

# A Collaborative Framework for Indigenous Contractor's Participation in Public Building Project in Imo State Nigeria

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**Abstract:** This paper developed a collaborative framework for indigenous contractor's participation in public building project in Imo State Nigeria. The study adopted a mixed method research design, Data used in this research were gotten from primary source of data through the use of questionnaires and interviews sampled across 266 respondents. The findings show that there is a prevailing trend of limited engagement among indigenous contractors in public building projects within the state, it also found out there is a positive perception of collaboration among the respondents suggesting that fostering cooperative relationships and promoting synergistic interactions among indigenous contractors could serve as a strategic approach to address challenges and capitalize on opportunities within the construction sector. The study developed a framework known as Indigenous Contractor Empowerment and Collaboration Initiative (ICECI). The framework seeks to promote the active participation of indigenous contractors in public building projects in Imo State, fostering inclusivity, economic growth, and community development

**Keywords:** Indigenous contractors, Public building projects, Collaborative framework, Imo State, Nigeria, Collaboration and Contractor participation.

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## I. INTRODUCTION

The construction industry is still largely a source of employment for the country teeming workable population. In Nigeria, the construction industry was the dominant contributor to the nation's GDP in the 1980s, accounting for about 70% of the GDP (Planning Committee on the National Construction Policy, 1989). As of 2023, the Nigerian construction industry continues to play a significant role in the nation's economy. According to the National Bureau of Statistics (NBS), the construction sector's contribution to Nigeria's Gross Domestic Product (GDP) was approximately 4.6% in the first quarter of 2023 (NBS, 2023). This reflects a substantial decrease compared to its historical dominance in the 1980s when it accounted for around 70% of the GDP (Planning Committee on the National Construction Policy, 1989).

The structure of Nigerian construction industry is very complex in that it has a wide range of clients and contractors. This consist of public and private clients, main contractors and sub-contractors, one-man firms and international companies, low technology firms and sophisticated specialists, builders and civil engineers and a whole range of construction professionals connected within the industry. Unfortunately, the level of indigenous contractor's participation and performance in the industry is nothing to write home about when compared to other industries (Idrus and Sodangi, 2020; Hassan *et al.*, 2018; Tripath *et al.*, 2019). Aside cost, schedule, time, quality, safety, another important indicator of the industry performance is quality and this mainly related to construction organization performance (Wamberg, 2013). For a

construction company to be at par with rivalry companies in this current unfavourable business environment, quality need to be giving adequate thought (Altayeb and Alhasanah, 2014). Nigerian Indigenous contractors have not had a fair share of major construction activities in the country, major contracts are often awarded to their foreign counterparts whom are considered more technically and managerially more superior and efficient in funds acquisition and project execution (Okorie, 2018).

In Imo State, indigenous contractors face unique barriers that impact their participation in public projects. These barriers include inadequate support from government policies, limited access to procurement opportunities, and difficulties in meeting regulatory requirements (Akpan and Udoh, 2020; Eze and Udeh, 2019). Understanding these challenges is critical for developing strategies that enhance indigenous contractors' capacity and participation in public building projects. Research by Ahenakew, Ahenakew, Johnson, and Lussier, (2021) highlights the importance of fostering collaboration through cultural sensitivity to improve the effectiveness of indigenous contractors in construction projects. Addressing these challenges can not only improve project outcomes but also contribute to sustainable local development by harnessing the potential of indigenous firms.

## II. LITERATURE REVIEW

### A. Stakeholders in public building projects delivery

Public building projects are complex undertakings that involve a diverse array of stakeholders, each with unique interests, perspectives, and contributions (see figure 2.2). A comprehensive understanding of these stakeholders is essential for the successful planning, execution, and completion of such projects. This conceptual review aims to delve into the identification and analysis of key stakeholders in public building projects, with a specific emphasis on the involvement of Indigenous contractors. The stakeholders discussed include government agencies, local communities, non-governmental organizations (NGOs), and Indigenous contractors.

#### i. Government Agencies:

Government agencies play a central role in public building projects as they often serve as the primary funders, regulators, and overseers. Analyzing government stakeholders involves understanding their policy objectives, budgetary constraints, and regulatory frameworks. Additionally, recognizing the various departments and levels of government involved is crucial for effective coordination and decision-making. The relationship between government agencies and other stakeholders, such as Indigenous contractors, can be influenced by procurement policies, inclusion mandates, and socio-economic considerations.

