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OVERCOMING TRANSPORTATION BOTTLENECKS AND THE RESULTING EFFECT ON NIGERIA'S GROSS DOMESTIC PRODUCT

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ABSTRACT

The research examined how Nigeria's economic growth—particularly in Lagos—was impacted by transport infrastructure projects, or TIPs. It was discovered that the Apapa Gridlock in particular, has a major effect on Lagos's economy. The majority of respondents agreed that traffic in Lagos was caused in part by bottlenecks, and 76% said that earlier attempts to lessen traffic had failed. According to the research, there is a positive correlation between the Apapa bottleneck and the Nigerian economy, which shows that improvements are necessary to break the impasse. The T-test result was less than 0.05, therefore the null hypothesis was rejected. A thorough, multi-tiered public-private partnership strategy is advised by the study.

Keywords: Lagos, Apapa, economic growth, Apapa grillock

1.0 Introduction

According to World Port Source (2018), Apapa Port is Nigeria's biggest port. It has a total quay length of 950 meters, six (6) berths alongside 10.5 meters, and 6.4 thousand square meters of covered storage. The container yard can hold 19.5 thousand TEUs and has 298 reefer plugs. With an average daily handling of 4,000 metric tonnes, 465 vessel calls, and 555,564 containers as of 2011, Tin Can Island Port handle more than 28,000 metric tonnes. There are just a few, small routes available for the commodities to escape because to all of this activity, and there are no other means of delivery for goods to the hinterlands through rail or water.

The Nigerian Port Authority (NPA) is the statutory body in responsibility of managing Nigerian ports. Some Apapa Port assets or operations are leased or covered by concession agreements with private firms in compliance with

PPP agreements. Usman and Akoni (2018) assert that Lagos' bottleneck has impeded private and commercial activities and led to the region's loss of peace and order. Lagos state government set up taskforce to monitor situation at that axis; but it has not been enough to curb the problem.

There are indications that the numerous government measures to restore things to normal have been ineffective. Trucks do park on the road for days, blocking the whole City with an estimated population of 23.42 million. The current situation has an effect on the country's economy by halting free-low of workers to offices; goods to market and other relevant activities. It is on this premises that Omotosho (2013) asserts that the national economy will lose $500 million.

The Blue Rain Project is still unfinished despite the money that has already been invested. The aforementioned instances highlight how challenging and irritating commuting in Lagos is. The cost of moving goods and services from the port to other parts of the country has increased. This paper explores the problem and addresses topics that other scholars have not extensively covered in order to improve a long-term solution to the Apapa Gridlock and decrease its damaging effects on the nation's economy. Agbidge (2016) asserts that a lack of investment for road networks, a type of transportation infrastructure, has impeded Lagos's economic progress. It's crucial to understand that every nation's economy depends on transportation. Furthermore, according to Dangote (2018), the lack of functional roads results in a yearly loss of N27 billion in revenue.

1.1 Statement of the Problem

According to Agbidge (2016), Lagos's economic development has been hampered by lack of investment in road networks, a sort of transportation infrastructure. It is necessary to realize that transportation is essential to every country's economy. Poor planning results in significant losses for the government as well as the business sector. The cost of those commodities, the date of their arrival, and their final destination are all adversely affected by keeping items in Lagos that ought to have been distributed to other parts of the country. The repercussions of Apapa gridlock are extensive; interrupting transit movement for hours, slowing down economic hours and harming productivity. According to Dangote (2018), Apapa Gridlock has caused a considerable slowdown for businesses and developmental goal. Both the commercial sector and the government suffer enormous losses as a result of poor transportation. This study was successful in identifying both the root reasons and viable remedies for Apapa's traffic bottlenecks.

2.0 Review of Related Literature

Transportation includes moving goods, people, services, and labor from one location to another. To attain the best growth, this industry must invest in its infrastructure. Transportation enables mobility, the basis for all other activity. Donou-Adonsou and Lim (2018) investigated Chinese investments in Africa and acknowledge that the mobility of people, goods, services, and labour is the foundation for the expansion of contemporary society. The

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funding of expenses and structures is necessary to achieve these goals. Initiatives to build roads may have a long-term impact on society.

The ability to move about a country is crucial for its establishment. Nigeria has made investments in its transportation network, but according to Adeniyi (2018), it is yet unclear how these improvements would affect the Apapa Transport Network. Uba (2019) further opined in the report of the Lagos Chamber of Commerce and Industry (LCCI) that infrastructure is essential for promoting economic growth, improving living standards, eliminating poverty, and boosting competitiveness. The World Economic Forum (WEF) gave Nigeria's infrastructure a poor grade (131 out of 138) in its 2017–18 Competitive Index Assessment. The growth of multiple societies has benefited from the development of transportation infrastructures, according to the World Health Organization (WHO, 2017). There are undoubtedly concerns that the Apapa Gridlock has huge impact on the internal generated revenue (IGR) of the country.

