

Public Procurement Act and Project Time Outcomes in Nigeria

¹Oladiran, Olatunji Joseph & ²Oche, O. Mathias.

^{1, 2}. Department of Building, University of Lagos, Nigeria.

✉: ooladiran@unilag.edu.ng; + (234) 8035613467

Received: 23.04.2024

Revised: 09.06.2024

Accepted: 09.07.2024

Published: 21.09.2024

Abstract:

The Public Procurement Act (PPA) 2007 established the Bureau of Public Procurement to regulate and monitor the public procurement process to successfully deliver projects in Nigeria. The enactment of the Act has not produced the desired intentions due to a number of factors. The aim of this study was to investigate the operation of the PPA with a view to enhance project outcomes in the Nigerian construction sector. The specific objectives were to find out the level of awareness and compliance with the Act in Nigeria; and to establish the relationship between PPA and the time outcome of construction projects. Descriptive survey research was adopted to carry out this study. The population of the study comprised construction professionals in Lagos, Nigeria. Questionnaires were administered to 150 construction professionals selected by purposive sampling technique in the study area. Frequency, percentage, mean score (MS) and standard deviation (STD) were used to analyze the data. The findings revealed moderate awareness and compliance with the Act in Lagos State. The study concludes that although there is moderate awareness and compliance with the PPA, the goals of enactment of the PPA have not been fully realized due to poor project outcomes in terms of time. The implication is that the Act should be revisited to ensure that the provisions and means of enforcement are adequate to realize the goals. It is recommended that continuous awareness of the PPA should still be encouraged to enhance project outcomes. This can be done by adequate publicity of the Act among professionals. Additionally, the government should enforce compliance of the Act in organizations that do not comply. This can be done by scrutinizing contractors' tender documents to ensure the inclusion of the provisions of the PPA.

Keywords: Awareness, Bureau of Public Procurement, Compliance, Public Procurement Act, Regulation, Nigeria.

I. INTRODUCTION

Construction projects are complex in nature and consume huge resources in terms of time, materials and so on. Kerzner [1] posits that the process could also be complicated, which could affect the outcome of projects if not properly or duly managed, resulting in time overruns and many other undesirable consequences. Khario *et. al.* [2] opine that early and accurate determination of project completion time is crucial for project success. The emergence of the PPA is to bring sanity to the procurement process of public projects for good outcomes. Public projects are fraught with, among other things time overrun and project abandonments as well as poor quality. Roshana and Akintola [3] point out that the uniqueness of construction projects notwithstanding, the timely delivery of construction projects over time has become a determinant of the relevance of any construction project. In this regard, Owusu and Aggrey [4] posit underestimation of project time as a cause of project failure. Anbari [5] state that the timely delivery of a project refers to the contractor's ability to deliver the key objectives of a construction project without

exceeding the set project duration. Elinwa and Joshua [6] identified one of the indicators that are directed to achieving a good performance in a project as timely delivery. Timely delivery of projects has become highly imperative and cannot be undermined in the successful delivery of construction projects. Assaf and Al-Hejji [7] asserted that time among other factors, is significant to achieving the objectives/goals expected of construction projects. Therefore, the construction sector cannot overemphasize the imperative of delivering construction projects within the stipulated time.

According to Achilike and Akuwudike [8], it is crucial to keep up a proper balance in time in construction for project outputs to be realized on time and within the financial plan [9]. A shortfall in this regard would succinctly result in a project suffering undue time extensions and /or additional cost to the client as evidenced in the Nigeria construction sector. The Bureau of Public Procurement was established in Nigeria in 2007 with the goal of curbing undesirable outcomes of construction projects. Some of these functions include formulating general policies and guidelines related to public sector procurement for the Council's approval; explaining the provisions of this Act to the public; certifying Federal

procurement prior to contract award; supervising the application of set procurement policies; and keeping a national database of standard prices; publish the procurement journal's significant contract details; publish the journal's paper and electronic versions; and keep the procurement journal's archiving system up to date; compile and preserve in an archival system all government procurement plans and information; maintain a nationwide database containing the specifics and classification and categorization of federal contractors and service providers; conduct surveys and research on procurement; set up professional development programs for procurement experts; analyze the socioeconomic impact of policies on procurement on a regular basis and advise the Council accordingly; create and maintain standard contract and bidding documents; prevent dishonest and unfair procurement practices and, if required, impose administrative sanctions; examine the procedures for awarding contracts and procurement by all entities covered by this Act; conduct procurement audits and report findings to the National Assembly every two years; establish, develop, update, and maintain relevant databases and technology; create a single online portal that will, in accordance with Section 16(21) of this Act, function as the principal and definitive source of all information on government procurement, encompassing and showcasing all public sector procurement data continuously; and organize pertinent training initiatives to strengthen institutional capability. Given these purposes, the goal of this study is to examine how the PPA operates and how it relates to the timely completion of building projects. The specific objectives are to find out the level of awareness and compliance with the Act in Nigeria; and to establish the relationship between PPA and time outcome of construction projects. The significance of this study lies in the enhancement of construction project outcomes.

