Journal of Good Governance and Sustainable Development in Africa (JGGSDA), Vol. 8, No 5, 2024. Available online at http://journals.rcmss.com/index.php/jggsda**. Covered in Scopedatabase-**https://sdbindex.com/Sourceid/00000431, google scholar, etc. **ISSN: 2346-724X (P) 2354-158X (E)**
Makoji Robert Stephen & Joel Akowe, 2024, 8(5):19- 24

The Digital Economy in Nigeria and the imperatives of Genuine Inclusivity for Sustainable National Development

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Abstract

Along with the conversations on the need to leverage the digital economy in Nigeria arises the importance of inclusion. Despite the clear advantages of the digital economy, barriers to access result in exclusion from these advantages. This paper discusses the need for genuine inclusivity for sustainable development in the digital economy. The paper submits that building inclusive digital economy solves urgent development concerns, uses the power of the digital transformation to reach the last mile of the population, and hastens the achievement of the Sustainable Development Goals (SDGs) in Nigeria.

Keywords: *Digital Economy, Inclusivity, National Digital Economy Policy and Strategy (NDEPS), Sustainable Development Goals (SDGs)*

Introduction

The digital economy affects almost every element of human interaction, including artificial intelligence, avionics, finance, defence, engineering, financial inclusion, and healthcare delivery. It encompasses a wide range of fields, including virtual engineering, space administration, financial services, legal services, machine learning, manufacturing, media, robotics, and the internet of things (IoT). The territorial and extra-territorial nature of the digital economy shows that it is the key to sustainable development in Nigeria.

According to the Nigeria Digital Economy Diagnostic Report published by the World Bank in December 2019:

- Nigeria has a population of approximately 197 million.
- Nigeria accounts for about 47% of West Africa's population.
- Has one of the largest populations of youth in the world.
- Nigeria also has Africa's biggest economy, is the biggest oil exporter, and
- Has the largest natural gas reserves on the continent.

It in recognition of this trend and the need to diversify the economy away from dependence on oil and gas and in recognition of the critical role that digital technologies can play in national development that the Federal Government of Nigeria under the leadership of the former president Muhammed Buhari developed the National Digital Economy Policy and Strategy (NDEPS). The goal of the Digital Economy Policy and Strategy paper is to outline a strategy for developing a digital economy for the nation using digital technology as a platform to promote growth across all economic sectors.

Definition and importance of the digital economy

G20 Digital Economy Development and Cooperation Initiative (2016) define the digital economy as a broad range of economic activities that include using digitized information and knowledge

as the key factor of production, modern information networks as an important activity space, and the effective use of information and communication technology (ICT) as an important driver of productivity, growth, and economic structural optimization. This definition places a focus on networked and intelligent ICTs that support economic activities. The focus here is on policy, including cross-national policy, priorities for the digital economy.

According to Knickrehm et al. (2016), the digital economy is the share of total economic output derived from a number of broad "digital" inputs. These digital inputs include digital skills, digital equipment (hardware, software and communications equipment) and the intermediate digital goods and services used in production. Such broad measures reflect the foundations of the digital economy. This definition covers how to make greater use of the economic foundations of the digital economy to promote both micro and macro-economic growth.

Deloitte (n.d.) see the digital economy as the economic activity that results from billions of everyday online connections among people, businesses, devices, data, and processes. The backbone of the digital economy is hyperconnectivity which means growing interconnectedness of people, organisations, and machines that results from the Internet, mobile technology, and the internet of things (IoT). The focus of this definition is on the four essential elements of the digital economy which are:

- Digitalisation and intensive use of information and communication technologies (ICT).
- Codification of knowledge (the process of conversion of knowledge into messages which can then be processed as information).
- Transformation of information into commodities (copyrights, patents, and intellectual property rights); and
- New ways of organising work and production.

The pièces de résistance of these definitions is the acknowledgement in some way that the digital economy is built on some form of digital technology. The benefits of digital technology for the sustainable development goals (SDGs) are relatively well-integrated into the 2030 Agenda for sustainable development, not only through Goal 9 (industry, Innovation, and infrastructure), but also through the Technology Facilitation Mechanism (TFM). The TFM is geared towards supporting the implementation of the Sustainable Development Goals (SDGs). The goal of the TFM is to facilitate multi-stakeholder collaboration and partnerships through the sharing of information, experiences, best practices and policy advice among Member States, civil society, the private sector, the scientific community, United Nations entities and other stakeholders. The TFM underscores the need for inclusivity in the digital economy for sustainable development. On the need for digital inclusivity, the UN Secretary-General, Antonio Guterres, at the closing of the 2018 High-level Political Forum on Sustainable Development acknowledged that technology has great potential to help deliver the SDGs but cautioned that it can also be at the root of exclusion and inequality. He therefore emphasised the need to harness the benefits of advanced technologies for all.

