

Implications of Urbanization on Sustainable Cities' Developments in Nigeria

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ABSTRACT

Urbanization attracts numerous and multifarious challenges that transverse across nations, regions, and continents. These challenges limit the potential of the cities, making them unsatisfactory and inefficient as well as plunging some towards collapse. This paper explores a review of academic outputs on different challenges of urbanization bedeviling cities in Nigeria and identifies a porous cities management system that allows a wide gap of in-balance between numerous urban dynamics. Undesirable effects and negative outcomes such as urban disharmony, reduction in the quality of the urban environment and urban life, and limitations to the potential of the cities in meeting needs are pointed out. The perspective of achieving sustainable city development in Nigeria in terms of improving the quality of the urban environments came to the fore by recommending a smart city approach for managing city developments.

Keywords: Cities, Liveability, Smart City, Sustainability, Urbanization.

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I. INTRODUCTION

Urban growth, development, and transformation of urban built-up areas in the cities are impossible without the urbanization. Urbanization is a natural way of urban birth; it comprises far-reaching and comprehensive processes and procedures needed for improving and advancing urban conditions (Fan *et al.*, 2015; Henderson, 2002). Properly planned or re-established urbanization promotes appropriate space usability and improves urban capacities and urban growth. In general, urbanization aims at increasing the quality and value of the urban environments, improving the social and economic capacities, physical and mental well-being as well as meeting urban needs (Nyambod, 2010; Jiboye, 2011).

Urbanization in the developed countries brought about the formation and transformation of cities of significance whereby cities emerged from well-planned, modeled, and controlled urbanizations. Such cities are subjected to gradual growth which allows adequate political, developmental, economical, and institutional planning; as well as the implementation of appropriate urban management methods and techniques through which all associated challenges are handled (Henderson, 2002). Whereas cities in the developing countries emerged from unplanned urbanization and lack of requisite planning models, they are characterized by large human populations without appropriate infrastructural facilities and up-to-date management systems; such that urban populations grow far beyond the bearing capacities (Nyambod, 2010; World Bank, 2005; Lanrewaju, 2012). Oftentimes, urban infrastructures and the entire urban environments are over-stretched, resulting in disharmony and environmental hazards (Daramola & Ibem, 2010),

Sustainable city development ponders on making cities habitable for the present generations without limiting, jeopardizing, or imposing any form of discomfort or threat to the natural and (or) built environments, social systems, and future generations (Girardet, 1992; Fadamiro & Adedeji, 2014; Olubi & Adewolu, 2018). The understanding that sustainable city development cannot be achieved without a viable approach to solving challenges associated with urbanization does not seem deep-rooted in developing countries (Nations, 2004; Cohen, 2006; Chang, 2020). There are obvious inadequacies of urbane and humane qualities needed for meeting their obligatory responsibilities as a result of the overwhelming challenges associated with urbanization. This poor concern implies that spontaneous and strenuous city growth in Nigeria generates serious environmental and developmental distresses (Lanrewaju, 2012; Olubi, 2019; Udoh, *et al.*, 2020) such as destruction of both natural and cultural harmonies, extermination of the empathy for the friendly and natural environments which make the urban cities ambiguous (Girardet, 1992; Fadamiro & Adedeji, 2014; Olubi & Adewolu, 2018). Oftentimes, urban infrastructures and the entire urban environments are over-stretched, resulting in disharmony and hazards (Daramola & Ibem, 2010), thereby plunging the cities to become weak, unstable, unliveable, and unsustainable (Lanrewaju, 2012).

In Nigeria, urbanization and city growth keeps increasing without the requisite planning which increases the colossal challenges facing the cities (Ajala, 2018). This situation points to an existing knowledge gap regarding the physical assets, emerging processes, and challenges in the context of sustainable city formation in Nigeria. The understanding of the proactive approach needed to successfully mitigate urbanization challenges in the cities; the possible benefits and the ways forward from the plight seem scanty. These identified gaps inform probing into the urbanization challenges that are responsible for poor urban formation, growth, and developments in Nigeria. This study becomes necessary for the re-establishment of the relationships between urbanization, city formation, and sustainability; and to propose an appropriate model for redefining, maintaining, and managing urban growth in Nigeria.