II. LITERATURE REVIEW

Time is one of the key project performance parameters [2]. It has been opined that construction project completion time connotes determining the timing and sequence of project activities. Therefore, implementing the construction process towards the completion time set becomes highly imperative in projects [9]. Completion time is crucial in construction project delivery and cannot be undermined, as it gives an overall sense of the expected progress of a project while eradicating delays in project implementation [4]. There are diverse issues that could influence the completion time of a construction project such that the project gets completed successfully void of time overruns. Owusu and Aggrey [4] sheds light that one of the effects of project delay is time overrun. The study also suggested project management principles, effective planning and scheduling, qualified staff, skill and experience, change order management and delay rectification as measures to curb

project delays. A principal means for minimizing the adverse effects of construction delays in Nigeria is to improve site activities and management procedures by including an appropriate contingency allowance in the pre-contract estimate. Similarly, Ademola *et al.* [9].found out that project time performance rest mainly on effective planning and scheduling. Koushki *et al.* [10] revealed three main causes of time overruns: changing orders, owner's financial constraints and lack of experience. Dlakwa and Culpin [11] described the causes of time overruns in Nigerian public sector construction projects, including untimely interim payments to contractors, organizational flaws in the contractors, inadequate planning and scheduling, inflated tenders from the contractors, unreasonably long contract periods imposed by the client, extra work, unforeseen social or natural events, inadequate site inspectors, and a lack of qualified personnel. In this regard, Mansfield *et al.* [12] determined that inadequate contract management, changes in site circumstances, unavailability of materials, and finance and payment for completed works were the four main causes of delays and cost overruns in Nigerian construction projects. Price changes and imprecise project estimation were among the other reasons that were found.

Robinson and Ofoegbu [13] also revealed that extra cost claims, professional negligence labour and material cost escalation are among causes of project delays. Similarly, Nwachukwu [14] shows that material procurement delays have a detrimental effect on the construction schedule as well, which leads to the failure of timely project delivery.

Public Procurement Act (PPA) [15] defined procurement as 'Initiation of the process of effecting procurement up to award of a procurement contract'. Suggesting that procurement is initiated by devising a strategy, which entails benefits and risks constraints that attend a project and will eventually be reflected in the choice of contractual arrangements. According to the World Bank [16], governments and other organizations that receive public funding use the public procurement process to get the supplies, labor, and services required to carry out public initiatives. In African nations, it makes up much more of the GDP, with at least 15% of the global GDP coming from it. Aqua Group [17] argued that the client's concerns would be centered on project delivery time, cost, and performance or quality. The term "procurement" has been given several definitions and interpretations, and many organizations have given it varied connotations. On the other hand, procurement is described as the part of business management that guarantees the identification, sourcing, access, and administration of external resources that a company requires or might require in order to achieve its strategic goals. Kidd [18] seems to incorporate the various functions, processes and steps involved in the acquisition of goods, works or services.

Moreover, Olayiwola and Oyegoke [19] identified that the procurement method is a complex process which identifies needs, defines and refines user requirements, ascertains the budget available, finds out what the market can provide, decides the best procurement method, design the tender, tender exercise, contract award, contract management/review and closure. The procurement method can be as simple as choosing to award a contract directly (single source) or as complex as a multi-stage process that includes solicitation, prequalification, and information collection. Subprocesses like acquisition, purchasing, logistics, monitoring, quality assurance, and contract administration are frequently included in procurement methods. Every action must follow the necessary guidelines and be carried out in accordance with the fairness and transparency principles of procurement. In order to ensure fairness, all qualified suppliers should be given equal opportunities to participate in tenders; in order to ensure transparency, all procedural steps—including the method and standards used to award the contract—should be founded on transparent, foreseeable, written procedures.

