NIGERIA'S LOCAL CONTENT POLICY ON INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) AND ITS CONTRIBUTIONS TO NATIONAL DEVELOPMENT

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Abstract
Promoting local production is a crucial strategy for sustainable National Development in developing countries. The paper aims to evaluate the potential of local content policy on information and communication technology (ICT) in Nigeria's quest for sustainable national development. The paper used a qualitative descriptive research design where secondary data were collected and analysed to gain insight into the performance of ICT local content policy on Nigeria's national development. The paper adopted eco-localism theory which highlighted the importance of local production in the economy. The paper's findings reveal that while the policy can aid sustainable National Development, it was constrained by poor implementation, particularly from the government's side. Finally, the paper recommended that for Nigeria to reap the full potential of this policy, the government must show its commitment to the policy goals by complying with Executive Order 003, which compels all MDAs to source not less than 40% of their ICT goods and services locally.
Keywords: Information and Communication Technology, Local Content, National Development.

Introduction

Globalisation forces have compelled many countries to get in tune with global competitiveness, champion the cause of packaging, and showcase their resources worldwide through innovations. In line with the above assertion, Imoh (2010) argues that it is the government's responsibility to ensure that businesses within its domain remain competitive. As a catalyst for development, innovation tends to be more competitive, as it can create new technologies, products, and services that would lead to economic advantages (Ovadia, 2012 & Johnson 2022). However, any nation must prioritise, support, consume, and export its domestic products to achieve this fit. This necessitates the need for governments to put in place frameworks to enhance the ability of their local companies to exploit local opportunities while staying competitive at the global level (Imoh, 2010; UNIDO, 2016).

One of the major impediments to development in developing countries such as Nigeria is their inability to think outside the box to boost their revenue bases. This results in an imbalanced relationship with the advanced industrialised economies that, in turn, stagnates or slows down their development (Hays, 1964). This situation is exacerbated by the forces of globalisation, which have since transformed the world into what is described as a 'global village' (Ger, 1999). To compete with its global counterparts, Nigeria, like other developing nations, has embarked on some protectionary economic development policies and programs at different times by different governments (Usman, 2022), such as the Indigenization of Oil Policy 1971, the Import Prohibition List under the 2023 Fiscal Policy Measure (FPM), the local content policy on Information Communication Technology 2012, etc. In this spirit, the vice president of Nigeria, Kashim Shettima, asserted that "we must be focused on expanding our production base,

prioritising local content, and promoting made-in-Nigeria products" (Daily Nigeria, July 2, 2024).

With its population estimated to be around 218,541,212 (World Bank, n.d.), Nigeria is no doubt the most populous country as well as the largest ICT consumer market in Africa, with about 82% of the continent's telecoms subscribers and 29% of internet usage (ITA, 2023). The oil and Gas sector is Nigeria's primary source of revenue; it was projected to generate 43.9% of income for implementing the 2024 national budget (Nnorom, 2024). The country is overly dependent on this sector and continues to account for the bulk of Nigeria's export earnings (ITA, 2023). However, the global oil market uncertainty has since compelled Nigeria to develop other sectors to supplement and reduce the pressure on oil revenues. This problem was further justified by the recent global recession from the COVID-19 pandemic and the current Russia/Ukraine crisis (Mannaseh et al., 2022).

One sector that presents abundant opportunities is information and communication technology (ICT) considering how it has become an integral part of modern societies, revolutionising how people communicate, conduct business, and access information and the success stories of some fast-growing countries such as Singapore, India, Taiwan, China, Korea, Malaysia, Ireland, Israel, and Finland, the sector contributed 16.2% to GDP in Q1 2022 (ITA, 2023). Nigeria spends a lot of money annually on importing ICT goods (Software, services, and hardware like computers, projectors, discs, tablets, etc.). Against this backdrop, this seminar paper aims to evaluate the success or otherwise of Nigerian local content policy on ICT for sustainable national development.

