

# Impact of Covid-19 Pandemic on Government Capital Expenditure towards Construction and Maintenance of Educational Facilities in Enugu State, Nigeria

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**Abstract-**COVID-19 pandemic popularly called corona virus is a killer virus which started in China and spread throughout Europe, America, Africa and Nigeria is not left out. During these period activities in the construction industry was affected as a result of lockdowns and restrictions of movement imposed by government of the country which Enugu State is also included. The COVID-19 situation in Enugu State has had a far-reaching effects on the economy of the State and this affected the budget allocation for the construction and maintenance of educational facilities in Enugu State as huge capital are channeled to health sector in order to curb the spread of the virus. The objective of this study is to examine, the impact of COVID-19 pandemic to budget and expenditure of government on educational facilities in Enugu state and to determine the impact of COVID-19 pandemic in construction and maintenance of educational facilities in Enugu state. The respondents of this study are randomly chosen from the sample and are registered contractors in Enugu State. This study is carried out through questionnaire and all data were analyzed. The result concluded that there is correlation between the estimated budget for the construction and maintenance of educational facilities in Enugu State during COVID-19 pandemic. The recommendation is that proper planning and budgeting should be done in education sector as regards to construction and maintenance of educational facilities irrespective of the pandemic. Quantity surveyors should also be employed from design stage to finishing for advice, monitoring and control of the construction and maintenance of those educational facilities.

**Keywords-** Covid-19, Pandemic, Capital expenditure, Educational facilities, Construction and Maintenance

## I. INTRODUCTION

COVID-19 pandemic popularly called corona virus is a killer virus, which started in China and spread throughout Europe, America, Africa and Nigeria is not left out. The corona virus entered Nigeria through an infected Italian citizen who came in contact with a Nigerian citizen who was subsequently infected with the corona virus. The corona virus infected people in Lagos and then spread to other parts of the country from March to May. During these periods activities in the construction industry was affected as a result of lockdowns and restrictions of movement imposed by different government of the country which Nigeria is also included. Enugu on April 1, 2020, imposed an initial 14-days lockdown on the state to contain COVID-19 and later extended it by

another 14 days on April 15. The COVID-19 situations in Enugu State has had far-reaching effects on the economy of State. It affected the travel business, national health care systems, the food industry, events industry, education and global trade.

Before the pandemic, the Nigerian government had been grappling with weak recovery from the 2014 oil price shock, with GDP growth tapering around 2.3 percent in 2019. Efforts were already being made to bolster aggregate demand through increased government spending and tax cuts for businesses. The public budget increased from 8.83 trillion naira (\$24.53 billion) in 2019 to 10.59 trillion naira (\$29.42 billion) in 2020, representing 11 percent of the national GDP, while small businesses have been exempted from company income tax, and the tax rate for medium-sized businesses has been revised downwards from 30 to 20 percent. Unfortunately, the COVID-19 crisis is causing all components of aggregate demand, except for government purchases, to fall [1].

Nigeria's heavy dependence on crude oil, which is an exhaustible asset, for its foreign exchange earnings has been largely responsible for its inability to make optimistic financial plans[2] that can stimulate economic growth. This has become obvious in the period of the lockdown as a fall in oil prices has constrained government earnings and made her resort to external borrowing. The coronavirus, also known as COVID-19, which began in China in 2019, was linked to a novel coronavirus that was named SARS-CoV-2 [3]. The COVID-19 pandemic has so far had its toll on economic activities and there seems to be no end in sight for now because, it has continued to evolve. The COVID-19 pandemic is a wake-up call to policymakers as the unusual and unprecedented nature of the crisis has made it impossible. Since the advent of the COVID-19 pandemic, major economic activities have been crippled worldwide, Nigeria inclusive, owing to the lockdown in major economies of the world. The implication is that the circular flow of income has been significantly constrained since a reasonable proportion of the productive factors are currently lying idle.

