toward criminal behaviour as a means of survival or due to frustration and social exclusion. When young people struggle to find stable employment, they may become vulnerable to engaging in illegal activities, including fraud and cyber-related crimes, which have become prevalent in Nigeria's digital landscape¹⁵⁷.

Firstly, addressing youth unemployment through effective policies is crucial for reducing crime rates. The Nigerian government must prioritize job creation initiatives, particularly those that target the youth population. This could involve investing in sectors that have the potential to absorb large numbers of young workers, such as agriculture, digitalization, and manufacturing. Digitalization, in particular, offers vast opportunities for employment through digital entrepreneurship, remote work, and the gig economy. By expanding internet access and fostering digital skills development programs, the government can enable more young Nigerians to participate in the digital economy, reducing their susceptibility to crime.

Policy implications that can reduce the relationship between unemployment and crime rates in Nigeria, particularly concerning digitalization, include strengthening cybersecurity regulations and ethical digital training. With the rise of online fraud and cybercrime among unemployed youth, regulatory frameworks must be enforced to monitor and curb illegal

digital activities. Furthermore, digital literacy programs should be introduced at all levels of education to equip young Nigerians with the necessary skills to engage productively in the digital economy.

Moreover, fostering digital inclusion is critical in ensuring that young people, regardless of their socio-economic background, have access to opportunities in the digital space. The digital divide, particularly in rural areas, limits access to technology and online job opportunities, exacerbating youth unemployment. Government and private sector collaboration is essential in expanding digital infrastructure to underserved communities, ensuring that young people from all regions have equal opportunities to leverage digitalization for employment.

1. **Promoting Digital Literacy:** Promoting digital literacy is a crucial policy implication in enhancing youth employment through digitalization. Digital literacy refers to the ability to effectively and critically navigate, evaluate, and create information using a range of digital technologies¹⁵⁸. In today's economy, where digital skills are increasingly important, ensuring that young people have access to quality digital literacy education is essential for their participation in the labour market.

To effectively promote digital literacy, it is important to design programs that cater to both in-school and out-of-school youths. For in-school youths, integrating digital literacy into the formal education curriculum can ensure that students are equipped with the necessary skills as they progress through their education. For out-of-school youths, who may not have access to formal education, non-traditional avenues such as community centres, online platforms, and vocational training centres can provide opportunities for acquiring digital skills.

Collaboration between governments, educational institutions, and the private sector is critical to the success of these initiatives. Governments can provide the necessary

infrastructure and funding, educational institutions can offer the curriculum and training, and the private sector can contribute by offering real-world applications and employment opportunities for digitally skilled youths. The World Economic Forum emphasizes that such partnerships are essential in developing programs that are relevant to the current demands of the digital economy.

2. **Bridging the Digital Divide:** The digital divide refers to the gap between individuals who have access to modern information and communication technologies and those who do not, particularly in terms of internet connectivity and digital literacy¹⁵⁹. Bridging this divide is a critical policy implication for promoting youth employment, as it ensures that all young people, regardless of geographical location or socio-economic background that can benefit from the opportunities offered by digitalization. Ensuring equitable access to digital tools and skills is essential in creating a level playing field in today's digitally driven economy.

Investments in digitalization infrastructure are essential for closing this gap. This includes expanding broadband and internet access to rural and underserved areas, where connectivity is often poor or non-existent. By extending internet coverage and establishing community technology hubs, young people in remote regions can be included in the digital workforce. In addition to physical infrastructure, making digital technologies more affordable through targeted subsidies, reduced data costs, or public-private partnerships that can significantly lower access barriers for disadvantaged youths. These measures would help integrate marginalized populations into the broader digital economy.

It has also been argued that bridging the digital divide goes beyond merely providing access to devices or the internet. It also involves ensuring that such access leads to meaningful and productive engagement with technology. This implies that policy efforts

should prioritize the availability and sustainability of digital literacy programs that are not only technically sound but also culturally relevant to the communities they aim to serve. For instance, tailoring digital education content in local languages and aligning it with community-specific needs can enhance its impact and reach. Simply having internet access is insufficient if individuals do not know how to use it effectively for learning, employment, or entrepreneurship.

Supporting digital entrepreneurship presents another key policy implication in addressing youth unemployment. Digital entrepreneurship refers to the creation of new ventures or the transformation of existing ones using digital technologies¹⁶⁰. Encouraging youth to embrace digital entrepreneurship provides them with an alternative pathway to employment by empowering them to become self-reliant and innovative job creators rather than passive job seekers. In a country like Nigeria, where traditional job markets are saturated and economic challenges persist, digital entrepreneurship can offer scalable and flexible solutions.

To effectively support digital entrepreneurship, governments and development organizations must provide the necessary resources that help young people bring their ideas to life. This includes access to start-up capital, business mentorship, and incubation or accelerator programs. These tools help young entrepreneurs navigate early-stage challenges such as limited funding, lack of experience, and restricted market access. It has been emphasized that fostering supportive ecosystems that provide financial assistance, legal support, and market linkages is essential to empowering youth in this domain.

Moreover, innovation hubs, hackathons, and digital contests can be used to stimulate creativity and innovation among the youth, enabling them to explore unique and locally relevant business ideas using digital tools. Governments can collaborate with tech companies, NGOs, and academic institutions to create an environment that nurtures

entrepreneurial ambition. Ultimately, by investing in digital infrastructure, promoting digital literacy, and supporting digital entrepreneurship, policymakers can address youth unemployment more holistically and build a digitally inclusive economy that leaves no young person behind.

3. **Cybersecurity Education:** As the adoption of digitalization increases, so does the risk of cybercrime, particularly among young people who are both the most active users of digital technologies and the most vulnerable to its misuse. Cybersecurity education is therefore a critical policy implication in the broader strategy of promoting digitalization for youth employment. This involves educating young people about the ethical use of digital technologies, the importance of cybersecurity, and the legal implications of engaging in cybercrime¹⁶¹.

Governments and businesses must invest in strengthening cybersecurity measures. This includes implementing robust cybersecurity frameworks, conducting regular security audits, and providing training to employees on best practices for preventing cyber-attacks. In Nigeria, the government has taken steps to address cybercrime through the enactment of the Cybercrimes (Prohibition, Prevention, etc.) Act of 2015, which provides a legal framework for combating cybercrime¹⁶².

Cybersecurity education should be integrated into digital literacy programs and should focus on promoting responsible online behaviour. It should also raise awareness about the various forms of cybercrime, such as identity theft, hacking, and online fraud, and the severe consequences that come with engaging in such activities. Cybersecurity education can promote a culture of digital responsibility and ethics, which is essential for the sustainable development of the digital economy.

4. **Promoting Public-Private and International Partnerships and Cooperation:** Promoting public-private and international partnerships and cooperation is also crucial in

the fight against cybercrime. By collaborating, governments and businesses can share information, resources, and expertise to improve cybersecurity across sectors. In Nigeria, initiatives such as the Nigerian Communications Commission's (NCC) cybersecurity awareness programs aim to educate the public and private sectors about the importance of cybersecurity and the measures needed to protect against cyber threats¹⁶³. Given the global nature of cybercrime, international cooperation is essential for addressing its impact on the economy. Countries must work together to share intelligence, harmonize cybersecurity regulations, and coordinate responses to cyber threats. Organizations such as the International Criminal Police Organization (INTERPOL) and the International Telecommunication Union (ITU) play a key role in facilitating international cooperation on cybersecurity issues¹⁶⁴.

2.2. Theoretical Framework

2.2.1. Human Capital Theory

Human Capital Theory, originally developed by Gary Becker in 1964, is a fundamental concept in economics that posits that individuals can increase their productivity and earnings potential through investments in education, training, and skills development¹⁶⁵. The theory emphasizes the role of human capital knowledge, skills, and competencies as critical factors in economic growth and individual economic success. According to this theory, individuals who invest in their education and skills development are likely to experience higher productivity and, consequently, higher wages and better employment prospects¹⁶⁶.

In the context of digitalization, Human Capital Theory provides a valuable framework for understanding how digital skills can influence youth employment. As the global economy increasingly becomes digital, the demand for digital-related skills has surged. Youths who acquire digital competencies such as coding, digital marketing, and data analysis are better positioned to secure employment in the growing digital economy. This is particularly relevant in Nigeria, where the digital sector is expanding and creating new job opportunities in fields like fintech, e-commerce, and digital content creation.

Relevance of Human Capital Theory to Digitalization and Youth Unemployment in Nigeria

In Nigeria, the relevance of Human Capital Theory to the study of digitalization and youth unemployment is evident in several ways. Firstly, the Nigerian economy is currently experiencing a shift towards digitalization, driven by the proliferation of Information Communication Technology (ICT). As digital technologies permeate various sectors of the economy, the demand for skilled labour in digital and Information Communication

Technology (ICT)-related fields is growing. However, the extent to which Nigerian youths can benefit from these opportunities depends on their level of digital literacy and skills.

For instance, the rise of fintech companies in Nigeria, such as Paystack and Flutterwave, has created numerous job opportunities for young people with Information Communication Technology (ICT) skills. These companies require employees who are proficient in software development, cybersecurity, and digital financial services. Youths who have invested in acquiring these digital skills are more likely to be employed by these companies, thereby reducing their chances of being unemployed.

Moreover, Human Capital Theory is particularly relevant in the context of Nigeria's efforts to address youth unemployment through digital literacy programs. The Nigerian government, in partnership with private sector organizations and international agencies, has initiated several programs aimed at equipping youths with digital skills. For example, the Digital Literacy Programme (DLP) has been instrumental in providing digital training to students across the country, preparing them for employment in the digital economy¹⁶⁷. By enhancing their human capital through such programs, Nigerian youths increase their employability in both Information digital and non-digital sectors.

However, the theory also highlights the challenges associated with skill mismatches in the labor market. While Human Capital Theory suggests that investments in education and skills development lead to better employment outcomes, this is contingent on the alignment between the skills acquired and the demands of the labor market. In Nigeria, there is a persistent gap between the skills provided by educational institutions and those required by employers, particularly in the digital sector¹⁶⁸. Many Nigerian graduates, despite having formal education, find themselves unemployable because they lack the specific digital skills needed in the modern workplace.

A practical example of the application of Human Capital Theory in Nigeria is seen in the tech hub ecosystem that has emerged in cities like Lagos and Abuja. These hubs, such as Co-Creation Hub (CcHub) and Ventures Platform, provide training, mentorship, and incubation services to young entrepreneurs and tech enthusiasts. By investing in their human capital through these hubs, Nigerian youths are able to acquire the necessary skills to launch their own tech start-ups or secure jobs in established digital firms. This ecosystem not only contributes to job creation but also fosters innovation and economic growth in Nigeria.

Additionally, online learning platforms like Coursera, Udemy, and LinkedIn Learning have become popular among Nigerian youths seeking to enhance their digital skills. These platforms offer courses in various digital-related fields, enabling learners to upskill at their own pace and at a lower cost compared to traditional education. By leveraging these resources, Nigerian youths can increase their human capital, making them more competitive in the job market.

Furthermore, Human Capital Theory posits that individuals invest in education and skills development to improve their productivity and, by extension, their employment opportunities and earnings¹⁶⁶. Applied to the digital landscape, this theory suggests that young Nigerians, particularly those facing unemployment, can increase their employability by acquiring digital skills. With adequate digital skills, these individuals could access jobs in the digital economy, such as software development, digital marketing, and data analysis, which are increasingly in demand.

However, in Nigeria, there exists a gap between the demand for digital-skilled labour and the availability of digital training opportunities, especially among youths. Many Nigerian youths face barriers to acquiring digital skills, including lack of access to affordable digital education, insufficient internet access, and inadequate infrastructure¹⁶⁹. These challenges can prevent youth from realizing the potential economic benefits of digital skills and, as a result, may

contribute to unemployment or underemployment. This, in turn, can increase the likelihood of individuals turning to alternative means of income generation, including cybercrime.

Moreover, Human Capital Theory highlights the social return on investment in digital skills. When youth in Ibadan develop skills in ICT, the benefits extend beyond individual income growth. A workforce with digital proficiency can attract more investment, stimulate job creation, and improve economic productivity at a community and national level. Therefore, by investing in digital skills training for unemployed youth, policymakers in Nigeria could leverage human capital to reduce youth unemployment, improve economic stability, and decrease the incidence of cybercrime by providing legitimate income opportunities for young people

2.2.2. Technological Determinism

Technological Determinism is a theory that suggests technology is the primary force driving changes in society and that it significantly shapes human behaviour, social structures, and cultural norms¹⁷⁰. This theory, attributed to scholars' like, posits that technological innovations are not just tools but active agents that determine the course of societal development. According to Technological Determinism, the adoption of new technologies can lead to significant economic transformations by creating new industries, altering labour markets, and influencing the social fabric. However, this theory also acknowledges the potential negative consequences of technological change, such as job displacement and increased unemployment, particularly if individuals and institutions fail to adapt to new technological demands¹⁷¹.

