



Traditional Procurement Practices and their Challenges to Effective Construction Project Delivery

QS Prof. Reuben A. Okereke, QS Dr. Kaanasor Benee Nwinee

Department of Quantity Surveying, Faculty of Environmental Sciences, Imo State University,
Owerri., Nigeria

Annotation. This study investigates the challenges and effects of traditional procurement practices on construction project delivery in Nigeria, with a focus on the South-South and South-East geopolitical zones. A cross-sectional survey design was employed, utilizing a structured questionnaire to gather data from building professionals in the region. The research examines the factors influencing the selection of traditional procurement, the challenges faced during implementation, and its overall effects on project outcomes. The study found that key factors influencing the choice of traditional procurement include the availability of a sound financial base, the desire to promote quality assurance, and project complexity. Despite its benefits, such as better quality management and client satisfaction, traditional procurement also faces significant challenges, including time and cost overruns, limited collaboration between contractors and designers, and reduced innovation. The study concludes that while traditional procurement remains widely used, addressing its limitations through early contractor involvement, technology adoption, and better risk management can improve project outcomes.

Keywords: Traditional procurement, construction project delivery, procurement practices, time overruns, cost overruns, quality management.



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Introduction

Construction projects contribute significantly to Nigeria's economic growth and development. In this 21st century, the impact of urbanization and industrialization in major cities in Nigeria has witnessed tremendous growth in the development of infrastructure, including schools, roads, hospitals, real estates, industrial estates, and other building facilities and utilities which are exquisitely designed and constructed to meet socio-economic value, and political interest of the multi-dimensional constituencies of the nation. While there seem to be an increasing trend in all of these, the underlying secret in efficient construction project delivery lies among others, in efficient procurement techniques which are known to impact significantly on cost, time and quality of construction project outcomes. It is noteworthy that while a number of procurement approaches seem to have evolved in recent years, which are crucial in ensuring that construction projects are finished on schedule and under budget, the traditional method, however, is known to have been the oldest procurement practice which is popular among project contractors, particularly for public-sector construction projects. The typical approach of construction

procurement involves a sequential process in which the design is first established, then contractors are procured through competitive bidding, and finally, construction begins. While this strategy has been in use for decades, there is rising concern about its impact on the cost and timeliness of building construction projects (Ogunsanya, Aigbavboa and Thwala, 2021).

Many construction projects of various scopes must be completed on time and within budget by contractors, however difficult they may be. This way, the benefits of such projects would become visibly profound. Construction projects are often described as accelerators of economic growth and development of the nation, given the numerous positive benefits they provide. Despite these, building and other construction related projects are poorly performed and delivered (Chan & Chan, 2011; Odeyinka & Yusuf, 2011; Okereke et al., 2021; Shehu, 2021). The challenges underlying poor construction project delivery include among others, time and expense overruns, poor quality, low efficiency, high accident rates, many complaints and conflicts, and stakeholder displeasure. These challenges are frequently orchestrated by the procurement technique used for project delivery (Ogunsanmi et al., 2012; Olanike et al, 2020). The procurement system serves clients in accessing architects, design engineers, builders, consultants, and contractors. Construction management, direct labour, design and construction, joint venture, labour-only, project management, alliancing, partnership, and traditional procurement exist (Dada, 2012). According to Ogunsanmi et al. (2012) and Abedin et al. (2021), procurement strategy can make or break a building project. The global building industry uses traditional methods. This technique requires a nearly finished design before construction (Yu and Shen, 2013).

Traditional Nigerian construction undertakings are fraught with complications (Okereke, 2022); Olanike et al (2020) demonstrated that delays plague Nigerian construction projects. Olanike et al. (2020) discovered that traditional contract procurement underperforms in terms of price and timeliness over time. Construction projects in Nigeria, frequently overspend. Delays beset development projects as well. Competitive bidding may not necessarily uncover the best vendors in traditional procurement. Despite these, the traditional procurement practices appear to predominate other forms of procurement practices in recent years. For this reason, the study seeks to assess traditional procurement practices among building professionals in South-South and South-East geopolitical zones in Nigeria.

