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Research Paper

Exploring Auditing Practices in Public Consruction Contracts in Ebonyi State, Nigeria

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ABSTRACT*: In order to make sure that the project is meeting expectations in terms of time, budget, and quality, public construction contracts must be reviewed. Due to the volume of parties and the amount of money involved, building contracts unfortunately suffer from an increase in fraud and value for money denial. In this study, the degree of opposition to contract auditing in Ebonyi State is investigated as well as the level of awareness about it. A thorough evaluation of the literature was done. The study used a descriptive survey design, and information was gathered utilizing a questionnaire from 90 specifically selected respondents who worked for state government agencies, institutions, and consultants. The acquired data were analyzed using the mean item score (MIS) of each of the available variables, which served as the foundation for ranking. The analysis of the results from the study revealed that the respondents are aware of construction contract auditing practices but are faced with corruption, legislature backing, and lack of information as the major challenges hindering the practice of construction contract auditing in the state. The study recommends the introduction of necessary policies and guidelines for the introduction of mandatory contract auditing on publicly funded construction projects.*

KEYWORDS*: Auditing, contract auditing, public construction contract.*

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I. INTRODUCTION

In order to make sure that every component of the project is proceeding properly and in accordance with the contract, public construction contracts must be evaluated. A construction audit is an essential tool for keeping the project on schedule and under budget because construction projects contain multiple actors executing multiple concurrent activities. This contract auditing task is to be carried out and taken on by independent construction professionals to examine the process of the construction project, whether it is ongoing or that which has been finished by other teams. Its main objective is to evaluate the entire construction process to determine whether the specified contract procedure was followed, etc.

According to studies, poor auditing procedures frequently cause construction projects to fall short of the quality and cost goals set by the management stakeholders. Wag (2017) claims that a subpar construction audit management system has made it challenging to efficiently oversee the whole construction project cycle. With the research done by Ibrahim (2014), so many steps have been taken to ensure adequate auditing processes that the services of the quantity surveyor are suitable to perform the services of contract auditing.

Public construction projects are not checked, monitored, or evaluated by those in charge of carrying out auditing processes, which denies the client value for money spent and social amenities to the populace, frequently causes infrastructure to collapse, results in abandoned projects, and, more specifically, causes the client to be dissatisfied with the project's outcome (Usman and Sani, 2015).

The poor project performance outcome has been attributed to the failure of construction organizations, institutions, and agencies to acknowledge the importance of construction audits and their procedures in the management of construction projects. According to Bondinuba, Nansie, Dadzie, Djokoto, and Sadique (2017), privately and publicly financed building and engineering construction projects in developed and developing countries are faced with a variety of issues, including corruption, fraud, subpar procurement procedures, poor quality, design flaws, failure to achieve value for investors' or clients' money, cost and time overruns, and

project delivery problems. Clients, investors, and other crucial players in the construction industry are ultimately disappointed as a result of this.

Reviews of the literature in the fields of architecture, engineering, and construction have revealed that insufficient research has been done on auditing procedures in public construction projects in the Nigerian construction industry. Agu (2022) evaluated contract auditing methods used in construction projects. It is necessary to evaluate the level of awareness among construction players and the difficulties in implementing contract audits in the industry. Poor or absent contract auditing practices will remain a problem if preventative measures are not done. This study explores auditing practices in public infrastructure projects in Nigeria's Ebonyi State, filling a gap in the literature based on this theoretical knowledge.

II. LITERATURE REVIEW

2.1 Auditing

An audit is a planned and documented activity for evaluating the efficacy of implementation, conformity with defined procedures and standards, and other factors through an investigation and review of objective data (Usman and Sani, 2015; Cai, Kandil, Hastak and Dunston, 2012). Auditors are the practitioners of the well-known discipline of auditing. The American Institute of Certified Public Accountants AICPA (2002) provided a definition of auditing that clarifies what it is: "Auditing is a form of attestation, and attestation is a written communication that expresses a conclusion about the reliability of a written assertion that is the responsibility of another party."

