

# Confronting Nigerian Construction Delays through Educational Research

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## Abstract

In order to provide relevant and dependable knowledge, educational research is required. Through this process, the process of education can assist in the development of new techniques and methods that are both more effective and efficient in solving the issue of time overruns in building projects. Every construction project experiences delays, and the magnitude of these delays varies significantly from project to project. In Africa, construction delays are one of the most significant obstacles to the achievement of project objectives. When it comes to construction projects, they are complicated human endeavours that necessitate substantial planning and strict control in order to be effective. The findings of this study show the fundamental categories of elements that contribute to construction delays, and they further demonstrate that educational research can aid in stemming the tide of negativity in the sector.

**Keywords:** Educational Research, Construction Industry, Construction delays, Time overrun

## Introduction

Regardless of the country in which it operates, the construction industry has a significant impact on the broader economy. Bringing attention to the importance of building to the economy is a critical step in ensuring that it is a high priority on government priorities lists. According to the Pearce report (2003), the building industry contributes significantly to the country's gross domestic product (GDP). According to the narrow view, this represents approximately 6 percent of GDP, while according to the broad view, it represents closer to 20 percent in some nations.

Nigerian indigenous construction contractors (NICC) are confronted with a number of challenges, the most significant of which being the struggle for survival and relevance in the Nigerian construction industry. It is foreign-owned and managed firms that receive the majority of high net worth construction contracts in Nigeria. Foreign-owned and managed firms account for less than 5 percent of the total number of construction companies operating in Nigeria. As a result, the NCCs are in a perilous position, as the country's construction sector is fully dominated by foreign investors. However, researchers have found that the outputs of building activities by NICCs fell below the expected quality standard required, resulting in clients' preference for foreign-managed construction enterprises throughout the course of the years. The purpose of this study is to determine the root causes of these restraints as well as the reasons why NICCs are disproportionately prone to poor project performance. It was decided to conduct the study by reviewing existing literature and using a questionnaire to gather input from building industry professionals.

This study tries to discover the primary elements that have a significant impact on construction delays by conducting research into these factors. Recognizing that research is about discovering new knowledge and addressing issues is critical to your success in the field.

### **The Goal and the Objective**

Specifically, the purpose and objective of this study is to categorise the elements that contribute to delays in the Nigerian construction sector and to explain how educational research may be used to mitigate the effects of these delay causes.

### **Construction Industry**

The construction industry is an industry that allows various professionals to work together in order to deliver a project on time, within budget, and with the highest level of quality possible; in order to achieve this, leadership plays an important role in the overall success (Idiata, Ehigiamusoe and Osagie, 2020). This interdisciplinary industry encourages collaboration between and among several disciplines while working closely with a wide range of stakeholders. These disciplines include architects, constructors, engineers, builders, clients, whether private or public sector, and government agencies. It is impossible to overstate the significance of a country's construction industry. It is one of the main

employers of labour in the world, and it contributes significantly to the Gross Domestic Product (GDP) of the vast majority of nations (Chiang, Tao & Wong, 2015; Gregori & Pietroforte, 2015).

Successful project delivery will be dependent on the organisation of people with well-developed interpersonal skills who operate at different levels of hierarchy on each other to address every and various leadership and performance challenges that arise (Jung, Jeong and Mills, 2014). Among the many different activities that make up the construction industry are mining, quarrying, and forestry. Other activities include the construction of infrastructure and buildings, as well as product manufacturing and supply. Other activities include the upkeep of structures as well as their operation, as well as their disposal (Designing Building wiki, 2017).

The completion of a construction project within a specified time frame is one of the most essential objectives in construction project management. Project success can be defined as the completion of work at a reasonable cost, with high quality, and on schedule. Delay is one of the most significant and common occurrences in construction projects, and it has a negative impact on project success in terms of cost, quality, and timeliness (Qaytmas, 2020).

Overruns in the construction timeline are not uncommon on building projects all around the world are not usually within specified time (Makuka, Aigbavboa and Thwala). The term "scheduled overruns" refers to the additional time required to complete a specific construction project beyond the original anticipated duration, regardless of whether the additional time is compensated. The circumstances or events that occur before and during the construction process that have an impact on the time required to complete a project are referred to as the causes of schedule overruns.

According to the Pearce Report (2003), the definition of construction will vary depending on the focus, but in general, there are two types of definitions: a "narrow" definition and a "wide" definition, which are both given below.

The narrow sector comprises solely of on-site assembly and repair work, which includes site preparation, building and infrastructure construction, building

installation, and building completion, as well as site preparation, building installation, and building completion (decoration). The difference between the narrow and broad definitions is that the broader meaning includes considerably more, such as the supply chain for construction-related items, which includes the mining of construction materials and the manufacturing of construction products.