Buildings require adequate maintenance as they get older over time. Building maintenance is required to ensure

the safety of building occupants and properties. Lack of maintenance can result in unsafe, unhealthy and hazardous environment. However, much can be done at the design stage to reduce the rate of subsequent maintenance works. All elements of a building deteriorate at a greater or lesser rate depending on materials, methods of construction, age and environmental conditions. Neglect of maintenance, in most buildings, results to rapidly increasing deterioration of the fabric and finishes of a building accompanied by harmful effects on the contents and occupants. Some building owners most often try to keep maintenance expenditure to a minimum, ignoring the adverse long-term effects of such a practice. Maintenance has become a principal issue in the life of public buildings. Reference [4] opined that neglect is the worst enemy of school buildings and the budget for maintaining them, and that with proper planning the enemy can be defeated since it is a matter of priorities. The importance attached to educational facilities, in the society, requires that maintenance issues be considered at all times. The primary objective of building maintenance is to preserve buildings in their initial functional, structural and aesthetic state. This is to ensure that such a facility continues to remain in such state and retain its investment value over a long period of time. Buildings are generally required to provide safe and conducive environment for the performance of various human activities.

## II. STATEMENT OF THE PROBLEM

The sustainability of educational facilities in Enugu State requires an attention. One of the ways to attain this is the adoption of maintenance and construction strategies and policies. However, the COVID-19 pandemic caused so much delay to the actualization of so many proposed facilities in many education institutions in Enugu state as a result of lockdowns, which restricted the movement of people from one place to another as a measure to curb the spread of the virus. It also prevented the professionals in the construction industry and workers to move to site. This also restricted movement of materials, plants and machineries to site and most construction firms. So much global economy crisis caused by the virus, which also affected the economy of Nigeria as a result of fall in oil price, this lead to fall in government revenue and this affect the funding of most educational facilities under construction and maintenance in Enugu. With the outbreak of the COVID-19 pandemic, Nigeria faces both an economic and a health crisis to which it has responded with a raft of policy interventions, and it is important to understand the budgetary responses, their fiscal implications and implications on the country's financial sustainability, social inequality and socio-political stability [5], [6]. COVID-19 also affected the budget allocation for construction and maintenance of educational facilities, as huge capital are channeled to health sector in order to curb the spread of the virus. Owing to the high level of concern that the COVID-19 pandemic has generated globally, many studies have been carried out on the problem within the short time that the pandemic has lasted. However, none of the studies undertook a detailed

examination on impact of COVID-19 pandemic on government capital expenditure towards construction and maintenance of educational facilities in Enugu State This study sought to fill the identified gap to expand the frontiers of knowledge.

## III. AIM AND OBJECTIVES OF THE STUDY

The aim of this study is to determine the impact of COVID-19 pandemic on government capital expenditure towards construction and maintenance of educational facilities in Enugu state, while the objectives of the study includes:

1. To examine the impact of COVID-19 pandemic to budget and expenditure of government on educational facilities in Enugu state.
2. To determine the impact of COVID-19 pandemic in construction and maintenance of educational facilities in Enugu state.
3. To proffer solution to proper funding of educational facilities by Enugu state government during the period of economy crisis caused by COVID-19.

## IV. RESEARCH HYPOTHESIS

There is no correlation between the estimated budget for the construction and maintenance of educational facilities in Enugu State before and during COVID-19 pandemic.

## V. LITERATURE REVIEW

### A. *Concept of Educational facilities*

According to [7], educational facilities are material resources in the school, which are physical and spatial enablers of teaching and learning which will increase the production of results. When combined with other resources in adequate quality and quantities, constitutes vital inputs for achieving desired educational goals. In educational institutions, school facilities constitute essential inputs, which could guarantee favorable learning environment and enhance the achievement of educational objectives. In the school, educational facilities serve as pillars of support for effective teaching and learning thereby making the process meaningful and purposeful. Reference [8] noted that the inadequacy of infrastructural facilities is one of the major problems facing the Nigerian education system.

Odor [ as cited by [9] ] describes educational facilities as physical resources which the school administrators and his reference group harness, allocate, utilize and maintain for the purpose of effective school administration that will facilitate teaching/learning process in social studies. These school facilities refer to those fixed and movable materials. They are materials that facilitate teaching and learning process, these include classrooms, libraries, workshops, laboratories, assembly halls and teaching aids such as films and transparencies [10]. The importance attached to educational facilities, in the society, requires that maintenance issues be considered at all times. The primary objective of building maintenance is to preserve buildings in

their initial functional, structural and aesthetic state. This is to ensure that such a facility continues to remain in such state and retain its investment value over a long period of time. Buildings are generally required to provide safe and conducive environment for the performance of various human activities.