According to Olayiwola and Oyegoke [19], the procurement method enables the procurer understands and identify what is available on the market and whether alternative solutions are available, while procurers are sensitive to the issues of transparency and fairness, engagement with the market prior to tendering can be carried out if it takes place in a structured and open manner

PPA was enacted on 4th June 2007 as a law creating the National Council on Public Procurement and the Bureau of Public Procurement as the regulatory bodies in charge of overseeing and monitoring public procurement, regulating it, establishing standards, and developing the legal framework and professional capacity for public procurement in Nigeria in order to harmonize current government policies and practices, and other related matters. The PPA aims to achieve the following: pricing standards and benchmarks; application of fair, competitive, transparent standards and practices for the procurement and disposal of public assets and services; harmonization of current government policies and practices on public procurement and the assurance of probity, accountability, and transparency in the procurement process; and the achievement of transparency, competitiveness, cost-effectiveness, and professionalism in the public sector procurement system. The pursuit of these objectives is to, among several things to, achieve procurement of construction projects as scheduled to curb time overruns of projects. According to the Public and Private Development Centre (PPDC) [20], there are observable universal standards that regulate the public procurement process internationally. These include, but are not limited to, the following: economy, openness, accountability, sustainability, equality,

competitiveness, equitable treatment, dependability, public oversight, suitable circumstances, efficiency, responsibility, and moral standards, separation of roles

Odediran *et al.* [21] posit that the impact of PPA is becoming increasingly popular in construction project delivery in Nigeria. Tunji-Olayeni *et al.* [22] opine that the impact in practice identifies the best way to achieve project objectives and, as such, seems inevitably related to project performance. Ibrahim [23] sheds light on procurement acts are currently embraced and used for construction projects in Nigeria. Dada [24] posits that there are inherent benefits of the adoption of procurement acts, one of which revolves around forestalling project failure and creating a platform for the successful construction of a project. Love *et al.* [25] opined that the choice of appropriate construction procurement practices has the benefit of reducing project costs by an average of 5%, reducing to the barest minimum issues of overruns or failure in the project. According to Adegite [26], adopting procurement acts, apart from significantly and majorly influencing the delivery of projects, has been designed to provide solutions to specific project needs and conditions aimed at the successful delivery of projects rather than project abandonment or failure.

Additionally, Gikonyo [27] emphasized that with procurement practices, achieving the optimum balance of risk, control and funding for a project becomes easy and attainable, A project is an endeavor that involves various risks. The benefits inherent in adopting procurement acts are such that they cannot be ignored in actualizing construction projects. As a result, Nwokoro and Onukwube [28] pointed out that since construction projects of whatever sort are capital intensive, employing procurement practices will hence benefit the construction projects to a large extent, promote construction project delivery without overruns and create an opportunity further to expand construction services in Nigeria as a country.

III. RESEARCH METHOD

A cross-sectional survey research design was used for the study. The study population comprised construction professionals in Lagos State. Sampling techniques are those methods used in choosing the elements that represent a subject from a defined population in such a way that bias is avoided. A purposive sampling technique was used to select a sample of 150 professionals. A structured questionnaire was administered to elicit information from the targeted respondents. The questionnaire was divided into four sections. Section A comprises the demographic information, while the other sections contain items on the variables of the stated objectives. Section B investigates the level of awareness of PPA, measured on a 5- 5-point Likert scale,; not at all aware,

slightly aware, somewhat aware, moderately aware and extremely aware. Section C evaluates the level of compliance with PPA using: no compliance, very low compliance, low compliance, moderate compliance and full compliance. Section D evaluate the relationship between the PPA and timely delivery of construction projects using: not significant, slightly significant, moderately significant, very significant and exceedingly significant. A total of 150 copies of

IV. FINDINGS AND DISCUSSIONS

A. Demographic Information

Table 1 shows the respondents' demographic information and their organizations that participated in the study. The Table shows that 9.8% were Architects, 2.9% were Builders, 67.6% were Civil Engineers, 1% were Electrical Engineers, 5.9% were Mechanical Engineers, and 9.8% were Quantity Surveyors. Moreover, 8.8% of the respondents hold an Ordinary National Diploma (OND), 28.4% hold a Higher National Diploma (HND) degree, 50% hold a Bachelors degree, and 12.7% hold a Masters degree. Furthermore, 14.7% of the respondents had 1-5 years of work experience, 34.3% had 6-10 years and 51% had over 10 years. Moreover, 11.8% of the organizations were consulting, and 88.2% were contracting. Finally, 2% of organizations had less than 7 staff, 11.8% had between 8 – 14 staff, and 86.3% had more than 14 staff.

TABLE I
DEMOGRAPHIC RESULT

Description	Frequency	%
Professional Background		
Architecture	10	9.8
Building	3	2.9
Civil Engineering	69	67.6
Electrical Engineering	1	1.0
Mechanical Engineering	6	5.9
Quantity Surveying	10	9.8
Total	99	100.0
Highest Academic Qualification		
OND	9	8.8
HND	29	28.4
Bachelors	51	50.0
Masters	13	12.7
Total	102	100.0
Years of Experience		
1-5 Years	15	14.7
6-10 Years	35	34.3
Above 10 Years	52	51.0
Total	102	100.0
Nature of Organization		
Consulting	12	11.8
Contracting	90	88.2
Total	102	100.0
Organization Staff Strength		
Less than 7	2	2
8- 14	12	11.8
Above 14	88	86.3
Total	102	100.0

questionnaires each were distributed to the respondents, and 102 were duly completed and retrieved, representing 68% response rates. Data obtained from administering the questionnaires were analyzed with the aid of Statistical Package for the Social Sciences (SPSS) version 23.0. Frequency tables, percentages, mean score, standard deviation and chi-square were used as statistical tools for analyses.