II. RESEARCH METHOD

This paper is prepared to follow a “five-step” research process of “outlining research question, identifying relevant studies, assessing the quality of studies, extracting evidence, analyses and discussions” as opined by Green (2005). Appropriate studies and academic resources such as journal articles, conference proceedings, reports, book chapters, thesis, and internet materials on urbanization processes, global urbanization experiences, urbanization in the developing countries, challenges of urbanization in the developing countries, the Nigerian urbanization experiences, building a sustainable city in the twenty-first centuries, and the concepts of smart city for sustainable cities developments were comprehensively searched. The result of the searches brought about three thousand research items which were scanned with the applicable and prospective titles selected for review. The selection criteria were majorly the relevance of concept, content, and idea to the topic under consideration. A total of seventy-six research items were reviewed among which are thirty-seven peer-reviewed journal articles, five conference proceedings, seventeen books and book chapters, and sixteen reports.

III. URBANIZATION AND CITIES GROWTH IN NIGERIA

Urbanization and city formations in the twenty-first century are tremendous, as such, the century is named “the century of the City” (Nyambod, 2010). Occurring in a total divergence from the early twentieth-century experience when there were very few cities with large populations throughout the entire globe, the majority of which were located in the extremely developed “industrial” nations, the current trend of urbanization is responsible for the emergence of more cities in the developing countries (Cohen, 2006). Challenged with the daunting cases of rigidity, haphazardness, and repetitiveness in nature, operation, and management; most cities in developing countries emerged without adequate planning to accommodate growth (Nyambod, 2010; World Bank, 2005; Lanrewaju, 2012). This alters the structure, hampers environmental harmony, and creates a negative impact on well-being and the quality of urban life (Cohen, 2006). Today, many cities in developing countries have become failed projects, degenerated, and unsustainable (Solar Impulse Solution, 2021; Cohen, 2006). They are common sites for different challenges such as congestion, pollution, poor housing, collapsed infrastructure, crime, and poverty among others (Kabir *et al.*, 2019).

In Nigeria, the emergence of cities predates independence from colonialism; some cities emerged in the nineteenth century while more came forward in the twentieth and twenty-first centuries as a result of the untiring wave of urbanization (Nyambod, 2010). Nigeria recorded urban population growth of seventeenth percent in 2006 and in 2016, the urban population increased to above forty-nine percent, thus increasing the number of cities by over one million population (Badejo, 2014; Plencher, 2019). Arguably, growing at this pace, Nigeria may attain seventy-five percent urbanization by the year 2045. Taking just thirty-eight years to accomplish what took the United State of America one hundred and twenty years (1870 to 1990) to attain (Henderson, 2002). This explains why cities in Nigeria are disorganized, chaotic, and messy. Towns and villages suddenly become cities without the necessary planning and systematic development; they remain the same both in nature and philosophy (reasoning) and every other developmental factor is only added in the wake of assuming the status of cities (Ahianba *et al.*, 2008). Thus, the cities are exposed to different challenges which make updating and upgrading rural institutions and governance to the much-needed level to become a difficult task.

The 1960's independence from colonial rules and the oil boom of the 1970s in Nigeria form the beginning of a major urbanization drive and threat to the cities. There were an intensive expansion of urban cities, unequal development, and concentration of employment and social facilities in a few urban centers (Akogun & Akinsola, 2015). These caused terrific population and developmental pressure on the urban cities whereby houses in the cities were being occupied by worsening infrastructural conditions (Basorun, 2005).

Currently, Nigerian cities are witnessing a high rate of deterioration and are classified among the lowest

liveable cities in the world with as little as twenty to thirty percent of the urban populace living a decent urban life (Daramola & Ibem, 2010).

The nature and pattern of urbanization in Nigeria threaten the existence, capacity, future suitability, and sustainability of the cities; there exist disharmonies between different urban factors, and therefore the quality of urban life is at risk (Grimmond, 2007; Nyambod, 2010; Daramola & Ibem, 2010). There exists inadequate statistical information needed for sustainable development (Oyedepo, 2012), thus resulting in insufficient and disproportional physical development (Opoko & Oluwatayo, 2014) with multifarious effects on the nature, outlook, ideology, and future of the cities (Mabogunje, 1990). Researchers have predicted that more cities with urban character are poised to emerge in the coming decades which shall vastly increase the numbers of world urban cities and urban populations (Ibanga, 2021; Nyambod, 2010; Solar Impulse Solution, 2021). An efficient, recent, and technologically driven cities management system shall be required to overturn the challenges facing cities in Nigeria and thus make both present and future cities liveable, and sustainable with their full potential unlocked.

