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Factors influencing road setbacks and urban open space encroachment by traders in Nigeria: A narrative review

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Abstract. In many developing countries, especially Nigeria, informal sector activities such as roadside trading, hawking as well as roadside squatting has become increasingly prevalent. Although these activities are often seen as survival strategies for the low-income population with no other means of earning a living, nonetheless, they have negative impacts on the environment and traffic flow and can also compromise the safety and security of the traders. This study aims to explore the factors that contribute to the growth of this phenomenon on encroached highways, urban roads, and open spaces, and to examine its effects on both the environment and the traders. Using a narrative review approach, the research analysed relevant books, journals, conference papers, reports, and policy documents extracted from Scopus, Web of Science and Google Scholars databases. The study findings revealed that economic crises and high levels of unemployment in developing countries have led to an increase in street trading and roadside vending. In addition, the lack of effective urban planning and enforcement of development control laws has also played a significant role in the proliferation of these activities on encroached urban roads and green spaces. Consequently, on highways, the absence of organized and standardized Rest and Service Areas (RSA) at regular intervals in developing countries, especially Nigeria, has facilitated the emergence of roadside markets. Furthermore, this situation is compounded by the location of agrarian settlements along the highways. Thus, to address these issues, the research recommends that the government reorganize, integrate, and upscale the activities of street traders, while also improving urban planning and enforcing road right-of-way barriers to protect urban green spaces and conclusively, the introduction of standard RSA at regular intervals along highways would provide motorists with necessary rest and services, discouraging them from stopping indiscriminately on transits, which often leads to the emergence of roadside markets.

1. Introduction

The encroachment of informal sector activities on highway roadsides, urban roadsides, and urban green spaces in developing countries is very pronounced because the informal sector has become the major provider of income to the majority of the lower class of the populace. According to [1], globally, nearly two billion individuals engage in informal work, with all of the hazards and vulnerabilities it entails. [1] further reiterated that the two billion amounts equal 90% of all small and medium-sized businesses and 60% of the world's labour force. In addition, [2] claimed that the

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informal sector is currently the primary source of urban jobs for the expanding urban poor in sub-Saharan Africa and that it is estimated to account for around 60% of all urban jobs and to have created 90% of all new jobs. However, the informal sector has been defined by different authors, but all have a common link of the unregulated activities that are aimed at serving the low-income category of the population which has affected the environment.

[2] noted that those living in slums and those subjected to natural catastrophes or severe urbanization from rural settings rely on the informal sector (which includes unpaid employees in family companies, casual wage jobs, home-based workers or service providers, and street vendors) to survive. Whereas according to [3] the term "informal sector," often referred to as "grey economy," "shadow economy," "informality," or "informal economy," designates a group of livelihood-generating activities, services, or social behaviours that are mostly unregulated or uncontrolled by the government or official institutions. Consequently, [4] shows that the informal sector is expanding as a result of the hapless people who lose their jobs or are unable to find employment in the official sector. Due to this phenomenon, commerce has increased in emerging nations where street vendors and dealers make up a sizable percentage of the unorganized urban economy

As stated earlier the unorganized nature of the activities of those that engaged in the informal sector activities in the name of street trading, roadside trading, squatting, vending, hawking or arctician service providing usually take place on an encroached portion of highway roadside, urban roadside or urban green area which have effects on free traffic flow, environmental hygiene, safety and security and most importantly too it exposes those that engage in the activities to traffic externalities and insecurity challenges.

While both highway and urban roads have what is called a Right of Way (ROW) portion of the road that is supposed to be free of any structure or activities for efficient traffic flow and vehicle transits operation, urban green space according to [5] is summed up as the area that performs ecological services, such as parks, forests, green roofs, rivers, and community gardens. Other definitions of green space include forest land, farmland, and parks, or forest land, agricultural land, and grassland. Consequently, from a different angle, [6] described Urban public spaces as designated social areas that are open to the public and easily accessible, such as streets (including paved ones), public squares, playgrounds, mosques, churches, boulevards, parks, shopping centres and plazas, beaches, and marketplaces. The placement of these areas is particularly crucial socially since it is one of the most identifiable elements of every metropolis where people walk about every day.

