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Digital Skills as Economic Growth Enablement in Nigeria

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Abstract

Digital skills as aspect of smart education, contribute to productivity and general economic growth. Most scholars believe that in countries where the population is highly digitally skilled, its economy benefits from the innovative digital skills by way of job creation and it translates to sustainable economic development. The objective of this study is about the contribution of digital skills which is a part of smart education to the economic growth in Nigeria. The research also found out that expanded digital skill sets help crucially in the education of citizens; individuals can comfortably acquire digital skill through online learning platforms. The study employed primary methods of data collection, namely use of questionnaire and oral interview over a sample of 100 respondents covering a two-month period. The findings revealed that while a total of 91.31% agreed that digital skills in smart education affects Nigeria's Economic growth, about 8% disagreed with this view. The research concludes that digital skills significantly affect Nigeria's economic growth and recommends amongst others that government should focus on developing digital skills acquisition training and redesigning the curricula of tertiary institutions in Nigeria.

Keywords*: *Digital Skills, Monetise, Smart Education, Financial Inclusion, Economic Growth.

1.0 Introduction

In a time where job availability is extremely low, especially in the developing countries around the globe, it is extremely important for governments and individuals to encourage the creation of job opportunities. Some of the ways which this is going to be possible is through learning in the area of digital skills and

smart education. There has been a drastic change in the world regarding learning and skills acquisition unlike a decade ago. Globally, digital skills have brought enormous digital transformation by changing our living standards, it is observed that digitisation is now the backbone of global economic and societal growth.

With existence of the Organisation for Economic Cooperation and Development (OECD), the members of the body observe market-based economies to develop policy standards in promoting sustainable economic development of which digital skills are inevitable. The ubiquitous impact of technological skills is seen in every part of our lives such as the teaching and learning, work, accessibility of information, medicine, communication etc. To keep up with the constant changes in the digital eco-system there is the need for individuals and the public sector to access efficient digital applications as way to acquire the current digital skills OECD, (2020).

In the digital marketplace, digital skills form the backbone of productivity, learning digital skills is easily possible through smart education. Smart education is the combination of advanced technologies such as virtual reality, artificial intelligence (AI), cloud computing, virtual reality (VR), mobile learning tools which is very much internet dependent as well. Digital skills as part of smart education leverages information and communication technology (ICT) to boost learning through personalised, dynamic, efficient etc., methods. The main idea of this is to employ digital tools, preferences and platforms to acquire digital skills, this approach is targeted at promoting lifelong learning to foster creativity and innovation.

Nigeria is one of the countries with a rapidly increasing population which has a high youthful workforce, as such, the development of digital skills becomes important by unlocking the potential for economic growth. In Nigeria, many businesses owned by individuals are increasingly dependent on digital skills which yield productivity, innovation, and business expansion.

Digital skills are major components of smart education; smart education depends on digitally skilled manpower and facilities to be functional such as learning space and devices like; personal computers, smartphones, tablets etc. The effective use of these devices will encourage growth in all spheres of our lives, especially in personal and other corporate businesses. Leveraging on digital skills and smart education in this contemporary time will satisfy our basic economic needs that describe the specified adoption process of smart education with digital skills, Bell, A. (2009).

Devices such as laptop computers, smartphones, main frame computers, tablets etc., are predominant equipment for smart learning, this preponderant use of smart devices has brought enormous improvement

in the field of education. This has brought enormous awareness in the rapidly changing process of education. Taking advantage of smart education in this era is to meet almost all basic needs that describe the specified adaptation process of smart education.

1.1 Statement of the Problem

Nigeria with its largely youthful population suffers with high unemployment which has resulted in migration of everyone who is financially capable to other countries for a better life. This chronic brain-drain syndrome has caused so much adverse effects on Nigeria's growth and development. Goal of any nation's genuinely patriotic citizens is to develop their own nation, especially any country with a *collective periodic development plan*. Although, every country's leadership may claim to love and say it has a growth plan but truly in the end of every regime some countries rather than developing gets more underdeveloped by the policies initiated by the government of the day.

