

Critical Evaluation of Infrastructural Development and Economic Growth in Nigeria

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Abstract

This study investigated the relationship between infrastructure development and economic growth in Nigeria, with a focus on three key sectors: road construction, healthcare, and information, communication and technology (ICT). The study adopted the people-centered development theory by David C. Korten 1984, as its theoretical framework and applied desktop method of data collection. **The** analysis delved into the specific impacts of these infrastructural elements, revealing their contributions to economic performance across various regions and industries in Nigeria, through a detailed examination of major road projects, healthcare facilities, and the rapid progress in the ICT sector, the study uncovered how infrastructure not only facilitates economic activities but also enhances productivity, attracts investments, and supports job creation and enhancement of economic growth. The findings emphasized the critical role of infrastructure in driving Nigeria's economic growth and the need for strategic investment in these areas. Policy recommendations included strengthening public-private partnerships, prioritizing infrastructure maintenance, and addressing the involvement

of community and stakeholders in the process of initiating infrastructure development to achieve sustainable economic growth.

Keyword: Economic growth, infrastructural development, resource distribution and technological advancement

Introduction

The interplay between infrastructural development and economic growth has, in recent years become one of the most important economic topics in both academic and policy cycle. Development involves the removal of various types of unfreedoms that leave people with little choice and opportunity to exercise their reasoned agency. This perspective on development shifts the focus from mere economic indicators to a more holistic understanding that includes social, political, and economic freedoms. Todaro (2015) argue that development should be seen as a multi-dimensional process and encompassing major changes in social structures, popular attitudes, and national institutions, alongside the acceleration of economic growth, the reduction of inequality, and the eradication of absolute poverty. The relationship between development and economic growth is intricate and multifaceted. While economic growth can lead to improved living standards, access to better healthcare service, good roads, information communication technology (ICT) and education, development also requires equitable distribution of this growth. Infrastructural development has been on the top of priority list for governments all over the world.

In Nigeria, the importance of infrastructure cannot be over-emphasized. Olaseni and Alade (2012) as well as Sanusi (2012) argue that infrastructural development is critical to the achievement of sustainable economic growth in the country. One of the views about infrastructural investment is that high rate of infrastructure growth raises the level of productivity in the current period, and also leads to a higher potential level of output for the future (Koner *et al*, 2012).

The **Problem** is on the need to critically evaluate the infrastructural development is indeed crucial for developing countries, especially Nigeria. The lack of modern infrastructure has been regarded as an impediment to economic development and a major constraint not only on poverty reduction, but also on the other three sectors, healthcare services, transportation system and information, communication and technology (ICT) and so on. In recent years, Nigeria has experienced increased infrastructural transformation in terms of building of more schools, health care services, road construction, telecommunication facilities and etcetera. However, few studies have investigated the contribution of these infrastructural sectors to the economic development but failed to take a deeper look at its impacts on infrastructural development in Nigeria. that is the focus of this study. The main aim of the study is to examines the impact of development in transportation, Health care services and Information communication technology (ICT) and shed light on some critical infrastructural bottlenecks that need to be addressed to foster inclusive economic growth.

Conceptual Review

(a) Development

Development is an intricate and multifaceted process that extends beyond mere economic growth to encompass a broader spectrum of human well-being and societal advancement. According to Sen (2021), development should be seen as a process of expanding the real freedoms that people enjoy, including the ability to live a life they value and have reason to value. This perspective shifts the focus from traditional economic indicators such as GDP to a more comprehensive assessment of human capabilities and quality of life. Stiglitz *et al* (2019) argue that development entails improvements in various non-economic factors such as health education, political stability, and environmental sustainability. They posit that true development requires creating conditions for equitable access to opportunities and resources, thereby reducing inequalities and enhancing social cohesion. This view aligns with the United Nations Development Programme (2010) Human Development Reports, which advocate for a people-centered approach that prioritizes human development over mere economic growth.