Leveraging Nigeria's Local Content Policy

Local content is a protectionist strategy that governments employ to stimulate the local economy by promoting, safeguarding, and supporting domestic products and services. Acheampong et al. (2016) argued that local content is a subset of industrial policies concerned with measures aimed at deriving localised values encompassing participation of national labour, services, goods, and capital. Similarly, Hunter (2014) observed that local content is the local development of technical goods and services required for production and promotes economic diversification and cross-sectoral linkages. Victoria and Oko (2022). posit that "Local Content is essentially about providing direct and indirect opportunities for service and procurement to citizens simultaneously and fostering the progress of local skills, technology transfer, and utilisation of local workforce and manufacturing in capital projects. Olsen (2008) in Ovadia (2013) argues that Local content is a 'means', not a 'goal'. The goal is to increase national wealth through economic growth and more employment of locals.

Similarly, The Nigerian Oil and Gas Development Law 2010 defines local content as "the quantum of composite value added to or created in Nigeria through the utilisation of Nigerian resources and services in the petroleum industry resulting in the development of indigenous capability without compromising quality, health, safety, and environmental standards (Gbegi & Adebisi, 2013). Kazzazi and Nouri (2012) conceptualised local content development

comprising four dominant pillars, namely: (a) local policies, (b) local capability, (c) local infrastructure, and (d) local environmental factors.

Local content policies refer to legislation, directives, and guidelines by which governments influence local content development. It is a protectionist strategy to stimulate the local economies (Unwuka, 2021). Local content development policies should focus on developing linkages in the local economy, be anchored on available industrial supply bases, and be supported by clearly defined and acceptable benchmarks (Acheampong et al., 2016). Therefore, ICT local content policy is simply a set of government programs and projects meant to develop, safeguard, and promote indigenous ICT innovations, products, skills and services to enable it to compete in the global markets.

Olawuyi (2019) identified five drivers of local content policies, namely (a) the government's desire to boost local competencies and capability, (b) the government's desire to create a level playing ground so that local investors can participate in the economy, (c) the desire for job creation and employment opportunities and maximises economic benefits for citizens, (d) improvement of national technology capacity through technology transfer and local research and development, and (e) the need to manage or mitigate political and social risks that arise from domestic expectations regarding the distribution of authority and wealth.

Policing the Information and Communication Technology (ICT)

Information and Communication Technology (ICT) refers to different things for different people depending on their disciplines, orientations, and needs. Some view it as a technique for processing information, including deploying computers and software for creating, storing, and protecting, processing, transporting, selecting, changing, receiving, and displaying data. In contrast, others view it as a tool for developing, acquiring, testing, implementing and maintaining electronic systems as a source of information.

Okwudishu (2020) defines ICT as a wide variety of activities and equipment, including all the tools, applications, and information available and accessible via computers. Accordingly, Adams (2019) defines the term information as a wide range and variety of things, ranging from oral and printed words, figures, statements, files, and documents to such intangible elements as sound, signal rays, and waves. Whatever form information takes, the essence of information is that it conveys a message. It is an assemblage and deployment of vast digital technological tools and resources to enhance diverse communication, publicise, store, and implement information management between various stakeholders (Iqbal et al., 2021). Similarly, Sajuyigbe (2018) posited that ICTs encompass technologies that can process different kinds of information (audio, video, text, and data) and facilitate other forms of communication among human agents and information systems. Information and communication technology is a term that generally covers the harnessing of electronic technology for the information needs of businesses at all levels (Anderson, 2019). Summarising the views, it can be said that it does three primary functions, namely: process information (computer), disseminate information (communication), and presentation of information (multimedia).

National Development through the Local Content Policy

There is no universally accepted definition of development; the concept is plagued with controversies and debates. As such, various scholars have many definitions reflecting their perspectives, ideological orientations, and the problem at stake (Hays, 1964). Development was traditionally equated with the growth of per capita income. However, since the 1970s, other development indicators have become widely used by development scholars and development agencies such as the World Bank, the IMF, etc. Development should be viewed as a multidimensional process involving significant changes in social structures, popular attitudes, and national institutions, as well as the acceleration of economic growth, the reduction of inequality, and the eradication of poverty (Todaro & Smith, 2012). I believe development could mean a deliberate and desired qualitative and quantitative positive change in all human endeavours, such as economic, political, cultural, environmental, social, etc.