Some but a few of the negative effects are:

i. **Nation Building Against Foreign Remittances:** The desire for self-development is key for every serious nation, Nigerians overseas usually send remittances back home to support their family members which directly or indirectly contribute to the economy of Nigeria. Such actions have exacerbated the exodus of the country's manpower, diverting attention to the prospects of self-development to other nations.

ii. **Skilled Labour Losses:** It is an unfortunate event for any nation to constantly lose its manpower to other nations, a detrimental effect of the loss of skilled labour is the loss of professionals like doctors, nurses, teachers, IT professionals, engineers etc. The skilled manpower is crucial to economic development, developing critical sectors, improved quality of life etc., so the absence of skilled workforce slows any nation's growth.

iii. **Increased Youth Unemployment:** The backbone of the growth of a nation's economy is largely dependent on its skilled youthful population, when these active, educated and digitally skilled group leaves, there arises the high scarcity of the skills needed to develop Nigeria's economy.

iv. **Social Implications:** The high level of the migration of skilled manpower usually results to diminished workforce and translates to total collapse of many nations' economies, this affects the social fabric of a nation. Sometimes leaders in such countries go "cap in hand" to other nations, thereby, reducing the nation's pride. In such a situation the nation's social security and trust are undermined which will further lead to demeaning civil engagements.

For smart education to get a foothold, digital skills must play the major role to ensure success. These digital skills are the capabilities to adopt digital devices to solve, evaluate, create, share etc., digital materials, it is too important to function without these skills. In smart education, communication involves employing information and communication technology such as using computers to extract information, analyse, save and reuse. This only is achieved when digital skills are learnt or acquired through smart education which will in turn enhance economic growth. Digital skills range from fundamental technical skills like using digital equipment and software applications to relatively more advanced skills such as coding, cybersecurity, data analytics/ visualization and general artificial intelligence (AI) management skills. Digital technological ability cuts across every sphere of our lives, it is the door to the modern world today.

As it has been stated above, digital skills enhance smart education which is a learning pattern that is formal and the teaching and learning process involve use of digital equipment. The impartation methods are done inside or outside of a classroom via electronic media. A society whose manpower is equipped with digital skills will encourage economic growth. The Business Day, (2024), reports that; financial inclusion for Small and Medium Enterprises (SMEs) is essential to unlock the full potential of the sector and contribute to economic growth. It states that; “SMEs are responsible for over 80 percent of employment in Nigeria, yet many struggle to access the credit needed for expansion”.

2.0 Literature Review

The ability to effectively use technology then accessing and managing information with other resources responsibly using digital skills is a plus to anyone in terms of manpower development. These can be described as skills under smart education that are typically cqtegorised into basic digital literacy, advanced digital/ technical skills and specialised digital skills.

In Echegu, D. A., (2024), the work was on the impact of digital innovation on economic growth in Nigeria. Another project conducted by Afzal, A., Khan, S., Daud, S., Ahmed, Z., & Butt, A., (2023), they researched on addressing the digital divide in accessing and the use of technology in education. The literate in every society is an asset, such individuals can personally develop digital skills to fit into jobs that require digital skills. One way of achieving it is through smart education where the individual depends on internet and other electronic devices to learn the required skills and get remote jobs which directly contribute to economic growth. Ikechukwu, B.I, & Amos, U. S., (2023), did a work called; Implementation of Smart Education in Nigeria’s System of Education, it addressed the implementation of smart education. Another project on smart education involving digital skills is by Kadir, A. D., (2021),

showed how to use smart education framework and design approach to develop a specific course in learning.

The report by McKinsey & Company, (2018) on Africa's fast-growing, profitable banking markets, such growth can only be actualised with a population that has digital skills which is achievable through smart learning methods. It reported that; "Africa is in accelerated growth that is lifting millions out of poverty and it further creates a consumer class that propels growth. In addition, the report says; Africa has the second-fastest-growing banking market in the world in terms of retail and wholesale banking". Also, Africa's banking landscape has achieved increased number of the banked at 2017 there were about 300 million and got up to 450 million in 2022. In Seyed K. M., Mohammad S. S., & Mehrdad N., (2013), talked about the role of e-learning in economic development of rural tourism, the adoption of digital skills in manpower development will transform our economy.

2.1 Expansion of the Digital Economy

The growth of Nigeria's digital economy has contributed greatly by digital skills; aspects such as supporting tech startups, boosting innovation, fostering the adoption of the latest technologies. New economic opportunities arise from digital content creation, e-commerce, online marketing/ services, etc. Two additional sectors profoundly gaining prominence through digital skills in Nigeria are afrobeat (music) and the Nollywood (film) which employ; video editing, sound engineering and production. The evolution of digital platforms has brought citizens to be engaged in creating monetised digital contents online which generate foreign and local earnings depending on where the account of the platform has been created. The skills needed in digital marketing are essential for the productivity of the people engaged in it, these positive outputs further boost the exported culture of Nigeria. It is obvious that Lagos being the technology hub has become a centreS for innovation which accommodates the highest number of tech startups. Many of these startups leverage on digital skills to create scalable solutions that address local and global needs, Accenture, (2022).