(b) Economic Growth

Economic growth encompasses a broad spectrum of dimensions that extend beyond traditional metrics such as GDP and per capita income. Blanchard *et al* (2017) argues that economic growth is an increase in an economy's capacity to produce goods and services, compared from one period of time to another, while emphasizing that it is not merely about quantitative increases but also qualitative improvements in productivity, efficiency, and technological advancements. Similarly, Acemoglu *et al* (2020) emphasize the role of institutional factors and structural changes in promoting sustained economic growth, highlighting the need for robust legal and political frameworks that support innovation, entrepreneurship, and equitable wealth distribution. Piketty (2014) extends this concept by incorporating the role of capital accumulation and income distribution, arguing that economic growth must be understood in the context of historical and social factors that influence wealth disparities and economic stability.

Sen (2000) introduces the concept of 'development as freedom,' where economic growth is viewed as an expansion of people's capabilities and choices, enhancing their ability to lead fulfilling lives. This human-centric approach to growth emphasizes the importance of health, education, and social freedoms as integral components of economic progress. Romer (2020) focus on the role of human capital and innovation ecosystems in fostering economic growth, suggesting that regions with robust educational institutions, research facilities, and entrepreneurial networks are better positioned to achieve sustained growth. This perspective aligns with the work of Florida (2019) who highlights the significance of the creative class and urban agglomerations in driving economic dynamism and innovation.

(c) Infrastructural Development

Infrastructural development according to Anderson *et al* (2022) encompasses the systematic enhancement and expansion of essential physical systems, such as transportation networks, communication systems, water supply, and energy resources, which are crucial for the economic and social functioning of a society. This definition emphasizes not only the

physical aspects but also the strategic planning and implementation processes that are necessary for sustainable growth (Anderson, et al., 2022). Infrastructural development is inherently linked to technological advancements and innovation, which are vital for maintaining the resilience and adaptability of infrastructure in the face of global challenges like climate change and urbanization (Ikeredu (2021). This highlight that modern infrastructural development is increasingly focused on integrating smart technologies and sustainable practices to create more efficient and environmentally friendly systems.

In another perspective, Lee et al (2018) focus on the governance and regulatory frameworks that underpin effective infrastructural development. They argue that transparent and accountable governance structures are essential for ensuring that infrastructural projects are executed efficiently and equitably. This view highlights the importance of institutional capacity and political will in driving successful infrastructural initiatives. Harris (2017) points out that infrastructural development should be seen as a dynamic process that requires continuous monitoring, evaluation, and adaptation to changing conditions and emerging needs. This definition stresses the need for ongoing investment in maintenance and upgrading of existing infrastructure to sustain its functionality and relevance.

Thompson et al. (2016) contend that infrastructural development is closely tied to economic policy and financial mechanisms. They explore the various funding models and investment strategies that can support large-scale infrastructure projects, including public-private partnerships, international aid, and innovative financing tools. Their analysis reveals that effective financial planning is critical for overcoming the budgetary constraints that often hamper infrastructural progress. Additionally, White *et al* (2015) highlight the role of community engagement and stakeholder participation in infrastructural development. They argue that involving local communities in the planning and decision-making processes can enhance the relevance and acceptance of infrastructural projects, leading to more sustainable outcomes (White & Green, 2015).

Theoretical Framework/Methodology

The study adopted the People-centered development theory propounded by David C. Korten (1984). **The theory emphasis the need for community engagement and stakeholder participation as the only way to sustain infrastructural development. He argued that involving the people in the planning and decision-making process can enhance relevancies and acceptance of infrastructural project, leading to economic growth.** In this study, the theory suggests that the perceptions, priorities, and policies regarding infrastructure are shaped by the collective beliefs and values of various stakeholders, including government officials, community leaders, investors, and the general public. **The study relied on secondary sources of data carefully selected for their relevance to the work.**

Results and Discussion

(i) Road Constructions and Economic Growth in Nigeria

Road construction has been a critical driver of economic growth in Nigeria, as infrastructure development is essential for enhancing connectivity, trade, and productivity across the country. Well-constructed roads facilitate the movement of goods, services, and

people, thereby enabling more efficient commerce, reducing travel time, and boosting agricultural productivity by providing access to markets. The role of road construction in Nigeria's economic growth is evident in its contribution to improving transportation efficiency, expanding regional trade networks, and fostering urbanization and industrialization (Table 1).