The Theories

Numerous hypotheses served as the foundation for the study of transportation. The concept of efficient resource allocation and transportation was first put forth in Gaspard Monge's 1781 articles, which gave rise to the term "transport theory" in mathematics and economics. Transport theory is the tendency to migrate physically or mentally from one place to another, according to Green and Sestir (2017). It requires a deep sense of immersion in a narrative as well as emotional and cognitive reactions to the material that match reactions to real-world events. Takeshi (2012) argued that transportation is a geographical and physical medium of communication based on his analysis of Cooley's writings. According to Cooley's interactionist theory of valuation, a value as an aim of action is fashioned and modified through communication and interaction. The amount that the economy will alter depends on how efficiently the transportation sector operates. Countries invest in transportation infrastructure due to the ancillary functional benefits (Modi, 2011; Mario & Marco, 2009).

Empirical

The literature and observations suggest that there are a number of factors that contribute to Apapa gridlock, such as (a) poor roads brought on by the use of inferior and substandard materials, poor design, a lack of adequate supervision, and awarding contracts to quacks; (b) a poor maintenance culture; (c) population growth; (d) inadequate planning; (e) systematic failure and a lack of implementation framework; (f) human errors; and (g) expansion of industries on the Apapa axe.

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Plate 2.1: Apapa Wharf

Lagos' population increased dramatically from 1.1 million in 1967 to 23.42 million in 2018, with an increase of 22.32 million from 1.1 million being a significant contributor. The implication is that Lagos' population has grown by a factor of 21 while continuing to seem to occupy the same amount of area as it did in 1967. A lack of sufficient planning and associated infrastructure capacity to accommodate this explosion has greatly exacerbated the backlog. Lagos is shown on Plate.

Plate 2.2: Lagos City

Poor driving habits, deteriorating infrastructure, an overreliance on Apapa Port, a lack of cooperation among government agencies, and a lack of linearity between the input and output processes in Apapa Port are all factors that contributed to Apapa Gridlock. The challenges would be decreased through the use of PPPs to crowd in private investments and the implementation of a research-based multi-tier approach for port management in Nigeria. The utilization of public-private partnerships (PPPs) is the answer to infrastructure development and maintenance in the majority of Nigerian states, claim Oyigbo, Ugwu, and Nnadi (2017).

Programs involving private-public partnerships, direct government actions, and the creation of dry ports in Lagos State are a few examples of earlier initiatives. The Built, Operate & Transfer (BOT) and Leasing, Concession (LCC) PPP methods have been used by governments to implement Apapa Port projects, but these attempts have not yielded the anticipated results. Yescombe (2007) argued that increased transportation facilities are required to

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increase economic activity. According to data from the National Population Commission and the National Bureau of Statistics, Lagos is experiencing population growth. The largest port in Nigeria, according to World Port Source (2018), is Apapa Port.

Private-Public-Partnership programs, direct government interventions, and the development of dry ports in Lagos State are examples of prior projects. Governments have implemented Apapa Port projects using PPP models including Built, Operate & Transfer (BOT) and Leasing, Concession, but these initiatives have not produced the desired outcomes. Yescombe (2007) made the case that improved transportation infrastructure is necessary to boost economic activity. Lagos is seeing a population expansion, according to data from the National Population Commission and the National Bureau of Statistics. According to World Port Source (2018), Apapa Port is Nigeria's biggest port.

It is of modest to refer to Apapa port as the only functioning port in Nigeria. Apapa Gridlock has increased the cost of delivery goods posited (Akoni, 2018; Okon, 2018). The empirical review revealed that previous interventions have recorded marginal successes in resolving Apapa Gridlock challenges. According to analyses of the literature, the economic effects of Apapa Gridlock on Nigeria include high import costs, delayed delivery of commodities, and low productivity due to lost man hours. According to Calderon and Serven (2008), scholars and politicians have long considered a sufficient supply of transportation infrastructure services to be a necessary component of economic development. When it comes to performing transport infrastructure, Sub-Saharan Africa routinely performs the worst of other emerging regions, and an increasing number of observers point to the region's inadequate infrastructure as a barrier to growth and the eradication of poverty.