Relevance of Technological Determinism to Digitalization and Youth Unemployment in Nigeria

In the context of digitalization and youth unemployment in Nigeria, Technological Determinism offers a critical lens for understanding both the opportunities and challenges posed by the rapid advancement and integration of digital technologies. The theory is particularly relevant given the transformative impact of digitalization on the Nigerian economy and labour market.

On the positive side, the adoption of digitalization in Nigeria has been a major driver of economic growth and job creation. The emergence of new industries, such as fintech, digital marketing, e-commerce, and online content creation, has provided young people with numerous employment opportunities. For instance, the Nigerian fintech industry, which includes companies like Paystack, Flutterwave, and Interswitch, has created thousands of jobs for tech-savvy youths, contributing to the diversification of the economy. This reflects the Technological Determinism perspective that technology can create new job opportunities and reshape the economic landscape.

However, Technological Determinism also highlights the challenges that accompany these technological advancements. One of the most significant challenges is job displacement, where traditional jobs are rendered obsolete due to automation and digitalization¹⁷¹. For instance, the rise of online banking and automated teller machines (ATMs) has reduced the need for bank tellers and other traditional banking roles, leading to job losses in these areas. In Nigeria, where a significant portion of the population is employed in sectors vulnerable to automation, such as retail, agriculture, and manufacturing, the rapid adoption of Information Communication Technology (ICT) could exacerbate unemployment if workers are unable to acquire the necessary skills to transition to new.

Moreover, the theory also points to the risk of exacerbating unemployment if the education system and workforce development programs fail to keep pace with technological changes. In Nigeria, there is a persistent gap between the skills that the labour market demands and the skills that the education system provides. Many Nigerian youths, particularly those in rural areas or from low-income backgrounds, lack access to quality education and digital skills training, which limits their ability to participate in the digital economy. This situation aligns with the Technological Determinism viewpoint that technological advancements can lead to societal inequalities if the benefits of technology are not evenly distributed.

A practical example of Technological Determinism in Nigeria is the impact of mobile technology on communication and commerce. The widespread adoption of mobile phones has revolutionized the way Nigerians communicate and conduct business. Mobile technology has enabled the growth of mobile banking, e-commerce platforms like Jumia, and ride-hailing services like Bolt, all of which have created new job opportunities for young people. However, the same technology has also led to the decline of traditional businesses, such as physical retail stores and conventional taxi services, leading to job losses in these sectors¹⁷².

Another example is the rise of automation in Nigeria's agricultural sector. While digitalization has introduced innovations like precision farming and digital marketplaces that have the potential to increase productivity and create new jobs, it has also displaced traditional farming practices and reduced the demand for manual labor. This has had significant implications for rural communities, where agriculture is a primary source of employment.

Additionally, In Nigeria, the proliferation of digitalization without sufficient legal and educational frameworks has led to a rise in cybercrime, particularly among youth. For many, digitalization offers an avenue for financial gain outside the traditional employment market, which may be especially appealing amid high youth unemployment. By facilitating activities

such as internet fraud, identity theft, and phishing, digitalization enables cybercrime in a way that is relatively low-cost and difficult to police effectively. This has been evidenced by Nigeria's high ranking among global cybercrime hotspots, with a significant portion of these activities being perpetrated by young, unemployed Nigerians who have found financial gain in online scams ("Yahoo Yahoo" schemes)¹⁷³.

However, Technological Determinism Theory also emphasizes that technology has the potential to be harnessed for positive social change. If strategically managed, digitalization could offer pathways out of poverty. For instance, government and private-sector initiatives that promote digital literacy and provide affordable access to digital training can help unemployed youth transition from potential cybercriminals to productive members of the digital economy. This would require substantial policy efforts aimed at integrating digital education into curricula, ensuring affordable internet access, and developing job programs focused on the digital sector.

The Relationship between Human Capital Theory and Technological Determinism Theory

Human Capital Theory, as established by Becker in 1964, suggests that investments in education and skills development such as those required for digital proficiency enhance employability and increase individual productivity¹⁷⁴. In the Nigerian context, where youth unemployment is notably high, digitalization presents an opportunity for young people to gain valuable skills and thus improve their job prospects in the digital economy. For example, young Nigerians who acquire digital skills in programming, data analytics, and digital marketing are often better positioned for roles in emerging tech sectors, such as fintech and e-commerce, which have shown significant growth in Nigeria.

However, as Technological Determinism Theory postulates, technology itself can drive social change, impacting both employment prospects and influencing behaviour. In developing countries like Nigeria, the rapid adoption of digitalization has not only created legitimate job opportunities but has also facilitated an environment where cybercrime becomes an alternative source of income. Cybercrime, which involves activities such as phishing, online scams, and identity theft, can appeal to unemployed youth who lack legitimate income options, thus aligning with the deterministic notion that technology can drive both positive and adverse societal outcomes.

In essence, the synthesis of these theories suggests a complex relationship where digitalization is both an enabler of legitimate employment and, under certain conditions, a catalyst for cybercrime. For instance, while youths with digital skills can find legitimate opportunities in sectors like digital marketing or software development, those same skills can be misused for fraudulent activities. The high incidence of cybercrime among Nigerian youth indicates that when legitimate digital-based employment opportunities are lacking, some individuals may be driven to exploit digitalization for illicit gains.

Human Capital Theory emphasizes that skills investment can yield economic benefits not just for individuals but also for society, as a digitally literate workforce attracts investment and drives economic productivity¹⁷⁵. In Nigeria, government programs and private-sector initiatives such as the Digital Literacy Programme (DLP) have been established to provide youths with digitalization skills aimed at increasing employability and reducing poverty¹⁷⁶. However, the effectiveness of these programs is often constrained by limited resources, underfunding, and gaps in infrastructure. This lack of sufficient digital training infrastructure in Nigeria exacerbates the risk of young people turning to cybercrime, as their technical knowledge lacks an ethical or professional application in the labour market²¹.

On the other hand, Technological Determinism Theory suggests that technology's impact is inevitable and often shapes social outcomes beyond individual choice¹⁷⁰. Thus, while digital skills can theoretically lead to employment, the reality is that these skills can just as easily be applied to cybercrime if societal structures do not provide sufficient safeguards and legitimate channels for their use. In Nigeria, where unemployment is high and regulatory mechanisms for cybercrime are still developing, the rapid adoption of digitalization has contributed to Nigeria's youth unemployment challenges, underscoring the deterministic aspect of technology.

By synthesizing these theories, it becomes clear that Nigeria's approach to addressing youth unemployment should be twofold: First, policy should encourage the development of human capital in digitalization by expanding access to affordable training programs and infrastructure. This will help increase the capacity of youth to participate in the digital economy. Second, there must be a concerted effort to establish ethical and regulatory frameworks that mitigate the risks of youth unemployment, effectively directing digitalized skills towards legitimate employment.

The synthesis of Human Capital Theory and Technological Determinism Theory implies that, while developing digital skills is necessary, ensuring that these skills are applied ethically is equally important. Addressing both these aspects can help shift the use of digital skills away from youth unemployment and toward legitimate economic development.

2.2.3. Dual Economy Theory

The Dual Economy Theory, first articulated by W. Arthur Lewis in 1954, posits that economies in developing countries are typically divided into two distinct sectors: a modern, technologically advanced sector, and a traditional, less productive sector¹⁷⁷. The modern sector is characterized by higher productivity, better wages, and more advanced technology,

while the traditional sector often relies on labour-intensive practices with lower wages and limited access to technological advancements. This duality creates significant disparities in economic opportunities, living standards, and access to resources within the same country.

Relevance of Dual Economy Theory to Digitalization and Youth Unemployment in Nigeria

In the context of Nigeria, the Dual Economy Theory provides a valuable framework for understanding the uneven distribution of digitalization and its implications for youth employment. Nigeria, like many other developing countries, exhibits a pronounced economic duality, with a rapidly growing urban economy that embraces modern technologies and a predominantly rural economy that lags in technological adoption.

The adoption of digital skills in Nigeria has been primarily concentrated in urban areas, where there is better infrastructure, higher levels of education, and greater economic activity. Cities like Lagos, Abuja, and Port Harcourt are home to Nigeria's burgeoning tech hubs, where young people have access to digital skills training, entrepreneurial opportunities, and employment in digital-related industries. These urban centres have benefited significantly from the rise of the digital economy, with new job opportunities emerging in sectors like fintech, e-commerce, and digital marketing.

However, the same cannot be said for rural areas, where the majority of Nigeria's population resides. In these regions, access to digital utilities is severely limited due to poor infrastructure, lack of electricity, and lower levels of education. The digital divide between urban and rural areas means that many young people in rural communities are excluded from the opportunities created by digitalization, perpetuating cycles of poverty and unemployment. This urban-rural disparity in digital adoption reflects the dual economic structure described

by Lewis, where the benefits of technological advancement are concentrated in the modern sector, while the traditional sector remains underdeveloped ¹¹².

The Dual Economy Theory also highlights the potential for digitalization to exacerbate existing inequalities in Nigeria if access to technology is not evenly distributed. As the modern sector continues to advance, those who are part of the traditional sector, particularly in rural areas, may find themselves increasingly marginalized. This can lead to a widening gap between the urban and rural populations, with the urban youth enjoying better employment prospects due to their access to digital utilities, while their rural counterparts face higher levels of unemployment and underemployment.

For instance, while urban youths may gain employment in digital-related fields or start their own digital businesses, rural youths may remain trapped in low-productivity agricultural work or informal sector jobs that offer little economic security. This divergence in employment opportunities is a direct consequence of the unequal distribution of digital infrastructure and resources, as posited by the Dual Economy Theory.

A practical example of the Dual Economy Theory in action in Nigeria is the disparity in internet penetration between urban and rural areas. According to the Nigerian Communications Commission (NCC), internet penetration in urban areas like Lagos and Abuja is significantly higher than in rural areas, where connectivity is often unreliable or non-existent. This disparity has direct implications for youth employment, as access to the internet is essential for participating in the digital economy, whether through e-learning, remote work, or online entrepreneurship.

Another example is the distribution of tech hubs and innovation centres across Nigeria. While cities like Lagos boast numerous tech hubs that provide training, mentorship, and networking opportunities for young entrepreneurs, similar facilities are rare in rural areas. This urban

concentration of digital resources reinforces the dual economic structure, with urban youths benefiting from the digital revolution while rural youths are left behind.

2.3. Review of Empirical Studies

Numerous studies have documented the positive impact of digitalization on employment, particularly among young people. Digitalization has been credited with creating jobs in emerging industries such as software development, digital marketing, and e-commerce. For example, in Nigeria, the digital sector has grown rapidly, contributing significantly to GDP and providing employment opportunities for young graduates¹⁷⁸. The rise of digital entrepreneurship, facilitated by e-commerce platforms and mobile payment systems, has also empowered many young people to start their own businesses.

Despite the potential benefits, digital adoption also presents challenges that can exacerbate youth unemployment. One of the primary concerns is the digital divide, which refers to the gap between individuals who have access to digitalization and those who do not¹²³. In many developing countries, access to digital infrastructure is limited, particularly in rural areas. This lack of access can prevent young people from acquiring the skills needed to compete in the digital economy.

Moreover, the rapid pace of technological change can lead to skill mismatches, where the skills taught in traditional education systems do not align with the demands of the digital sector.¹⁴⁹ This mismatch can result in a situation where jobs are available, but young people lack the necessary qualifications to fill them.

The study “Mobile Phones and Economic Development in Africa” offers a robust empirical examination of how mobile telephony has reshaped economic landscapes across sub-Saharan Africa. Over the past decade, mobile phone access has surged, bridging urban-rural and rich-poor divides and introducing telecommunications infrastructure to regions previously devoid of it. The authors document how mobile phones have drastically reduced communication costs, enabling individuals and firms to access and disseminate information more efficiently. This reduction in transaction costs has had measurable economic impacts, particularly in agriculture and labour markets. For instance, farmers can now obtain real-time price information, improving market efficiency and reducing price dispersion. Similarly, job seekers and employers benefit from faster and broader dissemination of employment opportunities. The paper synthesizes a growing body of empirical evidence showing that mobile phones enhance producer and consumer welfare under specific conditions. However, the authors caution that these benefits are not automatic; they depend on complementary factors such as infrastructure, regulatory environments, and literacy levels. The study concludes by identifying gaps in the literature and proposing future research directions, emphasizing the need for longitudinal data and rigorous impact evaluations better to understand the long-term developmental effects of mobile telephony. Overall, the paper provides a compelling empirical foundation for understanding the transformative potential of mobile phones in fostering economic development across Africa¹⁷⁹.