B. Awareness of PPA among Construction Professionals

Fifteen provisions of the PPA used in carrying out construction projects were identified from previous studies.

The awareness of each provision was measured and the mean scores are presented in Table 2.

Table 2 reveals that the professionals are aware of all the provisions of PPA with the mean scores ranging between 4 (moderately aware) to 4.86 (extremely aware). The most aware provisions include engagement of sub-contractor/supplier (4.86), period of issuance of certificate of "no objection to contract award" from Bureau of Public Procurement (BPP) for capital project (4.48) and values of projects for which certificate of "No Objection" is obtained from Bureau of Public Procurement (BPP) (4.43). The main contractors usually hire the subcontractors to perform specific tasks as part of the overall project construction. It is therefore deduced that there is awareness of the subcontractors' engagement regarding the implementation of construction projects and as apportioned by the main contractors. The subcontractors, therefore, are paid based on the construction work contracted to them. Subcontractors, as such, provide specialized expertise to construction projects

Moreover, capital projects are not usually awarded to contractors without the issue of the "no objection to contract award" by the Bureau of Public Procurement (BPP). The "no objection to contract award" issue certifies that the contractors are fit to be awarded the capital project for execution without any reservation. Additionally, the values of projects for which a "No Objection" certificate is often determined by the Bureau of Public Procurement (BPP) are often determined. The essential of this is to fulfil the objective of the procurement system, to successfully procure and/or implement construction projects on the best possible terms. This arrangement, as it were, ensures that value for money and efficiency is fostered.

On the other hand, the least ranked provisions include the basis of the award of contract for construction projects (4.06), the person responsible for the final selection of winning tender (4.01) and powers of the tenders' board (4.00). The award of construction projects has definite procedures and there are always basis considered before contracts can be awarded to

contractors who bid for projects. In other words, there are classified bases that are known to justify the award of contracts for construction projects. The basis of the contract award for construction projects is an important element that helps identify contractors with the needed expertise among several other contractors bidding for projects. It allows for bidding by interested contractors for construction contracts and assesses contractors based on definite criteria. This could revolve around reputation, management capability, past performance, health and safety. There are also persons/boards responsible for the final selection of winning tender, who oversee the selection process with the objective of selecting the right contractor fit to execute the construction project, thereby recording performance in terms of time, cost and quality.

TABLE II
AWARENESS OF PPA AMONG PROFESSIONALS

	N	1	2	3	4	5	TS	StD	MS	RK
Engagement of sub-contractors/suppliers for specific works/components	102	-	-	1	12	89	496	0.373	4.86	1
Period of issuance of certificate of "No Objection to Contract Award" from Bureau of Public Procurement (BPP) for capital project	102	-	1	4	42	55	457	0.625	4.48	2
Values of project for which certificate of "No Objection" is obtained from Bureau of Public Procurement (BPP)	102	-	-	3	52	47	452	0.554	4.43	3
Mode of bidding/tendering for construction projects	102	-	-	7	50	45	446	0.612	4.37	4
Margins of mobilization granted to contractors	102	-	1	9	51	41	438	0.669	4.29	5
Basis for granting mobilization to contractors	102	-	4	9	45	44	435	0.783	4.26	6
Content of procurement contracts	102	-	2	11	50	39	432	0.72	4.24	7
Provision on primary form of dispute resolution	102	1	-	15	46	40	430	0.766	4.22	8
Time allowed for bidding before award of contracts	102	1	3	12	46	40	427	0.829	4.19	9
Currency for expressing the values in the procurement	102	4	-	11	51	36	421	0.897	4.13	10
Process applicable to bid excluded from evaluation	102	1	1	17	49	34	420	0.787	4.12	11
Minimum number of bids to be received before award	102	4	1	16	44	37	415	0.957	4.07	12
Basis of award of contract for construction projects	102	-	5	19	43	35	414	0.854	4.06	13
Person responsible for final selection of winning tender	102	2	6	17	41	36	409	0.97	4.01	14
Powers of the tenders' board	102	3	3	19	43	34	408	0.954	4.00	15

C. Compliance with PPA by Construction Professionals

Compliance with the provisions of PPA by the construction professionals was measured and the mean scores are presented in Table 3.