Evidence points to the fact that earlier attempts to break the Apapa Girdlock have not succeeded in their intended objectives. According to Gurara, et al. (2020), despite an increase in infrastructure spending over the previous 15 years in Africa, a significant infrastructure gap still exists. This is consistent with the deficiency in Apapa infrastructure. The economic effects of investing in TIPs over the short and long durations were studied by Bivens (2014). The research demonstrated that funding new investments in transportation infrastructure has the greatest positive impact on GDP and employment. One of the fundamental goals of governments continues to be the provision of a working transportation system. The Lagos State Government launched several transportation improvement initiatives, including the Blue Rain Project, to ease the everyday chaos of commuter traffic around the Apapa axis. Transportation systems promote economic expansion and deter criminality. The budgetary resources for security at the federal government level during a ten (10) year period, from 2008 to 2018, are projected at N6 trillion (Ndujihe, 2018).

3.0 Research Methodology

For this work, a qualitative research design was adopted, and the data were collected by having the target audience complete a well-structured questionnaire using the online Google Scholar tool. A total of 154 respondents made up the study's population, which included members of the academic community, financial

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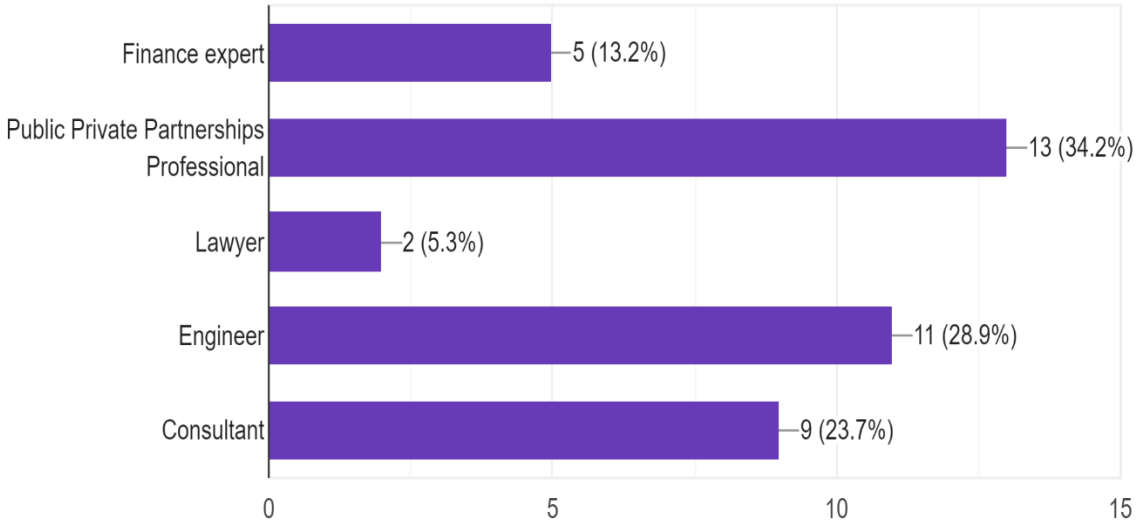
specialists, PPP experts, and engineers. In order to choose respondents for the study who meet specific requirements or criteria for the research aspect linked to the study topic, the Purposive Sampling Technique was used. Two other subject-matter specialists endorsed the queries.

The items' language, content, and structure were scrutinized and fixed. The split-half approach was used to assess the study's dependability. The same group of respondents received the instrument in a methodical manner. The researcher used formula 20 by Kuder Richardson to calculate the instrument's reliability coefficient. The reliability coefficient was found to be r=0.71. The Chi Square (X2) statistical technique, which is regarded as the most trustworthy and scientific in nature and is particularly useful in analyzing frequencies, was used to analyze the two hypotheses proposed in this study.

4.0 Data Analysis and Presentation

Utilizing cross tabulation, simple percentage (%), pie charts, and bar charts, the study's data were displayed. The respondents combined across the things measured gave more weight to the inquiries that are closely related to the study's goals. Both SPSS and Google Statistical Tools were used to conduct the analysis. 154 respondents were given the questionnaire that was used to collect the data for this study utilizing the online Google Scholar survey tool. All participants did not provide feedback to the author. Within six (6) weeks, the questionnaire's administration was completed.

Chart on Respondents



Education Analysis

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38 people responded, and 34.5% had a bachelor's degree, 50% had a master's, 13.2% had professional credentials, and 2.3% had a PhD.

