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## **SIGNIFICANT CAUSES OF POOR PERFORMANCE OF GOVERNMENT-FUNDED CONSTRUCTION PROJECTS**

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### **ABSTRACT**

The construction sector provides critical infrastructure needed to facilitate economic growth. Government is one of the main clients of the construction sector in developing countries. The anticipated impact of construction projects on the economy are often not met, especially in developing countries. The primary reason for this could be attributed to the poor performance of government-funded construction projects. This study seeks to identify and examine the factors affecting the performance of government-funded construction projects in Nigeria. The study was carried out in two stages: literature review and questionnaire survey. A cross-sectional survey approach was adopted in the current study. It was found that the causes of poor

performance of government-funded construction projects can be grouped into four major factors: (1) Managerial and Technical, (2) Corruption and Attitudinal, (3) Financial and red tape, and (4) Poor procurement practice and economic. In addition, the findings of this study showed that the clients, consultants and consultant significant agreed on the causes of poor performance of government-funded construction projects. A key policy priority of government should, therefore, be to develop long-term strategic plan for infrastructure. This information would ensure that changes in government have little or no effect on infrastructure funding decisions. Greater efforts are needed to ensure that adequate budgetary provisions are made available for infrastructure procurement. Taken together, these



findings provide insights into the factors affecting the performance of government-funded construction projects in Nigeria. Further research is needed to understand the reasons behind low impact of reforms in public procurement on performance of government-funded construction projects in Nigeria.

**KEYWORDS:** Causes, construction management, Nigeria, performance, public project

## INTRODUCTION

There has been a considerable research effort aimed at improving construction industry at project and industry-level. This is because of the important role the products (infrastructure) of the construction sector plays in stimulating economic growth. However, extant research, both in developed and developing countries indicates that the issue of poor performance of construction projects is a re-occurring problem of global concern (Flyvbjerg, Holm & Buhl, 2002). Despite the existence of a large number of research efforts focused on addressing issues of poor project performance, the problem of poor performance of construction project, particularly in government-funded projects persist (Ramanathan, Narayanan & Idrus 2012; AlSehaimi,

Koskela & Tzortzopoulos, 2013). Evidence of poor performance of construction projects in Nigeria for example, include high percentage of projects involving rework and consequently, variation in contract cost (Oyewobi & Ogunsemi, 2010), frequent need for maintenance work on transport infrastructure leaving taxpayers dissatisfied and in extreme cases total collapse. Hence, it is imperative to examine the significant factors that cause poor performance of public sector construction projects with a view to minimizing its impact on the economy and the society at large.

The term 'performance of construction project' is viewed differently by stakeholders (client, users, consultants, contractors, etc.) involved in a project. There is no generally accepted definition of 'performance of construction project'. This in part may be attributed to the diverse views, orientations and expectations of the stakeholders in the construction industry.

In earlier literature, the term 'performance' is generally understood to mean meeting pre-planned goals of time, cost and quality in the project management context (Atkinson, 1999). However, recent research efforts have demonstrated the need to adopt new

measure/metrics for assessing project performance, such as safety, efficient use of resources, human resource effectiveness, satisfaction of stakeholders, and reduced conflicts and disputes (Chan & Chan, 2004; Toor & Ogunlana, 2010). Despite the obvious need to adopt new project performance metrics, it is crucial to note that project performance criteria are interrelated. By way of illustration, Love, Mandal and Li (1999) show that failure to meet quality requirements leads to rework which by extension results in cost and time overrun. Thus, it is reasonable to suggest that effective management of budget, schedule and quality of construction projects will consequently impact positively on the overall project performance.

Worried by the poor state of public infrastructure in Nigeria, and in spite of the extremely high cost of such projects, researchers are beginning to show keen interest in the process of public construction projects in Nigeria. Earlier literature spotlight causes of high cost of projects (Okpala & Aniekwu, 1988; Elinwa & Buba, 1993; Okuwoga, 1998); time and cost overrun in public projects (Dlakwa & Culpin, 1990); time over-run (Elinwa & Joshua, 2001; Aibinu & Odeyinka, 2006); abandonment of water and irrigation projects (Sonuga, Aliboh, & Oloke,

2002) in the Nigerian construction industry. Since the advent of democracy in Nigeria in the fourth republic in 1999, there have been several applaud-able reforms in the process of procurement of government-funded construction projects aimed at improving performance of projects without any success. It is against this background that this study sets out to re-examine causes of poor performance of government-funded construction projects. The specific objective of this study was to identify and examine the factors affecting performance of government-funded projects. The value of this study is that it would assist with the development and implementation of appropriate policies to address the problem of recurring poor performance of government-funded construction projects in Nigeria and other developing countries.