TABLE III
COMPLIANCE WITH PPA BY PROFESSIONALS

Provisions of Procurement Act	N	1	2	3	4	5	TS	StD	MS	RK
Engagement of sub-contractors/suppliers for specific works/components	102	-	-	-	14	88	496	0.346	4.86	1
Period of issuance of certificate of "No Objection to Contract Award" from Bureau of Public Procurement (BPP) for capital project	102	-	-	3	44	55	460	0.558	4.51	2
Values of project for which certificate of "No Objection" is obtained from Bureau of Public Procurement (BPP)	102	-	-	2	55	45	451	0.535	4.42	3
Currency for expressing the values in the procurement	102	1	-	9	42	50	446	0.73	4.37	4
Basis for granting mobilization to contractors	102	-	-	4	64	34	438	0.537	4.29	5
Provision on primary form of dispute resolution	102	1	-	8	52	41	438	0.698	4.29	5
Margins of mobilization granted to a contractor	102	-	-	5	63	34	437	0.552	4.28	7
Minimum number of bids to be received before award	102	1	2	9	52	38	430	0.766	4.22	8

Powers of the tenders' board	102	3	13	-	42	44	430	0.886	4.22	8
Mode of bidding/tendering for construction projects	102	-	9	4	47	42	428	0.879	4.20	10
Time allowed for bidding before award of contract	102	-	-	10	62	30	428	0.598	4.20	10
Content of procurement contract	102	3	2	11	43	43	427	0.92	4.19	12
Person responsible for final selection of winning tender	102	-	2	11	57	32	425	0.691	4.17	13
Basis of award of contract for construction projects	102	-	5	9	56	32	421	0.767	4.13	14
Process applicable to bid excluded from evaluation	102	2	2	11	63	24	411	0.777	4.03	15

Table 3 sheds light on the professionals' compliance with the provisions of PPA, with the mean scores ranging between 4.03 (moderately compliance) to 4.86 (full compliance). Topmost compliance was recorded in engagement of sub-contractors/suppliers (4.86), period of issuance of certificate of "no objection to contract award" from BPP for capital projects (4.51) and values of projects for which certificate of "No Objection" is obtained from BPP (4.42). The sub-contractors/suppliers are key project participants with peculiarity to procurement and are always considered in apportioning construction works. As contractors are awarded capital projects, the subcontractors' services are engaged in the procurement and/or construction of projects. Decisions reached in selecting sub-contractors as such always have attention to be on different criteria, such as price quoted for construction projects, inclusive of other considerations such as contractor's competence, financial capability, technical competence and more. The criteria which sub-contractors get selected for construction projects cannot be underestimated and is most essential in driving the success of construction projects, having a significant effect on project performance in terms of time, cost and quality. The issue of "No Objection to contract award" and the values of projects for which certificates of "No Objection" are obtained from BPP are usually complied with. The decision on who should be awarded construction project contract is made according to the prequalification criteria, in line with the sub-contractor's attributes related to construction project implementation. Therefore, this functions as a yardstick for measuring the extent to which the project provides value for money, meets defined needs, expectations, aspirations, and accommodates safety. The decision-makers in the award of construction contracts, therefore, are subjective in the selection of the main contractors, which directly affects the selection process of the subcontractors and suppliers, for the client to get value for money. Important criteria are usually considered for completing projects within time, cost and quality standards. The contractor selection process, as such streamlined towards reducing project risk, maximizing the quality and maintaining strong relationships between project parties. The same concept is applied to the sub-contractor selection process. Sourani and Sohail [29] opined that there is inconsistency in adhering to the procurement act with many factors affecting the use of the procurement acts, such as the reluctance to incur cost in

following due process as required, low-level understanding, non-availability of information, and insufficient/inconsistent policies/regulation, affecting the extent of adhering to the procurement process.

However, the least ranked provisions include the person responsible for the final selection of the winning tender (4.17), the basis of the award of contract for construction projects (4.13) and the process applicable to bid excluded from the evaluation (4.03). Tendering practices are important elements of the construction project linked to identifying the right contracts among several bidding for projects. Tendering practices as an approach to selecting contractors who bid for a proposed project, therefore, forms the major basis of the award of contracts for construction projects in the state that is always complied with. This... allows for bidding by interested contractors for construction contracts and assesses contractors based on identified criteria. More so, there are always people appointed to give a final decision on the final selection of winning tender and necessary processes are adhered to.