Objectives of the study

The specific objectives are to:

- i. ascertain the critical factors influencing the choice of traditional procurement practices among building professionals in south-south and south-east geopolitical zones of Nigeria.
- ii. determine challenges of traditional procurement practices among building professionals in south-south and south-east geopolitical zones of Nigeria.
- iii. Examine the effects of traditional procurement practices on construction project delivery among building professionals in south-south and south-east geopolitical zones of Nigeria.

1. Literature review

1.1 Meaning of procurement in construction projects

Procurement, as defined by the United Nations Environmental Programme (UNEP), refers to the means through which governments and private organizations collaborate to protect the environment and get resources to meet varied demands. Purchases of goods and services are only one aspect of procurement. The procurement process must be prompt, efficient, competitive, open, fair, and productive (UNEP, 2021). Procurement as conceived by the Institute of Public Procurement (NIGP) refers to the function/department/agency that purchases, rents, leases, or otherwise obtains items, services, or construction. It entails defining requirements, identifying and soliciting supply sources, creating and awarding contracts, and managing contracts. The process of purchasing all necessary supplies and labour for constructing a building is referred to as

Procurement. Building new structures require the procurement process for contractors and other stakeholders to be able to efficiently and economically purchase physical assets like land, building materials, labour, and other utilities that are necessary for the execution and completion of the project (Adenuga & Dosumu, 2012).

Culture, governance, management, economics, the environment, politics, and ethics are all considered in the procurement system, as stated by David et al. (2009). Ojo and Aina (2010) assert that selecting the appropriate procurement alternatives is essential for executing a construction project since it not only contributes to the project's success but also takes additional factors into account. Zhyzhneuski (2014) argues that the construction sector is notoriously conservative, adhering to tried-and-true business practices, such as the conventional procurement process. Choosing the best method to oversee the whole construction project execution process may have a significant impact on the final product. For even seasoned buyers, it may be difficult to weigh the pros and cons of each purchase method and make an informed decision (Tookey et al., 2001). Therefore, it is essential to thoroughly examine intricate and constantly changing factors like efficiency, cost certainty, adaptability, responsiveness, flexibility, and other related attributes as part of the procurement selection process (Luu et al., 2003). To speed up construction projects, many procurement procedures have been developed. The need to maximize performance at every stage of a project's execution is at the heart of modern procurement strategies. The requirements of the clients and the contractors involved, in addition to the technical factors, should be considered when choosing a procurement strategy (Alhazmi & McCaffer, 2000). Building project success or failure is significantly influenced by the procurement technique used (Rwelamila et al., 2000). The incorrect selection and application of procurement procedures is one of the main causes of public projects' poor performance when it comes to constructing sustainability.

2.2 Different Types of Procurement Methods Used in the Building Construction Industry in Nigeria

Projects in Nigeria's construction industry use a wide variety of procurement strategies, including but not just contracts, Labour Only, Partnerships, Direct Labour, Joint ventures, and so on (Ogunsanmi, 2012). After the Public Procurement Act (PPA) was implemented in Nigeria's construction industry in 2007, stakeholders expected greater results from construction projects (Ekung et al., 2013). But sadly, as Ojo & Aina (2010) observe, Nigerian customers and advisers do not follow a set process when choosing the method of purchasing for a project; instead, they rely on the strategy they feel most at ease using. Customers' approaches to purchasing reflect the specifics of their companies' operational settings. The procurement method's design process is a prime suspect in the eyes of Ogunsanmi (2012). The execution method is secondary to the executor's integrity, authority, and competence, say Mbamali and Okotie (2012). To improve integration and overall project performance, other procurement strategies have been created locally as well. The employment of management contracts, construction management, teamwork, design, and construction are further tactics (Mbamali & Okotie, 2012). Although contract procurement is widely utilized in Nigeria, traditional and non-traditional forms of purchasing are also widely used, as noted by Babatunde et al. (2012). Their research indicates that the anticipated duration and budget for the project should guide the choice of procurement method. The unorthodox method of purchasing supplies helps guarantee high standards. Although this technique for dividing the design and build stages has been considered, it may not apply to all building endeavours. Because of the risks associated with poor communication and coordination, Mohsini et al (1995) argue that typical procurement techniques are inadequate to address the structural issues faced by the construction sector. According to Rwelamila et al (2000), the traditional approach to construction procurement used in the majority of Sub-Saharan African nations is insufficient for addressing sustainability requirements and construction sustainability. Thus, it is crucial to implement an effective procurement system and to carry out environmental impact analyses prior to any planning or design.