## **LITERATURE REVIEW**

In developing countries, the government funds public construction projects, which provide infrastructure required to drive socio-economic development and improve the standard of living of its citizenry. This is because the use of private finance initiative is still largely unpopular due to its political implications. A considerable number of factors have been linked to poor performance of construction



projects in literature. However, earlier literature focused on aspects of project performance metrics. Al-Kharashi and Skitmore (2009) examined the causes of delays in public construction projects in Saudi Arabia. Shortage of manpower was found to be a major cause of delays experienced in projects. A similar study on projects in Saudi Arabia revealed that, the use of lowest bid price as a criterion for contract award, poor communication and coordination between construction parties, delays in payments, poor labour productivity and rework, are major causes of delays in public construction projects (Mahamid, 2013). The evident difference between the results of both studies on Saudi

Arabia may be connected to changes in government policies, reforms, characteristics of respondents, and changes in the volume of government's investments in infrastructure projects. Hence, it is imperative to constantly understand the challenges experienced in executing government project in order to ensure that effective policies are developed to address this problem. In order to provide a better understanding of factors affecting the performance of government-funded projects, Table 1 provides a summary of prior research on factors affecting performance of government-funded construction projects.

**Table1: Summary of previous studies on factors affecting project performance.**

Authors	Country/Region	Significant factors affecting project performance
Arditi, Akan, and Gurdamar (1985)	Turkey	Shortage of resources, public agencies and contractors' financial difficulty, delay in design, organisational deficiencies, frequent change orders, and considerable extra work.
Dlakwa and Culpin (1990)	Nigeria	Inadequate budgetary allocation to public agencies, contractors' difficulty in receiving interim payments from public agencies, fluctuations in prices of construction inputs. construction delays and inadequate pre-planning.
Sonuga <i>et al.</i> (2002)	Nigeria	Inadequate source of funding, price variation and corruption.
Mahamid (2013)	Saudi Arabia	Bid award for lowest price, poor communication and coordination between construction parties, payments delay, poor site management, poor labour productivity, and rework.
Hwang, Zhao and Ng, (2013)	Singapore	Poor site management, poor coordination among various parties, design changes by owner during construction, availability of labour on site, availability of materials and availability of staff to manage project.

Larsen Lindhard and Denmark  
Brunoe (2015)

Unsettled or lack of project funding, delay or long process times cause by other authorities; unsettled or lack of project planning, errors or omissions in construction work; lack of identification of needs; errors or omissions in consultant estimates, errors or inconsistencies in project documents; late user changes affecting the project or function; lack of preliminary examination before design or tendering; inexperienced or newly qualified consultants, political focus on reduced project costs or time.

Mahamid, (2016) Saudi Arabia

Poor communication among project participants, payments delays, poor planning and scheduling, escalation of material prices, poor labour productivity, poor site management

## RESEARCH METHOD

Data for this study were collected using quantitative approach. Chau, Raftery and Walker (1998) assert that the need to generalize findings of a study, conduct hypothesis testing, reproduce findings points to the adequacy of quantitative methods in construction management studies. Also, Phua (2013) confirmed that the studies that are based on quantitative methods can be replicated and compared. Thus, in order to assess the causes of poor performance of government-funded construction projects in Nigeria, which involves collecting data from a large population (i.e. contractors, consultants and clients), a questionnaire was used in the present study.

Thirty-Nine (39) causes of poor performance of government-funded project were identified from extant literature. Respondents were asked to signify the level of agreement with the statement in the instrument. The

responses were rated on a five-point Likert scale (i.e., 1 = not sure, 2 = strongly disagree, 3 = disagree, 4 = agree and 5 = strongly agree).

Three major project participants (i.e. client, consultant and contractor group) were the target population of this study. The respondents were purposively selected based on the following criteria: (1) past involvement in government-funded projects (2) current involvement in managing government-funded construction projects. Out of 200 copies of questionnaire administered, 73 usable responses (representing 36.5%) were received. The collected responses were analysed using mean score and factor analysis. Mean score was used as a metric for assessing the importance of each factor (i.e. ranking). The same technique was used in a previous study to determine the factors that influence the success rate of contractors during the process of competitive bidding (Aje, Oladinrin & Nwaole, 2016). In



addition, Ho (2014) states that factor analysis can be used to reduce a large number of variables into meaningful number of factors. This ensures that the underlying dimensions within the collected data are identified. This has been achieved in similar previous studies that can be found in construction management literature (Ikediashi, Ogunlana & Alotaibi, 2014; Oladinrin & Ho, 2015).