D. Relationship between PPA and Timely Delivery of Projects

The relationship between the PPA and the time outcome of construction projects was investigated by examining the significance of 14 hypothesized PPA's attributes on the timely delivery of projects. The mean scores are presented in Table 4. Table 4 sheds light that there is a significant relationship between PPA and timely delivery of construction projects the mean scores range between 4.18 (very significant) to 4.68 (exceedingly significant). The topmost significant attributes include driving timely delivery of construction projects (4.68), transparency and equity of procurement process (4.41), and ensuring scheduled project delivery in States (4.39). Timely delivery of construction projects forms one of the efficiency indicators in construction works that attract attention. Over time, the timely delivery of construction projects has assumed great importance and cannot be overemphasized. It is expected that projects are completed and undue delays mitigated in every construction activity tailored at timely delivery. Timely delivery of construction projects connotes completion of construction works compared to the planned schedule, occurring when the progress of a contract falls in line with its scheduled program. The various standards established or attributes of PPA contribute towards streamlining construction activities to meeting the deadline set for construction projects.

Among the several ways by which the PPA influence the timely completion of construction projects is through the transparency of processes and requirements ensured all through the planning phase, the equity featured in every aspect of the procurement process, and more. The PPA, therefore, contribute to the timely delivery of construction projects, determining the timing and sequence of operations that a construction project follows to meet the overall foreseeable completion time.

This finding agrees with a number of previous studies. First, it corroborates with Assaf and Al-Hejji [7], that asserted time among other factors is significant to achieving the objectives/goals expected of construction projects [9]. Secondly, it aligns with Olayiwola and Oyegoke [19], which indicated the efficacy of the PPA’s regulatory capability to spur the timely delivery of construction projects. Thirdly, it supports Aregbesola [30], which stated that the Procurement Act cannot be underestimated and is most essential in driving the timely delivery of construction projects. Finally, it concurs

with Ezeh [31], which also posits that the PPA is the legal framework that enacts regulations to help ensure that a project gets implemented within a definite period and is safely delivered with ,cost-effectiveness and quality.

Additionally, the least ranked attributes include the following: stipulation of project duration (4.20), regulatory capability within the construction environment (4.19), and enforcing adherence to PPA's provisions, particularly for capital projects (4.18). It is therefore established that by leveraging on the PPA as it pertains to construction activities and processes, the time specification of projects can be adhered to, and the project delivered as scheduled. This is because the PPA can influence the construction environment to meet the deadline set for projects when imbibed. Most essentially, the efficacy of the PPA to influence the timely delivery of construction projects comes into play when dealing in huge capital projects and fosters the appropriate planning and arrangement that facilitates the delivery of construction projects according to projected time.

TABLE IV
RELATIONSHIP BETWEEN PPA AND TIMELY DELIVERY OF CONSTRUCTION PROJECTS

Attributes of PPA	N	1	2	3	4	5	TS	StD	MS	RK
1. Driving timely delivery construction projects	102	-	-	2	29	71	477	0.511	4.68	1
2. Transparency and equity of procurement process	102	-	-	5	50	47	450	0.586	4.41	2
3. Ensuring scheduled project delivery in States	102	-	1	6	47	48	448	0.647	4.39	3
4. Exerting control measures on project duration	102	-	2	10	44	46	440	0.731	4.31	4
5. Contributive to project success	102	-	-	9	49	43	440	0.675	4.31	4
6. Instilling discipline in public procurement practice	102	-	1	10	48	43	439	0.686	4.3	6
7. Specification of regulatory measures	102	-	1	9	50	42	439	0.672	4.3	6
8. Effective capital project execution	102	-	-	9	54	39	438	0.623	4.29	8
9. Encouraging healthy competition aimed at fostering timely delivery of projects	102	-	-	14	46	42	436	0.692	4.27	9
10. Anchoring core purposes on timely infrastructural development	102	-	2	8	56	36	432	0.677	4.24	10
11. Legal framework for scheduled project completion	102	1	-	14	47	40	431	0.757	4.23	11
12. Stipulation of project duration	102	-	2	18	40	42	428	0.797	4.2	12
13. Regulatory capability within construction environment	102	-	-	11	61	30	427	0.609	4.19	13
14. Enforcing adherence to PPA's provisions particularly for capital projects	102	-	-	12	60	30	426	0.62	4.18	14

E. Test of Hypothesis

H₀: There is no significant relationship between the PPA and timely delivery of construction projects.

TABLE V
RELATIONSHIP BETWEEN PPA AND TIMELY DELIVERY OF CONSTRUCTION PROJECTS

Attributes of PPA	X2cal	DF	X2tab	P-value	Sig	Decision
-------------------	-------	----	-------	---------	-----	----------