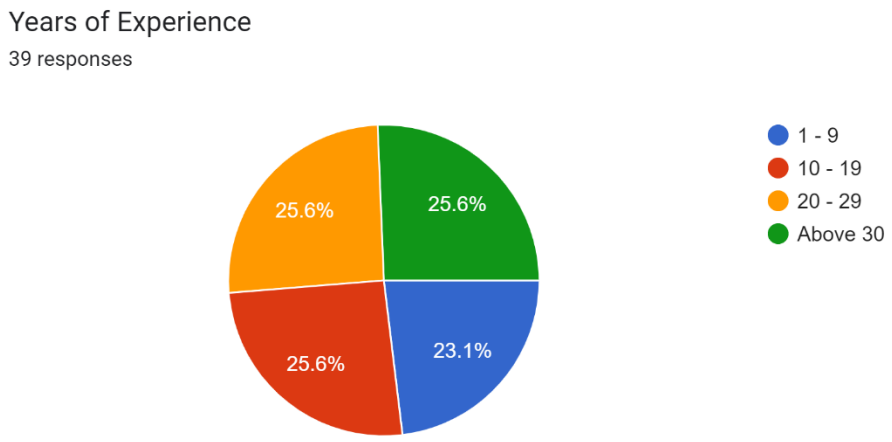

Fig 4.2 Response to familiarity with Apapa Gridlock

55.3% of 38 respondents agreed they are familiar with Apapa Gridlock, 18.4% work in Apapa area, 21.1% visit Apapa regularly, while 5.2% are importers & exporters.

Effect of gridlock on respondents

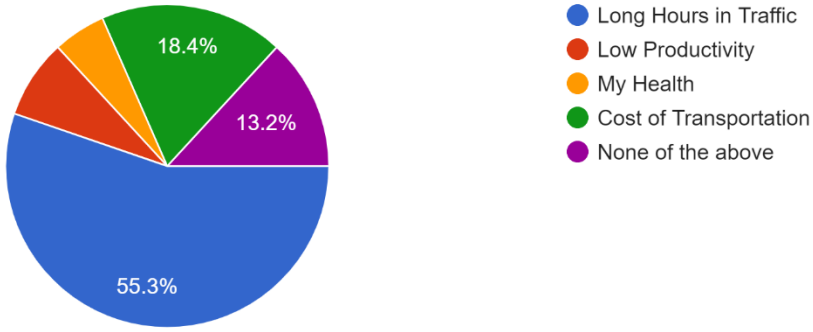

Fig 4.3 Effects of gridlock on respondents

55% of respondents agreed that Apapa Gridlock contributes to extended commute times, 18.4% thought it raised transportation costs, 13.2% thought it had no bearing on them, and others thought it had an impact on workers' productivity and health.

Role Played as TIPS Professional

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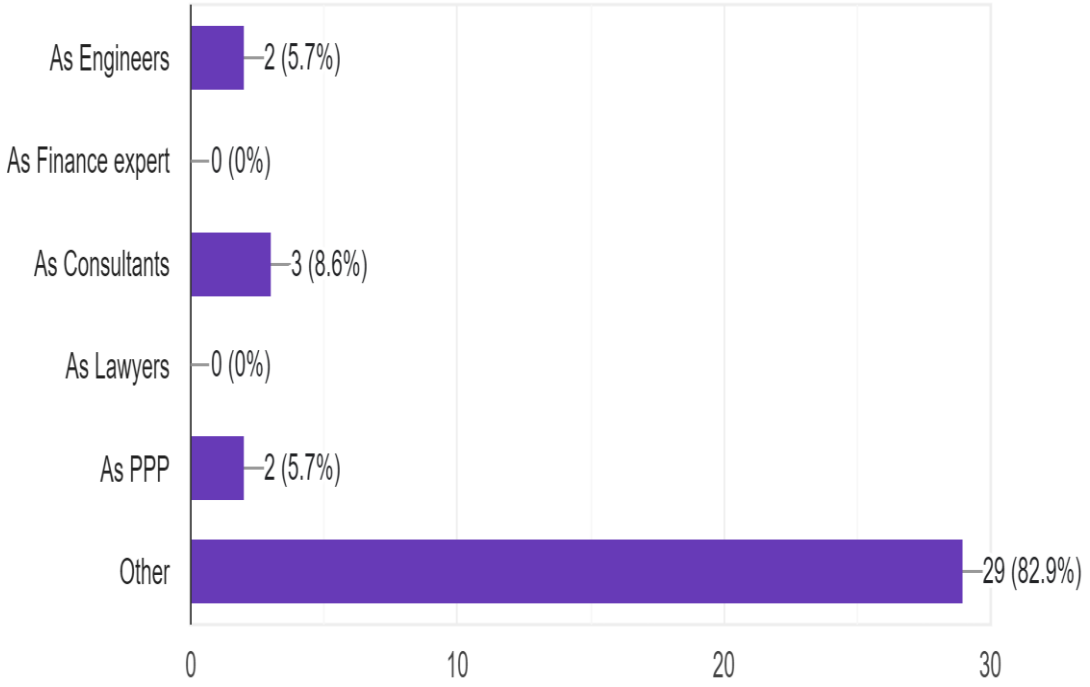