Professional services such as management, architecture, design, and facilities management are also included in the broad definition of professional services. This and other definitions can be seen in Figure 1, which displays the structure of the construction industry and how the many components contribute to the built environment.

Figure 1: The Structure of the Construction Industry

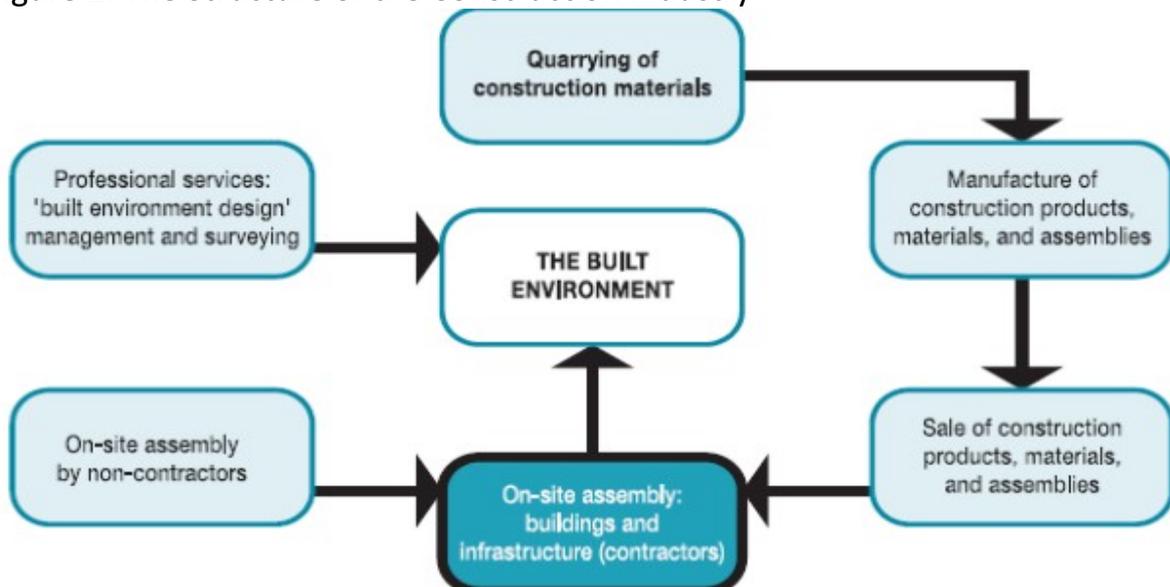


Figure 1: Broad and Narrow Industry Structures (Source: The Pearce Report, 2003)

### Education and Research

“Education is the socially organised and regulated process of ongoing transferring of socially meaningful experience from previous generations to the current generation,” according to the National Education Association. The most common method of receiving an education is to enrol in a course of training within the educational institution system.”

"What is the aim of education?" you might wonder. In the opinion of López-Alvarado (2017), a very wide variety of answers are possible: to broaden people's horizons, to prepare people to contribute to society, to prepare for a successful career, to stimulate a more well-rounded society, to learn, to be prepared for the real world, to enable people to live life to the fullest, to gain the knowledge to function in society, to make us a better society, to get a better education, to get a better

Finding new knowledge and resolving issues are the goals of research (Nkpa, 1979). Educational research is a systematic effort to get a better understanding of the educational process, with the goal of enhancing its efficiency. It can be defined as follows: In educational research, it is the application of scientific technique to the investigation of educational problems. According to Wani S.R., educational research includes "any systematic study aiming to enhance the growth of education as a science."

### **Educational Research**

The authors of Laverty (2018) and Osman (2017) stated that educational research "... aims to bring a scholarly lens—the curiosity, the inquiry, the rigour, the disciplinary variety—to what happens in the classroom... [It] begins with intellectual curiosity, is conducted deliberately and systematically, is grounded in an analysis of some evidence, and results in findings that are shared with peers for review and explanation." The following are the justifications for engaging in educational research:

- Examine your classroom practise through a structured process of inquiry; and
- Keep track of student learning triumphs and mistakes in order to improve student learning and teaching practise.
- Examine the findings in light of existing educational research literature and make recommendations.
- Validate your teaching experience and develop theory pertaining to educational practises by collaborating with colleagues.
- We should share and disseminate our experiences in order to expand on what we already know about teaching and learning processes.

The importance of research in education, like in other sectors, cannot be overstated. It is crucial for producing relevant and dependable knowledge that can be used to improve the effectiveness of the educational process. There are a variety of factors that point to the importance of educational research as a priority (Osman, 2017).