However, despite the limited number of studies conducted in Nigeria regarding street trading, roadside markets, road setbacks, and open space encroachment, there has been a significant lack of comprehensive research or reviews examining the underlying causes that contribute to these phenomena. It is crucial to recognize the importance of conducting thorough research and comprehensive reviews to shed light on the underlying drivers behind street trading and roadside markets. Such an examination would allow for a deeper understanding of the socio-economic, cultural, and environmental factors that influence these activities.

Thus, this paper tends to do an in-depth analysis of the factors that contribute to or facilitate the growth of the activities of the informal sector unprecedentedly in developing countries and most especially on Nigerian highway roadside, urban road right of way and urban green spaces likewise the effects of these activities on the environment and those engaged in the activities.

Consequently, by expanding the body of knowledge through rigorous research, policymakers, urban planners, and relevant stakeholders can gain valuable insights into the root causes of street trading and roadside markets. This understanding can aid in the formulation of evidence-based strategies and policies to address the challenges associated with these practices.

Furthermore, a holistic evaluation of the causal factors facilitating street trading and roadside markets would provide a nuanced perspective on the impacts of these activities. It would enable researchers and authorities to explore potential solutions that strike a balance between economic opportunities and the preservation of public spaces and road safety.

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2. The Methodology

The research adopted a Narrative Review approach as a result of a few Nigeria case studies articles available in Scopus, Web of Science and Google Scholar which could not give room for a systematic or scoping review of the subject matter. Hence, according to [7], reviews summarize the published research on a subject and describe the state of the art and there are two common categories of reviews (a) narrative reviews and (b) systematic reviews. Furthermore, [7] reviews include two main categories: narrative reviews and systematic reviews and they synthesize the body of published work on a subject and explain the current state of the art. Furthermore, [7] noted that unlike systematic reviews, which can benefit from guidelines like the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) statement, narrative reviews do not have any set regulations. Consequently, [8] said that publications that discuss and debate the present state of research on a particular topic or issue from a theoretical and contextual stance are known as narrative literature review articles. These review articles contain a critical analysis of the literature that has been published in books and electronic or paper-based journal articles, but they do not specify the databases and methodological approaches used to conduct the review or the evaluation criteria for including retrieved articles during database searches and conclusively [8] reiterated that the following headings: Introduction, Development (using essential sub-headings to separate and explore the issue appropriately), Discussion, and References—shown that narrative review papers often adopt a qualitative methodology.

Thus, with the adoption of narrative review, the study highlights the concept of encroachment on highway roadsides, the urban roads intrusion and urban green spaces invasion by informal sector activities. While much emphasis was put on the factors encouraging the growth of roadside trading, street trading and other roadside service provision activities in developing countries and Nigeria in particular.

3. Concept of Encroachment and Informal Sector Activities

There are different forms of informal activities that take place on encroached portions of land or roadside. These activities range from street trading in which the trader moves around on the street and in traffic once there is traffic congestion. Whereas in addition roadside trading in which the traders occupy the section of the road right of way (ROW) for the display of their commodities for sale using a majorly temporary stand or makeshift structure. While the other category is those rendering handwork or artesian services by the roadside such as vulcanizers, furniture makers, auto-mechanics etc. All these activities take place in an unorganized manner on any available open space which is now being called encroachment of roadside right of way or urban green space.

According to [9], encroachment is generally defined as the retaining of land without permission for selfish reasons or self-interest and it also refers to the holding or occupying of any footpath, twowheeler moving path, open space/public space, or government land when the illegal land holder lacks adequate authorization to use that specific piece of land for their self-interest and self-motive. Furthermore, [10] said that encroachment is the unauthorized occupation of public or private property or a walkway and that the term "encroachment" often refers to the illicit exploitation of resources. while [9] put it that the most frequent sorts of urban encroachments in cities, according to this definition, are the unlawful expansion of slums or mushrooming development along various patterns of roadways, as well as hawker activities along pedestrian pathways, walkways, main carriageways, and roadside areas. According to [3], the term "informal sector" or "informality" is used to describe a variety of factors, including lack of regulation, small scale, and completion. In addition, he said that not just in Nigeria but also in several other developing nations, the capacity of the informal sector economy to absorb a large number of jobless people into the labour force has created a substantial challenge to urban land use planning and management. Consequently, [11] stated that it is disheartening to see how major roads and highways in Nigeria's major cities have been turned into illegal markets with several illegal structures, resulting in the conversion of the road median, setbacks,

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and walkways to avenues for trading activities and non-compliance with the state sanitation laws and land use plan (See Figure 1, Figure 2 & Figure 3).