*B. Government capital expenditure towards construction*

According to [11], Government capital expenditure is the money spent on goods that are classified as investment goods. This may include investment in hospitals, schools, power sector, telecommunication and road construction. The expenditure of government has been on the geometric increase through the interactions with and activities of government agencies, departments and ministries. This continuous increase in the volume of government expenditure has been the experience in Nigeria if not very common in all countries world over due to the continuous state and federal expansion activities [12]. The development of the state activities since the 20th century in areas including industrial innovations, public health, education, commercial activities, etc have accelerated government expenditure increases to a large extent. According to [13], public expenditure is assumed to be the most powerful economic factor of all modern societies. The form and pattern of the output growth of any economy is determined by the structure and size of it public expenditure [14].

National Policy on Education was specific on how education would be funded in Nigeria. It is noted that, education is an expensive service that requires adequate funding from all three tier of government for a successful implementation of educational programme. Inadequate funding of education has been a fundamental problem facing educational sector in Nigerian more especially secondary schools and specifically schools in Enugu state. However, schools cannot survive without adequate provision and maintenance of its facilities. Educational facilities are correlates of success of psychomotor, affective and cognitive domains of learning in senior secondary schools. The actualization of the goals and objectives of education require the provision, maximum utilization and appropriate management of educational facilities [15]. There is no doubt that multiplicity of facilities and thorough management of the said facilities will enhance school improvement in the 21st century. We must imbibe maintenance culture in order to enjoy the best value for our money. Availability, adequacy and maintenance of educational facilities are important factors in the attainment of educational goals.

**VI. METHODOLOGY**

This study employed survey approach in which both primary and secondary data were used for this research for effective and efficient utilization of the method being adopted. Primary data were gathered through questionnaire which were issued to 65 construction firms within Enugu State. The study employed systematic random sampling to select those

construction firms. The sampling size was as a result of time constraints. Random sampling was employed in the administration of the questionnaires to the targeted population. The data for the study were collected through structured questionnaire that was administered to contractors involved in educational facility development, in Enugu state. In analyzing the data collected, the use of descriptive analyses tools; frequency and percentage were employed. Tables were used in presenting the data for the purpose of the simplicity and clarity. The statistical tool known as the chi-square were used to test the hypothesis.

**VII. RESULTS**

*A. Bio data of contractors*

		Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid	male	45	90.0	90.0	90.0
	female	5	10.0	10.0	100.0
	Total	50	100.0	100.0	

Table I above shows the gender distribution of the contractors used for this study 45 contractors, which represent 90.0 percent of the population, are male. 5 contractors which represent 10.0percent of the population are female.

		Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid	below 20 years	5	10.0	10.0	10.0
	21-30years	15	30.0	30.0	40.0
	31-40years	15	30.0	30.0	70.0
	41-50years	5	10.0	10.0	80.0
	51-60years	5	10.0	10.0	90.0
	61-70years	3	6.0	6.0	96.0
	above 70 years	2	4.0	4.0	100.0
	Total	50	100.0	100.0	

Table II above shows the age grade of the contractors used for this study. 5 contractors which represent 10.0 percent of the population are below 20 years, 15 contractors which represent 30.0 percent of the population are between 21-30yrs. 15 contractors which represent 30.0 percent of the population are between 31-40 years. 5 contractors which represent 10.0 percent of the population are between 41-50 years. Contractors which represent 10.0 percent of the population are between 51-60 years.3 contractors which represent 6.0 percent of the population are between 61-70 years. 2 contractors which represent 4.0 percent of the population are above 70 years.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Above 10 years	25	50.0	50.0	50.0
	Above 5 years	15	30.0	30.0	80.0
	Above 2 years	8	16.0	16.0	96.0
	Under 2 years	2	4.0	4.0	100.0
	Total	50	100.0	100.0	

Table III above shows the experience status of the contractors used for this study. Out of the total number of 50 contractors, 25 contractors which represent 50.0 percent of the population have over 10 years of experience. 15 contractors which represent 30.0 percent of the population has over 5 years of experience. 8 contractors which represent 16.0 percent of the population has over 2 years of experience. 2 contractors which represent 4.0 percent of the population has under 2 years' experience.