IV. URBANIZATION CHALLENGES IN NIGERIA

The challenges facing cities in Nigeria are numerous and are not unconnected with pre-colonial history and human activities (Olotuah, 2016). Cities in Nigeria are currently exposed to disharmonies, deficits, and challenges that limit them from meeting the ever-increasing needs. They suffer planning and developmental negligence that affects the quality of urban life and also puts the entire city at serious risk (World Bank, 2005; Ahianba *et al.*, 2008). This paper classifies the challenges facing cities in Nigeria under three categories namely population, infrastructural needs and the cities; pollution, ecological in-balance and the cities; and non-compliance to developmental laws and regulations.

A. Population, Infrastructural Needs and Cities

The negative impacts of overpopulation on the quality and sustainability of cities is a common urbanization phenomenon that affects cities globally. Nevertheless, its magnitude on cities in Nigeria is unimaginable and its depressing impacts are incredible. Urbanization attracts more people into the cities either directly or indirectly. Raji (2018) argued that about eighty-six immigrants enter Lagos every hour; which is rated as one of the highest in the world with many negative impacts on the city's growth and management. Migration of people from one country to another can be controlled, regulated, or stopped but movements of people from rural areas into the cities within the same country cannot be hindered. Lanrewaju (2012) opined that the effects of overpopulation on cities arise from poor management of urbanization which is responsible for the rapid decline in the quality of the urban environment and worsens human living conditions.

Most cities in Nigeria emerged suddenly, through emergencies or urgent needs brought by urbanization. They are characterized by a large population without adequate infrastructure (Fadamiro & Adedeji, 2009; 2014) and the population increases daily resulting in pressure on the current utilities, services, and administrations (World Bank, 2005; Ahianba *et al.*, 2008; Rahman *et al.*, 2011). The available infrastructures in the cities either remain as they were while a Town; becomes overstretched since they are not commensurate with the population, deteriorated, or not functioning due to neglect and lack of maintenance (Cohen, 2006; Ahianba *et al.*, 2008; Lanrewaju, 2012) as shown in Fig. 1. Overpopulation causes inadequacy of the available amenities and spatial planning; cities' services are never enough to cope with the ever-increasing population and other urbanization processes (Capps *et al.*, 2015; UN-Habitats, 2017), thus plunging the cities into planning challenges, crimes, diseases and epidemics, urban conflicts among others (Awosusi & Jegede, 2013). Sustainable city growth takes cognizance of an increase in urban population with a similar increase in urban infrastructures. In the real sense of things, infrastructure is meant to be holistically planned and commensurate with the city's population. They are meant to cater to the present and future generations, this relationship counts a lot in achieving urban harmony. Cities in the twenty-first century cannot endure the weight of urbanization without satisfactory urban infrastructure. Therefore, the need for appropriate management mechanism and developmental strategies that considers both the population and infrastructural needs of cities.



Fig. 1. Slum within the city of Lagos, Nigeria.

Source: Lagos Metropolitan Newspaper (2020).



Fig. 2. Improper waste disposal within the city of Ibadan, Nigeria.

Source: Researcher's fieldwork (2020)

B. Pollution, Ecological In-balance, and the Cities

In Nigeria, cities are characterized by arrays of environmental-related challenges with unpleasant socio-economic and ecological implications. It can be argued that factors such as the colonial antecedent, high rate of urbanization, and poor management practices are detrimental to urban life with obvious disharmonies between the populations and the environment (Meale, 1991; Agukoronye, 2004; Ogbazi, 1992; Ikya, 1993). This adversely affects the carrying capacity of the urban areas in the country; hence the increasingly poor quality of the living conditions and the low liveability index of urban cities (Akogun & Akinsola, 2015). The upshot of environmental degradation on a city's growth is not only of local or regional significance but of global effects; they are harmful to human beings, livelihoods, animals, and plants (Simond, 1994; Kabir *et al.*, 2019) as well as having far-reaching implications on the sustainability of the cities.