Figure 1. Street Trading in Traffic in Nigeria



Figure 2. Highway median encroachment for the motor park in Nigeria



Figure 3. Roadside Trading on Urban Public Space in Nigeria

4. Effects of the Encroachment by Informal Sectors Activities

The rising of informal sector activities in developing countries and most especially Nigeria as poverty alleviation activities for low-income populace have been with its numerous challenges which have been enumerated by many authors:

According to [12], street hawking has been linked to a variety of societal issues, including the vendors' infringement on the right of free movement, traffic jams, the degradation of the street's visual appeal, and injury to pedestrians (See Figure 4). The author went on to say that environmental pollutants produced by street vendors clog drainage systems, causing floods during rainstorms, road deterioration, and health problems. Due to weather and other environmental factors, the quality of the products sold degrades with time, and subsequent use raises public health issues.

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[13] remarked that in addition to the informal sector vendors' encroachment on the right of way, which typically results in traffic congestion, it has significantly damaged the visual appeal of the streets. Additionally, the fact that garbage is being thrown everywhere gravely pollutes the environment, clogs waterways, and causes flooding during periods of heavy precipitation when waste is put on drainage systems. Whereas [14] shows that it is believed that street sellers who use public spaces have impacted the environment's quality and function. Furthermore [12], emphasized that the effectiveness of the traffic flow in the region is significantly impacted by street trade activities. Along delicate and popular pathways, people set up shop. These, in turn, have several negative consequences on the effective flow of people and products, including longer travel times, a higher risk of avoidable injury accidents, noise pollution from advertising, and traffic rerouting.

However, even though street vendors' actions have a detrimental influence on the environment and transportation in general, in particular the traders, according to [15] the challenges of being hit by cars, losing property, being exposed to high concentrations of air pollutants like vehicle exhaust, being exposed to the hot sun and inclement weather, being a victim of crime and theft, sexual harassment, and kidnapping are all things that people have to deal with every day. While [15] additionally emphasized that security officers with legal authority to take and confiscate the goods of traders who break the street trading legislation engage in all kinds of conflicts with roadside vendors (see Figure 5).



Figure 4. Traffic Congestion Effect of Roadside Trading in Nigeria



Figure 5. Government Task Force raiding goods of Street Traders in Nigeria

5. Factors Facilitating Roadside and Urban Green Space Encroachment

The unprecedented growth of the activities of the hawkers, squatters and street traders on the right of way of rural and urban highways, urban roads and urban green spaces in developing countries like Nigeria are generally being facilitated by many factors as enumerated by different authors as follows:

5.1. Survival Strategies for the Unemployed Youth

According to [16]-[19] youth unemployment struggle is among the major attracting factors to the acts of hawking, street trading and squatting on the roadside and urban open spaces which have led to encroachment of many open spaces and roadside in cities. Thus, their studies revealed that the

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majority of those engaged in hawking, street trading and squatting on the roadside are youths that couldn't secure white-collar or other paid jobs.

5.2. Ignorance of Development Control Laws

[19] asserted that most of the hawkers and squatters that encroached on the roadside right of way or urban green space do that out of ignorance about the extant planning and development control laws and legislation and their presence in the space for economic survival attracts others that join them, and this constitutes free traffic flow hindrance and environmental sanitation issues.

5.3. Low Educational or Literacy Level of the Vendors

[6], [15], [17] revealed that the majority of those involved in the hawking, street trading and squatting activities by the roadside, open space or in the traffic are those with low levels of education or that haven't gone to school, so it is a survival venture for them because they lack the qualification that can make them be engaged into formal employment.

5.4. Low Starting up Capital Venture

The starting capital is low for hawking or street trade activities by vendors along the roads or in urban open spaces, this is according to [6], [16], [17], [20], so it is very easy to commence, and this is among the major factors that encourage or facilitate the low-income people of the society to engage in it.