Generally, Procurement method embraces all activities in bringing construction projects in to fulfillment (Ashworth & Hogg, 2007). Selection of procurement method in a way is germane to the success of construction projects. The selection by the client a times is based on his past experience while the client without experience has to rely on professionals' advice. The reason is not farfetched from the complexity in nature of construction projects and uniqueness of each project. While some authors classified procurement methods into two major categories; traditional and alternatives (Davis, Love and Baccarimi; 2008); others classified it to three; traditional (separated and cooperative method), integrated (e.g. Design and build, package deal/turnkey, public private partnership (PPP) etc.) and management oriented (e.g. Management contracting, construction management design and manage) (Alhazmi and McCaffer; 2000). Similarly, Ekung et al (2013) categorised the methods of procurement into three groups: traditional techniques, design-and-build strategies, and management approaches- These three categories are covered one by one in the sections that follow.

Traditional Method of Procurement

The conventional purchasing, according to Ogunsanmi (2012) entails hiring an architect or other consultant before starting a project to handle the project's design, contractors, and client relationships. Every stage, from design to bid to construction, is considered independently interdependent. According to Walker & Rowlinson (2008), the majority of contractors and clients are familiar with traditional procurement techniques, which have frequently turned into industry standards. Traditional procurement, otherwise known as customary procurement or design-bid-build in construction industry, is characterized by a sequential process where design and construction are handled by separate entities, with a clear separation between the design phase and the construction phase. In this arrangement, the client hires a team of design professionals to create the building plans. Afterward, these building plans are put out to tender for construction companies to bid on, the lowest bidder, who is meet the necessary qualifications, is then selected and awarded the building contract (Rudge, 2023). Traditional procurement often utilizes lump sum contracts, where a fixed price is agreed upon for the entire project before construction begins.

Other forms of procurement practices as expounded by Oyedele (2013) include:

1. **Direct Labour Method:** The client bears all risks, is in charge of cash flow management, and is in charge of finding contractors and qualified labour.
2. **Selective bidding Method:** This innovative method for contrasting contractor bids gives the client access to the property's bill of quantities (BOQ). Contractors will not be considered if their bid is 10% higher or 10% lower than the booking price, which is the BOQ contract sum determined by the client (Oyedele, 2013). This procurement method has flaws that affect all construction participants. A classic "conflict agreement" involves litigating claims and enforcing rights. This contradiction could cause the project to overspend and be late without benefiting (Samaraweera, 2013). This strategy increases the project's completion time, diminishes the likelihood of construction experience being incorporated into the design, and increases the disparity between the blueprint and the finished result. Walker and Rowlinson (2008) say that the typical strategy puts all parties in an adversarial position when addressing treaty change challenges. Due to the contractor reporting to the main design consultant and not having direct client contact, typical procurement practices often damage relationships.
3. **Design and Build Method of Procurement (D&B):** D&B is a procurement approach in which a single entity, often a contractor, is responsible for both the design and construction phases of a project. This method is frequently used because it has the ability to streamline project delivery, eliminate conflicts, and increase cost and time efficiency. The Design and Build process dates back to ancient times when master builders were in charge of both design and building. D&B rose to prominence in the construction sector in the late twentieth century as a result of its promise for speedier project completion and cost savings. Several studies emphasize the benefits of D&B, such as early cost certainty, reduced design-bid-build delays,

and the opportunity for project design and construction technique innovation. According to research, D&B can improve communication between the design and construction teams, resulting in better project outcomes (Isa & Anifowoshe, 2023).

4. **Management Contract Method of Procurement:** Solid contracts are required to protect commercial and public supply chains. Every year, public entities manage millions of small and large contracts for important goods and services. Contract administration, which is associated with bureaucracy, disagreements, litigation, and fines for unfulfilled contractual duties, is sometimes overlooked by procurement agencies. Ensuring ethical taxpayer spending and effective public service delivery, public procurement, and supply chain management must be efficient and effective. Due to simplified perspectives, limited procurement labour availability, and contract management administrative issues, many public institutions have been hammered by the perfect storm. They have not always been able to implement public contracting policies and best practices (Patrucco & Diamand, 2023).