2.2 Definition

Digital skills in smart education is an empowerment of the population with the ability to efficiently and effectively use digital devices to execute tasks. In terms of employment, the jobs can be local or international as most of the jobs are online based. The acquisition and development of digital skills in Nigeria is key to fostering inclusive economic growth whSich will create new job opportunities and transform the industrial sector.

2.3 Digital Skills in Smart Education

Digital skills in smart education are known as the ability of using technology efficiently, responsibly and effectively for the purpose to create, analyse, manage, transfer and communicate information. These digital skills are classified in different forms which can be basic digital literacy, high profile technical skills and professional/specialised digital skills. By utilising the benefits of information and communication technology (ICT) in the learning environment. Smart education does not only enhance the quality of education but empowers learners with the digital skills needed to keep up with the contemporary digital economy.

2.4 Acquisition of Digital Skills as Smart Education

Digital skills are learned via different methods that cater to many learning systems, needs and accessibility. Some of the methods these digital skills can be acquired are:

i. **Formalised Education:** Tertiary education teaches specilised skills, in the process of acquiring a degree or certificate in the areas of information and communication technology (ICT), computer science and other technology-based courses. While learning, in-depth ideas and technical skills required for anyone to handle tasks which only digital skills can handle, like; programming, cybersecurity, digital communication etc. In professional training and certification programmes, digital skills are required to learn aspects such as cloud computing, data analysis, etc.

ii. **Self-Learning and Practice:** Several online materials such as blogs, and online resources provide free guides on digital topics like web development, App development, digital content management and books are being consumed by individuals to acquire digital skills.

iii. **Bootcamps and Workshops:** One way to acquire quick digital skills is through intensive learning strategies where short-term training programs concentrate on practical skills such data analytics, web design, graphic design etc., thereafter, job spaces are then filled up, sometimes remote jobs. In some situations, private organisations and businesses run short of specific digitally skilled manpower and are compelled to train people to fill up those gaps using specific digital tools or software application.

iv. **Online Learning Environment:** Such a platform offers varieties of learning materials usually at the learner's convenience in terms of the flexibility of the learning schedules and at affordable cost. The learning plan ranges from beginners' level to advanced levels with

several open access tools to utilise. There are platforms like; Microsoft, Google, IBM, AWS etc., which have very professional and specialised programmes.

v. **Workplace Experience and Learning:** Almost all focused employees in different organisations develop new digital skills while on the job, this is as a result of capacity building through training and retraining. Using digital skills directly to solve real-world problems or projects is one of the most effective ways to learn as the more you do, the better you become at it. In many companies, the Managements usually provide in-house training opportunities to improve output.

2.5 Digital Skills' Contribution to Nigeria's Economic Growth

At the context of the quickly changing digital world, digital skills have evolved as a transformative source to enhance significant economic growth, especially in developing countries and emerging digital markets.

2.5.1 Enabling Productivity of Workforce

It is glaring that digital skills create employment in this era, digital skills provide employees in all sectors, be it in manufacturing, telecommunication, agriculture, banking etc., to be more productive through automation. These skills bring about robust and effective economic output in every sector. For instance, in the agricultural sector, farmers in Nigeria who are deploying digital technology are on the increase, digital tools (digital Apps) such as market price monitoring, weather forecast, pest control, etc., have brought increased output World Bank Report, (2019). For example, FarmCrowdy is an App which connects farmers to different digital platforms to get financial support and market accessibility, this obviously reduces farming losses and directly contributes to GDP growth in Nigeria.

2.5.2 Promoting Digital Transformation in Conventional Industrial Sector

Digital skills are pertinent in driving the digital transformation of the conventional industrial sector such as; education, agriculture banking, healthcare etc. All these sectors rapidly embrace digital technology to improve upon their service delivery and penetrate the population by scaling up the economy in Nigeria. The banking sector has developed tremendously by leveraging on digital technology, areas like the online banking, mobile banking apps, Interswitch, Flutterwave and others have brought about great improvement in managing the banking services. This steep shift is truly creating more job opportunities in Nigeria for the past decade, that is; Fintech related job areas and the expansion of access to easy banking services.