### **The Nigerian construction industry**

The challenges of the Nigerian building sector are a major hindrance to the country's socio-economic growth. Construction industries around the world play critical roles in the long-term growth of their respective countries. It is possible to employ the industry to encourage economic and environmental development through the implementation of huge physical infrastructure development projects. It can also be used to generate employment and to offer soft infrastructures for the benefit of the general public in the community. Construction contributes between 2 and 10% to the gross domestic product (GDP) of countries around the world, with a greater contribution in industrialised countries than in developing countries. It is possible to classify the construction industry into three categories: Building contractors, often known as general contractors, are divided into three categories: heavy and civil engineering construction contractors, specialty trade contractors, and specialty trade contractors.

Since the dawn of time, the challenges faced by the construction industry in ensuring the successful delivery of services and products throughout the world have been a subject of investigation (Bossom, 1934; Cahill and Puybaraud, 1994; Latham, 1994; Egan, 1998; Post, 1998; Chan and Chan, 2004; Flores and Chase, 2005; Lapatner, 2007; Ojo, 2009; Adrian, 2010; Ogunsanmi, 2013). According to Latham 1994, Reading 1995, and Egan 1998, some of the reports on the issues of the building industry have been generally appreciated for their ability to touch on the fundamental problems of construction while also proposing practical answers to those concerns.

The Latham Report, published in 1994, looked into the difficulties facing the building industry. As a result of the Latham Report (1994) (Constructing the Team), which identified adversities in the construction industry, existing industry practises were condemned as "adversarial," "ineffective," "fragmented," "unable

to deliver for its clients," "lacking respect for its employees," and "lacking respect for its customers" (Latham, 1994 & Cahill and Puybaraud, 1998).

## Results and Findings

According to a review of the literature, there are three (3) broad categories of factor into which all documented factors that can contribute to building delays can be classified. The following are the most common reasons for delays in the delivery of goods.

- i. Contractor-related considerations
- ii. Consultant-related considerations
- iv. Factors connected to the client

- I. **Contractor-related factors:** During the pre-contract and bidding periods, contractors pay close attention to the requirements of the assignment in order to select projects where they have a competitive advantage. II Contractor-related factors: In order to keep track of important activities and finish projects within the set time frame while fulfilling quality and cost requirements, effective project planning and scheduling of the works, as well as effective site management and supervision of the works, must be implemented. A contractor's responsibility also includes ensuring that materials, equipment, and sufficient labour are available, all of which are crucial success factors in the successful implementation of construction projects.
- II. **Factors relating to the consultant,** consultants ensure that all designs and changes made during the course of the project's execution are handled explicitly and without jeopardising the anticipated outcome of the project's completion. Design and drawings, issuance of instructions, project management, and site preparation are all concerns that consultants must deal with.
- III. **Factors relating to the client:** The client should ensure that proper planning and costing of the works are carried out during the pre-contract period in order to avoid intermittent stoppage of works as a result of funding constraints, as this not only lengthens the construction period but also increases the contractor's overhead costs and costs associated with mobilisation and demobilisation during the period within which the works

are to be completed. Clients' cash flow issues, variant orders, and sluggish decision-making are all key considerations.

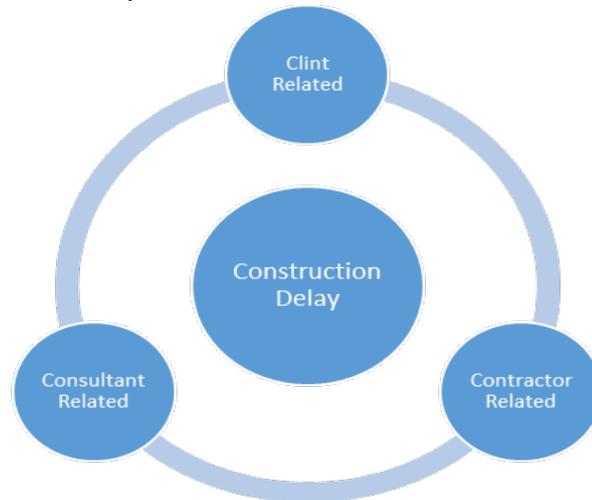


Figure 2: diagram presentation of critical groups contributing to construction delay

### Conclusion

Haven identified the major causes of construction delay. Educational research is essential for providing useful and dependable knowledge through which the process of education can be made more effective ways and methods in addressing this issue of time overrun in construction projects. Time overrun is the most important affecting projects. Project that are delayed, requires more days of work to finish the execution of the project, the implications can be numerous and inimical to the project as a whole.

Delay gives rise to disruption of work and loss of productivity, late completion of project increased time and costs of construction project, and third party claims and abandonment or termination of contract.

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