Table 1: Some important roads in Nigeria that have contributed to the country's economic growth

Road Name	Location	State	Year Constructed	Constructing Company	Length (km)	Economic Impact
Lagos-Ibadan Expressway	Lagos to Ibadan	Lagos, Oyo	1978	Julius Berger	127	Boosts trade and transport between Lagos and other regions
Abuja-Kaduna-Zaria-Kano Expressway	Abuja to Kano	FCT, Kaduna, Kano	Early 2000s	Dantata & Sawoe Construction	375	Enhances regional trade and agricultural distribution
East-West Road	Warri to Oron	Delta, Rivers, Akwa Ibom	Late 2000s	Setraco Nigeria Limited	338	Supports oil and gas industry, connects oil-producing states
Enugu-Port Harcourt Expressway	Enugu to Port Harcourt	Enugu, Rivers	1975	RCC Nigeria	243	Boosts commerce and connects major cities in the southeast and south-south
Second Niger Bridge	Onitsha to Asaba	Anambra, Delta	2022	Julius Berger	11.9	Eases traffic congestion, promotes trade between southeast and south-south
Lekki-Epe Expressway	Lekki to Epe	Lagos	2010	Lekki Concession Company	49.5	Spurs real estate development, connects emerging economic hubs in Lagos State
Apapa-Oshodi Expressway	Apapa to Oshodi	Lagos	1978	Julius Berger	8	Connects Nigeria's busiest port, facilitates import-export trade
Shagamu-Benin Expressway	Shagamu to Benin City	Ogun, Edo	1970s	Julius Berger	252	Boosts interregional trade, connects southwestern Nigeria to the south-south
Ajaokuta-Itobe Bridge	Ajaokuta to Itobe	Kogi	2012	China Civil Engineering	35.6	Improves access to industries, enhances mining and steel production potential

Authors Compilation, 2024

The economic impact of the roads listed in Table is far-reaching, as they have contributed to regional and national development. Improved road networks reduce travel time and costs, enabling businesses to operate more efficiently. Moreover, road construction projects often lead to job creation, boosting local economies. For instance, the construction of the Second Niger

Bridge has not only eased traffic congestion but has also improved trade between the southeastern and south-southern regions, thus enhancing economic activities (Ademola, 2023). Similarly, the Lekki-Epe Expressway in Lagos has spurred real estate development and facilitated the emergence of new economic hubs, contributing to Lagos State's growing economy.

(ii) Hospitals and Economic Growth in Nigeria

The development of healthcare infrastructure, particularly hospitals, has had a profound impact on economic growth in Nigeria. The construction of hospitals not only improves health outcomes but also stimulates economic activities through job creation, infrastructure development, and the provision of essential services. The relationship between hospitals and economic growth is interwoven, as better healthcare systems contribute to a healthier workforce, increased productivity, and ultimately, sustainable economic growth. In the context of Nigeria, this connection is evident through the establishment of major hospitals that have significantly contributed to both the healthcare sector and the economy at large. For instance, hospitals like the National Hospital in Abuja have become a hub for economic activities in the Federal Capital Territory, attracting healthcare professionals, patients, and businesses that cater to the hospital's needs of the masses (Table 2).

Table 2: Hospitals in Nigeria and Their Economic Contributions

Hospital Name	Location (State)	Economic Contributions
National Hospital	Abuja (FCT)	Employment creation, infrastructure development, regional growth
University College Hospital (UCH)	Oyo (Ibadan)	Medical training, health-related business growth, employment
Lagos University Teaching Hospital	Lagos	Specialized healthcare services, medical education, regional economic development
Aminu Kano Teaching Hospital (AKTH)	Kano	Regional healthcare improvement, employment, training, business growth
Niger Delta Teaching Hospital (NDTH)	Bayelsa	Medical training and general health care service
Rivers State Teaching Hospital	Bayelsa	Medical training, employment and general health care services