Also, the health sector has experienced drastic change by adopting digital technology, these successes would not be recorded if there is no digitally skilled manpower sector. Example, the eHealth initiative is about digital health services like telemedicine which are used to provide remote healthcare delivery in

underserved places to improve healthcare services, PwC, (2021). There is also, drug authentication system where one has to scratch to reveal a code then send a text message to the National Agency for Food and Drug Administration, and Control (NAFDAC) system in Nigeria to ascertain the genuineness of a given drug. And startups like mHealth are adopting digital technology to proffer affordable healthcare by reducing service cost and improving output.

2.5.3 Education and Digital Skills Development

Presently, digital skills aid a pivotal part in education by enabling access to online learning platforms, virtual classrooms and digital content. These skills enable human capital development which in turn improve the economy of the nation. Every country needs a developed human capital for sustainable growth. Programmes like Google's Digital Skills for Africa initiative contributes highly to digital skills acquisition and has grown to more than 10 million Africans. The programme offers free online courses in digital marketing, coding and data analysis, such programmes have empowered many Nigerians with the skills required for participation in the global digital economy. Online learning platforms such as Udemy and Tuteria help to upskill people in different areas like; network programming, software development, entrepreneurship, digital marketing etc. All these empower our young and active population group for high-demand jobs globally thereby increasing economic growth because of the foreign earnings; The Office of the Senior Special Assistant to the President on SDGs, (2020).

2.5.4 Entrepreneurship and Startups Support

The enormous contributions of digital skills acquisition to economic growth in Nigeria cannot be over-mentioned. In Nigeria, young entrepreneurs are greatly empowered by digital skills to start and upscale their enterprises using low-cost digital platforms. As a nation grappling high unemployment, digital skills contribute to the development of the youth as they explore entrepreneurial opportunities like digital marketing-commerce and Fintech. A Nigeria-based software training company called, Andela trains software developers and links up the trained to tech companies to be employed globally. This system provides high-income jobs but also enables the position of Nigeria high in the global digital economy. In addition, e-commerce platforms such as Jumia gives small scale businesses to create online shops which allows them to reach a wider market with low cost compared to physical stores. Entrepreneurs who are digitally skilled in marketing, social media advertisement, e-commerce etc., can promote different businesses properly and exploit opportunities in the global markets, Business Africa, (2024).

2.5.5 Digital Skills in Financial Inclusion

The unbanked population in Nigeria remains large, although, there is an increase in the banked due to the rise in digital banking. Digital skills are useful in recent financial services enabled by mobile phones, other digital devices and the internet to aid financial inclusion. Financial inclusion is enabled by the involvement of the population in mobile banking, fintech applications, mobile money services, and to access credit.

Many mobile money platforms such as Paystack and Paga are initiating changes to the access of financial services. Most of the organisations have improved upon financial inclusion and create job opportunities in areas as customer service, software development and digital marketing. The more people that gain digital skills to engage in digital services, the more the growth in economy and financial inclusion. It was stated by the Central Bank of Nigeria; that mobile financial services aid the growth of financial inclusion in Nigeria from: 46% in 2018 to over 60% in 2023, Central Bank of Nigeria, (2022).

3.0 Methodology

In finding a solution to improve the economic growth in Nigeria, the need to get the population engaged in digital skills. Other than the research done with many publications and online articles, this work has been executed through a mixture of quantitative and qualitative research methodology, it was conducted through different means of collecting data. Physical interaction through oral interviews randomly conducted in different places over two months, many of which were organisations where the digitally skilled have been employed, the interviewees were identified especially as those who have some basic digital skills. To ascertain clarity and quality of the research some self-employed digital content creators were also asked few questions concerning the digital skills required and an estimate of their earnings through monetisation of some of their platforms. Also, two sets of questionnaires were sent from Google Forms with fifty questions each with five options and the data were analysed with multiple tools.

4.0 Results and Discussion

After a rigorous analysis of the responses of the different questions, the results have been visualised for better understanding of the outcomes of the work.

Options	Responses	Assigned Values	Percentage
Strongly Agreed	26	5	35.17%
Agreed	50	4	56.14%
Undecided	4	3	1.43%
Disagreed	14	2	4.26%
Strongly Disagreed	6	1	3%

Table 1. Shows Options, Responses, Assigned Values and Percentages.