Contract management is frequently overlooked and under-resourced in comparison to other supply chain processes. This exposes businesses to the risk of a decline in supply quality and disruption. Contract Administration in the Supply Chain Supply chains are networks of individuals and companies that manufacture and deliver goods and services to customers. The network connections begin with raw material producers and terminate with end consumers who get finished goods and services. Designing and executing administrative and operational methods to manage the entire manufacturing flow for products and services, from raw materials and components to customer delivery, is what supply chain management entails (Bako, 2016). The public sector supply chain is a network of contractors and subcontractors who supply things and services to public entities in order for them to provide services to residents. Supply chain management and procurement management may overlap

2. Materials and Methods

The study employed the cross-sectional survey design. The population of study comprised all staff of registered construction firms in Rivers State, Akwa Ibom State (representing South-South Geo-political zone), Imo State and Abia State (representing South-East Geo-political zone). The population at a mean staff strength of 20 per construction firm, is 15,440. Using the Taro Yamane formula ($n = \frac{N}{1+N(e)^2}$), at 0.05 level of significance, a sample size of 390 was derived. The sample size was distributed in accord with proportional representation. The population frame for the study was sourced from Corporate Affairs Commission, and shown in table 1.

Table 1: Population of study, sample frame and size

S/No.	State	No. of registered construction firms	Mean staff strength	Sample frame	Sample size
1.	Rivers	250	20	5000	126
2.	Akwa Ibom	214		4280	108
3.	Imo	143		2860	72
4.	Abia	165		3300	84
	Total	772		15,440	390

The structured questionnaire was administered to target respondents using random sampling technique. The data collection instrument used was a 4-points Likert-scaled structured questionnaire. The questionnaire was developed using variables that were sourced from the reviewed literature, and was designed into three sections, the first of which was concerned with demographic data of respondents, while the second and third sections elicited responses on major criteria influencing the choice of traditional procurement practices, and the effects of traditional procurement practices on construction project delivery respectively. The questionnaire was administered manually to target respondents. The sampling period lasted for about six weeks,

during which time 370 out of expected 390 responses were elicited, thus indicating a response rate of 94.9% which is appreciably significant for the study.

To ascertain the validity of research instrument, the questionnaire was subjected to scrutiny by two academic experts in the department of quantity surveying, Imo State University, who proofread, made corrections where applicable to enhance the face and content validity of the research instrument. In terms of reliability, the test-retest method was adopted, in which copies of the questionnaire were administered to 10 respondents who were situated outside the study area, but who possess similar characteristics as those selected within the sample. A repeat process was done after three weeks, and then the Data obtained were then analysed using the Pearson Product Moment Correlation. A reliability co-efficient $r = 0.84$ was obtained. Since $0.70 < r = 0.84$, the research instrument was considered reliable.

The data collected from the research-based-questions of sections B and C were measured on the basis of the 4-point Likert scales of Strongly Agree = 4, Agree = 3, Disagree = 2, Strongly Disagree = 1. The data collected were analysed quantitatively using frequency table, simple percentages, the mean, sourced from the statistical product and service solutions (SPSS) v.23. Decision rule for acceptance of Likert scaled items, was based on weighted Mean Score of 3.0. (i.e. $4+3+2+1/4 = 10/4 = 2.5$). While Pearson correlation coefficient was used to test the research hypothesis.

3. Results

Table 2. respondents' gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	220	59.5	59.5	59.5
	Female	150	40.5	40.5	100.0
	Total	370	100.0	100.0	

Table 2 revealed the gender distribution of respondents, indicating that Male were more than Female by 19% in a total response of 370.

Table 3: Respondents' work experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5 years	80	21.6	21.6	21.6
	6-10 years	150	40.5	40.5	62.2
	11-15 years	70	18.9	18.9	81.1
	16-20 years	20	5.4	5.4	86.5
	Above 20 years	50	13.5	13.5	100.0
	Total	370	100.0	100.0	

Table 3 showed the work experience of respondents, indicating that 78% of respondents have at least 6-10 years' work experience, thus indicating that they were knowledgeable enough to provide reliable information required to make valid inference in the study.