*B. Tables based on research questions*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	25	50.0	50.0	50.0
	agree	10	20.0	20.0	70.0
	undecided	5	10.0	10.0	80.0
	disagree	6	12.0	12.0	92.0
	strongly disagree	4	8.0	8.0	100.0
	Total	50	100.0	100.0	

Table IV shows that COVID-19 influence the annual budget for the construction and maintenance of educational facilities in Enugu state. Responses from the contractors show that 25 of the contractors representing 50.0percent strongly agree that COVID-19 influence the annual budget for the construction and maintenance of educational facilities in Enugu state,10 of the contractors representing 20.0percent agreed, 5 of the contractors representing 10.0percent were undecided. 5 of the contractors representing 10.0percent disagreed. While the remaining 4 contractors representing 8.0percent strongly disagree that COVID-19 influences the annual budget for the construction and maintenance of educational facilities in Enugu state

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	5	10.0	10.0	10.0
	undecided	5	10.0	10.0	20.0
	disagree	10	20.0	20.0	40.0

	strongly disagree	30	60.0	60.0	100.0
	Total	50	100.0	100.0	

Table V shows that COVID-19 have nothing to do with construction and maintenance of educational facilities in Enugu State. 5 of the contractors representing 10.0 percent strongly agreed that COVID-19 have nothing to do with construction and maintenance of educational facilities in Enugu State, 5 of the contractors representing 10.0 percent agreed, 10 of the contractors representing 20.0 percent were undecided, 10 of the contractors representing 20.0 percent disagreed while 30 of the contractors representing 60.0 percent strongly disagreed.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly agree	26	52.0	52.0	52.0
	agree	14	28.0	28.0	80.0
	disagree	5	10.0	10.0	90.0
	strongly disagree	5	10.0	10.0	100.0
	Total	50	100.0	100.0	

Table VI shows that the impact of Project Budgeting for construction and maintenance of educational facilities in Enugu state on performance is high. 26 of the contractors representing 52.0percent strongly agreed, 14 of the contractors representing 28.0percent agreed, 5 of the contractors representing 10.0percent were undecided, 5 of the contractors representing 10.0percent disagreed. While the remaining 5 of the contractors representing 10.0percent strongly disagreed.

**VIII. TEST OF RESEARCH HYPOTHESIS**

**H<sub>0</sub>:** There is no correlation between the estimated budget for the construction and maintenance of educational facilities in Enugu State before and during COVID-19 pandemic. You reject the null

*Level of significance: 0.05*

*Decision Rule:* The null hypothesis was therefore rejected.

Test Statistics	
	Cost of building materials affects housing development in Nigeria
<b>Chi-Square</b>	<b>173.474<sup>a</sup></b>
<b>Df</b>	<b>4</b>
<b>Asymp. Sig.</b>	<b>.000</b>
a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 46.4.	

*Conclusion based on the decision rule:*

Since the p-value (0.000) is less than the level of significance (0.05), we reject the null hypothesis and accept the alternative



thereby concluding that cost of building materials affects housing development in Nigeria.

### IX. DISCUSSION OF FINDINGS

It is clear that COVID-19 influences the annual budget for the construction and maintenance of educational facilities in Enugu state. Budgetary allocation for construction and maintenance of educational facilities in Enugu State for the year 2020 to 2021 (pandemic era) has been unstable, due to poor allocation of funds to educational sector, during the peak of the pandemic most people lost their job, inadequate participation of Enugu state Government due to diversion of monetary budget to health sector as a result of the urgent attention required in order to fight against the spread of the virus. This is in line with the study by [16] on which he analyzed the determinants of federal government expenditures in the education sector in Nigeria using the ordinary least squares (OLS) methods. His work shows that the trend in education expenditure in Nigeria is unstable.

### X. CONCLUSION AND RECOMMENDATION

In conclusion for the research, the annual budget estimate of construction and maintenance of educational facilities in Enugu State has been low since the pandemic. It is recommended that proper planning and budgeting is done in education sector as regards to construction and maintenance of educational facilities in respective of the pandemic. Quantity surveyors should be employed from design stage to finishing for advice, monitoring and control of the construction and maintenance of those educational facilities. Government should be balanced in allocating money in the entire sector, in order not to ~~left~~ leave some sectors behind, just as the maintenance and construction of educational facilities ~~has~~ have been sidelined since the pandemic in Enugu State.

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