The study ‘Entrepreneurship as a Possible Solution to Youth Unemployment in Africa’, presents a nuanced empirical exploration of how entrepreneurial activity may serve as a response to persistent youth unemployment across sub-Saharan Africa. Despite notable economic growth in the region, formal employment opportunities remain scarce, prompting many young people, particularly those outside the education system, to pursue self-employment in the informal sector. The study critically assesses government-led initiatives

that promote entrepreneurship as a panacea for youth joblessness, arguing that while such optimism is understandable, the reality is far more complex. The study finds that entrepreneurship can indeed offer viable pathways out of poverty for some youth, especially older individuals who manage to establish sustainable ventures. However, the majority face formidable barriers, including limited access to capital, inadequate business training, and regulatory constraints, which hinder their ability to launch and maintain successful enterprises. The chapter underscores the dual nature of youth entrepreneurship: it can be both a survival strategy and a potential engine for economic empowerment, but its effectiveness depends heavily on broader structural and policy support. Ultimately, the study calls for a more realistic and context-sensitive approach to youth entrepreneurship policy, one that acknowledges the diversity of youth experiences and the systemic challenges they face¹⁸⁰.

The study on ICT diffusion and the finance–growth nexus in ECOWAS countries presents a rigorous empirical analysis of how information and communication technology (ICT) influences the relationship between financial development and economic growth across West African states. Using panel data from 2000 to 2016, the research employs dynamic panel estimation techniques, specifically the Generalized Method of Moments (GMM), to address potential endogeneity and ensure robustness in its findings. The results reveal that ICT diffusion—measured through indicators like mobile subscriptions, internet usage, and broadband access—positively moderates the finance-growth relationship. In other words, financial development contributes more significantly to economic growth in environments where ICT infrastructure is more advanced. The study finds that ICT not only enhances the efficiency of financial institutions but also expands access to financial services, particularly in underserved populations. This digital expansion facilitates better resource allocation, reduces transaction costs, and improves financial intermediation, thereby amplifying the growth effects of financial development. However, the analysis also highlights disparities

among ECOWAS countries in terms of ICT penetration and financial sector maturity, suggesting that the benefits are not uniformly distributed. Countries with stronger ICT frameworks and more inclusive financial systems tend to experience greater economic gains. Notably, the study underscores the need for integrated policy approaches that simultaneously promote ICT infrastructure and financial sector reforms. It calls for targeted investments in digital connectivity, regulatory harmonization, and capacity building to ensure that ICT can effectively complement financial development in driving sustainable growth. Overall, the empirical evidence supports the hypothesis that ICT acts as a catalytic force in strengthening the finance-growth nexus, offering valuable insights for policymakers aiming to harness digital tools for economic transformation in West Africa¹⁸¹.

The study on 'COVID-19 and digitalisation' presents a comprehensive empirical overview of how the COVID-19 pandemic catalyzed digital transformation across sectors, organizations, and societies. Drawing on data from EU enterprises and global surveys, the research illustrates how the crisis accelerated digital adoption by several years, particularly in areas such as teleworking, online business models, and internal operations. The analysis is grounded in comparative sectoral data, showing that companies with pre-existing digital infrastructure adapted more swiftly, while others faced significant disruption. The study highlights the surge in remote work, noting that nearly 60% of EU companies had employees teleworking during the first wave, compared to just 25% before the pandemic. This shift is contextualized within broader changes in work organization and technological integration. The empirical evidence also underscores the uneven nature of digital uptake, shaped by factors such as sectoral readiness, technological maturity, and public support. Importantly, the research connects digitalisation to resilience and innovation, showing how firms leveraged digital tools not only to survive but to explore new markets and services. The study

further examines the expansion of digital technologies in healthcare, education, and finance, emphasizing the role of big data and AI in pandemic management. While optimistic about the long-term impact of digitalisation, the study also notes limitations in AI deployment due to data management challenges. Overall, the research offers a comprehensive and data-rich account of digital acceleration during COVID-19, positioning it as both a reactive necessity and a strategic opportunity for future competitiveness¹⁸².

Another study offers a robust empirical investigation into the relationship between digital inclusion and employment outcomes during the COVID-19 pandemic. Drawing on a diverse dataset, the research employs econometric modelling to assess how access to digital infrastructure and digital literacy influenced labour market resilience across different demographic groups. The methodology is sound, utilizing regression analysis to isolate the effects of digital inclusion from other socioeconomic variables. Notably, the study finds that individuals with reliable internet access and higher digital skills were significantly more likely to retain employment or transition to remote work, highlighting digital inclusion as a buffer against pandemic-induced job losses. The analysis also reveals disparities in digital access, with marginalized populations, particularly in rural areas and among lower-income groups, experiencing greater employment vulnerability. These findings are substantiated by cross-sectional data and longitudinal comparisons, lending credibility to the causal inferences drawn. The study's empirical rigor is further enhanced by its use of control variables and robustness checks, which confirm the consistency of the results across multiple specifications. Overall, the research provides compelling evidence that digital inclusion is not merely a technological issue but a critical determinant of economic resilience, especially in times of crisis¹⁸³.

The article "Skill Mismatch and Employability in Nigeria: A Review of Literature" presents a compelling examination of the growing disconnect between the skills Nigerian graduates

possess and those demanded by employers. It highlights how this mismatch has become a significant concern for governments, educational institutions, and the labour market, contributing to rising unemployment and underemployment. The paper attributes the problem to several factors, including an overemphasis on theoretical knowledge in universities, inadequate practical training, poor infrastructure, and insufficient digital literacy despite frequent internet access. Graduates are often described as “half-baked,” lacking in critical thinking, emotional intelligence, and technical competencies, which undermines their employability and national productivity. The study emphasizes the need for a tripartite investigation involving students, lecturers, and employers, with a particular focus on social and management sciences. These fields account for half of Nigeria’s university population. It also calls for a gender-based analysis of mismatch trends and recommends curriculum reforms that integrate practical experiences, mentorship, and lifelong learning. Ultimately, the article underscores the urgency of aligning educational outcomes with labour market needs to foster sustainable development and economic growth⁹².

A study explores the relationship between youth unemployment and Nigeria’s economic development using data from 2010 to 2016. Drawing from sources like the National Bureau of Statistics and the World Bank, the authors analyse variables such as GDP, labour force participation, government spending, labour efficiency, and crime rates. Interestingly, the findings reveal that despite a rise in youth unemployment, Nigeria’s GDP did not decline, suggesting that other sectors may have offset the economic drag. Crime rates increased, but not significantly enough to be directly attributed to youth unemployment. Labor productivity showed a slight uptick, about \$2 per labour hour, which the authors note is unimpressive given the total hours worked. Meanwhile, production losses mounted due to underutilized labour, and government spending on imports rose sharply. These trends point to a paradox: while the economy grew, inefficiencies in labour utilization and rising unemployment among

youth signal deeper structural issues. The study ultimately underscores the need for targeted policy interventions to harness Nigeria's youthful population for sustainable development⁶⁷.

A review article explores the transformative impact of digital technologies on education, particularly in the context of the United Nations' Sustainable Development Goal for inclusive and equitable quality education. The authors argue that digital tools have evolved from mere knowledge delivery systems into dynamic platforms that foster collaboration, mentorship, and assessment. The COVID-19 pandemic accelerated the adoption of these technologies, revealing their potential to sustain learning during crises. The paper highlights a wide array of applications, from smartboards and MOOCs to virtual labs and social media, each contributing to more engaging, flexible, and personalized learning experiences. It also underscores the role of digital classrooms in shifting traditional pedagogies toward more interactive and student-centred models. However, the authors do not shy away from discussing challenges such as digital divides, teacher resistance, and implementation barriers, especially in developing countries. They advocate for hybrid learning models and emphasize the importance of training educators to harness technology effectively. Ultimately, the study presents digital technologies as indispensable tools for modern education, capable of enhancing access, equity, and quality when thoughtfully integrated into teaching and learning environments⁵³.

The study titled "Digital Transformation in Healthcare: Technology Acceptance and Its Applications" conducts a systematic bibliographic review to examine how digital transformation is reshaping healthcare through the adoption of technologies such as wearable devices, virtual reality, and the Internet of Things. By analysing 287 peer-reviewed articles selected from over 5,800 publications across major databases, the research identifies five core themes: information technology in health, educational impact of e-health, acceptance of e-health, telemedicine, and security issues. The findings reveal that digital tools are driving a

shift toward patient-centric care, enhancing access, personalization, and operational efficiency. However, the study also highlights persistent challenges, including data privacy concerns, resistance to technological change, and uneven digital literacy among both patients and providers. Telemedicine emerges as a particularly transformative domain, especially in response to the COVID-19 pandemic, while the educational use of e-health platforms is shown to improve healthcare training and public awareness. Overall, the study underscores that successful digital transformation in healthcare hinges not only on technological innovation but also on widespread acceptance and strategic integration across institutional and individual levels⁴⁷.

An article explores how traditional businesses are adapting to digital transformation by identifying key challenges and outlining strategic responses. Using qualitative methods like literature review and library research, the authors highlight obstacles such as resistance to change, lack of digital skills, outdated legacy systems, and cultural barriers. Additionally, issues like data management, cybersecurity, and regulatory compliance complicate the transition. To overcome these hurdles, businesses are investing in digital infrastructure, reskilling employees, fostering innovation, forming tech partnerships, and adopting customer-centric models. The study emphasizes that successful transformation requires strong leadership, open communication, and a willingness to experiment and learn from failure. Ultimately, it argues that embracing digital technologies with a growth mindset enables traditional businesses to remain competitive and unlock new opportunities in a rapidly evolving marketplace³³.

This study investigates the link between youth unemployment and rising criminality in Nigeria's South West region, emphasizing the threat these issues pose to sustainable security. Using both quantitative and qualitative methods, including 200 distributed questionnaires, the research reveals that high crime rates among youths stem primarily from a lack of

employment opportunities and inadequate government empowerment initiatives. Crimes such as robbery, kidnapping, and internet scams are increasingly perpetrated by young people, who represent a significant portion of Nigeria's population. The paper argues that without meaningful engagement and livelihood options, unemployed youths are more likely to resort to criminal activities. It recommends urgent government intervention to provide job opportunities and enforce strict penalties for offenders, including complicit security personnel, as a deterrent. Ultimately, the study underscores that addressing youth unemployment is critical to restoring peace and ensuring long-term security in the region⁷².

This study examines the prevalence and contributing factors of depression among unemployed young adults in the Gedeo zone of Southern Ethiopia, highlighting the mental health toll of youth unemployment. Conducted as a community-based cross-sectional survey with 1,452 participants, the research found that 30.9% of unemployed youth experienced depression, with most cases classified as mild or moderate. Key factors associated with higher depression rates included being male, experiencing long-term unemployment (over one year), low self-esteem, poor social support, and current alcohol use. The study used the PHQ-9 screening tool and multivariable logistic regression to identify statistically significant predictors. It concludes that depression is a serious public health concern in this population and calls for targeted strategies for prevention, early detection, and improved access to mental health care. The authors recommend further research and policy action to address the psychological impact of unemployment on Ethiopia's youth⁷³.

This study, titled "Youth Unemployment and Socio-Economic Development in South East Nigeria: The Nexus", explores the complex relationship between youth unemployment and socio-economic development in South East Nigeria, emphasizing the region's vulnerability to systemic challenges. It identifies youth unemployment as a significant threat to progress, linking it to rising rates of drug abuse, poverty, illiteracy, and criminal behaviour. Through

empirical analysis, the authors demonstrate how the lack of employment opportunities for young people undermines life expectancy and fuels social instability. The paper argues that without strategic interventions, such as targeted job creation, educational reform, and inclusive economic policies, the region risks long-term developmental stagnation. Ultimately, the study calls for urgent, multi-sectoral efforts to empower youth and harness their potential as drivers of sustainable development⁹⁰.

A study presents a comprehensive literature review on business digitalization, examining both the transformative potential and the challenges organizations face as they navigate the digital frontier. Synthesizing research published between 2012 and 2024 across databases like ScienceDirect, Google Scholar, and ACM Digital Library, the authors identify digitalization as a powerful force driving operational efficiency, innovation, and enhanced customer experiences. However, the review also highlights significant constraints, including cybersecurity risks, the digital divide, technological dependency, and ethical dilemmas. These challenges are not merely technical but deeply organizational, often requiring cultural shifts and strategic realignment. The study emphasizes that successful digital transformation demands more than technological adoption; it requires thoughtful integration, investment in digital resources, and proactive strategies to mitigate risks. Ultimately, the review provides a nuanced understanding of how digitalization is reshaping business landscapes, offering both opportunities for growth and complex hurdles that must be addressed to ensure sustainable advancement¹.