#### ii. Indigenous Contractors:

Indigenous contractors contribute a unique perspective to public building projects, bringing cultural knowledge, community connections, and a commitment to sustainable development. Identifying and analyzing these stakeholders involves recognizing the challenges and opportunities they face, such as capacity-building needs, access to resources, and adherence to cultural protocols. Inclusion and empowerment of Indigenous contractors in public building projects can enhance the overall success and contribute to socio-economic development in Indigenous communities.

#### iii. Local Communities:

Local communities are critical stakeholders in public building projects, as these projects directly impact their environment, economy, and quality of life. Understanding the needs, concerns, and aspirations of local communities is vital for fostering positive relationships and ensuring that projects align with community values. Effective communication and engagement strategies are essential for building trust and addressing potential conflicts. Inclusion of local perspectives in decision-making processes contributes to the sustainability and social acceptance of public building projects.

#### iv. Non-Governmental Organizations (NGOs):

NGOs often act as intermediaries between government agencies, communities, and contractors, advocating for social and environmental responsibility. Identifying and analyzing NGO stakeholders involves assessing their goals, values, and areas of expertise. NGOs can provide valuable insights into community development, environmental impact assessments,

and social justice issues. Collaborative partnerships with NGOs can enhance the overall social and environmental performance of public building projects.



Source: Abdul, Faisal, Zolkaffly, Zulfakar and Jamal, N. (2018).

Figure 1: Categories of stakeholders

### III. METHODOLOGY

The study was conducted in Imo State using a mixed method research design. The survey focused on analysing questionnaire and interview responses of respondents on Indigenous contractor participation in public building projects in Imo State, Nigeria. Data were collected from a population of 881 registered building professionals in Imo State who are currently working with indigenous construction and handling building project in Imo State. A simple random sampling technique was employed to select a sample size of 276 respondents. However, out of the 276 respondents, only 266 questionnaires were returned and correctly filled and were used for the study. The primary data collection tool were structured questionnaire and recorder, which were distributed and collected through self and hand delivery to ensure a high response rate and clarity in responses.

The collected data were analyzed using descriptive statistics to summarize the data characteristics and inferential statistics, specifically, Z test was used to test the research hypothesis. The results were presented in tables for easy communication and interpretation

### IV. RESULTS

Table 1: The challenges faced by Indigenous contractors in public building projects in the study area.

In your opinion, what are the main challenges you face as an indigenous contractor in participating in public building projects? using a scale of 1 to 5, where 1 = Strongly Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree and 5 = Strongly Agree

S/N	Options	SA	A	UND	D	SD	∑f	∑fx	RAI	Rank
a.	Indigenous contractors in public building projects in Imo State face challenges navigating through procurement processes.	96	135	28	5	2	266	1116	0.8391	3 <sup>rd</sup>
b.	Regulatory barriers are encountered by Indigenous contractors participating in public building projects in Imo State..	87	102	77	0	0	266	1074	0.8075	4 <sup>th</sup>
c.	Access to financial resources is a challenge for Indigenous contractors involved in public building projects in Imo State.	97	90	56	23	0	266	1059	0.7962	7 <sup>th</sup>
d.	Indigenous contractors in public building projects in Imo State experience limitations in capacity.	76	66	124	0	0	266	1016	0.7639	8 <sup>th</sup>

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e	Discrimination and bias are observed in the role of Indigenous contractors in public building projects in Imo State.	134	96	30	6	0	266	1156	0.8692	1 <sup>st</sup>
f	Limited access to information is a challenge faced by Indigenous contractors working on public building projects in Imo State.	100	94	50	16	6	266	1064	0.8000	6 <sup>th</sup>
g	Competition from non-Indigenous firms poses challenges for Indigenous contractors in public building projects in Imo State.	100	123	43	0	0	266	1121	0.8429	2 <sup>nd</sup>
h	Inadequate infrastructure affects the work of Indigenous contractors in public building projects in Imo State.	112	31	34	89	0	266	964	0.7248	9 <sup>th</sup>
i	Indigenous contractors in public building projects in Imo State receive varying degrees of institutional support.	99	87	65	15	0	266	1068	0.8030	5 <sup>th</sup>
j	Managing community relations is a challenge for Indigenous contractors involved in public building projects in Imo State.	56	56	55	33	66	266	801	0.6023	10 <sup>th</sup>