Most often, the important ecological features that offer balance to the ecosystem are removed during urbanization without reconsideration for replacement and thus put extra pressure on the world's ecosystem. Cities are vastly developing without natural cycles for sustenance and balance; this not only exposes them to harsh weather, groundwater overdraft, and flooding but also puts survival at great risk (Daramola & Ibem, 2010). For instance, waste management is a major challenge facing cities in Nigeria due to poor city development and patterns that allow dumping sites to give way to other developmental activities without any replacement or alternative. Residents in most cases are left with no other choice than to indiscriminately dispose of waste on open spaces, road medians (as shown in Fig. 2), drainages, and rivers. This degrades the city's environments into places of offensive odor, poor urban outlook, and aesthetics, and causes an outbreak of disease (Cohen, 2004; Ahianba *et al.*, 2008; Olubi, 2019). Industrial fumes, dust from quarry sites, and gas flaring are other factors that endanger the future of the cities in Nigeria. This causes depletion of the outer ozone layers and causes global warming, quantum loss of aquatic life and water quality; damages global ecosystems, and threatens the survival and future of cities. In the same vein, land-use changes, land use conversions, urban expansion, forest land clearance, and wetland reclamations for urban and city developments that arise through urbanization facilitate the loss of natural vegetation and wildlife (Ichimura, 2003).

C. Non-Compliance with Developmental Laws and Regulations

Urbanization and the resultant complexity of cities in Nigeria allow non-conformity with building laws and planning regulations. Setbacks, population density, and land-use rules are easily violated to maximize profit. Commonly noticed is the incessant transformation of building from one use to another without proper architectural design and necessary approval (Osuide & Dimuna, 2005; Ahianba *et al.*, 2008; Lanrewaju, 2012; Olubi & Ayoola, 2020). More so, zoning law is commonly disobeyed without any sanctions. For instance, different inappropriate land uses are found within residential zones which oftentimes results in overcrowding, fire outbreak, loss of lives, and valuable properties which at the same time subject the future direction of the cities to questioning (Lanrewaju, 2012). Effective regulations are needed to replace the existing non-functional city's developmental laws and regulations in Nigeria for effective control of developments and for the cities to attain their full potential.

V. URBANIZATION AND SUSTAINABLE CITY DEVELOPMENTS

The concept of city sustainability concentrates on making cities liveable for the present generations without transferring any form of urban challenges to future generations. It involves meeting the basic environmental and socio-economic needs of the dwellers without jeopardizing or imposing any form of discomfort, limitations, or threat to the natural, built and social systems (Girardet, 1992; Fadamiro & Adedeji, 2014; Olubi & Adewolu, 2018). Sustainable city development is aimed at maximizing the benefits of urbanization in cities while all forms of urban challenges are reduced to the bearable minimum. Sustainable cities rest on four fundamental principles of “economic, social, environmental and cultural” concepts (Lawanson, 2005). These are all needed to achieve distributional equity, provision of adequate social services such as health, education, housing as well as functional and liveable cities” (Jiboye, 2011). Sustainable cities are adjudged to be holistic in planning, effective in operations, and efficient in management. They are concerned with the creation of good, healthy, well laid out, properly maintained, and aesthetically attractive cities for different forms of interaction (Olubi & Adewolu, 2018). The general principle of sustainability encompasses the importance of cultural heritage and environmental quality, social and economic wellbeing, optimal use of natural resources, and a good visual aesthetic (Fadamiro & Adedeji, 2014).

However, many of the challenges confronting the sustainability of urban cities in Nigeria emerged from urbanization which threatens the quality and the survival of the cities (Daramola & Ibem, 2010). In reality, while cities in the developed countries are futuristic in approach through adequate planning and management, cities in Nigeria are chaotic in nature, they are being overpowered by urbanization and its consequential challenges such that they may not meet their future needs if able to live any longer. These necessitate the calls for immediate changes in city management's strategies, to inculcate technologies and innovations in planning, development, and management towards achieving future, liveable and sustainable cities.

VI. MANAGEMENT OF URBAN CITIES

Cities are organic in nature; their growth is often sporadic with obvious negative impacts when not well managed (Ajala, 2018). They are often exposed to multifarious challenges that require the integration of relevant policies, innovations, and technologies towards shaping, changing, making, and linking globally. A well-managed urban city is crucial for all forms of development; it influences economic growth, enhances human activities, and connects well with the natural environments (Cohen, 2006; Oyesiku, 2010).

The smart city is one of such city management concepts through which solutions can be proffered to the numerous challenges associated with urbanization (Alawadhi *et al.*, 2012). It helps in solving urban problems as well as creating positive influences on various and important aspects of urban life such as urban residents, economic growth, environmental quality, and built infrastructure (Nan & Pardo, 2011).



Fig. 3. smart city concept.