The article “Education Technology (EDTECH): A Step towards Digitalization of the Indian Education System” explores how the COVID-19 pandemic catalysed a dramatic shift in India’s education landscape. Traditionally reliant on face-to-face classroom instruction, Indian institutions were forced to adopt online teaching methods almost overnight. This disruption created an unprecedented opportunity for the EdTech sector, which responded with

scalable digital solutions to meet the urgent demand for remote learning. The paper underscores that education is a constitutional right in India, and the government has a responsibility to ensure equitable access to quality education. Through a SWOC analysis, highlighting strengths, weaknesses, opportunities, and challenges, the authors examine the potential of EdTech to transform the system. While digital platforms offer flexibility and broader reach, they also expose gaps in infrastructure, digital literacy, and data security. The authors argue that digitalization must be more than a temporary fix; it should be a strategic, long-term investment integrated into national education policy and planning²⁷.

Youth unemployment also remains a persistent challenge in Nigeria, with significant implications for economic growth and social stability¹⁸⁴. In response to this crisis, the acquisition of entrepreneurial and digital skills has been increasingly advocated as a strategy for equipping young people with competencies required for self-reliance and employment. An empirical study focused on this issue by investigating the role of entrepreneurial and digital skills in addressing youth unemployment among business educators in Oyo State, Nigeria¹⁸⁵.

The study employed a descriptive survey research design, targeting all 93 registered members of the Association of Business Educators of Nigeria (ABEN), Oyo State Chapter. Data were collected using a structured questionnaire and analyzed using mean, standard deviation, and t-test statistics. The instrument was rated on a four-point Likert scale, and its reliability was confirmed with a Cronbach Alpha coefficient of 0.81, indicating high internal consistency.

The results revealed that entrepreneurial skills such as the ability to solve business problems, recognize business opportunities, take risks, develop new business ideas, and coordinate people to achieve business goals are essential to reducing youth unemployment. All ten entrepreneurial skill items in the questionnaire recorded mean scores above 2.50, with a grand mean of 3.14, signifying general agreement among respondents on their relevance.

These findings align with earlier research that linked entrepreneurial education with increased chances of self-employment and job creation among youth.

In addition, the study highlighted the importance of digital skills in enhancing youth employability. Sixteen digital skills, ranging from social media and email marketing to data analysis, blockchain technology, cloud computing, artificial intelligence, and robotic applications—were rated positively. The grand mean of 3.11 indicates a strong perception among business educators that digital literacy is indispensable in today's job market. The study noted that many of these digital competencies are embedded in business education curricula, but that there is still a need for deliberate enhancement and access to practical learning platforms. The study also tested two hypotheses to determine whether gender influenced perceptions of needed skills. The t-test analysis showed no significant difference between male and female business educators in their ratings of either entrepreneurial or digital skills, suggesting consensus across gender lines.

The emergence of the digital economy has significantly transformed labor markets by redefining how work is structured, delivered, and accessed¹⁸⁶. These changes offer new pathways for increasing women's participation in the labor force, particularly through flexible, remote, and digitally enabled work. However, the impact of digitalization on women's employment remains uneven across countries and income groups, with implications for policy and gender equality.

An empirical study investigated how the development of the digital economy influences women's employment across 53 countries in Europe and Asia between 2010 and 2020¹⁸⁷. Using panel data sourced from the World Bank, International Telecommunication Union (ITU), and United Nations Development Programme (UNDP), the authors applied Principal Component Analysis (PCA) to construct a composite index of digital economy development.

This index was then incorporated into a panel regression model to estimate the impact of digital economy progress on female employment across different income groups.

The results showed a positive and statistically significant relationship between the digital economy and women's employment in high-income countries. In these contexts, access to digital infrastructure, digital skills, and flexible employment opportunities supported increased female labor force participation, particularly in service-based and remote-friendly industries. However, in middle- and low-income countries, the study revealed a negative or negligible impact, suggesting that without corresponding investments in education, infrastructure, and societal awareness, digitalization may actually exacerbate existing gender inequalities in employment.

The study further emphasized that in many lower-income countries, women face substantial barriers to digital access and employment, such as inadequate internet infrastructure, low post-secondary enrollment rates, high cost of education, and entrenched gender norms.

This research contributes to the understanding that while digital transformation offers employment opportunities for women, the distribution of these benefits is not automatic or equal. It reinforces the importance of contextual factors, like income level, infrastructure quality, and cultural norms in shaping outcomes.

There are also empirical evidence on the role of digitization in enhancing youth employment in Nigeria's agricultural Sector. This is because agriculture remains a major source of employment in Nigeria, particularly for the youth. However, despite its economic importance, the sector is often characterized by inefficiencies, high post-harvest losses, and low levels of technological engagement¹⁸⁸. In recent years, digital technologies have shown promise in transforming the agricultural value chain, offering innovative solutions in production, processing, marketing, and distribution. An empirical study explores this intersection by examining how Information and Communication Technology (ICT) adoption affects youth

employment in Nigeria's agricultural sector¹⁸⁹. The study directly aligns with Sustainable Development Goal 8, which advocates for productive employment and decent work for all.

The research utilized data from the Living Standards Measurement Study-Integrated Surveys on Agriculture (LSMS-ISA), Wave 4 (2018/2019). This nationally representative dataset provided detailed information on household and individual engagement in agricultural activities. To establish causality and account for potential selection bias, the study employed logit regression, propensity score matching (PSM), and inverse probability weighted regression adjustment (IPWRA). These statistical methods allowed the researcher to estimate both the determinants of ICT adoption and its impact on youth employment outcomes.

Key findings revealed that education level, access to electricity, geographic location, age, and income were significant predictors of ICT adoption among young agricultural workers. Youths with higher education and better infrastructure access were more likely to adopt digital tools such as mobile phones, farming apps, and online platforms. These technologies facilitated better access to market information, weather forecasts, supply chains, financial services, and training resources—ultimately enhancing productivity and work opportunities. Importantly, the study demonstrated that ICT adoption increased youth employment in agriculture by approximately 21%, a substantial impact in a sector traditionally perceived as unattractive by younger populations. Furthermore, youths who adopted ICT tools reported 29.46% more participation in agricultural activities (measured by average hours worked per week) than those without access to digital tools. This suggests that ICT does not merely support passive engagement but actively encourages increased involvement across various nodes of the agricultural value chain—from input sourcing and planting to harvesting and marketing.

Despite the robust findings, the study acknowledged certain limitations. Key variables such as insecurity, access to social protection, and safety nets, factors known to influence youth

engagement in agriculture, were not included in the model due to data constraints. Nonetheless, the study provides strong empirical support for the argument that digitally empowered agriculture can serve as a pathway for youth employment, especially in a country like Nigeria where youth unemployment remains a pressing challenge.

2.4. Conceptual Model

The conceptual model illustrated in the diagram below provides a visual representation of how digitalization influences youth employment outcomes. It maps out the key variables in the study, illustrates their interrelationships, and highlights the mechanisms (mediating variables) through which digitalization translates into employment opportunities.

The independent variable in the study is digitalization and encompasses: Digital Tools Access (e.g., smartphones, computers), Internet Connectivity (availability and affordability of data services), Social Media Use (especially platforms for professional networking or marketing) and Digital Skills Training (formal and informal education in ICT).

The mediating variables (Enablers of Impact) are mechanisms through which digitalization influences employment. They help explain how or why digitalization may lead to better job outcomes and include: Digital Literacy, ICT Adoption and Digital Entrepreneurship. These mediators connect digitalization to practical employment paths.

Youths (Target Population): This refers to the demographic focus of the study youths aged 18–35 in Ibadan North LGA. They are the recipients of digital influence and the group whose employment outcomes you are assessing. This component captures the characteristics, experiences, and responses of young people within the digital space.

Finally, the youth employment outcomes (Dependent Variable): This is the outcome or goal of the entire model. It is the aspect being measured. It includes, Job Creation, Self-

Employment, and Economic Empowerment. This box illustrates how exposure to and engagement with digital technology translates into tangible economic benefits for youths.

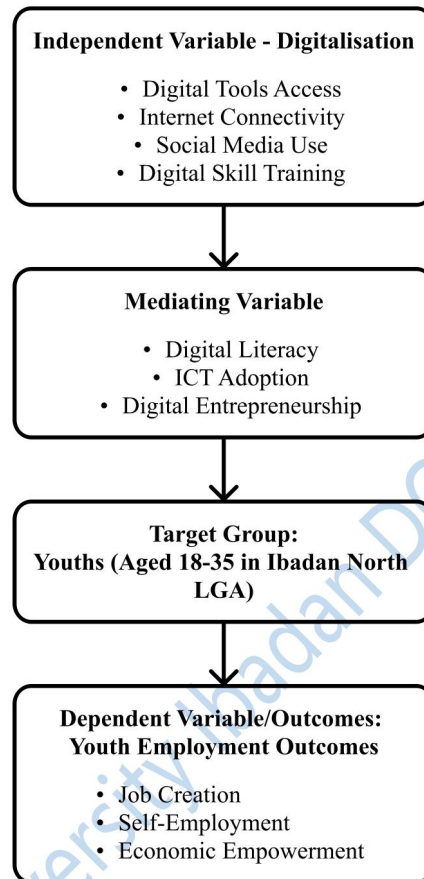


Fig 2.1. Conceptual Model: Digitalization and Youth Employment in Ibadan North LGA

2.5. Summary of Gap in Literature Reviewed

Several existing literature has extensively explored the challenges of youth unemployment in Nigeria, as well as the global shift toward digitalization as a driver of economic development. Several studies have also highlighted the positive impact of digital technologies on job creation, entrepreneurial opportunities, and the overall transformation of labour markets in developing countries. However, many of these studies focus on macroeconomic analyses, national digital policy frameworks, or broad continental trends, often neglecting localized contexts/cases such as Ibadan North Local Government Area.

Furthermore, while research has documented the transformative role of digital skills, e-commerce, and online freelancing in reducing unemployment among youth, limited attention has been paid to the specific barriers faced by youths in semi-urban areas like Ibadan North, where digital infrastructure and literacy levels remain uneven. Most existing research has also failed to sufficiently interrogate the dual nature of digitalization where it not only provides employment opportunities but also inadvertently facilitates illicit activities like cybercrime among technologically savvy but unemployed youth.

Moreover, there is a noticeable lack of empirical studies examining the intersection of digital literacy, entrepreneurship, and institutional policy support in relation to youth unemployment in Southwest Nigeria. While national-level data is often used to infer broad patterns, localized studies that assess the lived experiences, digital skill adoption rates, and entrepreneurial outcomes of young people in Ibadan North are scarce. This leaves a critical gap in understanding how digitalization can be effectively harnessed as a strategic tool to address unemployment in specific Nigerian communities.

This study, therefore, sought to bridge this gap by offering a place-based investigation into the relationship between digitalization and youth unemployment in Ibadan North. It will contribute localized empirical data to the discourse, while also evaluating the real-world

applicability of digital skills training, access, entrepreneurship, and government initiatives in reducing youth unemployment.

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Chapter Three

Methodology

3.1. Research Design

The study adopted descriptive survey research design. This design was chosen because it allows for the collection of data that describes the characteristics of the population under study. It is suitable for identifying the relationship between variables such as digitalization and youth employment in a natural setting without manipulating the study environment ¹.

3.2. Population of the Study

The population of this study comprised youths aged 18-35 years in Ibadan North Local Government Area, Oyo state. This age group was selected because it represents the most active users of ICT and is also the demographic most affected by unemployment and involved in digital activities². The choice of Ibadan North Local Government Area as the study area was due to its significant population of youth especially students of the prestigious University of Ibadan, diverse socio-economic activities, and the presence of both urban and peri-urban settings. The study targeted youths from various sectors, including students, unemployed graduates, and those employed in digital-related jobs.

3.3. Sample and Sampling Techniques

The sample size for this study drawn using the Yamane formula was 278 respondents and was inflated to 300 respondents, this was done to increase the response rate. Therefore, 300 copies of the questionnaire were distributed to participants. This sample size was considered sufficient to represent the population and allow for generalization of the findings. The sampling technique used was stratified random sampling. The population was divided into different stratum based on employment status (employed, unemployed, students), and from

each stratum, respondents are randomly selected. This technique ensured that all relevant sub-groups of the population are adequately represented in the sample.

3.4. Description of the Research Instruments

The primary research instrument for this study was a structured questionnaire. The questionnaire consists of closed-ended questions. Closed-ended questions provides quantitative data. The questionnaire was divided into sections to capture different aspects of the research variables.