Digital economy is a major factor in shaping the new global economy which produces rapid changes in societies and in recent times has largely altered communication patterns and commercial interactions. At country-level, the digital economy allows nations to avoid the traditional steps or procedures needed for development and capability building, a situation Fong (2009) referred to as "technology leapfrogging".

An increasing number of studies in developing countries have argued that the adoption of the digital economy and investment in the digital economy positively and significantly affect the growth of these economies. For instance, the Nigeria Digital Rights and Inclusion Report (2020) revealed that the telecommunications industry alone contributed up to 14.3% to Nigeria's GDP

in the first half of the year 2020. The Report further submits that the adoption of the digital economy in Nigeria is capable of attracting benefits such as greater digital inclusion.
Berger and Frey (2017) assert that if the transformation into a digital economy is well driven, then, it has the potential of bringing about a digital revolution at the economic and social levels. Businesses can benefit greatly through the automation of several business processes, including increasing production, cutting expenses, and improving operational procedures. He submits that the digital economy presents new opportunities to enterprises and the labor market. The vast and varied services that the digital economy provides has the propensity to positively impact the employment and entrepreneurship markets by generating many new positions. Socially, a sustainable digital economy has the potential of impacting the social governance mechanisms by enhancing the quality of interactions between governments and their citizens. Corroboratively, Sturgeon (2021) thinks that the key feature of the digital economy is that it liberates companies from relying on geographical locations which eliminates the better location from the list of competitive advantages.

Sule et al., (2022) noted that the significant characteristic of the digital economy is not technology anymore but innovation. The internet provides an opportunity for innovative minds to develop new ways to solve old problems and this helps in increasing the convenience of doing business, governance, and day-to-day activities. They pointed out that any country with a population advantage like Nigeria should not hesitate to use this opportunity for diversifying its economy through digital innovation, but this must be considered while addressing challenges like cybercrimes.

Even though several studies have documented the socio-economic and political benefits of transforming into a digital economy, current research from around the world continues to highlight that access is not enough, but that there are many benefits to individuals in being involved in the society they live in, which today entails being digitally included. This brings us to the issue of inclusivity in the digital economy.

What is the Inclusivity in the Digital Economy?
Despite all the advantages of the digital revolution, exclusion from access runs counter to the critical idea of social inclusion. Building inclusive digital economy solves urgent development concerns, uses the power of the digital transformation to reach the last mile of the population, and hastens the achievement of the Sustainable Development Goals (SDGs). An inclusive digital economy adopts a broad perspective on what is achievable when governments use digital tools to support and connect more people to opportunities and services.

Schneegans et al., (2021) in a United Nations Report titled: The race against time for smarter development used women as an example of groups that are excluded from the digital economy. They maintained that due to the prevalence of women working in occupations that are likely to be automated, women in Sub-Saharan Africa (Nigeria inclusive) are at a significant risk of losing out on future employment opportunities. As a result of their underrepresentation in professions like IT, computing, and engineering, most women in the region run the risk of being shut out of the digital economy. According to the report, African countries have among the lowest proportions of women researchers in engineering and technology. According to the most recent information from UNESCO's Institute of Statistics on the share of female tertiary graduates by academic fields, women in many Sub-Saharan African nations are trailing behind their male counterparts in cutting-edge disciplines like engineering and artificial intelligence,

The forgoing revelation underscores the need for Least Developed Countries (LDCs) to leverage on policies that will make the digital economies inclusive if the Sustainable Development Goals (SDGs) are to be met. The creation of specialized services for women (SDG5), young people (SDG8), migrants, elderly, people with disabilities, and rural populations (SDG10) in areas like

agriculture (SDG2), health (SDG3), education (SDG4), water (SDG6), and energy (SDG7) enable LDCs to build inclusive digital economies that decrease poverty (SDG1), boost resilience, and expand economic opportunities for all citizens, including marginalized groups.

The idea of inclusivity is centred on empowering and equipping diverse stakeholders in order for them to participate successfully in the digital economy. Access to data networks, markets, and providers should be as simple for small-scale firms as it is for giant enterprises with plenty of resources. It is in this sense that Mamatisakovich and Oybekovna (2022) assert that data discoverability and accessibility will aid in the realization of an inclusive digital economy, transcending demographic structures, economic disparities, and societal attitudes.

Choi et al., (2020) commenting on the future of work in Africa noted that building inclusive digital skills and human capacity across the digital sciences, judiciary, and education, both technical and vocational has the potential of catalysing digital transformation in critical areas like coding, programming, analysis, security, blockchain, machine learning, artificial intelligence, robotics, engineering, innovation, entrepreneurship, and technology policy and regulation.