According to Cyasi (2001), auditing is the independent examination and investigation of the supporting documentation used to prepare a financial statement. This allows the independent examiner to report on whether, in his opinion, the statement is correctly prepared and provides a true and fair view of what it is intended to show, and if not, what area of the statement dissatisfies him.

2.2 Construction Audit

A construction audit examines various project components to make sure they are operating properly and in accordance with the contract. Considering that construction projects frequently involve a number of parties conducting a number of concurrent duties. It is a vital tool for maintaining things on schedule and within budget. Auditing must be done independently of outside interference. All recently approved construction contracts, whether publicly or privately owned, as well as renovation and expansion projects, are subject to construction auditing (Usman and Sani, 2015).

An audit of a construction project aims to balance the value of the labor performed with the resources allocated to it throughout the construction phase. The main objective was to guarantee that the construction phase adhered to the concepts of economy, efficiency, and effectiveness. According to Cai, Kandil, Hastak, and Dunston (2012), the continuous use of subpar procurement practices, financial-related fraud, and corruption, as well as other social and contractual ills that result in subpar project performance, are the result of the lack of appreciation for construction audit and practices as a crucial aspect of project management responsibilities. This is true even though auditing construction projects is crucial for ensuring that clients get value for their money and for preventing contractors and other construction experts from engaging in dishonest and corrupt behavior.

Construction audit (CA) is a pertinent and useful tool for identifying successful and unsuccessful project performance techniques, whether in new construction or renovation projects (Nalewaik, 2007; Bondinuba et al, 2017). Construction audit often incorporates the disciplines of accounting, auditing, and construction management (Bondinuba, et al, 2017). The cost associated with a party's default can be recovered with the use of construction audit. The parties involved or accountable for the costs going out of control will be held accountable for their defaults. An audit also made the project manager vigilant to make sure that production tasks are completed appropriately and in accordance with the project's criteria (Steve and Julie, 2020). Construction audit help to assess whether a project is progressing well in terms of being ahead or behind schedule and what has been achieved in terms of output.

2.3 Types of Auditing for Construction Contracts

Audits of the construction industry could include:

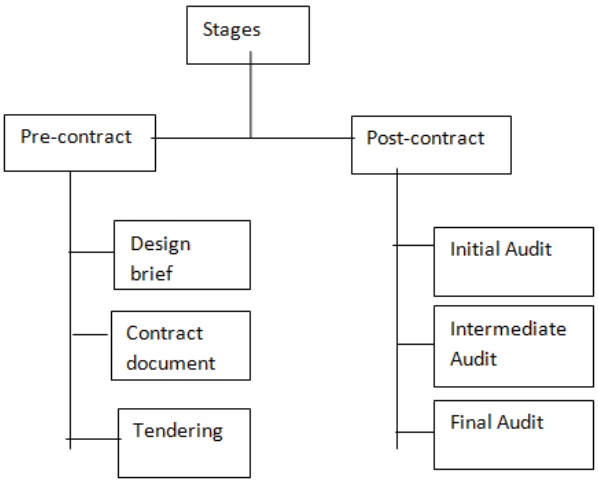
Monetary auditing

The objective of the financial auditing in this context is to review the various aspects of a construction project and ensure that the project is in compliance with the contract terms. Financial auditing in the construction industry includes assessing the financial elements of the project, construction, and safety. It entails a thorough investigation of all financial activities and supporting documentation. The management of construction projects from a financial perspective is made easier by financial audits. The quantity surveyor confirms the project's cost in order to maintain track of the costs.