## **RESULTS AND DISCUSSION**

### **Characteristics of the Respondents**

Out of the 73 respondents, 48(66%) were engaged in contracting organisation, 17(23%) consulting organisation and 8(11%) client organisations (i.e. government agencies). Sixty-five (89%) of the respondents had more than six years construction work experience. In terms of their academic qualification, 70(95.5%) had a minimum of bachelor's degree or its equivalents in construction related discipline. Furthermore, the category of most recent government project handled by respondents can be classified as residential 20(27.4%), institutional 15(20.5%), commercial 21(28.8%) and 17(23.3%) represent infrastructural projects. Fifty four (74%) of the projects were on-going, 18(24.7%) had been completed while one was

abandoned. This suggests that a good spread of construction professionals, from different sectors, with diverse years of experience in handling government projects in Nigeria were represented in the survey.

### **Causes of Poor Performance of Government-funded Construction Projects**

Thirty-nine variables were identified from literature as causes of poor project performance. These were ranked using descriptive statistics in descending order based on the values of mean scores. The result presented in Table 2 shows the top five dominant causes of poor performance of government-funded construction projects in Nigeria. These are: political changes/political instability (4.41), delays in receiving interim payments from public agencies (4.40), changes in government policies (4.36), appointment of inexperienced/unqualified contractors (4.34) and competence of technical staffs assigned to the project (4.29). 'Political changes/political instability' ranked first while 'tendering methods' was the least ranked. The relative high value of mean score for each factor reveals that all the variables are considered as important causes of poor project performance by the respondents. In addition, the value of

**Table 2: Top five significant causes of poor performance of government-funded construction projects**

Causes of poor performance in government funded project	Mean	SD	Rank
Political changes/political instability	4.41	.863	1
Delays in receiving interim payments from public agencies	4.40	.661	2
Changes in government policies	4.36	.770	3
Appointment of inexperienced/unqualified contractors	4.34	.837	4
Competence of technical staffs assigned to the project	4.29	.736	5

These results are consistent with those of similar studies found in literature (Dlakwa & Culpin, 1990; Al-Kharashi & Skitmore, 2009; Asiedu & Alfen, 2016). However, Hwang *et al.* (2013) study in Singapore showed that site management, coordination among various parties, and availability of labourers on site are the most significant factors affecting schedule performance of public housing projects which, is different from the present study. This inconsistency may be due to the focus of the study (only on schedule) and geographical scope. To buttress this, Larsen *et al.* (2015) found that the factors affecting time, cost and quality of construction projects are unique and assert that the client (i.e. the government entity) procuring a construction project has an overwhelming influence on its outcome. In a recent study of factors contributing to poor performance of construction projects in Saudi Arabia, Mahamid (2016) found varying views from the key stakeholders. Poor communication among project

participants was ranked most significant among others by the clients. The contractor on the other hand ranked payments delays and escalation of material prices most significant while poor planning and scheduling top the list of consultant ranking.

### Factor Analysis

As stated earlier, factor analysis is an appropriate technique for reducing number of variables in a study into few underlying factors that explains the variability in the characteristics of the study group (Verma, 2013). The results of two statistical tests are used to assess the suitability of applying factor analysis to the collected data. The tests are Kaiser–Meyer–Olkin (KMO) and Bartlett's test of sphericity. In the present study, the value of KMO statistic is 0.658. In addition, Bartlett's test of sphericity yielded a value of 1614.557 and a p-value of 0.000. for factor analysis to be suitable, the value of KMO should be greater than 0.5 and Bartlett's test of sphericity should be significant ( $p < 0.05$ ), which indicates



adequacy of correlation matrix (Field, 2009, Ho 2014). In the current study, the factor loading value was set at 0.3 in the statistical package (Statistical Package for Social Sciences –SPSS) and all the loadings above the cut-off value were retained.

The next stage entails determination of the number of factors to be retained. Kaiser's criterion (Eigen value exceeding 1), scree test and parallel analysis methods were used to identify the number of factors. It is worth noting

that scree test and Kaiser's criterion has limitations relating over/under estimation of number of factors to be extracted (Oladinrin & Ho, 2015). Hence, parallel analysis was developed to address the weaknesses of the two methods (O'Connor, 2000). As criteria for identifying the number of factors to be extracted, the Eigen value from SPSS must be greater than the criterion value from parallel analysis (see Table 3).