Fig 4.4: Roles played as TIPS professionals

Test of Hypothesis

Hypothesis One

H0**;** There are no significant factors causing gridlock in Apapa

Table 1: One-Sample Test

	Test Value = 0					
					95% Confidence Interval of the Difference	
Null Hypothesis	T	Df	Sig. (2-tailed)	Mean Difference	Lower	Upper
There are no significant factors causing gridlock in Apapa	0.042	2	.012	0.03301	0.023	0.202

Source: SPSS Computation 2023

The t-statistics value (0.042) is less than 0.05, which means that we reject the null hypothesis and come to the conclusion that there are significant factors causing the gridlock in Apapa. This is in accordance with the decision rule, which states that the null hypothesis is accepted if the value of the t-statistics is greater than 0.05.

Hypothesis Two

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In testing this formulated hypothesis in research question two, the author used data collected and presented.

Ho: There is no relationship between Apapa Gridlock and Nigeria economy

Table 2: One-Sample Test

	Test Value = 0					
					95% Confidence Interval of the Difference	
Null Hypothesis	T	Df	Sig. (2-tailed)	Mean Difference	Lower	Upper
There is no relationship between Apapa Gridlock and Nigeria economy	0.045	2	.011	0.04300	0.031	0.312

Source: SPSS Computation 2023

The decision rule states that the null hypothesis is accepted if the test statistic, in this case the t-statistics, has a value larger than 0.05. We reject the null hypothesis and reach to the conclusion that there is a relationship between Apapa Gridlock and the Nigerian economy because the test statistic's value (0.045) is less than 0.05.

Discussion of Findings

Based on the aforementioned statistics, 55.3% of the 38 respondents said they were familiar with the Apapa gridlock; 18.4% of them work in the neighborhood; 21.1% frequently visit Apapa; and 5.2% are importers and exporters. It also showed that 55% agreed that Apapa Gridlock causes long commute times, 18.4% thought it raised transportation costs, 13.2% thought it had no bearing on them, and others said it affected workers' productivity and health. The null hypothesis was rejected since the value of the t-test was less than 0.05, concluding that Apapa gridlock is caused by substantial causes including defective roads, reckless driving, and overcrowding. There is also a connection between Apapa gridlock and the Nigerian economy.

5.0 Summary, Conclusion and Recommendation

The research examines the impact of transport infrastructure projects, particularly in Lagos, on Nigeria's economic growth. It found that the Apapa Gridlock, particularly the Apapa Port, has a significant impact on Lagos's economy. The majority of respondents agreed that traffic in Lagos was partly caused by bottlenecks, and 76% said that earlier attempts to lessen traffic had failed. The study found a positive correlation between the Apapa bottleneck and the Nigerian economy, indicating that improvements are necessary to break the impasse. The Nigerian Port Authority (NPA) is responsible for managing Nigerian ports, and some Apapa Port assets are leased or covered by concession agreements with private firms. The Lagos state government has set up a taskforce to monitor the situation, but it has not been enough to curb the problem. The Blue Rain Project is still unfinished, and the cost of moving goods and services from the port to other parts of the country has increased.

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Lagos' economic development is hindered by a lack of investment in road networks, a form of transportation infrastructure. Poor planning results in significant losses for the government and business sector, as the cost of commodities, their arrival, and destination are adversely affected. The Apapa gridlock has caused significant slowdowns for businesses and developmental goals, causing enormous losses for both the commercial sector and the government. Transportation is essential for promoting economic growth, improving living standards, eliminating poverty, and boosting competitiveness. Nigeria's infrastructure has been given a poor grade by the World Economic Forum (WEF) in its 2017-18 Competitive Index Assessment. The World Health Organization (WHO) also highlights the benefits of transportation infrastructures for multiple societies' growth.

The Apapa gridlock has a significant impact on the country's internal generated revenue (IGR). Factors contributing to the issue include poor roads, poor maintenance culture, population growth, inadequate planning, systematic failure, human errors, and expansion of industries on the Apapa axis. Addressing these issues is crucial for the development of Lagos' economy and overall development.

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