Section A: Demographic information (age, gender, education level, employment status).

Section B: Use of digital tools (frequency, purpose, access to digital resources).

Section C: Employment status and challenges.

Section D: Role of digital entrepreneurship in youth unemployment.

Section E: Challenges hindering effective digitalization in youth employment.

3.5. Validity of the Research Instrument

To ensure the validity of the research instrument, the questionnaire underwent expert review content validation. This instrument was validated by the researcher's supervisor and other lecturers in the Department of Politics and International Relations, Faculty of Social Science and Management, Lead City University, to verify that the questions are relevant and adequately covers the research objectives.

3.6. Reliability of the Research Instrument

The reliability of the instrument was tested using the Cronbach's Alpha method. A pilot study was conducted with a small sample of respondents (30-50) to test the reliability of the

questionnaire. A Cronbach's Alpha coefficient of 0.7 or higher was considered acceptable, indicating that the instrument is reliable³.

3.7. Administration of Research Instrument

The research instrument, a structured questionnaire, was distributed both physically and online to respondents within Ibadan North Local government area. The distribution targeted students, particularly from the University of Ibadan, as well as employed and unemployed youths within the study area. Physical copies were administered directly while online copies were shared through email and social media platforms using google forms to reach respondents who could not be accessed physically. Respondents were given sufficient time to complete the questionnaire, after which the filled copies were retrieved. In total, 300 questionnaires were distributed, and 210 were correctly completed and returned, representing a 70% response rate used

3.8. Method of Data Collection

The study used both primary and secondary data. Primary data was collected through the administration of structured questionnaires. The questionnaires were designed to capture information on respondent's use of digital tools, and their employment status (if employed), and their perceptions of the relationship between digitalization and employment opportunities. Secondary data on the other hand was gathered from relevant literature, including government reports, academic journals, and other scholarly publications that discuss the topics of digitalization and youth employment.

3.9. Method of Data Analysis

The data collected from the questionnaires were analysed using descriptive statistics method. With this method Frequencies, percentages and means were used to summarize the demographic data and responses to closed-ended questions.

Data analysis was conducted using Statistical Package for the Social Sciences (SPSS). The results is presented in tables for easy interpretation and understanding⁴.

3.10. Ethical Approval

The study adhered to ethical standards in research by ensuring the confidentiality and anonymity of respondents. Informed consent was obtained from all participants before they participated in the study. Respondents were informed of the purpose of the study, and their participation was voluntary. Additionally, the study avoided any form of bias or manipulation of data to ensure the integrity and credibility of the research findings.

Endnotes

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Chapter Four

Results and Discussion of Findings

4.1. Demographic Data Analysis

This presents the demographic information of the respondents of this study. This section consists of background and respondents' information that describes basic characteristics such as gender, age, marital status, employment status, educational level.

Table 4.1.1 Demographic Information Analysis

Variables	Category	Frequency	Percentage
Gender	Male	77	36.7
	Female	133	63.3
Age	18-25	5	2.4
	26-35	123	58.6
	36-45	46	21.9
	46-55	20	9.5
	56 & above	16	7.6
Marital Status	Single	100	47.6
	Married	85	40.5
	Divorced	20	9.5
	Widow	5	4.7
Educational Level	SSCE	7	3.3
	OND/NCE	15	7.1
	HND/BSC	133	63.3
	Postgraduate	55	26.2
Employment Status	Employed	116	55.3
	Unemployed	85	44.7

Source: Researcher Field Survey, 2025.

Table 4.1.1 presents the gender distribution of the 210 respondents who participated in the study conducted in Ibadan North Local Government Area. According to the data, 77 of the respondents were male, representing 36.7% of the total sample, while 133 were female, accounting for the remaining 63.3%. This distribution reveals that female youth were more represented in the study population than their male counterparts. The disparity in gender representation is attributed to factors that includes the willingness of female respondents to participate in the study, their accessibility during the data collection period, or a broader demographic trend in the study area.

Given that Ibadan North is home to several higher institutions and youth-focused activities, the higher proportion of female respondents may reflect an increased presence of young women in educational or training environments. This trend might also suggest a growing participation of young women in issues related to digitalization and employment, which form the central themes of the study. As such, the gender composition of the sample is particularly relevant in analyzing patterns of digital engagement, digital literacy, and employment outcomes, as gender dynamics often influence access to resources, opportunities, and digital platforms.

This table presents the age distribution of the 210 respondents surveyed for the study on digitalization and youth unemployment in Ibadan North Local Government Area. The data shows that majority of the respondents (58.6%) fall within the 26–35 age bracket, with 123 individuals represented. This age group aligns closely with the upper boundary of the youth demographic in Nigeria, which is generally defined as individuals aged 18–35. Their dominant presence in the study sample is particularly significant, as this cohort represents a transitional phase between formal education and stable employment, a stage where the impacts of digitalization on employability are often most felt. These individuals are likely to be actively seeking job opportunities or striving to advance within the labour market, making

their perspectives crucial for understanding the intersection of digital access, skill acquisition, and employment outcomes.

The next most represented group is those aged 36–45, who make up 21.9% of the sample. While technically outside the formal youth category, this group is still relevant in discussions of unemployment, especially in a context where economic pressures and job insecurity persist into later adulthood. Many in this bracket may have encountered barriers to digital adoption or are currently adapting to new digital demands in the workforce. Their inclusion offers valuable insight into how digitalization affects not just the entry into employment but also long-term employability and career sustainability.

Respondents aged 46–55 (9.5%) and those aged 56 and above (7.6%) represent a smaller proportion of the study population. These age groups, while not the primary focus of youth unemployment studies, still contribute useful comparative perspectives, especially regarding the generational divide in digital literacy, adaptability, and access to digital tools for employment or entrepreneurship. Their responses can reflect more traditional work experiences or reveal how the digital shift has created or exacerbated barriers for older individuals in the labour market.

Interestingly, the age group 18–25, which traditionally forms the core of youth unemployment concerns, is the least represented in the study, accounting for only 2.4% of respondents. This limited participation could suggest several things. First, younger individuals were less accessible during the data collection period. Alternatively, it also indicate a gap in awareness or willingness to engage in studies related to digitalization and employment. Nonetheless, the low turnout from this group is important, as it may reflect one of the challenges of addressing youth unemployment, the disconnection between young people and institutional efforts to assess or intervene in their employment outcomes.

The table also provides insight into the marital status of the respondents who participated in the study. Among the 210 individuals surveyed, nearly half (47.6%) identified as single, making this the most represented marital category. This is a significant finding within the context of youth unemployment, as single individuals, particularly those within the youth age bracket, are often at the early stages of career development or transitioning between education and the workforce. Their employment status may be more directly influenced by the opportunities and challenges presented by digitalization, such as access to online job platforms, digital skill acquisition, or entrepreneurship through digital means. Being unmarried may also allow for more flexibility in engaging with digital training programs or taking on remote or freelance work opportunities, which are increasingly common in the digital economy.

Married respondents make up 40.5% of the study population, suggesting that a substantial portion of the unemployed or underemployed youth in Ibadan North are navigating both economic and familial responsibilities. For this group, the stakes of unemployment may be higher, as they may be financially responsible not only for themselves but also for spouses and possibly children. Their ability to adapt to or benefit from digital innovations may also be shaped by time constraints or household obligations, which could either limit or motivate their participation in digital employment avenues.

Those who reported being divorced constitute 9.5% of respondents, while widows account for the remaining 4.7%. Though these groups are numerically smaller, they are not insignificant. They often face unique socioeconomic vulnerabilities, especially in settings where employment systems are not inclusive or supportive of those outside traditional family structures. Divorced and widowed individuals may struggle with reintegration into the workforce or lack the digital literacy needed to access newer employment models. These

respondents may also reflect the intersection of social status and digital exclusion, where both marital status and age-related factors compound the risk of unemployment.

The table also presents the employment status of the respondents, providing a direct insight into the central concern of this study, the extent and characteristics of youth unemployment within Ibadan North Local Government Area. Out of the 210 individuals surveyed, 116 respondents, representing 55.3% of the population, reported that they are employed, while 85 respondents, making up 44.7%, indicated that they are currently unemployed.

The relatively high unemployment rate, which is nearly half of the surveyed population, is significant and speaks to the persistent challenge of joblessness among youths in the study area. This figure aligns with national and regional concerns over the limited absorption capacity of the labor market in Nigeria, particularly for young people. The findings underscore a need to critically examine the structural and technological barriers that continue to hinder access to sustainable employment opportunities.

On the other hand, the fact that 55.3% of respondents reported being employed signifies that some level of labor market participation does exist, but this figure warrants a deeper examination of the quality and nature of the employment, this is because many young people who are classified as “employed” may be engaged in underpaid, unstable, or non-digitally integrated jobs, which limits their economic mobility and long-term prospects.

This employment data also offers a valuable lens through which the impact and reach of digitalization can be accessed. If nearly half of the respondents are unemployed, it raises questions about their level of access to digital tools, digital literacy, and awareness of online job markets or remote work opportunities. It further calls attention to whether digital platforms and skills training initiatives are equitably distributed or accessible within the local government area. Moreover, the presence of a large unemployed population suggests gaps in

policy implementation, weak integration of youth into tech-driven sectors, or a mismatch between existing digital opportunities and the skills held by the youth population.

Lastly the table outlines the educational qualifications of respondents and offers crucial insight into the academic landscape of the youth population within Ibadan North Local Government Area. The data reveals that the majority of respondents, 133 individuals, accounting for 63.3% of the total sample, possess either a Higher National Diploma (HND) or a Bachelor of Science (BSc) degree. This is followed by 55 respondents (or 26.2%) who have attained postgraduate qualifications, indicating a significant presence of highly educated youths in the area. Meanwhile, 15 respondents (7.1%) hold either an Ordinary National Diploma (OND) or National Certificate in Education (NCE), and only 7 respondents (3.3%) have attained education up to the Senior School Certificate Examination (SSCE) level.

This educational distribution is highly significant within the context of this research, as it points to the existence of a well-educated youth population, the majority of whom have qualifications that should theoretically enhance their employability, especially in a digital economy that increasingly values academic and technical proficiency. However, when combined with the employment status data previously which revealed an unemployment rate of 44.7%, a contradiction becomes apparent, this is because despite the relatively high educational attainment, a substantial portion of the youth remain unemployed.

This Contradiction suggests that education alone may not be sufficient to secure employment in today's job market. It also raises important questions about the relevance of current educational curricula to the demands of the digital economy, as well as the degree to which digital skills training, ICT literacy, and practical tech-based competencies are integrated into formal education systems. The implication here is that while a strong academic foundation exists, there appears to be a disconnection between academic qualifications and labor market needs, particularly in sectors driven by digital innovation.

Furthermore, the low representation of respondents with only SSCE (3.3%) or OND/NCE (7.1%) indicates that most youths in this region have sought or attained higher levels of education. This suggests both a high aspiration level and a cultural emphasis on formal academic progression, yet it does not seem to be translating into job opportunities especially digital employment. It may also indicate that individuals with lower educational levels are underrepresented in the digital workforce, either due to a lack of qualifications or because they are less likely to engage in digitally mediated labor.

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4.2. Presentation of Data

4.2.1. Research Question One: What is the level of digital literacy and ICT adoption among unemployed youths in Ibadan North LGA?

Table 4.2.1 Use of Digital Tools

S/N	Variables	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1	I am confident in using digital devices like smartphones and computers.	2 (1.0%)	25 (12.0%)	2 (1.0%)	110 (52.4%)	71 (34.0%)
2	I can effectively use the internet for tasks such as browsing, emailing, and searching for information.	0 (0.0%)	1 (0.5%)	2 (1.0%)	72 (34.3%)	135 (64.3%)
3	I regularly use digital tools (e.g., Google Docs, Excel, and Canva) for personal or work-related activities.	30 (14.3%)	9 (4.3%)	3 (1.4%)	23 (11.0%)	145 (69.0%)
4	I have access to stable internet and digital devices in my area.	22 (10.5%)	6 (2.9%)	3 (1.4%)	42 (20.0%)	137 (65.2%)
5	I actively use social media platforms for communication or networking.	0 (0.0%)	4 (1.9%)	0 (0.0%)	79 (37.6%)	128 (61.0%)
6	I frequently seek information about job opportunities online.	30 (14.3%)	9 (4.3%)	3 (1.4%)	43 (20.5%)	125 (59.5%)
7	My educational background prepared me adequately for using digital tools.	2 (0.9%)	40 (19.0%)	2 (0.9%)	31 (14.8%)	135 (64.3%)
8	I find it easy to learn new digital tools and applications.	24 (11.4%)	45 (21.4%)	6 (2.9%)	7 (3.3%)	128 (61.0%)

Source: Researcher Field Survey, 2025.