Component	Eigen value from PCA	Criterion value from parallel analysis	Decision
1	10.121	3.016	Accept
2	3.358	2.645	Accept
3	2.727	2.439	Accept
4	2.434	2.28	Accept
5	1.760	2.156	Reject
6	1.558	2.036	Reject

Understanding the principal factors responsible for poor performance of government-funded project is a first step towards improving it. Factor analysis was applied to the 39-items in order to identify the underlying factors that can be attributable to poor performance of government-funded construction projects. Four components summarised the 39 variables and account for 47.80% of the total variance as shown in Table 4. Addressing these factors would lead to reduction in economic waste, improved productivity and sustainable economic development. The underlying factors are:

### **Managerial and Technical Factor**

Managerial and technical factor category consists of 12 items and accounts for 13.14% of the total variance explained. This factor is broken down into construction techniques adopted by the contractor, shortage of technical professionals in the contractor's organization, managerial skill of the project manager, competence of technical staff assigned to the project, poor method of applying fluctuations on the contract, ineffective quality control by the contractor, poor site management, lack of contractor's administrative personnel, lack of use of appropriate project planning technique

adopted, improper technical study of the contract by the contractor during the tendering stage, incompetent consultant engineer's staff assigned to supervise the project, and reckless spending by the contractor. The root cause can be attributed to the appointment of incapable contractor during the process of procuring construction projects. These are common phenomena in Nigeria despite applaudable reforms in the procurement process. For instance, the process of procurement of government-funded project remains shrouded in secrecy which encourages unfair practices. Although Long, Ogunlana, Quang and Lam (2004) suggest that the use of prequalification and selective bidding could ensure appointment of capable contractors, there is a need for strengthening of institutions in Nigeria to prevent interference in the procurement process of government-funded construction projects. In addition, Ameh and Odusami (2014) observed that nearly all the built environment professionals have deficiencies in project management-related courses in their background education. Despite this, most construction professionals in Nigeria combine their primary technical skills with project management functions.

### **Corruption and Attitudinal Factor**

This factor consists of ten items which accounts for 12.25% of the total variance explained. The items in this factor grouping are related to corruption and attitude of project stakeholders. The parties involved in a construction project are responsible for these problems. As pointed out elsewhere, unethical practices in the process of procurement of government-funded construction projects is principally responsible for poor performance. Ameh and Odusami (2010a) assert that Nigerian building industry professionals' ethical ideology could be described as situationism, a relativist ethical view point which suggests high susceptibility to corruption. In another related study, Ameh and Odusami (2010b) assert that the building/construction manager faces the greatest pressure from clients' representatives and consultants to act unethically while the quantity surveyor is perceived as most susceptible to corruption. Corruption and ethical impropriety in the procurement of building and infrastructural projects are of serious concern in the construction industry of developing countries.

### **Financial and Red Tape Factor**

This refers to bureaucratic bottlenecks and economic issues that affect



monetary policies of a country. This factor consists of nine items and accounts for 11.45% of the total variance explained. The factor grouping is made up of: delay in contract award process, delay in payment of mobilization fee, tendering methods, delay caused by site handing over process to the contractor, delays in receiving interim payments from public agencies, delay in contractor's claim settlements, wrong method of valuation, financial difficulties faced by the contractor, and changes in government policies. Bureaucracy was identified as a problem affecting performance of construction project in developing countries (Frimpong, Oluwoye & Crawford, 2003; Long *et al.* 2004). Also, issues relating to finance had been reported to influence project performance. Previous studies show that project funding challenges, delays in payments, and foreign currency exchange rate are obstacles to project success (Enshassi, Mohamed & Abushaban, 2009; Babalola, Oluwatuyi, Akinloye, & Aiyewalehinmi, 2015). Therefore, improvements in the adoption of 'best-practices' in financial management and streamlining bureaucratic structures in the procurement process could lead to improvements in performance of government-funded construction

projects.