Authors Compilation, 2024

These hospitals listed in Table 2 are few examples of the broader impacts of healthcare infrastructure on economic growth in Nigeria. The relationship between hospitals and economic growth in Nigeria is also evident in the growing medical tourism sector. Although Nigeria still lags behind some countries in terms of attracting international medical tourists, the

development of specialized hospitals has the potential to reverse this trend. Hospitals like Reddington Hospital in Lagos are increasingly offering specialized services that attract patients from neighboring countries, contributing to foreign exchange earnings and enhancing Nigeria's economic profile. The growth of the private healthcare sector, alongside government investments in public hospitals, has the potential to make Nigeria a hub for medical tourism in West Africa, further contributing to economic growth (Okafor & Adewale, 2020).

(iii) Information and Communication Technology (ICT) and Economic Growth in Nigeria

Information and Communication Technology (ICT) has played a transformative role in Nigeria's economic growth. The integration of ICT into various sectors has revolutionized business processes, enhanced productivity, and opened new avenues for development, contributing to Nigeria's GDP growth. ICT's impact is evident in sectors like telecommunications, banking, education, and e-commerce, all of which have seen substantial advancements due to the adoption of modern technologies (Table 3).

Table 3: Major ICT Innovations and their Contributions to Economic Growth in Nigeria

ICT Innovation	Sector	Impact on Economic Growth
GSM and Mobile Networks	Telecommunications	Increased connectivity, job creation, and contribution of over 12% to GDP.
Electronic Banking Systems	Financial Sector	Enhanced financial inclusion, improved efficiency, and expanded access to credit and investment opportunities.
Online Marketplaces (e.g., Jumia, Konga)	E-commerce	Revolutionized trade, expanded market reach, job creation, and annual growth of over 20% in the e-commerce sector.
E-learning Platforms (e.g., uLesson, Coursera)	Education	Broadened access to education, improved skills development, and contributed to a more skilled workforce.
Digital Production and Streaming Technologies	Entertainment (Nollywood)	Expanded reach of films, increased revenues, job creation, and diversification of the economy.
Treasury Single Account (TSA)	Government /Public Services	Improved transparency and accountability in public finance, contributing to more efficient use of public resources.

Source: Authors Compilation, 2024

As seen in Table 3 above, ICT has been a driving force behind Nigeria's economic growth by enhancing productivity, creating new markets, and fostering innovation across various sectors. The telecommunications, financial, education, and entertainment sectors, in particular, have seen significant advancements due to ICT adoption, which has contributed to job creation, improved service delivery, and increased economic output. As Nigeria continues to embrace digital technologies, ICT will remain a critical factor in shaping the country's economic future.

Therefore, policymakers must continue to support ICT infrastructure development, foster digital literacy, and create an enabling environment for ICT-driven innovation to sustain this growth trajectory.

Conclusion

Infrastructural development is a fundamental driver of economic growth in Nigeria, as demonstrated by the significant impacts of road construction, healthcare facilities, and ICT on various sectors of the economy. Roads enhance connectivity, reduce transportation costs, and stimulate trade, while hospitals contribute to a healthier workforce, increased productivity, and job creation. The ICT sector, on the other hand, accelerates technological advancement, fosters innovation, and facilitates business operations. The study concludes that strategic and targeted investments in infrastructure are essential for sustaining economic growth, reducing poverty, and improving the overall quality of life in Nigeria. However, challenges such as inadequate funding, poor maintenance, and regional disparities must be addressed to maximize the benefits of infrastructure development.

Recommendations

From the findings, the study recommends that;

- 1) The government should promote and expand public-private partnerships in infrastructure development, particularly in road construction, healthcare, and ICT.
- 2) The government should carryout regular maintenance programs to enlightened members of the public on the need to prevent the deterioration of roads, hospitals, ICT and other infrastructures in their communities.
- 3) The government should implement effective policy frameworks that promote transparency, accountability, and efficiency in infrastructure investments in the country.

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