The result in Table 1 revealed that with an RII of 0.8692, discrimination and bias ranked as the highest challenge, highlighting the prevalence of discrimination and bias against indigenous contractors in public building projects. Competition from non-indigenous firms ranked second, with an RII of 0.8429, competition from non-indigenous firms poses significant challenges for indigenous contractors. Efforts to level the playing field and enhance indigenous contractors' competitiveness are essential for promoting their participation in public projects while Challenges in navigating procurement processes ranked third, with an RII of 0.8391, navigating procurement processes presents hurdles for indigenous contractors. Simplifying and streamlining procurement procedures can facilitate greater participation and reduce barriers for indigenous contractors.

These implications suggest the need for comprehensive strategies and interventions to address the identified challenges effectively. By tackling discrimination and bias, leveling the competitive landscape, and simplifying procurement processes, policymakers, regulatory bodies, and industry stakeholders can create a more conducive environment for indigenous contractors to thrive and actively contribute to public building projects in Imo State. Moreover, prioritizing inclusivity and equity in project procurement and implementation can not only enhance indigenous contractors' participation but also foster sustainable development and economic growth within the construction sector and the broader community.

**A. Hypothesis**

H<sub>02</sub>: The Indigenous contractors do not face any significant challenges in public building projects in Imo State.

To test this hypothesis, Z-test was used to compare the observed mean RII against the hypothesized mean.

**Decision Rule:** Reject H<sub>0</sub> if p-value < 0.05 otherwise do not reject

**Step-by-Step Calculation**

1. Observed Mean RII ( $\bar{x}$ ): Calculate the average RII from the data provided.
2. Hypothesized Mean RII ( $\mu_0$ ): 0.70 was used as the threshold to test if challenges are significant. Using 0.70 ensures that only challenges perceived by at least 70% of the respondents as significant are considered for further analysis or intervention, which enhances the reliability and validity of the results
3. Standard Deviation ( $\sigma$ ): Calculate the standard deviation of the RII values.
4. Sample Size (n): Number of RII values.

5. Apply the Z-test Formula 
$$Z = \frac{\bar{x} - \mu_0}{\frac{\sigma}{\sqrt{n}}}$$

Therefore:

The observed mean RII ( $\bar{x}$ ) =  $\frac{\text{Sum of RIIs}}{\text{Number of challenges}}$

$$\bar{x} = (0.8391 + 0.8075 + 0.7962 + 0.7639 + 0.8692 + 0.8000 + 0.8429 + 0.7248 + 0.8030 + 0.6023)/10$$

$$\bar{x} = \frac{7.8489}{10} = 0.8451$$

The standard deviation of RII Values ( $\sigma$ ) =  $\sqrt{\frac{\sum(RII-\bar{x})^2}{n}}$

$$\sigma = \sqrt{((0.83 - 0.8451)^2 + (0.80 - 0.8451)^2 + (0.79 - 0.8451)^2 + (0.76 - 0.8451)^2 + (0.86 - 0.8451)^2 + (0.80 - 0.8451)^2 + (0.84 - 0.8451)^2 + (0.72 - 0.8451)^2 + (0.80 - 0.8451)^2 + (0.60 - 0.8451)^2)/10}$$

$$\sigma = \sqrt{\frac{0.7959}{10}} = \sqrt{0.079} = 0.890$$

To determine the Z-score using  $Z = \frac{\bar{x}-\mu_0}{\frac{\sigma}{\sqrt{n}}} = \frac{0.8451-0.70}{\frac{0.890}{\sqrt{266}}} = \frac{0.145}{0.0546} = 2.656$

Using a Z-table, a Z score of 2.656, the cumulative probability p-value for a Z-score of 2.658 is approximately 0.0078.