Table 4: Respondents' official designation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Project Director	30	8.1	8.1	8.1
	Procurement officer	100	27.0	27.0	35.1
	Project consultant	70	18.9	18.9	54.1
	Construction engineer	140	37.8	37.8	91.9
	Others	30	8.1	8.1	100.0
	Total	370	100.0	100.0	

Table 4 i

Table 5: Respondents' specialty of construction project

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Office buildings	40	10.8	10.8	10.8
	Residential buildings	60	16.2	16.2	27.0
	Industrial buildings	80	21.6	21.6	48.6
	Civil engineering projects	80	21.6	21.6	70.3
	General construction contracts	110	29.7	29.7	100.0
	Total	370	100.0	100.0	

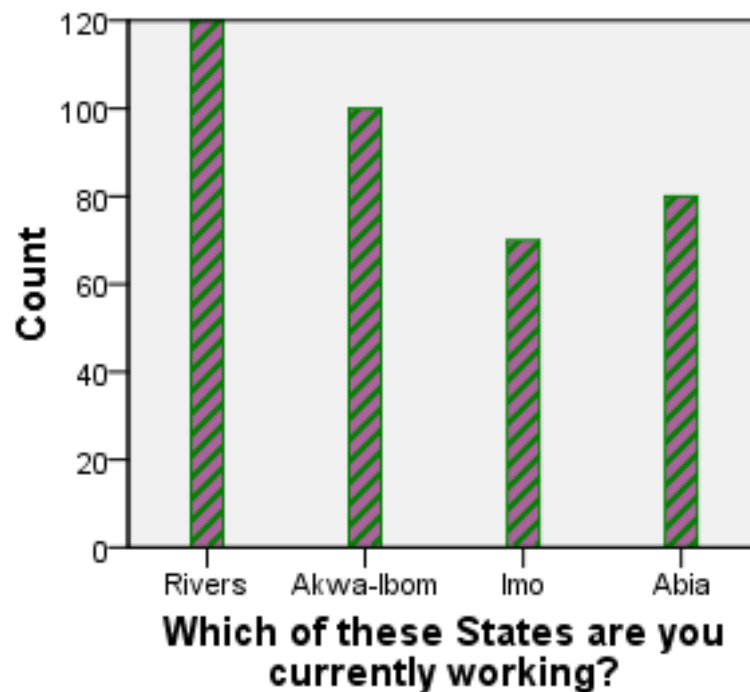


Figure 1: chart showing the frequency counts of responses by selected States

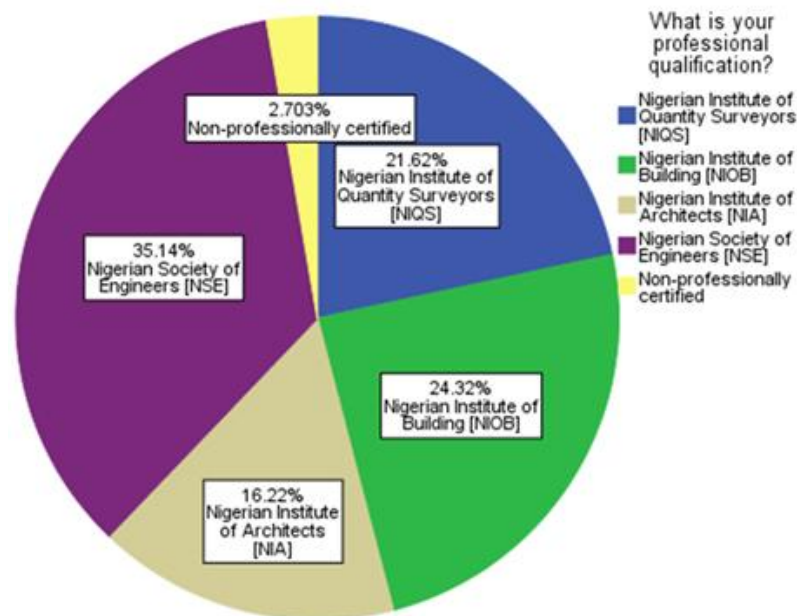


Figure 2: Pie Chart showing percentage composition of respondents' professional qualification