2.3.1 Technical Audit

Technical auditing is the inspection of identified construction works, including the planning, execution, and management stages as well as the finished result. Analyzing the contract documentation regarding the requested payment Vaidya (2022) defines technical audit as a study of numerous project elements to confirm that the contractor's team on site is operating effectively and in accordance with the contract's criteria. A technical audit is proven to be a useful technique for keeping things on schedule and within budget because building projects often involve numerous entities conducting several concurrent activities. In technical auditing, construction works are logically evaluated in accordance with a defined objective to determine whether all required anticipated attributes, design variables, and user criteria have been followed or fully complied with as intended (Agu, 2022). In order to provide findings that would indubitably benefit stakeholders, Hudson and Feng (2010) argue that the professional technical auditor in the context of a construction project should have and achieve an independent status, free from investigation and reporting constraints.

Joan (2019) illustrated the stages of technical auditing in a schematic form:



Some of the benefits of technical auditing according to Vaidya (2022)

- Site-specific problem solving
- Productivity improvements could be site-specific and also applicable to the entire organization.
- Exposing site engineers to a different point of view
- Providing the management with a view of the project concerning cost, time, and quality
- Providing inputs to prevent any issue from getting out of proportion.

According to Vaidya (2022), a person(s) familiar with the engineering/technical, commercial, and contractual components of construction should conduct the technical audit for it to be effective. He must to have the expertise to identify any aspect that doesn't seem to follow "good practice." In other words, the technical auditor needs to be a seasoned construction engineer with keen observational skills. Asking the correct questions to elicit information and identify the situation's underlying causes is an additional and essential skill.

Vaidya (2022) emphasized that basic project knowledge is given to the auditor as part of the preparation for carrying out a technical audit. This comprises key details about the project, the contract, typical GA drawings, the current state of the project's progress, and a review of the resources used. The auditor conducts the technical audit while on-site, assisted by senior members of the site team. The auditor reviews documents, strolls around the site and speaks with the site personnel while gathering all pertinent data.

2.3.2 Performance Auditing

According to Nalewaik and Mills (2015), project performance audit focuses on the ongoing assessment of project status and behaviors in order to give stakeholders confidence in the management and completion of their projects. It is not prescriptive and is not a checklist. In order to ensure that a public entity's objectives are met in an effective, efficient, and cost-effective manner, performance auditing is used in the public sector. Performance auditing is an independent and objective assessment of the operation, function, program, and management systems of a public entity (Selassie, 2020). As a corrective program or action, it is also employed.

The objective of the project performance audit is to offer top management and the investor an unbiased assessment, analysis, appraisal, set of recommendations, and comments on the project management practices that are negatively affecting the performance of successful projects. The organizational/management,

program/progress, cost/financial, and resource concerns that surround a project are frequently the focus of project performance audits (Duffy and Thomas 1989).

According to Duffy and Thomas (1989), the key elements examined during the Project Performance Audit process can be summed up as follows:

- **Organization and management**. Has the project organization been adequately structured, and appropriately staffed, and have the reporting requirements been properly established?
- **Project definition**. Has the promoter's aim been fully established and communicated to all parties involved?
- **Time**. Are the key dates realistic and identified for each stage in the program and how is progress monitored?
- **Money.** Is there a cost plan and appropriate cost control procedures?
- **Procurement strategy**. Has an appropriate strategy for contracting the project been established early enough to place risks and allocate work to the most suitable parties'?
- **Communication**. Are communications effective and how is the time and cost information transferred within the project team?
- **Site**. Are there site-related problems such as access or planning requirements that may affect progress?
- **Restraint**s. Are there any restraints that may affect progress, such as cash flow, annual budgets, and suitable resources available?
- **Commissioning and operations.** Have commissioning procedures been agreed upon and specified well in advance and accounted for in the design?

2.3.3 Health and Safety Auditing

Audits of health and safety procedures ought to be part of the management of construction projects. This must start at the project's conception and continue through the usability and completion phases. A construction site's safety protocol, the actual site, and all preventative measures are examined in a construction site safety audit. An audit of safety looks at how a firm operates on a daily basis to see if it complies with legal requirements and planned health and safety measures. The effectiveness of the planned arrangements' implementation and their suitability for achieving the organizations' health and safety policy objectives are further determined by an audit. A serious incident frequently arises from a health and safety management failure. Safety audit help discover flaws in systems, processes, or programs, and the data gained from them determines the most effective path of corrective action.