Coupienne and Harihareswara (2021) list the main components of an inclusive digital economy to include: skills, innovation, infrastructure, and policy and regulation and women's inclusion.

- **Skills-** Recognising from the start how users acquire the necessary skills (digital and financial) to adopt new digital services and leveraging digital services to increase their soft and hard skills.
- **Innovation-** Supporting local entrepreneurs and MSMEs to build inclusive services for the local digital economy, making sure that the value offered by digital services improves the livelihood of people living within the market and is not spirited away to global platform providers.
- **Infrastructure-** Understanding the importance of digital payments as the basis for sustainable, economically impactful digital services.
- **Policy and Regulation-** Working with government via existing in-country contact and relationships to develop policies that support and provide the necessary incubation for an inclusive digital economy.
- **Women's Inclusion-** Several economies around the world are making their digital participation more inclusive and broad-based by extending digital services and technologies to women and underserved population.

From the foregoing, it is obvious that digital inclusion is important to achieve the economic potential of Nigeria. Digitally excluded Nigerians could lack the skills, confidence, and motivation, along with having limited or no access to equipment and connectivity. This creates additional layers of social exclusion and exacerbates social and economic problems. What then can we do as a nation to ensure genuine inclusivity in the digital economy?

Ensuring Genuine Inclusivity in the Digital Economy

The analysis above has some very clear lessons on how to make the digital economy in Nigeria more inclusive and sustainable. To enable genuine inclusivity in the digital economy, the following strategies could be adopted:

1. Governments at all levels should concentrate on building inclusive digital skills and human capacity across the digital sciences, judiciary, and education, both technical and vocational. Building skills and capacity has the potential to spur digital transformation in important fields like engineering, creativity, entrepreneurship, security, blockchain, machine learning, artificial intelligence, robots, and policy regulation in technology.

2. Nigeria has the largest mobile market in Sub-Saharan Africa, which is supported by robust broadband infrastructure and enhanced international connectivity, but the country has very little fixed broadband infrastructure and connectivity in rural areas, leaving many of the most marginalized sections of the population without access to the internet. Therefore, government should make adequate budgetary provisions for the deployment of robust digital Infrastructure. Doing this will facilitate the development, provisioning, use and sharing of digital systems (products and services). These include postal infrastructure, digital terrestrial broadcasting, data centers, telecenters, fixed and wireless telecommunications networks, including broadband and high-speed networks, fiber-optic networks on land, fiber-optic networks over power lines, submarine cables, and mobile and smart devices.
3. People and their abilities are the ultimate currency in the digital era. Nigeria's most valuable resource, the youth, who make up 70% of the population, can be remodelled, harnessed, empowered, and transformed into a digitally adaptive, skilled, and innovative workforce that not only understands, adopts, and follows global trends but also forges its own digital pathways toward inclusive growth and development.
4. Education is a universally accepted basic human right that plays a decisive role in determining the society' capability to survive and thrive in the digitized global world. A skill-focused education system produces the required number, type and quality of workforces to develop and adopt digital systems, while the application of digital technologies further enables and continuously reshape the education curriculum, delivery and administration processes at all levels – from pre-primary to tertiary and lifelong learning. In light of this, it is critical that the government restructures the educational systems to be adaptable, inclusive, proactive, and focused on creating a new breed of workforce that readily and continuously picks up and discards a wide range of complex skills and competencies needed in the constantly evolving digital world.
5. Government should continue to promote gender-inclusive education frameworks and policies so that women and girls can pursue relevant education (Science, Technology, Engineering and Mathematics- STEM) subjects to narrow the gender digital divide.
6. Nigeria's progress toward financial inclusion is halted by the fact that 60 million of its adult population are without access to a formal account. The vast potential of digital financial service (DFS) providers is currently unrealized in Nigeria, unlike other African economies where they would primarily be driving forces behind financial inclusion. To ensure financial inclusivity, which is a key element in the digital economy, there is a nagging need for government to increase access to digital financial services.

In addition, to make these strategies sustainable, it is critical for government to Involve local personnel in the drive towards digital inclusivity as this enhances the durability of digital government programs by prioritizing community needs, increasing community engagement, and fostering a sense of ownership. Again, to ensure that citizens use and benefit from the services offered, it is crucial to communicate with them and educate them about their presence and benefits.

Conclusion

In conclusion, it is important to ponder upon the following points:

- Digital economy will propel the Nigerian economy to a higher level of prosperity given the right policy environment and the political will to implement these policies.
- No society as it stands can compete without the digital economy.
- By the end of year 2030, the revolution in the digital economy will dictate the new world economic order.

- Countries that fail to develop the digital economy and ensure genuine inclusivity in digital technologies will continue to wallow in poverty, want and deprivation.

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