Factors Influencing the Choice of Traditional Procurement

Table 6: Factors influencing the choice of traditional procurement

S/No.	ITEMS	SD 1	D 2	A 3	SA 4	SUM Σ	WMS $\bar{X}$ [$\Sigma/n=370$]	Decision Accept if $\bar{X} \geq 2.5$
1.	Availability of sound financial base (SFB)	0	20	540	720	1280	3.46	Accepted
2.	The desire to promote quality assurance (QA)	0	0	660	600	1260	3.41	Accepted
3.	The complexity of the project requiring specialized skill and expertise (CP)	10	80	570	520	1180	3.19	Accepted
4.	Availability of experienced contractors (EC)	10	100	630	400	1140	3.08	Accepted
5.	The desire to promote Public accountability (PA)	0	160	570	400	1130	3.05	Accepted
6.	The need to comply with Regulatory requirements (CRR)	10	140	570	400	1120	3.03	Accepted
7.	The need for price certainty and cost control (PCCC)	30	200	360	480	1070	2.89	Accepted
8.	The desire to complete project within stipulated time schedule (TS)	40	200	450	320	1010	2.73	Accepted
9.	The level of risk aversion (LRA)	0	320	480	200	1000	2.70	Accepted
10.	The need for flexibility to accommodate changes in project design (FAC)	60	300	300	240	900	2.43	Rejected

Source: Authors' Field work, 2025

The data in Table 6 presents factors influencing the choice of traditional procurement methods, with responses from 370 participants. The factors are evaluated using a weighted mean score (WMS) and an average mean score ($\bar{X}$), with a threshold of $\bar{X} \geq 2.5$ for acceptance. Key findings include that the most influential factors for choosing traditional procurement are the availability of a sound financial base (SFB) ($\bar{X} = 3.46$) and the desire to promote quality assurance (QA) ($\bar{X} = 3.41$), both of which were strongly accepted. Other significant factors include project complexity (CP), availability of experienced contractors (EC), and the desire to promote public accountability (PA), all with $\bar{X}$ values above 3.0, indicating a positive influence on procurement decisions. However, flexibility to accommodate changes in project design (FAC) had the lowest WMS (2.43), leading to its rejection. This suggests that the traditional procurement method may be less flexible in responding to design changes, which may hinder its use in projects requiring adaptability.

The data analysis of factors influencing the choice of traditional procurement in construction aligns with several existing studies. First, availability of a sound financial base (SFB) emerged as a critical factor, which is supported by Olanike et al. (2020), who emphasized the importance of financial resources in decision-making for procurement methods in Nigeria. Financial stability ensures that projects can be completed within budget and without delays, making it a central factor in choosing traditional procurement. Second, the desire to promote quality assurance (QA) aligns with studies by Babatunde et al. (2010), who noted that traditional procurement is often selected for its capacity to guarantee quality, as it allows clients to have significant control over design and contractor selection. This assures the delivery of high-quality outputs. Third, project complexity (CP) influences the choice of procurement, as seen in Ogunsanmi et al. (2012), who noted that more complex projects with specialized requirements often lead to the selection of traditional procurement, as it ensures proper design before construction begins. Lastly, the need for price certainty and cost control (PCCC) resonates with Lamour (2011), who argued that traditional procurement is favored for projects requiring fixed cost certainty, as the design phase is completed before tendering, minimizing cost variations.

Challenges of Traditional Procurement Practices

Table 7: Challenges of Traditional Procurement Practices

S/No.	ITEMS	SD 1	D 2	A 3	SA 4	SUM Σ	WMS $\bar{X}$ [$\Sigma/n=370$]	Decision Accept if $\bar{X} \geq 2.5$
11.	Time/schedule overrun due to rigorous bidding and documentations processes (TSO).	0	40	570	640	1250	3.38	Accepted
12.	Cost overruns due to change orders and variations (CO).	0	60	750	360	1170	3.16	Accepted
13.	Limited collaboration between contractors and designers, which kills opportunities for value engineering and cost-saving (LC).	20	60	570	520	1170	3.16	Accepted
14.	Limited scope for innovation and creativity due to fixated design before bid and build process. (LSIC).	0	60	780	320	1160	3.14	Accepted

15.	Disputes and conflicts due to cost and time/schedule overruns (DC)	20	80	660	360	1120	3.03	Accepted
16.	Design risk are usually borne by the client (DR)	20	240	540	200	1000	2.70	Accepted