Source: Megahed & Ghoneim, 2020

New urbanism brought about smart growth with varying interests from architecture, planning, urban studies, and Information and Computer Technology (ICT) to generate viable and innovative methods for administration, control, and to promote sustainable cities developments (Vanolo, 2014; Hollands, 2008; Zhou, 2020; Fu & Peng, 2014). This developmental initiative encourages people's inclusiveness and residents' participation in urban governance; it is futuristic as well as securing, conserving, and improving the quality of the urban environment vis-à-vis creating a balance between urban infrastructure, urban populace, and the built environment (Alawadhi *et al.*, 2012).

Various authors have defined smart cities, many of which point toward the sustainability of the cities. For instance, Juniper Research (2017) defined the smart city concept as a system of urban cities that places prominence on the use of innovative technology, knowledge, and organized city processes to strengthen and support the cities with maximum benefits to its citizen. In the same vein, Monzon, (2015) opined that the smart city concept combines human and social capital systems towards making the cities efficient, sustainable and resilient. The concept represents innovations in city services and infrastructural management that bring about efficient service delivery that will in turn impact prosperity and quality of urban life (Ajala, 2018). According to Okoriekwe and Omoyefe (2020); Solar Impulse Solution (2021), a smart city is an urban developmental concept that employs "Information and Communication Technology (ICT) and Internet of Things (IoT)" to improve cities efficiency, quality of life and the quality of the urban environment. It aims at making cities advance, get better, and improve the quality of urban services at reduced costs and with less impact on the ecosystems (Solar Impulse Solution 2021).

A smart city is the city's management strategy that incorporates the use of technology into service delivery, solves urbanization challenges, and promotes sustainability (Ibanga, 2021). Fig. 3 reveals the peculiarities of a smart city on urban fronts as a concept that emphasizes a smart urban lifestyle, smart cities mobility, smart housing, and smart urban economies through which urban needs are met and urbanization challenges are resolved (Megahed & Ghoneim, 2020; Solar Impulse Solution 2021; Ajala, 2018). It encourages the integration of photovoltaics into building designs and reduces the environmental impacts of urbanization on cities such as improved urban waste management strategies, and efficient traffic systems, and reduces carbon dioxide emission into the atmosphere among others (Solar Impulse Solution, 2021).

According to European Parliament (2014), smart cities is centered on the efficiency of the cities and the satisfaction of the urban inhabitants through the provision of local network and services using digital technologies. This is corroborated by Marsal-Llacuna, (2015) who reported that smart cities noticeably advance social economic, and environmental impacts on cities as well as adequately respond to urbanization challenges through social and collaborative engagements, leadership, and city systems that embrace data information and modern technologies for better services delivery and improved quality of urban life for the present generation without the undue disadvantage of others or destruction of the natural environment. Here, the major emphasis is on the improvements of citizens' life, environmental efficiency, security, and sustainability with the help of innovative and censored technological infrastructures (Neirotti *et al.*, 2014; Kabir *et al.*, 2019).

TABLE I: WORLD TOP 20 SMART CITIES

Rank	Smart Cities
1	Singapore
2	London
3	New York
4	San Francisco
5	Chicago
6	Seoul
7	Berlin
8	Tokyo
9	Barcelona
10	Melbourne
11	Dubai
12	Portland
13	Nice
14	San Diego
15	Rio de Janeiro
16	Mexico City
17	Wuxi
18	Yinchuan
19	Bhubaneswar
20	Hangzhou

Source: Juniper Research, 2017

More so, different characteristic elements of a smart city were identified by Caragliu, Del Bo, and Nijkamp, (2011); Albina *et al.* (2015); Gittinger *et al.* (2007); Neirrotti *et al.* (2014); Nam and Pardo (2011). The elements vary based on regions and the focus of arguments. However, there are connections between the identified elements in terms of investments in human/social capital and infrastructure for sustainable growth and enhanced quality of life (Caragliu *et al.*, 2009). Globally, Juniper Research (2017), using the definitions of smart city and the consolidated cities' performances elements ranked the first twenty smart cities in the world as shown in Table I. This point to the efforts of cities in the western world in integrating necessary and innovative knowledge into cities management strategy toward building functional city systems that encourage remote monitoring, commuting faster, and delivering eco-friendly urban environments, efficient facilities, and services to the residents (Ibanga, 2021).