Therefore, National Development simply means the continuous and sustainable improvement of a nation's economic, social, and political well-being. Accordingly, Adagbabiri (2019) defines it as progressive changes and transformations in a nation's economic, social, political, demographic, scientific, ecological, and technological life today, without jeopardising the development of tomorrow. However, this could be achieved by carefully planning activities as a roadmap, for example, Nigeria's National Development Plan (NDP) 2021-2025, Vision 20:2020, etc. Policy is what government chooses to do not to do. Deliberate local content policy is aimed at protecting local innovation and industries foreign multi-national competitors. This is necessary since development does not happen by accident, but is a product of planning and actions.

The contributions of ICT to the Nigerian economy

ICT is globally acknowledged to have revolutionised almost all aspects of our lives, including economic growth and development. It has transformatively impacted every sector of economic development, such as agriculture, health, education, environment, transportation, trading, entertainment, etc (Abolade and Durosinmi, 2019; Akwu et al., 2021; Igbayue, 2022 & Charfeddine and Umlai, 2023). Some key areas in which ICT has impacted Nigeria's economy include job creation, increased productivity, digital entrepreneurship, access to information and services, foreign direct investment, digital financial inclusion, etc. (Gwani, 2025).

According to the NBS report, the ICT sector's yearly contribution to real GDP stood at about 20 per cent in Q2 2024 (The Guardian, 2025). The recent development of the digital technology industries demonstrates the strong potential to catalyse economic growth, especially as the government of Nigeria intends to diversify its economy from traditional reliance on the oil and gas industry, which has traditionally been the mainstay of the economy. Having realised this potential, the Nigerian government developed the National Digital Economy Policy and Strategy 2020-2030. The policy aims to redirect the Nigerian economy to capitalise on the opportunities offered by technologies; it intends to leverage digital technology to drive economic growth and development (ITA, 2024).

Methodology

The paper employed a qualitative content analytical design where materials were sourced from secondary sources such as relevant books, journals, internet resources, newspapers, government official documents, etc. In other words, the paper explored conceptual and contextual analysis of secondary materials and critically evaluated the potential of the ICT Local Content policy on the Nigerian sustainable development agenda.

Theoretical Framework

The Eco-localism theory was employed to evaluate the potential of Nigerian local content policy on Information Communication Technology (ICT) connected to sustainable national development. E. F. Schumacher notably advocated this theory in his book "Small is Beautiful", published in 1973. This framework's renowned proponents and contributors include Kirkpatrick Sale, Leopold Kohr, Wendell Berry, Alexis de Tocqueville, and David Hess (Ibietan & Ndukwe, 2014). Generally, this theory assumes that prioritising local entities and encouraging local creativity, innovation, and support will help channel the efforts of the local people toward development. It supports local production and consumption of goods, control of the economy, and promotion of local history, culture, and local identity. The choice of this theory for this research work is informed by the theory's assumption that development should be locally or internally nurtured through local ideas, innovations, initiatives, cultures, productions, etc. This proposition suits the focus of this research work and the supreme goal of Nigeria's local content policy on ICT, which aims to harness local ideas and knowledge that would propel the local economy, society, and the nation to grow. Therefore, this theory explains the need to prioritise local innovations, initiatives, and production by creating an enabling framework supporting national development.

Local content policy in Nigeria

Historically, Nigeria's first attempt at local content policy on a sector of its economy was in 1971 when it flagged off its indigenisation of oil policy (Ayonmike & Okeke, 2015). The most recent example was the banning of Rice and other Agricultural products importation by the administration of former President Muhammadu Buhari between 2016 and 2024. Having seen the crucial roles Information and Communication Technology play in improving the GDP of many countries across the globe, and how it has become an integral tool for governance and businesses with abundant opportunities, coupled with the tremendous amount of money it spends on importing ICT goods. Nigeria formally established the National Information Technology Development Agency (NITDA) in 2007 as a legal framework for e-government and saddled it with the responsibility of coordinating, monitoring, and regulating the use of Information Technology in the country (NITDA, 2010).