1. Driving timely delivery construction projects	71.118	2	5.991	.000	S*	Accept H ₁
2. Transparency and equity of procurement process	37.235	2	5.991	.001	S*	Accept H ₁
3. Ensuring scheduled project delivery in States	76.431	3	7.815	.000	S*	Accept H ₁
4. Exerting control measures on project duration	60.980	3	7.815	.031	S*	Accept H ₁
5. Contributive to project success	67.882	3	7.815	.000	S*	Accept H ₁
6. Instilling discipline in public procurement practice	64.824	3	7.815	.014	S*	Accept H ₁
7. Specification of regulatory measures	68.431	3	7.815	.001	S*	Accept H ₁
8. Effective capital project execution	30.882	2	5.991	.012	S*	Accept H ₁
9. Encouraging healthy competition aimed at fostering timely delivery of projects	17.882	2	5.991	.001	S*	Accept H ₁
10. Anchoring core purposes on timely infrastructural development	74.471	3	7.815	.002	S*	Accept H ₁
11. Legal framework for scheduled project completion	55.098	3	7.815	.000	S*	Accept H ₁
12. Stipulation of project duration	42.784	3	7.815	.000	S*	Accept H ₁
13. Regulatory capability within construction environment	37.471	2	5.991	.010	S*	Accept H ₁
14. Enforcing adherence to PPA's provisions particularly for capital projects	34.588	2	5.991	.000	S*	Accept H ₁

The Chi-Square test results in Table 5 show the significant relationship between the PPA and the timely delivery of construction projects. This finding reveals all the calculated p-values are lower than the significant value ($p=0.05$) hence they are significant. Based on this, the null hypothesis was rejected, and the alternative hypothesis, which says there is a significant relationship between the PPA and timely delivery of construction projects, is thus supported.

V. CONCLUSION AND RECOMMENDATIONS

The study examined PPA and the timely delivery of construction projects. The study was carried out empirically, and the following conclusion can be made:

1. The level of awareness of the PPA in carrying out construction projects is moderate among construction professionals. However, the highest awareness is in the engagement of sub-contractors/suppliers for specific aspects of construction projects. This... implies that the PPA can enhance the management of specialist and complex projects in the industry.
2. Construction professionals comply with the PPA to a reasonable extent, particularly in harnessing the expertise and resources of subcontractors and suppliers. One implication of this is that clients can better value their investments.

REFERENCES

- [1] H. Kerzner, "Project Management: A Systems Approach to Planning, Scheduling, and Controlling," 10th Ed. Hoboken, NJ: John Wiley and Sons, 2009.
- [2] S.H. Khahro, T.H. Ali, Q.H. Khahro, M.A. Moriyani, and A.A. Vighio, "Construction project completion time: a predicting approach for bids." *Revista ESPACIOS*, 41(36), 106-114, 2020. ISSN: 0798-1015
- [3] T. Roshana, and A. Akintola, "Performance indicators for successful construction project performance," Conference proceedings of 8th Annual ARCOM conference, 545-555. 2002.
- [4] P.K. Owusu, and D.E.G. Aggrey, "Examining the effect of project delays in construction field, a case study of Prime Engineering and Service Ghana Limited." *Asian Journal of Applied Science and Technology*, 4(3), 129-144, 2020. DOI: 10.38177/ajast.2020.4317
- [5] F.T. Anbari, "Earned Value Project Management Method and Extensions," *Project Management Journal*, vol. 34, no. 4, pp. 12-23. 2003.
- [6] A.U. Elinwa, and M. S. Joshua, "Time-Overrun Factors in Nigerian Construction Industry." *Journal of Construction Engineering and Management*, vol. 127, no. 5, pp. 419-425. 2001.
- [7] S. A. Assaf, and S. Al-Hejji, "Causes of delay in large construction projects," *International Journal of project management*, vol. 24, no. 4, 349-357. 2006.
- [8] I. N. Achilike, and C.H. Akuwudike, "The impact of due process policy on construction projects in South East Nigeria," *European Journal of Business and Management*, vol. 8, no. 22, pp. 85 – 91, 2016.
- [9] S.A. Ademola, M.A. Akomolafe, and T.A. Buari, "Factors influencing time performance of contractors on construction projects in Osun State, Nigeria." *Proceedings: 1st International Conference on Engineering and Environmental Sciences (ICEES)*, January 2020, Osun State University, Osogbo, Nigeria.
- [10] P.A. Koushki, K. Al-Rashid and N. Kartam, "Delays and cost increases in the construction of private residential projects in Kuwait," *Construction Management and Economics*, vol. 23, no. 3, pp. 285-294, DOI: 10.1080/0144619042000326710. 2005.

3. There is a significant relationship between the PPA and the time outcome of construction projects. It, therefore, implies that construction time overruns can be minimized or eliminated through the instrumentality of the PPA.

Based on the findings of the study, the following are recommended:

1. Continuous awareness of the PPA should be encouraged by construction stakeholders. This... would keep them well informed on criteria to improve on in their bid for construction contracts in the state. This... can be done by continuous awareness campaigns by stakeholders.
2. Stringent measures should always be put in place to ensure consistent compliance with all the provisions of the PPA on all construction projects. This... can be done with strict enforcement of the PPA by relevant statutory bodies.
3. The implementation of the PPA should have the elimination of time overruns as a key focus by the requisite professionals. This... can be done by properly scrutinizing the tender documents by the tender board to ensure the attributes of PPA bothering on the timely completion of projects are adequately included.