Seven (7) standards have been specified by the Occupational Safety and Health Administration (OSHA) (2017) to assess and enhance health and safety auditing procedures.

1. The use of Performance indicators to track progress toward program goals,
2. The use of lagging and leading indicators to track performance,
3. The analyses and sharing of performance data with workers,
4. The initial review (and subsequent annual reviews) is conducted by management to evaluate the program and ensure that it is fully implemented and functioning as planned,
5. The involvement of workers in all program review activities,
6. The examination of key processes by the program reviews to ensure that they are operating as intended, and
7. The modification of the program as needed to correct shortcomings.

2.3.4 Environmental Sustainability Auditing

Environmental sustainability auditing, according to Cole and Rousseau (1992), is an accounting of the quantifiable environmental issues that will be incurred in the construction and usage of a facility. It is typically done to determine how environmentally conscious the construction design decisions, variables, and components are. The energy and non-energy supply and consumption-related variables of the existing buildings and their occupants must be included in the audit. It is necessary to make an effort to lessen emissions of carbon dioxide, sulfur dioxide, air, water, and solid waste, as well as the effects of handling and processing materials and the depletion of finite non-renewable resource reserves in the building environment. The reduction of harm to land and aquatic environments, as well as the creation of hazardous wastes with long-term effects on construction project operations, are additional aspects of environmental sustainability audit (Gray, 2000).

2.4 Significance of construction contract audits in Nigeria's construction industry

For all parties involved in architecture, engineering, and construction, auditing of construction contracts is extremely important for assuring the effective delivery of finished facilities. The goal of contracting auditing procedures should be to determine how events and actions affect the project and to share the findings with interested parties. The following are some benefits of conducting construction contract auditing:

A construction audit (CA) is a pertinent and useful tool for identifying successful and unsuccessful project performance techniques, whether in new construction or renovation projects (Nalewaik 2007).

Usman and Sani (2015) stated that the topmost vital importance of CA is; checking and preventing corruption, accountability, and financial probity, making sure that there is efficiency, economic consistency, and standard for meeting the quality target, making sure that practices and procedures are followed, and reducing cost overruns. The practice of contract auditing will provide the client with more financial and managerial control, and in the case of Nigeria, because it is an independent third-party review of the construction process, it will provide project investors and donors with reassurance that their money is being used wisely with regard to government projects (Agu, 2022).

It is a technique used to raise consciousness, develop abilities, integrate knowledge, update technicalities, boost profitability and productivity, and enhance the working atmosphere in a company (Srivastava, 2012). Technical auditors will save money if they are brought in early rather than after the contract are closed on a construction project (Bowerman, 1995). Additionally, it will assist the client, contractor, and other parties in determining their risk and legal obligations under the contract. Technical Auditing of construction projects helps to check that the prescribed engineering procedures and methods are monitored and evaluated during the project construction phase (Okereke, Muhammed, and Eze, 2022). Nalewaik (2007) submitted that technical auditing also ensures that the technical capabilities of the project staff are within the acceptable standard required by the professional regulatory institution.

The adoption and application of contract auditing offers the Nigerian construction sector a lots of benefits, including value for money, adherence to rules and regulations, risk mitigation, quality assurance, and effective project management in line with best practices. A method for stakeholders to track the development of projects and the activities of specialists in the Nigerian construction sector will be made available to them thanks to the practice of contract auditing, which will also assure accountability (Bondinuba, et al, 2017). The correct identification, authentication, and evaluation of well-established benchmarks within a construction environment are necessary for accountability in this context. Construction managers and other Nigerian stakeholders, in particular clients, would be able to understand the various responsibilities and types of transactions connected with each project cost component and activity as a result.