From Table 4.2.1 above, majority of the respondents agreed (110, 52.4%) that they are confident in using digital devices like smartphones and computers. A significant number of the respondents supported this and strongly agreed (71, 34.0%) that they are confident in using digital devices like smartphones and computers while a minority number of the

respondents were undecided and strongly disagreed (2, 1.0%), a significant number disagreed (25, 12.0%) that they are confident in using digital devices like smartphones and computers. In addition to this, majority of the respondents strongly agreed (135, 64.3%) that they can effectively use the internet for tasks such as browsing, emailing, and searching for information. A significant number of the respondents also agreed (72, 34.3%) to this while a minority number of the respondents were undecided (2, 1.0%) that they can effectively use the internet for tasks such as browsing, emailing, and searching for information. Also, majority (145, 69.0%) of the respondents strongly agreed that they regularly use digital tools (e.g., Google Docs, Excel, and Canva) for personal or work-related activities while a significant number of the respondents strongly disagreed (30, 14.3%) that they regularly use digital tools (e.g., Google Docs, Excel, and Canva) for personal or work-related activities.

As seen from the table, a majority of respondents (137, 65.2%) strongly agreed that they have access to stable internet and digital devices in their area. Additionally, a considerable number (42, 20.0%) agreed with this statement. This indicates that most unemployed youths in Ibadan North Local Government Area are digitally connected, suggesting that the infrastructural foundation for digital literacy and ICT adoption is relatively well-established. However, a small fraction disagreed (6, 2.9%), and a larger group strongly disagreed (22, 10.5%), highlighting that digital inequality still exists in some pockets of the area. Only a minority (3, 1.4%) were undecided.

In addition to this, A significant portion of the respondents strongly agreed (128, 61.0%) that they actively use social media for communication or networking, while a good number (79, 37.6%) agreed. Interestingly, no respondents reported being undecided or strongly disagreeing, and only a marginal group (4, 1.9%) disagreed. In variable 6, a majority of respondents strongly agreed (125, 59.5%) that they frequently search online for job opportunities. An additional 43 respondents (20.5%) agreed with this behaviour. However,

some participants (30, 14.3%) strongly disagreed and another 9 (4.3%) disagreed, suggesting that while the internet is a vital tool for job-seeking, a minority may face barriers such as digital illiteracy, limited access, or lack of confidence in online job platforms while a negligible percentage (3, 1.4%) were undecided. Also, a strong majority (135, 64.3%) strongly agreed that their educational background adequately prepared them to use digital tools. Additionally, 31 respondents (14.8%) agreed. However, a substantial number (40, 19.0%) disagreed, indicating a gap in digital training within some educational institutions. Just 2 respondents (0.9%) strongly disagreed, and another 2 (0.9%) were undecided. Finally, a significant number of respondents strongly agreed (128, 61.0%) that they find it easy to learn new digital tools, and a smaller group (7, 3.3%) agreed. However, a notable portion disagreed (45, 21.4%) and strongly disagreed (24, 11.4%), suggesting that some youths struggle with adapting to new technologies. A few (6, 2.9%) were undecided. The findings from Research Question One show that unemployed youths in Ibadan North possess a relatively high level of digital literacy and ICT adoption. Most respondents are confident using digital tools, have internet access, engage actively on social media, and frequently use the internet for job-related activities.

4.2.2. Research Question Two: What is the impact of digital skills training on employment opportunities for youths in Ibadan North LGA?

Table 4.2.2 Employment Status and Challenges

S/N	Variables	Strongly Disagree Freq.	Disagree Freq.	Undecided Freq.	Agree Freq.	Strongly Agree Freq.
1	I have participated in any form of digital skills training in the past.	32 (15.2%)	26 (12.4%)	5 (2.4%)	81 (38.6%)	66 (31.4%)
2	Digital skills training programs have improved my ability to search for jobs.	4 (1.9%)	5 (2.4%)	5 (2.4%)	102 (48.6%)	94 (44.8%)
3	Acquiring digital skills has increased my chances of being employed.	32 (15.2%)	26 (12.4%)	5 (2.4%)	81 (38.6%)	66 (31.4%)
4	I am aware of government or NGO programs offering digital training in my community.	125 (59.5%)	30 (14.3%)	3 (1.4%)	9 (4.3%)	43 (20.5%)
5	More digital training centres should be established in Ibadan North.	0 (0.0%)	0 (0.0%)	0 (0.0%)	65 (40.0%)	145 (69.0%)
6	Lack of digital skills has hindered my employment opportunities.	13 (6.2%)	24 (11.4%)	6 (2.9%)	88 (41.9%)	79 (37.6%)
7	I believe digital skills are now as important as formal education in the job market.	0 (0.0%)	0 (0.0%)	0 (0.0%)	65 (40.0%)	145 (69.0%)
8	Employers are more likely to hire digitally skilled youths.	0 (0.0%)	0 (0.0%)	0 (0.0%)	65 (40.0%)	145 (69.0%)

Source: Researcher Field Survey, 2025

From Table 4.2.2 above, a significant portion of respondents agreed (81, 38.6%) and strongly agreed (66, 31.4%) that they have previously participated in digital skills training. However, a combined 58 respondents (27.6%) either strongly disagreed (32, 15.2%) or disagreed (26, 12.4%). Only 5 (2.4%) were undecided. This suggests that while a majority have

accessed digital training, a sizeable number have yet to benefit from such opportunities, pointing to possible access disparities or lack of awareness in certain communities. Additionally, variable two recorded high affirmation that digital skills training programs have improved their ability to search for jobs: 102 (48.6%) agreed and 94 (44.8%) strongly agreed. Only a very small percentage disagreed (4, 1.9%), strongly disagreed (5, 2.4%) or were undecided (5, 2.4%). This shows that participants overwhelmingly find digital skills training useful for navigating job markets, especially in the digital space. Similar to variable 1, 81 (38.6%) agreed and 66 (31.4%) strongly agreed that acquiring digital skills enhanced their employment chances. However, a considerable portion either strongly disagreed (32, 15.2%) or disagreed (26, 12.4%), suggesting that while most respondents feel empowered by digital skills, a significant minority may not have seen tangible benefits, possibly due to labor market saturation or mismatches in training relevance. Interestingly, the majority of respondents strongly disagreed (125, 59.5%) or disagreed (30, 14.3%) that they are aware of government or NGO programs offering digital training in their community suggesting a critical gap in awareness or actual availability of public or NGO-supported training programs. Only 43 (20.5%) strongly agreed, and very few (9, 4.3%) agreed.

In response to this, a resounding 145 (69.0%) strongly agreed and 65 (40.0%) agreed that more digital training centers should be established in Ibadan North.. No respondents disagreed, showing a near-universal consensus that there is a demand for more digital training hubs. Meanwhile, majority of the respondents 88 (41.9%) agreed and 79 (37.6%) strongly agreed that their lack of digital skills has hindered their employment opportunities, while 13 (6.2%) strongly disagreed and 24 (11.4%) disagreed. This indicates that more than three-quarters of respondents acknowledge digital skill gaps as a key barrier to employment. A majority number of the respondents 210 respondents (100%) either agreed (65, 40.0%) or strongly agreed (145, 69.0%) believe that digital skills are now as important as formal

education in the job market showing a unanimous belief that digital skills have become an essential component of modern employability. Again, responses were unanimous with 65 (40.0%) agreeing and 145 (69.0%) strongly agreeing that employers are more likely to hire digitally skilled youths. This emphasizes that digital skills are viewed not just as supplementary, but as essential employability tools in the current labor market. Employers' preferences for digitally literate candidates reinforce the strategic importance of digital skill acquisition among Nigerian youths. The data from Research Question Two clearly indicates that digital skills training has a positive impact on youth employability in Ibadan North. Most respondents have either benefitted from digital training or recognize its value in accessing employment opportunities.

4.2.3. Research Question Three: What is the role of digital entrepreneurship in addressing youth unemployment in Ibadan North LGA?

Table 4.2.3 Role of Digital Entrepreneurship in Youth Unemployment

S/N	Variables	Strongly Disagree Freq.	Disagree Freq.	Undecided Freq.	Agree Freq.	Strongly Agree Freq.
1	I am aware that I can start an online business with basic digital skills.	21 (10.0%)	7 (3.3%)	3 (1.4%)	162 (77.1%)	17 (8.1%)
2	I have considered becoming a digital entrepreneur (e.g., e-commerce, freelancing, content creation).	49 (23.3%)	20 (9.5%)	16 (7.6%)	83 (39.5%)	42 (20.0%)
3	I believe digital platforms provide viable means of self-employment.	13 (6.2%)	24 (11.4%)	6 (2.9%)	88 (41.9%)	79 (37.6%)
4	I lack the necessary support (e.g., funding, training) to start a digital business.	25 (10.0%)	40 (16.0%)	4 (1.6%)	110 (44.0%)	71 (28.4%)
5	Online businesses can be as profitable as traditional businesses.	49 (23.3%)	20 (9.5%)	16 (7.6%)	83 (39.5%)	42 (20.0%)
6	I know people in my community who are earning income through digital entrepreneurship.	24 (11.4%)	13 (6.2%)	6 (2.9%)	79 (37.6%)	88 (41.9%)
7	I would start a digital business if I had the right tools and support.	0 (0.0%)	0 (0.0%)	5 (2.4%)	60 (28.6%)	145 (69.0%)
8	Digital entrepreneurship reduces the need to depend solely on white-collar jobs.	0 (0.0%)	0 (0.0%)	5 (2.4%)	60 (28.6%)	145 (69.0%)

Source: Researcher Field Survey, 2025.

The Table 4.2.3 above investigates how digital entrepreneurship is perceived and adopted by youths as a viable strategy for self-employment and reducing reliance on traditional job structures. From the table, a vast majority of respondents agreed (162, 77.1%) that they

are aware of the potential to start an online business using basic digital skills. A small portion strongly agreed (17, 8.1%). However, 21 (10.0%) strongly disagreed and 7 (3.3%) disagreed. This indicates that awareness is generally high, but a small knowledge gap persists. In addition to this, 83 (39.5%) agreed and 42 (20.0%) strongly agreed that they have considered becoming a digital entrepreneur (e.g., e-commerce, freelancing, content creation). A sizable number on the other hand either strongly disagreed (49, 23.3%) or disagreed (20, 9.5%). A smaller group (16, 7.6%) were undecided. This suggests that although many youths see potential in digital entrepreneurship, hesitation may stem from fear of risk, lack of capital, or inadequate digital confidence.

More than three-quarters of respondents agreed (88, 41.9%) or strongly agreed (79, 37.6%) that digital platforms offer viable paths to self-employment. Some, however, disagreed (24, 11.4%) or strongly disagreed (13, 6.2%). This validates the growing role of platforms like Fiverr, YouTube, and Instagram in empowering self-starters. Also, a significant number of respondents agreed (110, 44.0%) or strongly agreed (71, 28.4%) that they face barriers such as funding, mentorship, or skills development. A smaller group strongly disagreed (25, 10.0%) or disagreed (40, 16.0%), suggesting that while some youths may have access to resources, a majority still require structured support to launch and sustain digital ventures. The variable 5 shows that majority of the respondents 125 respondents (59.5%) agreed or strongly agreed (83 and 42 respectively) that online businesses are comparably profitable. However, 49 (23.3%) strongly disagreed and 20 (9.5%) disagreed. The variance here reflects differing exposure and understanding of online monetization models. In addition to this, a significant number of respondents agreed (79, 37.6%) and strongly agreed (88, 41.9%) that they know individuals in their community who are earning income through digital entrepreneurship. This suggests a high level of visibility and awareness of successful digital entrepreneurs within Ibadan North Local Government Area. Only a smaller proportion of

respondents disagreed (24, 11.4%) or strongly disagreed (13, 6.2%), indicating that skepticism or unfamiliarity with digital entrepreneurship is relatively low.

In addition to this, majority of the respondents 145 (69.0%) strongly agreed and 60 (28.6%) agreed that they would start a digital business if they had the right tools and support, with only 5 (2.4%) undecided and no disagreement recorded. This highlights a strong latent interest in digital entrepreneurship. Finally, majority of the respondents 145 (69.0%) strongly agreed and 60 (28.6%) agreed that digital entrepreneurship reduces the need to depend solely on white-collar jobs with only 5 (2.4%) being undecided, and none disagreed. This confirms the growing shift in mindset among Nigerian youth toward valuing flexibility and independence over conventional employment models. Generally, the data show that digital entrepreneurship is widely acknowledged as a viable self-employment strategy among youths in Ibadan North.

4.2.4. Research Question Four: What are the challenges hindering effective digitalization as a tool for employment generation in Ibadan North LGA?