VII. DISCUSSIONS

Urbanization and city developments are two important urban factors that influence the survival, liveability, and sustainability of the cities (Fan *et al.*, 2015). In Africa, the urbanization experience is impressive with the emergence of more cities of repute and high urban population (Delusional Bubble, 2021). Their processes are far-reaching and comprehensive in providing improved urban conditions, quality of life, and wellbeing. As a matter of fact, planned urbanization and well-guided city development is a blessing to mankind (Fan *et al.*, 2015; Henderson, 2002; Nyambod, 2010; Jiboye, 2011). However, rapid and unplanned urbanization in Nigeria has done a lot of damage to cities' structure, growth, and development and thus requires appropriate management and an up-to-date approach for upgrading (Lanrewaju, 2012). Cities across the continent are currently dealing with urbanization challenges that require innovative city management systems to fix. Smart city development in Africa seems like an "unreachable dream" with few cities identified as meeting the basic requirement of smartness (Delusional Bubble, 2021).

The smart city concept in Nigeria seems illusive and unachievable largely because the cities are overburdened by the continuous challenges of unplanned urbanization and the absence of sustainable urban infrastructure (Ibanga, 2021). Eko Atlantic City is the only city in Nigeria that makes the list of top ten smart cities in Africa as revealed in Table II. The cities are ranked based on smart initiatives such as adequacy of water supply, electricity supply, sanitation, urban mobility, information technology connectivity and digitization, e-Governance, and citizen participation among others (Delusional Bubble, 2021). Although Lagos and very few other cities in Nigeria are developing smart estates initiative, "sustainable, globally connected knowledge-based communities that drive knowledge economy" (Okoriekwe & Omovefe, 2020; Ibanga, 2021). These lofty ideas need to be implemented across all cities in Nigeria to sustainably solve urban challenges facing the cities. More so, the smart city concept is significant in the actualization of Nigeria's digital economy as well as in increased digital access (Okoriekwe & Omovefe, 2020).

Migration, urbanization, and city development are closely connected and might be too difficult to separate but can be managed through innovative planning to accommodate different categories of urban dwellers. Cities in Nigeria shall have a new breath of life when the challenge of population and infrastructure disharmony which has damaged the city's structure is solved. The smart city concept offers flexible and sustainable solutions which incorporate re-usable building materials and technologically driven urban infrastructure which helps in providing adequate housing and discourages informal settlements. Traffic congestion, a recurring and habitual menace in Nigerian cities can be solved using a smart and censored traffic lights system that operates on the magnitude of the flow time situation. This corroborates Nan and Pardo (2011); Alawadhi *et al.* (2012) that the smart city concept offers solutions to the numerous challenges brought by rapid urbanization in cities in developing countries with various positive influences on urban life, environmental quality, and built infrastructure.

TABLE II: TOP 10 SMART CITIES IN AFRICA

Rank	Smart Cities
1	Cape Town
2	Konza Technopolis City
3	Eko Atlantic City
4	Tatu City
5	Hope City
6	Waterfall City
7	Vision City
8	Kigali
9	King City
10	Modderfontein

Source: Delusional Bubble, 2021

In sum, new urbanism facilitates the development of smart growth with varying interest from different fields of studies to generate viable and innovative methods for administration, control, and to promote sustainable cities developments (Hollands, 2008; Fu & Peng, 2014; Vanolo, 2014; Zhou, 2020). This shall be the right direction towards rejuvenation of cities in Nigeria if wholly adopted. It shall provide the opportunity to improve urban and modern infrastructure, forecast urban behavior for effective planning (Okoriekwe & Omovefe, 2020), inhibits inherited urban challenges, and prevent cities from future decline. The future of urban cities in Nigeria rests on the vision of the smart city concept, through which cities become easily motivated and urban challenges are solved effortlessly. To this end, the economy and built infrastructures must be well integrated to be “innovative, competitive, productive and flexible. In particular, the provision of physical infrastructures such as smart housing, efficient waste recycling, smart mobility, a green environment, and others are non-negotiable. Power supply, wireless hotspots, Wi-Fi networks, kiosks, and fiber optic channels must be dependable, stable, and proficient. More so, there must be adequate human capital to operate and coordinate these facilities with adequate security measures against vandalism and destruction (Kabiru *et al.*, 2019).

This review has carefully unraveled the plight of urban cities in Nigeria occasioned by unplanned, sporadic, and careless developments with the present situations of the urban cities which seek redirection and improvement succinctly exposed. The major emphasis of the presentation is the role of urbanization and its consequences on the sustainability of the urban cities hence the need for mental re-direction towards the appropriate management of the cities. A smart city developmental approach is put forward as a relevant strategy for solving the city's challenges because it applies genuine ideas and technological innovations to creating a balanced, harmonious urban environment and improving the quality of urban life.

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