Source: Authors' Field Work, 2025

The data in Table 7 highlights several challenges associated with traditional procurement practices, with each factor evaluated based on its weighted mean score (WMS) and average mean score ($\bar{X}$). The challenges with the highest influence on project outcomes include time/schedule overruns due to rigorous bidding and documentation processes (TSO) ($\bar{X} = 3.38$) and cost overruns due to change orders and variations (CO) ($\bar{X} = 3.16$), both of which are significant issues in traditional procurement. Other major challenges include limited collaboration between contractors and designers (LC) ($\bar{X} = 3.16$) and limited scope for innovation and creativity due to fixated design before the bidding process (LSIC) ($\bar{X} = 3.14$), both of which reduce the potential for cost savings and project flexibility. Disputes and conflicts due to cost and time overruns (DC) ($\bar{X} = 3.03$) further complicate project delivery. Lastly, the design risk being borne by the client (DR) ($\bar{X} = 2.70$) suggests that clients face substantial financial exposure. Despite these challenges, all factors have been accepted due to their significant impact on construction project performance.

The analysis of the challenges in traditional procurement practices, as outlined in Table 7, is supported by several existing studies. First, time and schedule overruns due to the rigorous bidding process is a common issue. Ogunsanmi et al. (2012) highlighted that traditional procurement often leads to delays because of extended bidding and documentation phases. This delay impacts the overall schedule and may result in project completion beyond the planned time frame. Second, **cost overruns** due to change orders and variations are frequent in traditional procurement. Lamour (2011) discussed how the rigid design-bid-build process often leads to unforeseen changes during the construction phase, resulting in increased costs. The lack of flexibility in responding to changes contributes to cost escalations. Third, limited collaboration between contractors and designers is another challenge. Babatunde et al. (2010) noted that traditional procurement often isolates designers from contractors, leading to poor communication and missed opportunities for innovation, ultimately affecting project quality and cost-efficiency. Lastly, disputes and conflicts resulting from time and cost overruns are significant in traditional procurement. Shehu (2021) emphasized that traditional procurement increases the potential for disputes, especially when timelines and budgets are not met, straining relationships between clients, contractors, and designers.

Effects of Traditional Procurement Practices on construction project delivery

Table 8: Effects of Traditional Procurement Practices on construction project delivery

S/No.	ITEMS	SD 1	D 2	A 3	SA 4	SUM Σ	WMS $\bar{X}$ [$\Sigma/n=370$]	Decision Accept if $\bar{X} \geq 2.5$
17.	Traditional procurement practices promotes better quality management of construction project (BQM).	0	40	630	560	1230	3.32	Accepted
18.	Traditional procurement practices helps to boost productivity and efficiency through effective	0	60	660	480	1200	3.24	Accepted

	utilization of productive resources (BPE).							
19.	Traditional procurement practices guarantee client/end-user satisfaction (CES)	0	40	750	400	1190	3.22	Accepted
20.	Traditional procurement practices Minimizes waste of resources through effective cost management and control (MWR).	0	60	720	400	1180	3.19	Accepted
21.	Traditional procurement practices ensures that projects are delivered on time through effective schedule management (ESM).	10	120	570	440	1140	3.08	Accepted
22.	Traditional procurement practices ensures aversion of risks and contractor defaults (ARCD).	10	140	690	240	1080	2.92	Accepted

Source: Authors' Field Work, 2025

The data in Table 8 presents the effects of traditional procurement practices on construction project delivery, based on weighted mean scores (WMS) and average mean scores ($\bar{X}$). The findings suggest that traditional procurement positively impacts several key aspects of project performance.

The most significant effect is on quality management (BQM) ($\bar{X} = 3.32$), indicating that traditional procurement enhances the quality of construction projects by allowing for a structured and well-defined design and construction process. Additionally, boosting productivity and efficiency (BPE) ($\bar{X} = 3.24$) is another benefit, as the process encourages the effective use of resources. Client/end-user satisfaction (CES) ($\bar{X} = 3.22$) is also positively influenced, indicating that traditional procurement leads to projects that meet client expectations. Furthermore, traditional procurement minimizes waste of resources (MWR) ($\bar{X} = 3.19$) through better cost management. While the procurement method helps with on-time project delivery (ESM) ($\bar{X} = 3.08$), it is less effective in managing risks and contractor defaults (ARCD) ($\bar{X} = 2.92$), suggesting room for improvement in these areas. All effects are accepted due to their significant impact on project success.