Table 4.2.4 Challenges Hindering Effective Digitalization of Youth Unemployment

S/N	Variables	Strongly Disagree Freq.	Disagree Freq.	Undecided Freq.	Agree Freq.	Strongly Agree Freq.
1	Poor internet connectivity limits digital opportunities in Ibadan North.	0 (0.0%)	17 (8.1%)	4 (1.9%)	28 (13.3%)	162 (77.1%)
2	The cost of digital devices and internet access is a major barrier.	0 (0.0%)	0 (0.0%)	5 (2.4%)	60 (28.6%)	145 (69.0%)
3	Lack of awareness about digital job opportunities hinders youth employment.	0 (0.0%)	0 (0.0%)	5 (2.4%)	60 (28.6%)	145 (69.0%)
4	Many youths lack guidance or mentorship on how to benefit from digital platforms.	21 (10.0%)	7 (3.3%)	3 (1.4%)	162 (77.1%)	17 (8.1%)
5	Government policies are not adequately supporting youth digital employment.	0 (0.0%)	17 (8.1%)	4 (1.9%)	28 (13.3%)	162 (77.1%)
6	Cultural or environmental factors limit the full use of digital technologies among youths in Ibadan North.	0 (0.0%)	17 (8.1%)	4 (1.9%)	28 (13.3%)	162 (77.1%)

Source: Researcher Field Survey, 2025.

The Table 4.2.4 above examines the major barriers that limit the potential of digitalization to support youth employment in Ibadan North Local Government Area. From the table, a significant majority of respondents strongly agreed (162, 77.1%) that poor internet connectivity is a major barrier to digital opportunity. An additional 28 (13.3%) agreed, showing widespread concern. Only a small number disagreed (17, 8.1%) or were undecided

(4, 1.9%). This indicates that unreliable internet infrastructure remains a critical obstacle to digital inclusion and the effective use of online platforms for employment and entrepreneurship. Also, a total of 205 respondents 145 (69.0%) strongly agreed and 60 (28.6%) agreed believe that affordability issues hinder their digital participation. Only 5 (2.4%) were undecided, with no disagreement recorded. This shows that economic limitations including the cost of smartphones, laptops, or data prevent many youths from fully engaging with digital employment opportunities. Again, an overwhelming majority of the respondents either strongly agreed (145, 69.0%) or agreed (60, 28.6%) that lack of awareness about digital job opportunities hinders youth employment. Just 5 (2.4%) were undecided, and no respondents disagreed. This suggests that even when digital tools are available, low awareness or digital illiteracy prevents many from recognizing or accessing online income-generating activities.

In addition to this, Responses show that 162 (77.1%) strongly agreed and 17 (8.1%) agreed with the need for guidance and mentorship. A few disagreed (7, 3.3%) or strongly disagreed (21, 10.0%). This highlights a significant mentorship gap, especially for first-time digital users and aspiring entrepreneurs. Also, majority of the respondents 162 (77.1%) strongly agreed, and 28 (13.3%) agreed that government policies are not adequately supporting youth digital employment. Only a small portion disagreed (17, 8.1%) or were undecided (4, 1.9%). These suggest a prevailing perception that government initiatives are either insufficient, poorly implemented, or disconnected from grassroots realities. Finally, majority of the respondents 162 (77.1%) strongly agreeing and 28 (13.3%) agreeing that cultural/environmental issues limit youth engagement with digital tools. Disagreement (17, 8.1%) and indecision (4, 1.9%) were minimal. These results suggest the presence of sociocultural limitations such as gender norms, rural-urban divides, or traditional beliefs that discourage or prevent full digital participation among certain youth groups. Generally, the

findings from Research Question Four reveal that several structural and systemic challenges hinder effective digitalization for youth employment.

4.3. Discussion of Findings

This study investigated Digitalization and Youth Employment in Nigeria: A Case Study of Ibadan North Local Government Area. This study explored the relationship between digitalization and youth employment in Nigeria using Ibadan North LGA as a case study. It examined the digital literacy levels among unemployed youths, the influence of digital skills training, the role of digital entrepreneurship, and the barriers to digital employment adoption.

The research question one sought to assess how digitally literate unemployed youths in Ibadan North are, and the extent to which they adopt ICT tools in their daily lives and job-seeking efforts. The findings presented in Table 4.2.1 revealed that a large majority of respondents are confident in using digital devices such as smartphones and computers. Most participants also indicated that they can effectively browse the internet, use email, and access online information. A significant portion regularly uses digital tools like Google Docs, Excel, and Canva for personal or work-related purposes.

Furthermore, a high number of respondents agreed that they have access to stable internet and digital devices in their area, and are active users of social media platforms for communication and networking. Many also reported frequently searching online for job opportunities. However, a smaller subset of respondents indicated that they struggled to learn new digital tools or that their educational background did not adequately prepare them for digital engagement.

These findings are supported by research showing that youths in developing countries are increasingly relying on digital tools for learning, communication, and participation in economic activities¹. This trend aligns with the Human Capital Theory, which posits that

investment in education, training, and skill acquisition enhances an individual's economic value and productivity. The results of this study suggest that digital literacy when cultivated functions as a form of human capital that can improve employability and expand access to job opportunities. The strong digital engagement among respondents indicates that many unemployed youths are taking steps to increase their employability through self-directed learning and exposure to ICT tools.

The research question two examined how participation in digital skills training influences the employment potential of unemployed youths in Ibadan North. As outlined in Table 4.2.2, the findings show that a majority of respondents have engaged in digital skills training and reported that it significantly enhanced their ability to search for job opportunities. Many affirmed that acquiring digital skills increased their chances of being employed and emphasized the need for more digital training centres within their community. Respondents also overwhelmingly believed that digital skills are now as essential as formal education in the job market, and that employers prefer digitally skilled candidates.

Statements such as “Digital skills training programs have improved my ability to search for jobs” and “Employers are more likely to hire digitally skilled youths” reflect a clear understanding among participants that possessing digital competencies has become central to employability. However, a sizable number of respondents were unaware of existing government or NGO-sponsored training programs, suggesting that such initiatives are either underpublicized or not sufficiently widespread.

These findings align with the principles of Technological Determinism Theory, which argues that technological advancement is a key driver of societal change and labour market transformation. In this context, digital skills function as the conduit through which youths can adapt to and participate in the evolving world of work. The widespread belief among respondents that digital skills rival traditional education in importance signifies a societal

shift where technological competencies are now perceived as gateways to economic survival and upward mobility. This conclusion supports the view that enhancing digital skills is essential in tackling youth unemployment across Africa².

When asked about barriers, many participants cited the lack of support, funding, or awareness as major hindrances to acquiring or benefiting fully from digital training. This finding reinforces concerns that the lack of a structured digital policy and insufficient support for training programs continue to hinder Nigeria's potential for growth in digital employment³.

The research question three explored whether digital entrepreneurship offers viable solutions to youth unemployment in Ibadan North. As presented in Table 4.2.3, the findings reveal a high level of awareness among respondents regarding the potential of online business and digital entrepreneurship. Most respondents agreed or strongly agreed that digital platforms provide viable avenues for self-employment, and that they would start a digital business if they had the right tools and support. The findings further showed that while many youths have considered becoming digital entrepreneurs through channels like e-commerce, freelancing, or content creation, actual engagement remains modest due to barriers such as lack of funding, mentorship, or training.

Nevertheless, a large majority believe that online businesses can be as profitable as traditional enterprises and that digital entrepreneurship reduces dependence on white-collar jobs. Notably, many also reported knowing people in their communities who earn income through digital entrepreneurship, reinforcing its practical credibility and influence at the grassroots level. These outcomes can be discussed through multiple theoretical lenses. First, Human Capital Theory is evident in the way digital entrepreneurship requires investment in skills and knowledge. The willingness of youths to explore digital business opportunities, and their belief in its profitability suggests that with proper training and support, their human capital can be transformed into sustainable livelihoods. Individuals who develop relevant skills are

generally more likely to experience economic benefits, which in this case refers to earning income through digital competencies³.

Secondly, Technological Determinism provides insight into how digital platforms are reshaping employment structures. The findings reflect a societal shift where traditional employment is no longer the only pathway to income generation. Respondents' emphasis on the importance of having the “right tools and support” to launch digital businesses supports the argument that technology not only creates new economic spaces but also redefines who participates in them.

Lastly, the Dual Economy Theory is useful in explaining the visible divide in digital entrepreneurial participation. While a portion of respondents have access to tools and training (formal, structured sector), many others lack support or knowledge (informal, marginalized sector). The data point to a dual structure within Ibadan North's youth population: those equipped to compete in the digital economy and those left behind due to systemic inequalities. This aligns with the perspective that economies are divided into modern and traditional sectors, with the digital economy now representing the modern sector within Nigeria's youth labour market⁴. These findings are further supported by empirical studies showing that digital entrepreneurship serves as a crucial response to the scarcity of formal employment opportunities⁵.

The research question four aimed to uncover the key barriers limiting the effectiveness of digitalization in addressing youth unemployment in Ibadan North Local Government Area. The data presented in Table 4.2.4 reveal several recurring structural and systemic issues. A large majority of respondents strongly agreed that poor internet connectivity, high costs of digital devices and data, and limited awareness of digital job opportunities are major obstacles. Respondents also emphasized the lack of mentorship, inadequate government support, and cultural/environmental factors as additional constraints.

The most prominent challenge identified was poor internet connectivity, which 77.1% of respondents strongly agreed limits access to digital opportunities. This was closely followed by concerns over the high cost of devices and internet, and the lack of awareness about digital job prospects. These findings highlight the deep infrastructural and informational gaps affecting digitally motivated but economically constrained youths. These results align with Technological Determinism Theory, which suggests that the benefits of technological advancement are not distributed equally across society. While digitalization has the potential to transform employment, its effectiveness is limited when infrastructure and access are not democratized. The fact that respondents identified digital tools as necessary but unreachable due to external limitations illustrates the deterministic impact of uneven technological development.

The challenges identified also resonate with Dual Economy Theory, which posits a structural division between modern (digitally enabled) and traditional (manually driven or disconnected) sectors. Many of the respondents' concerns, particularly those related to lack of mentorship, policy support, and cultural limitations highlight the existence of a digitally marginalized youth population who are systematically excluded from the benefits of the modern digital economy. This duality deepens economic inequality and reinforces structural unemployment. Successful integration of the informal sector within the modern economy depends on deliberate interventions including targeted training, subsidies, and changes in policy⁶.

From a Human Capital Theory perspective, these barriers directly impact youths' ability to develop and deploy economically productive digital skills. Without stable internet, affordable tools, and guided mentorship, youths cannot build the competencies required to compete in the digital labour market. This supports World Bank's view that digital skills training must be accompanied by access-enabling infrastructure and institutional support to yield meaningful

employment outcomes⁷. Moreover, the lack of awareness and limited mentorship highlight a soft infrastructure gap, not just in tools and connectivity but also in exposure, information flow, and community-level support networks. These “invisible” barriers can be just as limiting as tangible resource deficits. The finding that government policies are not effectively supporting digital employment further confirms widespread concerns about the gap between national innovation goals and on-the-ground realities⁸.

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Endnotes

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Chapter Five

Conclusion

5.1. Summary of Findings

This study was conducted to investigate the relationship between digitalization and youth employment in Nigeria, using Ibadan North Local Government Area as a case study. The study examined how digital tools, digital skills training, and digital entrepreneurship impact employment prospects among Nigerian youths. In a rapidly evolving digital economy, understanding the extent to which digital transformation can serve as a pathway out of unemployment is essential, especially in a developing country like Nigeria. The study was guided by the following research questions/objectives: What is the level of digital literacy and ICT adoption among unemployed youths in Ibadan North; what is the impact of digital skills training on employment opportunities for youths; what is the role of digital entrepreneurship in addressing youth unemployment and what are the challenges hindering effective digitalization as a tool for employment generation?.

The scope of the study was limited to youths aged 18 to 35 years residing in Ibadan North Local Government Area of Oyo State, Nigeria. This age group was selected as it represents the most economically active segment of the population, and one that is most likely to engage with digital platforms in the job market. The study focused on both unemployed and underemployed youths to understand the extent to which digitalization influences their employment experiences and aspirations. The study was grounded in three theoretical frameworks including: Human Capital Theory, which emphasizes the role of education and skill acquisition in enhancing productivity and employability, Technological Determinism, which explores how access to and engagement with technology shapes societal and economic outcomes and Dual Economy Theory, which examines the structural divide between modern, technologically advanced sectors and traditional, marginalized ones.