Notwithstanding, Nigeria has initiated and adopted some ICT-related policies. Still, due to its revolving nature and the need to maximise its massive potential for National Development, the country decided to document everything together and give it the title "National Information and Communication Technology Policy" in 2012. The policy was tailored to the goals of National Vision 20:2020, with a vision statement that 'Nigeria is a knowledge-based and globally competitive society'. The main objective of the policy is to provide a comprehensive framework for the ICT sector that encourages investment, enables the rapid expansion of ICT networks and

services accessible to all at reasonable costs, strengthens all productive sectors, and facilitates the transformation to a knowledge-based economy. The policy's specific objectives include;

1) To develop and enhance Indigenous capacity in ICTs and software development,
2) To ensure the country's effective participation in regional and international ICT fora to promote ICT development in Nigeria, meet the country's international obligations, and derive maximum benefit from international cooperation in these areas,
3) To promote cyber, digital, ICT infrastructure, and national security; and
4) To utilise ICT in energising and supporting the various programs and sectors that contribute to Nigeria's socio-economic development, including Agriculture, Education, Finance, Health, Justice Administration, Oil and Gas, Power, Small & Medium Sized Enterprises, Solid Minerals, Sports, Trade Commerce, Transport, Youth Development.

In addition to these objectives, the policy document has specifically and adequately designed a blueprint for ICT local content for the first time.

Objectives of Nigerian Local Content Policy on ICT

1) To position Nigeria as a leader in software development, where the software industry becomes a major contributor to national wealth;
2) To provide incentives for the growth of the software industry.
3) To promote software development education in the country.
4) To promote software development and content for local and export markets.
5) To ensure rapid indigenisation and domestication of high technology ICT products and services, and
6) To encourage a significant increase in the local content of ICT software and services by 2015.
7) To promote and support the local design and manufacture of ICT hardware;
8) To establish appropriate standards for the production of efficient and cost-effective hardware.
9) To significantly increase the number of Nigerians who own ICT hardware/devices.

It is reported that from 2010 to 2021, Nigeria spent an average of 1,514,720.842 USD yearly on foreign ICT goods (CIEC, n.d.). The table below shows the distribution of Nigerian yearly spending on the importation of ICT equipment from 2010 to 2021.

Table 1.1: Nigeria Expenditure for Importation of ICT Goods from 2010 to 2021

S/N	YEAR	EXPENDITURE ($)
1	2010	2928318.223
2	2011	2501459.044
3	2012	1988929.972
4	2013	1599075.802
5	2014	1821759.155
6	2015	1590599.444
7	2016	1383238.751
8	2017	1022476.193
9	2018	1323695.448
10	2019	1760516.362
11	2020	1792512.805
12	2021	1435493.494

Source: www.ceicdata.com UNCTAD

About 80 per cent of the software and hardware components of ICT in Nigeria are imported (Guardian, 2019; Punch, 2022). This evidence suggests that leveraging the potential of ICT through promoting local content would help Nigeria in job creation, cutting expenditures, and boosting revenue generation, which are fundamental factors for achieving sustainable National Development in the country.

Strategies for achieving the Nigerian local content policy on ICT

To achieve these noble objectives, the government pursued a comprehensive strategy to develop Nigeria's indigenous ICT capacity to realise these objectives. It prioritises the **cultivation of the best talents:** incentives will drive a significant expansion in software developers over five years, while existing developers will be actively encouraged to meet international standards through targeted support and certification programs. Collaboration among developers will be promoted to foster innovation and knowledge-sharing.

Strengthening the ecosystem is equally critical. The government will build robust interfaces linking ICT industries, academia, and businesses to ensure end products align with market needs and enhance real-world relevance. To build trust and competitiveness, rigorous measures will enforce security and privacy in software systems, while intellectual property rights will be robustly protected. Patronage of locally developed software and services will be actively championed to stimulate demand.

On the hardware front, domestic manufacturing capacity will be expanded through incentives for local design and production of ICT hardware that conforms to global standards. Specific initiatives include establishing factories for critical components like Set-Top Boxes to meet the global-based digital broadcasting standard. Foreign Direct Investment in local manufacturing will be incentivised to accelerate this industrial growth. Simultaneously, high-technology ICT products and services will undergo rapid indigenisation and domestication.