2.5 Bottlenecks in the Practice of Contract Auditing in the construction industry

Despite the benefits of construction contract auditing for the sector, a number of challenges prevent the adoption and application of CA practice. Lack of auditors or auditors who are knowledgeable about construction projects and the auditing environment is one such factor (Sohail, M. and Cavill S., 2008; Nalewaik 2007). Without an awareness of the contract terms and circumstances, Dye and Stapenhurst (1998) and Goldberg (2010) add that it is typically challenging to identify areas of potential exposure when performing a construction audit. Rarely are audit reports for construction projects created. The practice of contract auditing is significantly impacted by a scarcity of experts and skilled auditors, according to Bondinuba et al. (2017). They added that a significant threat to the practice of contract auditing was posed by excessive political meddling, a lack of political will to enforce contract auditing results, and other legal and necessary actions to assure project execution. The practice of construction audits is hampered by a lack of resource commitment.

A lack of accountability among stakeholders, such as architects who frequently issue variation orders without review, also contributes to the frequent reworks that occur on building projects. Despite the fact that Love (2002) noted that rework frequently happens as a result of subpar craftsmanship and inadequate contract documentation, the situation outlined above is increasingly common in the majority of significant projects in the Nigerian sector. The country's professional bodies' and stakeholders' dedication to CA and its practice is uninspiring. This is due to the fact that, according to Nalewaik (2007), project team members frequently express resistance to the auditor and other CA supply chain stakeholders, making them the least important stakeholders in the execution of construction projects.This is a factor that has an impact on the application of construction auditing in Nigeria and its effectiveness. Lack of desire on the part of project stakeholders to provide all the data required to support the auditing process. Ayine (2019), the office of the accountant general of the federation, said in a statement that one of the biggest difficulties facing Nigeria's auditing practice is the lack of an act that would improve auditing's efficiency and effectiveness. He went on to say that difficulties facing Nigerian auditing procedures include fighting the epidemic of fraudulent activities and corruption in the public sector, poor or insufficient use of relevant and current technology by audit institutions, a lack of managerial capacity, and financial autonomy.

III. RESEARCH METHODOLOGY

The research adopted a descriptive survey design and was conducted in Ebonyi State of Nigeria. The choice of the state was due to a handful of public construction work going on in the state capital and other urban

areas of the state. The population for this study was drawn from registered construction professionals practicing and working in various government organizations

The study used 90 professionals as its sample size and purposive sampling methods. An exhaustive examination of the academic literature was conducted in order to fulfill the purpose of this paper, and a survey questionnaire and interview were used to gather data. The tools used to obtain data from a variety of respondents included structured questionnaires and interviews. Validity and reliability tests were performed on the data gathering instruments. Participants within the study area self-administered the instruments both directly and through online posting. Numerous statistical techniques were used to analyze the quantitative data. Two statistical procedures were used in analyzing the data: descriptive statistics and inferential statistics. Descriptive statistics used for analyzing the data generated in section A of the questionnaire (background information) were frequencies, percentages and inferential statistics used for analyzing data generated from section B of the questionnaire were mean and were used for ranking, and the results presented in the form of tables. The statistical package for the social sciences (SPSS) software was used to make the data analysis easier.

IV. FINDINGS AND DISCUSSIONS

Table1: Questionnaire administration and response rate

Questionnaire	frequency	Percentage (%)
Number received	70	77.8
Number not received	20	22.2
Total	**90**	**100**

Survey data from the research field (2021)

According to Table 1, a total of 90 copies of the questionnaire were given out to the target respondents using a purposive sampling methodology. The response rate was 77.8% with 70 of the 90 copies of the survey given being completed and returned. Due to the researcher's professional colleagues' assistance in disseminating and collecting the questionnaire, the response rate was high. Some studies carried out in the field of construction cost management and Supply Chain Management had relatively average and high response rates. For instance, Oludara, Okunola, and Oluseye (2018); Obi and Arif (2017); Chigara, Moyo, and Mudzengere (2013); and Abeselom (2008) had response rates of 54%, 57.83%, 73%, and 73.91% respectively. All these cited works affirm the response rate adequacy for this study.