Several key concepts including the concepts of digitalization, youth employment, unemployment, the role of digitalization, impact and more were broadly explained to form the foundation of this study: To achieve its objectives, the study adopted a descriptive survey research design, which allowed for systematic data collection from a large population. The population comprised youths aged 18–35 years in Ibadan North Local Government Area. A sample size of 300 respondents was selected using a stratified random sampling technique, ensuring adequate representation across wards and gender groups. Out of the 300 distributed questionnaires, 210 were retrieved and validated, giving a response rate of 70%. The data were analyzed using descriptive statistical tools, including frequency distributions and percentages, to present responses to structured Likert-scale questions. Each table was interpreted in alignment with the study's research questions and theoretical frameworks, providing more understanding into how digitalization influences youth employment dynamics in the area.

The findings from the chapter four of this research have established that digitalization through access to technology, digital literacy, skills training, and digital entrepreneurship plays an important role in improving the employability of youths. The study revealed that a high proportion of respondents possess basic digital skills, actively use digital tools for work-related purposes, and engage with platforms like social media and online job boards in search of employment opportunities. It was also found that digital skills training significantly enhances the job readiness of youths, enabling them to adapt to evolving labour market demands. Respondents largely acknowledged the importance of digital entrepreneurship as a means of self-employment, although access to capital, infrastructure, and mentorship were identified as significant barriers to entry. The study also identified key structural challenges including poor internet connectivity, high costs of digital tools, low awareness, and weak

policy support that hinder the full realization of digitalization as a tool for employment generation.

These findings affirm the applicability of Human Capital Theory, which emphasizes skill acquisition as essential for labour market success; Technological Determinism, which recognizes technology as a driver of socio-economic transformation; and Dual Economy Theory, which highlights the existing divide between digitally integrated individuals and those excluded due to systemic or economic factors.

5.2. Conclusion

This study concludes that digitalization holds significant potential for addressing youth unemployment in Ibadan North Local Government Area, but its benefits are unevenly distributed due to structural, educational, and infrastructural challenges. The findings revealed that while many youths have basic digital skills, these are not sufficient to compete effectively in the digital economy. Those who possess advanced skills such as coding, e-commerce management, and digital marketing are better positioned to secure employment or engage in self-sustaining entrepreneurial ventures. This highlights the centrality of digital skills development in tackling unemployment.

However, the study also identified several barriers that continue to limit the potential of digitalization. These include inadequate infrastructure, high internet costs, unstable electricity supply, and poor access to credit facilities for start-ups. Such constraints reduce the ability of many youths to explore digital opportunities and, in some cases, drive them toward negative alternatives such as cybercrime. This reinforces the need for policies that not only promote digital skills acquisition but also address the socioeconomic realities that hinder digital participation

In essence, digitalization is not a cure-all for youth unemployment but a powerful tool that, if properly harnessed, can stimulate job creation, encourage entrepreneurship, and drive inclusive development. Achieving this requires strategic investments in digital education, affordable infrastructure, and enabling policies that bridge the gap between skills and opportunities. With coordinated action from government, private sector, and civil society, digitalization can move beyond being an abstract concept to becoming a practical driver of empowerment and sustainable livelihoods for youths in Ibadan North and Nigeria as a whole.

5.3. Recommendations

Based on the findings of this study, the following recommendations are proposed to stakeholders including government agencies, non-governmental organizations, educators, and private sector actors, to improve youth employment outcomes through digitalization:

- i. **Strengthen Digital Infrastructure and Accessibility:** Government and telecom stakeholders should prioritize investment in digital infrastructure particularly stable internet connectivity and reliable electricity in underserved areas like Ibadan North. Public-private partnerships can help expand access to broadband and digital services in both urban and semi-urban communities, while initiatives such as device financing schemes, youth-targeted data bundles, or digital access grants should be introduced. This will enable more unemployed youths to afford smartphones, laptops, and internet access necessary for participating in digital economies.
- ii. **Establish More Community-Based Digital Training Centres:** Relevant ministries and development partners should set up local digital training hubs that provide practical, hands-on skills such as coding, graphic design, digital marketing, freelancing, and content creation. They should be made free or low-cost and strategically located within reach of the youth population. Also digital literacy, entrepreneurship, and ICT-related

skills should be integrated into their core curricula at all levels, this will ensure early exposure and structured capacity building for future graduates.

- iii. **Strengthen Awareness Campaigns on Digital Job Opportunities:** Many youths are unaware of the digital jobs available globally and locally. Government ministries, NGOs, and private firms should organize awareness campaigns, virtual job expos, and online mentorship sessions to showcase real success stories, platforms, and digital career paths.
- iv. **Provision of Support for Digital Entrepreneurship through Funding and Policy Reform:** To harness the power of digital entrepreneurship, stakeholders should provide start-up funding, incubation programs, mentorship, and digital business literacy. Existing youth employment policies should also be reviewed and adapted to reflect the rise of gig work, remote employment, and digital self-employment.

5.4. Contribution to Knowledge

This study contributes to the body of knowledge by providing localized evidence on the relationship between digitalization and youth unemployment in Ibadan North Local Government Area, a context that has not been extensively studied in the existing literature. While most prior studies have focused on national statistics or broader African contexts, this work narrows the lens to the grassroots level, showing how digitalization interacts with socio-economic realities in a specific local government. Therefore it adds a unique dimension to scholarly discussions on digital transformation in Nigeria, demonstrating that the impact of digitalization is not uniform but highly contextual.

Another contribution of this study is its demonstration of the dual role of digitalization in addressing unemployment. On the positive side, digitalization provides avenues for job creation, self-employment, and digital entrepreneurship, particularly through platforms such

as e-commerce and social media. However, the findings also reveal a negative dimension, where digitally skilled but unemployed youths resort to cybercrime due to the absence of legitimate opportunities. This duality enriches the theoretical debates on digitalization by showing that while it can be a tool for empowerment, it can also foster social vices when structural challenges persist.

The study also advances knowledge by emphasizing the significance of digital skills as a determinant of employability in the modern economy. It establishes that unemployment among youths is not solely a problem of job scarcity but also of digital readiness. This perspective shifts the discourse from merely counting unemployed individuals to examining the quality of their skills and readiness for digital-driven opportunities. In doing so, it provides policymakers, educators, and development practitioners with a clearer understanding of the need to merge digital literacy into mainstream education and vocational training.

Furthermore, this research contributes practically by identifying the key barriers that prevent youths from maximizing the benefits of digitalization. These include infrastructural deficiencies such as unstable electricity and poor internet connectivity, high costs of digital tools and data, and limited access to finance for entrepreneurship. By systematically analyzing these challenges, the study offers fresh insights into why existing government and private sector interventions have had limited success. This evidence-based approach provides a stronger foundation for designing policies and programs that are not only aspirational but also grounded in the lived realities of Nigerian youths.

Finally, the study contributes to knowledge by presenting a framework that links digitalization, unemployment, and socio-economic development in a developing country context. It highlights how digitalization can either deepen inequalities or promote inclusion, depending on the level of preparedness of the youth population and the responsiveness of

government policies. This framework can guide future academic inquiries, serve as a reference point for comparative studies in other regions and inform policy debates on how to strategically harness digital transformation for sustainable development.

5.5. Suggested Areas for Further Research

Given the scope and findings of this research, the following suggestions are made for future research:

- i. **Comparative Studies:** Future researchers could conduct comparative studies across multiple local government areas or states to explore regional differences in digital adoption and employment outcomes.
- ii. **Gender-Based Analysis:** Additional research can focus on the gender dimensions of digitalization and employment to examine whether women face unique barriers or opportunities.
- iii. **Longitudinal Studies:** A long-term study tracking the outcomes of digital skills training over time could assess the sustainability and impact of digital employment pathways.
- iv. **Platform-Specific Impact:** Future work could explore how specific platforms (e.g., YouTube, TikTok, Fiverr, and LinkedIn) contribute differently to youth employment and entrepreneurship.
- v. **Barriers to Monetization:** Investigating why some youths fail to monetize their digital skills despite training could provide deeper insights into the transition from learning to earning in digital economies.

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Appendix

Questionnaire

Dear respondent,

My name is **Tuibat Onono ISMAIL**, a postgraduate student of Lead City University Ibadan, Nigeria. I am carrying out a research titled **“Digitalization and Youth Unemployment in Ibadan North Local Government Area, Oyo State.”** Please be assured that the data collected is purely for academic purposes and all information provided will be treated with utmost confidentiality. Please your truthful and honest response to the questionnaire will be highly appreciated. Thanks for your cooperation.

SECTION A: - DEMOGRAPHIC DATA

1. Gender A: Male () B: Female ()
2. Age in Years A: 18-25 () B: 26-35 () C: 36-45 () D: 46-55 () E: 56 & Above ()
3. Marital Status A: Single () B: Married () C: Divorced () D: Widow ()
4. Educational Qualification: A: SSCE () B: OND/NCE () C: HND/BSc () D: Postgraduate ()
5. Employment Status A: Employed () B: Unemployed ()
6. Do you own or use a smartphone, computer, or tablet regularly? A: Yes () B: No ()

Kindly tick your appropriate answer to the questions from any of the options below

SECTION B: Assess the level of digital literacy and ICT adoption among unemployed youths in Ibadan North

Instructions: Tick only one of the options: Strongly Disagree (SD), Disagree (D), Neutral (N), Agree (A), and Strongly Agree (SA).

		SD	D	N	A	SA
7	I am confident in using digital devices like smartphones and computers.					
8	I can effectively use the internet for tasks such as browsing, emailing, and searching for information.					
9	I regularly use digital tools (e.g., Google Docs, Excel, Canva) for personal or work-related activities.					
10	I have access to stable internet and digital devices in my area.					
11	I actively use social media platforms for communication or networking.					
12	I frequently seek information about job opportunities online.					
13	My educational background prepared me adequately for using digital tools.					
14	I find it easy to learn new digital tools and applications.					

SECTION C: Examine the impact of digital skills training on employment opportunities for youths

		SD	D	N	A	SA
15	I have participated in any form of digital skills training in the past.					
16	Digital skills training programs have improved my ability to search for jobs.					
17	Acquiring digital skills has increased my chances of being employed.					
18	I am aware of government or NGO programs offering digital training in my community.					
19	More digital training centres should be established in Ibadan North.					
20	Lack of digital skills has hindered my employment opportunities.					
21	I believe digital skills are now as important as formal education in the job market.					
22	Employers are more likely to hire digitally skilled youths.					

SECTION D: Investigate the role of digital entrepreneurship in addressing youth unemployment

		SD	D	N	A	SA
23	I am aware that I can start an online business with basic digital skills.					
24	I have considered becoming a digital entrepreneur (e.g., e-commerce, freelancing, content creation).					
25	I believe digital platforms provide viable means of self-employment.					
26	I lack the necessary support (e.g., funding, training) to start a digital business.					
27	Online businesses can be as profitable as traditional businesses.					
28	I know people in my community who are earning income through digital entrepreneurship.					
29	I would start a digital business if I had the right tools and support.					
30	Digital entrepreneurship reduces the need to depend solely on white-collar jobs.					

SECTION E: Identify the challenges hindering effective digitalization as a tool for employment generation

		SD	D	N	A	SA
31	Poor internet connectivity limits digital opportunities in Ibadan North.					
32	The cost of digital devices and internet access is a major barrier.					
33	Lack of awareness about digital job opportunities hinders youth employment.					
34	Many youths lack guidance or mentorship on how to benefit from digital platforms.					
35	Government policies are not adequately supporting youth digital employment.					
36	Cultural or environmental factors limit the full use of digital technologies among youths in Ibadan North.					

Thank you for taking the time to complete this questionnaire.

Bio data

A. Personal Data

Full Name: Ismail Tuibat Onono
Address: Oluyole, Elephant Bus Stop, Abeokuta, Oyo State
Email: tuibatono@gmail.com
Phone No: 0803175951
Date of Birth: November 20, 2000
Place of Birth: Okene, Kogi State
Nationality: Nigerian
Next of Kin: Ismail Hafsat

B. Educational Background

Educational Institutions Attended with Dates and Qualifications

M.Sc. in Public Administration (In view) - Lead City University, Ibadan, Oyo State
B.Sc. in Politics and International Relations (2020) -Lead City University, Ibadan, Oyo State

C. Work Experience

Administrative & HR Assistance | Alerzo Limited Ibadan - September 2021 – July 2022

D. Awards and Fellowship

Not Applicable

E. Publications

Between Autonomy and Accountability: The Impact of Digitalization on Youth
Employability in Ibadan North LGA, Oyo State (In view)

F. References

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-

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Date

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The University Compliance Certification

This is to certify that this thesis written by Tuibat Onono ISMAIL with the matric number LCU/PG/005371 in the Department of Politics and International Relations, Faculty of Management and Social Science, Lead City University, Ibadan and is in full compliance with the approved University format and style.

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