Digitising Nigeria's rich local content government archives, education, music, film, and tourism will preserve cultural assets and create digital economic opportunities. This effort will be guided by a formal ICT Local Content Plan and guidelines, ensuring a cohesive framework for sustainable development.

In addition to this, in 2019 the government through NITDA issued a guideline for Content Development in Information and Communication Technology (ICT) with three core focus areas; driving indigenous innovation, developing the local ICT Industry, and establishing Intellectual Property regulation and protection standards, each of which has a set of related strategic goals. These strategic goals form the basis of specific guidelines, including recommendations for restructuring the industry and actions required by NITDA, NCC, and other government MDAs (NITDA, 2019).

Specifically, the guideline was established to advance Nigeria's ICT sector through several key objectives. **Centrally, it aims to support the local ICT industries** in contributing significantly to national development. It seeks to inspire the creation, production, sales, and consumption of high-quality ICT products and services developed *by indigenous Nigerian companies*, thereby boosting economic growth and self-reliance.

Furthermore, the guideline emphasises strengthening indigenous ICT firms, enabling them to enhance their capacity to deliver relevant and competitive offerings. It also prioritises **building Nigeria's human capital** by equipping citizens with the skills needed to participate as professionals within the local ICT ecosystem actively.

The document provides a compliance framework aligned with Presidential Executive Orders 003 and 005 to ensure systemic impact. It also proposes actionable recommendations for local content regulations and legislation governing the creation, distribution, and use of ICT across Nigeria.

Finally, it works to cultivate an attractive investment climate that welcomes both domestic and foreign capital into the ICT sector while promoting the export of indigenously developed products and services.

Challenges in achieving the ICT local content policy in Nigeria

ICT local content development in Nigeria faces myriad challenges, some generic while others are specific. For instance, Nigeria is a signatory to some international trade treaties both at global and regional levels notably, the General Agreement on Tariffs and Trade (GATT) under WTO and the African Continental Free Trade Area under ECAAU the implication of membership of these organisations that every member state must comply with all the treaties and agreements of the organisations which include dropping some of their (members) local economic policies (Hestermeyer, & Nielsen, 2015; ECA, 2020). The disconnection between policy formulation and implementation strategies occurs due to insufficient alignment between strategy and actions, inadequate planning, limited institutional capabilities, a lack of determination to implement change, inconsistent governmental policies, insufficient backing from relevant stakeholders, and corruption (Balouga, 2012). Other challenges identified:

a) Power/energy: The ICT sector is power-bound, and investors naturally find it hard to risk their investments in an environment that can't guarantee this basic condition (Echebiri et al., 2022).
b) Cost of capital: Promoting local content requires higher investments in the sector by the locals. But, in Nigeria, due to the high interest rates for business lending and the unstable economy, people are finding it difficult to access the required capital for investment (Kurmiasih & Rustam, 2022).
c) Inconsistency of policy: Sometimes politics play a part in allocating incentives and penalties; there is a need for a structured and non-discretionary application of rules. The rules should be applied impartially (Nwagu & Sylva, 2022).
d) Low patronage of local products: Some Nigerians exhibit an "inferiority complex" attitude; they believe local goods are inferior and prefer foreign goods. This poor patronage of made-in-Nigeria products is one of the reasons many local manufacturing companies are shutting down (Echebiri et al., 2022).
e) Weak regulation: unlike some countries, Nigeria's local content regulations are somewhat weak; foreign companies find it comfortable to bring their finished products into Nigeria for selling instead of opening a branch there (Adepetun, 2023).

f) The policy did not make provisions for penalties for violations and robust mechanisms for enforcement (Nwaguru & Sylva, 2022).

Discussion of findings

Kazzazi and Nouri (2012) identified four dominant factors that drive local content development: policies, capability, infrastructure, and environment. Also, as stipulated in the National Policy on ICT (2012), local content policy is a strategy that provides a practical framework that ensures the development of in-country and indigenous capabilities that will be conducive to a greater proportion of the work to be done in Nigeria without compromising standards, and with the active participation of all sectors of the economy to give Nigeria a competitive edge in the global market. Omotayo (2024) reported the President of the Information Communication Technology Local Content Association (ICTLOCA) in Nigeria, Mr. Gbolahan Awonuga, to have observed that "Digital innovation has the potential to revolutionise the way we develop and consume technologies for sustainable local content growth in the ICT sector".