Background Information of Respondents

Table2 shows the socio-economic characteristics of the respondents used for this study. The characteristics include their places of work, years of experience, age, academic qualification, etc.

Table 2: Respondents Bio-Data

Category		Frequency	Percent (%)
Gender	Female	22	31.4
	Male	48	68.6
	Total	**70**	**100**
Professional Experience	1-5yrs	8	11.4
	6-10yrs	12	17.1
	11-15yrs	18	25.7
	16-20yrs	19	27.1
	20yrs and above.	13	18.6
	Total	**70**	**100**
	Average	**14**	
Highest Academic Qualifications	HND/ND	20	28.6
	B.Sc./PGD	25	35.7
	M.Sc./M.Tech.	15	21.4
	Ph.D.	10	14.3

	Total	**70**	**100**
Profession	Engineer (NSE)	18	25.7
	Architect (NIA)	16	22.9
	Quantity Surveyor (NIQS)	13	18.6
	Builder (NIOB)	12	17.1
	Others	11	15.7
	Total	**70**	**100**
Type of Organization	Ministry	35	50
	Agency/corporation	11	15.7
	Institution	15	21.4
	Local Government	9	12.9
	Total	**70**	**100**

Survey data from the research field (2021)

The result in Table 2 shows that majority of respondents were male (48) representing a percentage of 68.6% compared to the female 22 representing a percentage of (31.4%). The years of professional experience of respondents in the construction and procurement of built facilities specifically reveals that 11.4% of the respondents have 1-5 years of experience, 17.1% have 6-10 years of experience, 25.7% have 11-15 years of experience, and 27.1% have 16-20 years of experience whereas 18.6% have over 20 years of experience. It also shows that the respondents are qualified and knowledgeable to respond to the questions with 35.7% B.Sc. holders, 28.6% Higher National Diploma, 21.4% Master's holders, and 10% doctorate degree holders respectively. All of the respondents are members of their professional bodies. Engineers and Architects are the most represented profession with a percentage score of 25.7 and 22.9 respectively. Generally, the respondents are all working in government establishments with 50% of the sample in ministries, 15.7% working in agencies and corporations, and 21.4% in institutions.

Table 3: Level of Awareness of Construction Contract Auditing in Ebonyi State
Response scale: 1. Not at all aware, 2. slightly aware, 3. moderately aware, 4. Very aware, 5. extremely aware.

Descriptive Rating	Frequency of response	Percentage of response
Extremely Aware	20	29
Very aware	40	57
Moderately aware	10	14
Slightly aware	0	0
Not at all aware	0	0
Total	**70**	**100**

Survey data from the research field (2021)

From the results in table 3, it can be seen that 29% of the respondents identified being extremely aware, 57% of the respondents expressed being very aware, and nearly 14% show moderate awareness of the practice of contract auditing within the state as also shown in figure 1 below. These clearly show that, the practice of construction contract auditing system is well known to the professionals and stakeholders within Ebonyi State.