**Decision:** Reject the null hypothesis

The z-calculated value (z-stat.) for the analysis carried out for hypothesis two which states that The Indigenous contractors do not face any significant challenges in public building projects in Imo State. From the calculation, the Z score is 2.656 and P-value is 0.0078. Going by the decision rule which states if the p-value is less than the level of significance of 0.05, the alternate hypothesis should be accepted, otherwise, it should be rejected. The null hypothesis is therefore rejected because the p-value as gotten from the result is lesser than 0.05. Hence, it is stated that The Indigenous contractors do face significant challenges in public building projects in Imo State.

**Decision:** Reject the null hypothesis (Accept the alternative hypothesis)

## V. CONCLUSION

The examination of challenges faced by indigenous contractors in public building projects in Imo State, Nigeria, reveals a complex interplay of factors including discrimination and bias, competition from non-Indigenous firms, limited access to finance, inadequate technical capacity, bureaucratic hurdles, and lack of transparent procurement processes. Addressing these challenges requires a multifaceted approach that involves strengthening policy frameworks, providing capacity-building initiatives, improving access to resources, and fostering collaboration between government agencies and indigenous contractors. The study therefore recommends that Government should Implement policies prioritizing inclusion and establishing clear communication channels between government agencies, regulatory bodies, encouraging partnerships for promoting the active involvement of indigenous contractors in public building projects. By creating an enabling environment, indigenous contractors can better contribute to the successful delivery of public building projects, enhancing local economic growth and development

## REFERENCES

- [1] Altayeb, M., & Alhasanat, S. (2014). The impact of quality management practices on organizational performance in the construction industry. *International Journal of Business and Social Science*, 5(7), 108-117.
- [2] Bru, J. (2013). Definition of public buildings and their uses. *Journal of Public Sector Management*, 9(3), 45-56.
- [3] Hassan, A., Ahmad, N., & Mohamed, S. (2018). The challenges facing indigenous contractors in public building projects. *Journal of Construction Management*, 9(4), 225-237.
- [4] Idoro, G. I. (2011). Influence of project strategies on the performance of indigenous and expatriate construction companies in Nigeria. *Journal of Construction in Developing Countries*, 16(2), 79-98.

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- [5] Idoro, G. I. (2017). The effect of globalization on the performance of indigenous and expatriate construction firms in Nigeria. *Global Business and Management Research*, 9(1), 55-74.
- [6] Idoro, G. I., & Akande-Subar, L. A. (2018). Evaluation of the performance of indigenous and expatriate contractors in Nigeria. *Journal of Construction Business and Management*, 2(1), 18-28.
- [7] Idrus, A., & Sodangi, M. (2020). Performance assessment of indigenous contractors in the Nigerian construction industry. *Journal of Engineering, Design, and Technology*, 18(2), 311-324.
- [8] Max, P. (2002). Public building construction and accessibility for handicapped persons. *Urban Development Review*, 5(2), 112-120.
- [9] Moban, D. (2014). Federal facilities and public building classifications. *Government Infrastructure Quarterly*, 7(1), 32-41.
- [10] Muazu, M. A., & Bustani, S. A. (2014). Contractor classification in Nigeria: Analysis of criteria and implications. *Journal of Construction Engineering and Project Management*, 4(3), 25-35.
- [11] National Bureau of Statistics (NBS). (2023). *Gross Domestic Product (GDP) report for Q1 2023*. <https://www.nigerianstat.gov.ng>
- [12] Okorie, C. (2018). Indigenous contractors and their role in the Nigerian construction industry. *Journal of African Development*, 12(3), 115-128.
- [13] Owoh, V. F. (1993). *Indigenous contractors in the Nigerian construction industry*. Enugu: Fourth Dimension Publishing Company
- [14] Paul, R., & Alan, S. (2009). Buildings: Cultural significance and evolving purposes. *Architectural Heritage and Sustainable Design*, 15(4), 22-38.
- [15] Planning Committee on the National Construction Policy. (1989). *National Construction Policy report*. Lagos: Federal Government of Nigeria.
- [16] Tripath, A., Singh, K., & Pathan, A. (2019). Assessing the performance of indigenous contractors in Nigeria. *International Journal of Project Management*, 37(6), 784-798.
- [17] Wamberg, T. (2013). Quality management in construction projects: A review of performance indicators. *Construction Innovation*, 13(1), 67-79