- [11] M.M. Dlakwa, and M.F. Culpin, "Reasons for overrun in public sector construction projects in Nigeria," *International Journal of Project Management*, vol. 8, no. 4, pp. 237-241. 1990.
- [12] N. Mansfield, O. Ugwu, and T. Doran, "Causes of delay and cost overruns in Nigerian construction projects," *International Journal of Project Management*. vol. 12, no. 4, pp. 254–260. doi: 10.1016/0263-7863(94)90050-7. 1994.
- [13] A.I. Robinson, and B.U. Ofoegbu, Management of Construction Delays in South East Nigeria. Civil and Environmental Research, 11(11), 1-7, 2019. ISSN 2224-5790 (Paper) ISSN 2225-0514 (Online)
- [14] C.C. Nwachukwu, "Client's constraining factors to construction project management success in Nigeria: a systems analytical approach," *International Journal of Development and Management Review*, vol.4, no. 1, pp. 207-219. 2009.
- [15] Public Procurement Act 2007, "Federal Republic of Nigeria," 2007.
- [16] World Bank, "*Benchmarking Public Procurement 2015*," Washington DC 20433: International Bank for Reconstruction and Development /The World Bank. 2015.
- [17] Aqua Group, "*Procurement, Tendering and Contract Administration*," Blackwell Publishing, 9th Edition page 7. 2007.
- [18] A.B. Kidd, "Procurement's Value: What Are We Really Measuring?" Retrieved from: https://www.ippa.org/images/BOOKS/IPPC2/Chapter_18.pdf. 2005.
- [19] M.K.A. Olayiwola, and A.S. Oyegoke, "The effect of public procurement Act on budget appropriation on project delivery in Nigeria and its subsequent effects on the supply chain".2009.
- [20] Public and Private Development Centre (PPDC), "Walking the path of procurement reforms in Nigeria. PPDC. Abuja, Nigeria. 2012
- [21] S. Odediran, B.F. Adeyinka, O.A. Opatunji and K.O. Morakinyo, "Business Structure of Indigenous Firms in the Nigerian Construction Industry," *International Journal of Business Research and Management*, vol. 3, no. 5, pp. 255-264.2012.
- [22] P. Tunji-Olayeni, T.O. Mosaku, O.I. Fagbenle, I.O. Omuh and O. Joshua, "Evaluating Construction Project Performance: A Case of Construction SMEs in Lagos, Nigeria," *Journal of Innovation and Business Best Practices*. Article ID 482398, DOI: 10.5171/2016.482398.2016
- [23] A.B. Ibrahim, "Influence of change management practice on construction project performance in Bauchi State," Master Thesis, Abubakar Tafawa Balewa University Bauchi. 2020
- [24] M.O. Dada, "Predictors of Procurement Selection : An Investigation of Traditional and Integrated Methods in Nigeria," *Journal of Construction in Developing Countries*, vol. 17, no. 1, pp. 69–83. 2012.
- [25] P.E.D. Love, M. Skitmore and G. Earl, "Selecting a Suitable Procurement Method for a Building Project. *Construction Management and Economics*, vol. 16, pp. 221-233. 1998.
- [26] E.O. Adegite, "Accounting, Accountability and National Development", *Nigerian Accountant*, vol. 43, no. 1, pp. 56-64. 2010
- [27] P.K. Gikonyo, "Factors Affecting Implementation of Public Procurement Act in SACCO Societies in Kenya," *International Journal of Academic Research in Business and Social Sciences*, vol. 4, no. 2. DOI: 10.6007/IJARBS/v4-i2/614. 2014.
- [28] I.I.C. Nwokoro and H.N. Onukwube, H.N. "Sustainable or Green Construction in Lagos, Nigeria: Principles, Attributes and Framework," *Journal of Sustainable Development*, vol. 4, no. 4. DOI: 10.5539/jsd.v4n4p166. 2011.
- [29] A. Sourani and M. Sohail, "Barriers to addressing sustainable construction in public procurement strategies," *Proceedings of the Institute of Civil Engineers: Engineering Sustainability*, 164(4), 229-237. DOI: 10.1680/ensu.2011.164.4.229. 2011.
- [30] R. Aregbesola, "Public Procurement Law Now Operational in Osun," Being text of paper delivered by the Governor on the signing into law of Public Procurement Law. 2016.
- [31] E. Ezech, "Review of specific procurement issues and challenges confronting MDAs," Being Text of Paper Delivered at one-day stakeholders' workshop for Ministries, Departments and Agencies (MDAs). January, 2011.