The analysis of the effects of traditional procurement practices on construction project delivery, as outlined in Table 8, is supported by existing studies that emphasize similar outcomes. First, quality management (BQM) aligns with the findings of Babatunde et al. (2010), who highlighted that traditional procurement methods provide better control over project quality, as the design phase is completed before construction begins, ensuring quality standards are established upfront. Second, the boost in productivity and efficiency (BPE) is consistent with Ogunsanmi et al. (2012), who argued that traditional procurement ensures efficient resource allocation through clear project stages. This structured process enhances productivity by maintaining focus on each phase. Third, client satisfaction (CES) in traditional procurement corresponds with the observations of Lamour (2011), who found that clients are more satisfied with traditional procurement due to the clarity of costs, schedules, and roles, leading to expectations being met more reliably.

Additionally, the minimization of resource waste (MWR) through cost management is supported by the research of Shehu (2021), who found that traditional procurement methods often lead to

more accurate budgeting and cost controls, which reduce waste. While traditional procurement promotes on-time delivery and minimizes risks, the need for improvement in risk management and contractor defaults aligns with the challenges identified by Babatunde et al. (2010), emphasizing that risks are not always well mitigated in traditional procurement.

Conclusion and Recommendations

In conclusion, this study provides a comprehensive analysis of the traditional procurement practices in the Nigerian construction industry and their impact on project delivery. The findings suggest that traditional procurement continues to be a dominant method in the industry due to its perceived benefits, despite the challenges it presents.

One of the key strengths of traditional procurement is its ability to promote better quality management, enhance productivity and efficiency, and ensure client satisfaction. The structured and sequential nature of traditional procurement, which involves completing the design phase before construction, allows for clear project specifications and cost estimates. This often results in better control over the project's quality, resource allocation, and alignment with client expectations. Furthermore, the method's ability to minimize resource wastage through effective cost management makes it an attractive option for many clients and contractors.

However, the study also identified several significant challenges that hinder the effectiveness of traditional procurement. Time and schedule overruns, primarily due to the rigorous bidding and documentation processes, and cost overruns caused by changes in the design or scope, were found to be prevalent in many projects. Additionally, the limited collaboration between contractors and designers reduces opportunities for innovation and cost savings. Furthermore, disputes and conflicts arising from these time and cost challenges continue to affect project outcomes.

Despite these challenges, traditional procurement practices are still widely accepted, particularly for projects where quality assurance, budget certainty, and schedule control are prioritized. However, the study suggests that improvements in flexibility, risk management, and collaboration could enhance the effectiveness of traditional procurement, addressing the limitations that currently impact its successful implementation. In addition to addressing the limitations of traditional procurement, several suggestions can help enhance the overall effectiveness of construction project delivery.

1. **Incorporation of Early Contractor Involvement (ECI):** To mitigate issues such as time and cost overruns, it is essential to involve contractors earlier in the design phase. Early Contractor Involvement (ECI) allows for better collaboration between designers and contractors, addressing potential design flaws or construction challenges early on, which can help reduce changes during the execution phase and minimize cost overruns.
2. **Adoption of Technology:** Embracing technology such as Building Information Modeling (BIM) can greatly improve project management in traditional procurement. BIM enables better visualization of the project, streamlines communication among stakeholders, and allows for early detection of design errors, reducing delays and improving quality control. Implementing project management software can also help with monitoring timelines, budgets, and resource allocation, further improving project efficiency.
3. **Enhancing Collaboration through Integrated Project Delivery (IPD):** While traditional procurement relies on a clear division between design and construction, Integrated Project Delivery (IPD) could foster closer collaboration. IPD involves all key stakeholders—clients, designers, and contractors—working together from the start, which can lead to faster decision-making, fewer disputes, and a more efficient project process.
4. **Risk Management and Flexibility:** To address the issue of risk allocation, a more comprehensive risk management framework should be integrated into traditional procurement contracts. By identifying risks early in the design phase and agreeing on proper mitigation

strategies, both clients and contractors can avoid common pitfalls such as cost overruns or delays due to unforeseen circumstances.

5. **Training and Capacity Building:** There is a need for continuous training for professionals involved in procurement processes to improve their understanding of emerging best practices and procurement methods. Building the capacity of all stakeholders ensures better decision-making and strengthens the overall procurement process.

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