However, years after the policy was adopted, Nigerians have yet to grasp the full advantage of this policy, a situation ascribed to poor implementation from the side of the government (Okoji, n.d.). He further alleged, that multinational companies operating in Nigeria, patronise foreign software products and services to the detriment of the locally developed software. Such multinationals habitually blame the situation on the local skills gap and the low quality of local ICT products and services. On why foreign ICT goods companies are not in a hurry to site a phone plant in Nigeria, an official with a popular Chinese brand with orange colour as an identifier said;

> Unlike countries such as Turkey and Egypt, which have strong policies on indigenisation, where foreign companies are compelled to have a manufacturing plant in countries outside their own, Nigeria doesn't have such a policy. That is why brands are not keen on having a manufacturing plant in the country.

Another shocking report from Business Day's Eleanya (2023) says Nigeria is ranked as the country with the seventh-highest number of mobile phones in the world. With 167 million phones, 99% are imported (Adetupun, 2023). The country has the largest mobile market in sub-Saharan Africa. The country also accounts for 302.923 million SIMs as of May 2022 and about 132 million unique devices on the telecommunication network in 2020. SIM cards and mobile devices are manufactured outside the country, meaning the country earns nothing except excise duty from importing them. Nigeria has local cellphone brands such as Zinox, Imose, AfriOne, RLG, Bryte, Solo, Omatex, etc. Still, except for Zinox giving more attention to computer production, the rest have all run down and collapsed. Even in 2021, the then-president of Nigeria, Muhammadu Buhari, launched a Nigerian Android mobile phone known as 'ITF mobile'. However, the device is yet to hit the Nigerian markets, talk more of foreign markets.

Despite the existence of Executive Order 003, which stated categorically that 40 per cent of all ICT goods and services consumed by all Ministries, Departments, and Agencies (MDAs) of the

federal government must be provided by Nigerian IT firms. Not up to 40 per cent of the patronage of local ICT goods and services consumed by MDAs in Nigeria has been achieved.

One other issue observed, is the inconsistencies between the ICT local content policy and government actions, a good example is the tussle between the Academic Staff Union of Nigerian Universities (ASUU) and the Federal Government over the deployment of the Integrated Personnel Payment System (IPPIS) an imported software sponsored by the World Bank to federal universities (Folorunso & Simeon, 2021). ASUU rejected the platform for being pro-West and is not confident in keeping its members' data there. In the end, the government challenged ASUU to develop an alternate and better ICT solution, which it did and named it University Transparency and Accountability Solution (UTAS) and was subjected to rigorous tests by NITDA and confirmed to have outperformed government-prepared IPPIS in comparison. However, sadly, the government still maintains IPPIS and rejects the locally developed UTAS.

Conclusion

The paper concludes that the local content policy on information and communication technology in Nigeria can change the country's status from Africa's most prominent ICT consumer hub to one of the continents biggest ICT producers and exporters. However, the situational analysis of the country suggests that the country is not yet leveraging the benefits of this noble policy. The paper identified inconsistencies between the policy goals and the government's attitudes and implementation laxity as the major impediments to reaping the full benefits of the policy.

Recommendations: Based on the identified challenges, the paper proffers the following recommendations:

a) The government should lead by example by demonstrating its actions and commitments to implementing the policy. This can be achieved by enforcing Executive Order 003, which mandated that Nigerian IT firms provide at least 40 per cent of all ICT goods and services to all Ministries, Departments, and Agencies.
b) The government should prioritise technical education by incorporating it into the schools' curriculum and making a policy that would make it one of the compulsory subjects at all levels of education.
c) Local IT firms should ensure that their products are up to global standards and can favourably compete with foreign products in the international markets.
d) The government should upgrade its infrastructure, such as a stable power supply, security, internet services, etc. This will attract foreign investors to the country.

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