In the process of eliciting information from respondents the above tabled values were obtained, some of the questions were based on the relevance of digital skills on the type of work they do. Other questions were about the estimated amount of money they earn monthly from their role in the organisation or business they work in. Also, some questions were on the currency and whether it is earned in local or foreign currency etc.

Table 2.

Shows Responses & Assigned Values

	Responses	Assigned Values
	26	5
	50	4
	4	3
	14	2
	6	1

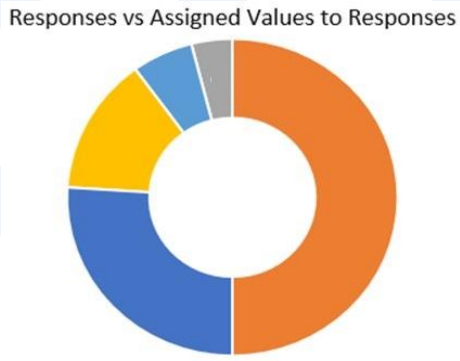


Figure 1. Responses vs Assigned Values of Responses

The above **table 2** and **figure 1** show the number of people that responded to the questions concerning digital skills at different degree of their opinions. Surprisingly, all the fifty questions from the questionnaire were responded to, making a total of one hundred questions. The second highest degree of response has the highest value of 50 (Agreed) respondents while the assigned value is 4

Table 3.

Options & response percentage Value

Options	Response Percentage Values
Strongly Agreed	35.17%
Agreed	56.14%
Undecided	1.43%
Disagreed	4.26%
Strongly Disagreed	3%

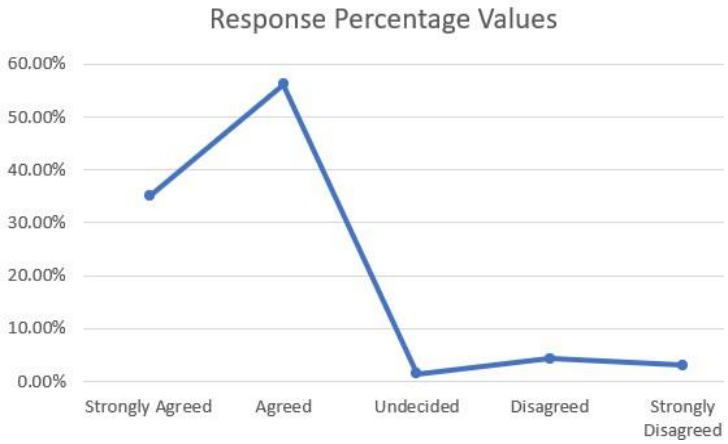


Figure 2. Graph of Percentage Value vs Options

Here above, **table 3** and **figure 2** show the graphical visualisation of plotting the response percentage values and the degree of option of the opinions, the graph indicates that the "Agreed" opinion has the highest respondents of 56.14%. While the "Strongly Disagreed" opinion is with the lowest respondents and having the value of 3%. With the World Bank (2019), corroborated with the outcomes of this research. So, these skills enhance robust and effective economic growth output in every sector. For example, in the area of agriculture, farmers in Nigeria who are adopting digital technology are on the rise, digital tools/digital Applications such as price monitoring, weather forecast, pest control, etc., have aided increased output.

5.0 Conclusion

This work concentrated on the importance of Nigerian citizens educating themselves in digital skills which will reduce unemployment and increase economic growth. The research showed that the acquisition of digital skill is very essential as it boosts the expansion of the digital economy, brings about financial inclusion, reduces unemployment, enhances smart education, encourages entrepreneurship and startups etc. Many publications and some other articles with face-to-face interactions and questionnaires using Google Forms have brought to bare the importance of digital skills in Nigeria's economic growth. Therefore, the work suggests that citizens irrespective of the age must engage in digital skills to be gainfully employed. The study showed that most of the areas to learn include: data analytics and data science, cyber-security, software development, web programming, image processing, video editing, sound engineering and production (music), database design, e-commerce, digital marketing etc. From the analysis of the data and the literature materials, it is obvious that digital skills contribute greatly to the economic growth of Nigeria. Our education curricula at every level should inculcate digital skills acquisition for learners to be gainfully self-employed or by organisations. Although, some of the skills are very expensive to learn, a few can be learnt on some online platforms. To drastically boost Nigeria's economy, there must be a deliberate action by the government to rigorous train and retrain citizens for economic development.

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