5.5. Unaffordable Market Shop or Stall Rent Charges

According to [6], [16], [17], the high rent cost of shops or stall in the markets which are not affordable for many low-income populace encourages most vendors that hawk or trade or squat by the roadside or open urban green spaces for their economic activities for daily livelihood to do so because they could not afford the rent payment to secure stall in the market place or mall nearby.

5.6. Product of Unplanned Urban Growth

[17], [14] asserted that the lack of urban growth planning by the appropriate authority has encouraged the growth of the encroachment of the urban open space and right of way of the road by the vendors that engaged in trading or squatting which infringe on the roads and open space legislation. It is a product of unplanned urban growth, which failed to provide adequate space and accommodation for retail traders as well as appropriate locations.

5.7. Nefarious Sharp Practices of Land Speculators, Unions and Government Officials

According to [6], [16], [19], the activities of land speculators, corrupt officials, the market unions and the street urchins that extort money from street traders without the knowledge of those in authorities in the form of daily levies have encouraged the growth of hawking and street trading around areas that supposed to be prohibitive for such activities.

5.8. Lack of Enforcement of Development Control Laws

[19] asserted that the failure of government organs to ensure compliance with development regulations has been the major contributor and facilitator of the road right of way and urban green and open space violation by the dwellers that encroached on them.

5.9. Road Improvement increase the roadside market for agricultural produce

According to [21]-[23], the improved roads most especially the rural roads provide easier access to markets for farmers and these markets are located alongside the main roads where vehicles pass frequently. Thus, motorists and other road users often stop to buy agricultural produce before they continue their journey which sustains the roadside markets.

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5.10. Demand for fresh locally grown food

[24] asserted that roadside markets are generally found at frequent intervals along rural highways in developing countries while [25] stated that the increasing growth of markets for farmers selling their products directly to consumers, such as farmers' markets, roadside stands, U-pick businesses, etc., is driven by the rising demand for locally farmed food products.

5.11. Motorists and Pedestrian Traffics Induced Roadside Markets

According to [14], [16], [26], one of the key variables that produce valuable selling space near the roadside is the heavy pedestrian traffic at bus stops and the automobile stopping at specified spots along the roadways. Even for traders who had a variety of built lockable shops in the market, having a display stand near the road, whether on a small table, or floor or using the services of an apprentice or salesperson to hawk goods, provided a way to quickly display or advertise wares and services for customer who do not need to navigate the often complex inlets of the market.

5.12 Socio-Cultural motivation of Street vending by Vendors and populace

According to [27], the culture of consumption and disposability in this global hub is a foundation for the city's numerous street markets while [28] stated that Street vending is a common urban practice tied to sharing civic norms and customs and It's a vital part of street culture, breathing life into cities, each with its distinct offerings and experiences. Consequently, [29] reinstated a cultural perspective asserting that street vendors opt for their businesses not solely due to rational factors, but sociocultural motivations. These vendors build client relationships rooted in trust, establishing bonds with friends, the community, and themselves through principles of reciprocity and solidarity. Furthermore, they leverage flexibility and autonomy, granting them control over their lives and customers, in turn, back street vendors offering desired products and services at fair prices.

6. Conclusion

In conclusion, this study has revealed that street hawking or roadside trading, traffic hold-ups hawking or squatting along the road for sales or services provision are majorly being carried out on either urban green space or roads right of way portion of highway or urban roads through the phenomenon called encroachment. Furthermore, these informal sector activities that are majorly being carried out by the lower class of the populace have significant negative effects on the environment and road transport smooth operations while the operators of the informal sector are being exposed to adverse effects of weather, traffic accidents, and other social vices which affect their well-being. Consequently, it shows that lack of urban planning, urban development control laws active enforcement and lack of some road complimentary facilities such as Rest and Service Areas contribute to the growth of street trading and roadside trading on road setbacks and urban green areas.

7. Recommendations

Government at all levels needs to reorganize, integrate and upscale the activities of the street traders into small and medium-scale organized enterprises. Also, there is a need to improve urban planning schemes and enforcement of barrier control of road right of way and protection of urban green space. Furthermore, there is a need for the introduction of standard rest and service areas at the interval on the highway which shall cater for the needs of motorists along Nigeria's highways to discourage indiscriminate stoppage of vehicles on transit for rest and services purposes which give rise to roadside markets. While the creation of awareness of the occupational health risk of street trading among the traders.

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