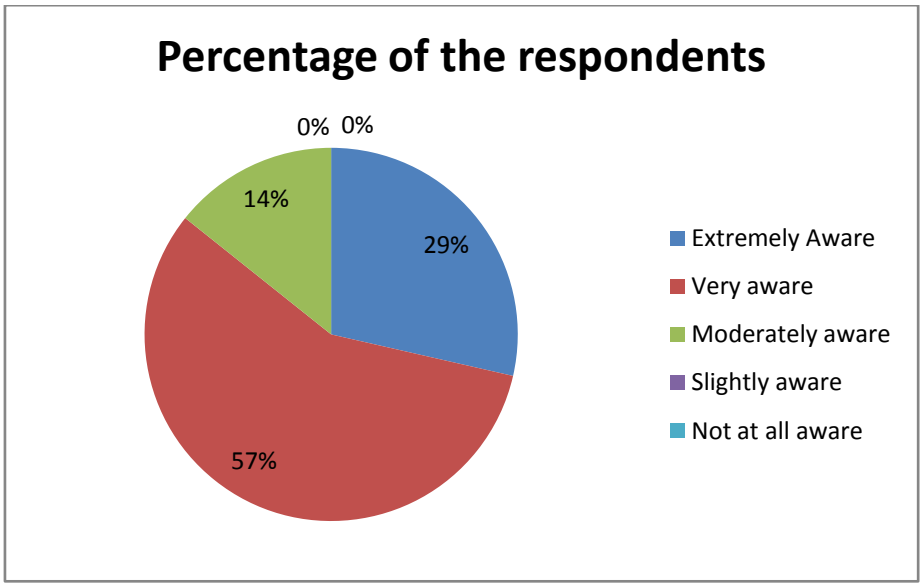


Figure: 1 Level of awareness of the respondents on the practice of construction contract auditing in Ebonyi State, Nigeria.

Table 4: Bottle Necks in the Practice of Construction Contract Auditing of Public Projects in Ebonyi State.

Description	SD	D	N	A	SA	M	Rank
Lack of public awareness and institution acceptance	10	16	9	25	10	2.53	9th
Political interference and Lack of Political will to enforce			4	20	46	3.69	3rd
Lack of commitment	6	12	7	35	10	2.60	7th
Lack of skills and professionals		5	9	26	31	3.00	5th
Lack of government and legislative support		2	2	36	28	3.36	4th
Corruption				8	62	3.89	1st
Human and organizational resistance		4	7	43	16	2.97	6th
Lack of information			2	10	58	3.86	2nd
Financial constraint	5	8	8	21	28	2.58	8th

Survey data from the research field (2021)

Analyzing the obstacles to the practice of construction contract auditing in Ebonyi State is shown in Table 4. The respondents working in various organizations tasked with managing the procurement, planning, and construction of public projects were given a list of challenges drawn from the literature and the pilot interview. The respondents were asked to score their agreement with the complex challenges that the practice of contract auditing in Ebonyi State faces on a scale of 1 to 5.

The challenges in doing contract audits have a factor mean value of 2.5 or higher. This suggests that the practice of contract auditing is being hampered by all the difficulties that have been mentioned.However, corruption and lack of information with an overall mean value of 3.89 and 3.86 are the most challenging factors militating against the practice of contract auditing. Political interference and lack of political will to enforce came in third, while lack of government and legislative support and lack of skills and professionals came in fourth and fifth respectively. These findings support Ayine (2019) position that the absence of an Act", the scourge of fraudulent activities corruption in the public sector are all issues confronting the practice of contract auditing. These findings also align with Bondinuba et al (2017) that too much political interference and lack of political will to enforce contract auditing findings and various legislative and the necessary action to ensure project performance posed a major threat to the practice of contract auditing.

V. CONCLUSION AND RECOMMENDATIONS

Construction contract auditing service is a relevant and valuable tool in the early stages of fraud detection in the delivery of public infrastructural projects. Through assessing the awareness of contract auditing and the challenges affecting the practice of contract auditing services in public project delivery, this research explored auditing practices in public construction contracts in Ebonyi State, Nigeria. The study concludes that construction contract auditing service is a well-known practice amongst the project actors and stakeholders in the state. The practice of auditing services is challenged by inherent factors such as corruption, lack of

information, too much political interference, and lack of political will to enforce contract auditing services and findings. Lack of skills and professionals and resistance of humans and organizations are among the challenges identified. The research recommends the establishment of a department with all necessary policies and guidelines to enforce and oversee the auditing of publicly funded infrastructural projects. General awareness protocols should be carried out in promoting good understanding with construction actors in all the aspects covered by contract auditing

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