### **Poor procurement Practice and Economic Factor**

Inflation, appointment of inexperienced/unqualified contractors, improper assessment of project location and site conditions, prevailing economic conditions at the moment (boom or meltdown), political instability, lack of coordination among the construction parties, delay in resource allocation by the contractor and bid award for lowest price constitute the fourth factor grouping. Demand for construction industry's product is known to fluctuate with economic cycles (Tan, 1989; Goh, 2005). Although previous research has shown that construction sector can stimulate economic development (see Dang & Low, 2011), it is evident that uncontrolled investment leads to economic waste. For instance, increase in government revenue in Trinidad and Tobago led to massive investments in infrastructure project. However, Lewis (1984) reported that this led to huge economic waste due to the lack of capacity of the construction sector to handle such increase in infrastructure investments. Elements of the procurement process have an impact on performance of construction projects. Previous studies have shown that risk

mitigation strategies, preference for lowest bidder for contract award and collaborative practice among project stakeholders are among the critical elements of the procurement process, which influence outcome of construction projects (El Wardani, Messner & Horman, 2006; Caldwell, Roehrich & Davies, 2009; Eriksson, 2010). Therefore, it is recommended that the stakeholders (such as government, large client and property development companies, among others) should create a central body to manage the activities of construction sector as suggested in Ofori (1994). This will ensure that the investments in

the infrastructure projects do not exceed the carrying capacity of the construction sector. There are policies in place to support 'best- practices' in the process of procuring government-funded projects in Nigeria. However, unethical practice is a major factor that limits compliance with such policies. There is a need to strengthen the institutions and civil societies to checkmate unethical and corrupt practices in the procurement process of government-funded construction projects in Nigeria. These will ensure that there is an improvement in the performance of government-funded construction projects.

Table 4: Results from factor analysis

Causes of poor performance in government funded project	Component			
	1	2	3	4
<b>Managerial and Technical Factor</b>				
Construction techniques adopted by the contractor	0.705			
Shortage of technical professionals in the contractor's organization	0.698			
Managerial skill of the project manager	0.695			
Competence of technical staff assigned to the project	0.643			
Poor method of applying fluctuations on the contract	0.638			
Ineffective quality control by the contractor	0.617			
Poor site management	0.576			
Lack of contractor's administrative personnel	0.515			
Lack of use of appropriate Project planning technique adopted (Gantt chart, Network programming, MS project, etc.)	0.475			
Improper technical study of the contract by the contractor during the tendering stage	0.472			
Incompetent consultant engineer's staff assigned to supervise the project	0.460			
Reckless spending by the contractor	0.438			
<b>Corruption and Attitudinal Factor</b>				
Poor on-site supervision by the consultants		0.764		
Ambiguities and mistakes in specifications and drawings		0.729		
Poor coordination among the supervising consultant engineers with the parties involved		0.723		
Fraudulent practices and kickbacks		0.611		
Slow response among the consultants regarding testing, inspection of materials to be used on site		0.579		
Kickbacks and padding		0.535		
Bureaucratic bottlenecks in the approval of contractors queries.		0.505		
Poor communication of design (drawings and specification)		0.468		



**Significant causes of poor performance of government-funded construction projects**

Lack of political will by government in power to support the project	0.461
Inadequate contractor's experience	0.442
<b>Financial and Red Tape Factor</b>	
Delay in contract award process	0.735
Delay in payment of mobilization fee	0.715
Tendering methods	0.603
Delay caused by site handing over process to the contractor	0.585
Delays in receiving interim payments from public agencies	0.557
Delay in contractor's claim settlements	0.517
Wrong method of valuation	0.420
Financial difficulties faced by the contractor	0.411
Changes in government policies	0.345
<b>Poor Procurement Practice and Economic Factor</b>	
Galloping inflation (acute)	
Appointment of inexperienced/unqualified contractors	0.805
Improper assessment of project location and site conditions	0.791
Prevailing economic conditions at the moment (boom or meltdown)	0.745
Political changes/political instability	0.623
Lack of coordination among the construction parties	0.598
Delay in resource allocation by the contractor	0.487
Bid award for lowest price	0.458
	0.385

### Test of Hypothesis

To test the research hypothesis postulated for this study, which states "there is no significant difference in the perception of respondents on factors affecting poor performance of government-funded construction project", a number of statistical investigations were carried out. The results of the test of normality (i.e. Kolmogorov-Smirnov & Shapiro-Wilk) show that the data are not normally distributed. Hence, Kruskal-Wallis test is considered as the most appropriate technique for evaluating the differences among the three groups of respondents. The results are presented in Table 5.

**Table 5: Results of Kruskal-Wallis test**

Causes of poor performance in government funded project	Chi-Square	Asymp. Sig.	Decision
Delays in receiving interim payments from public agencies	0.318	0.853	Accept
Political changes/political instability	1.155	0.561	Accept
Changes in government policies	1.139	0.566	Accept
Lack of political will by government in power to support the project	0.219	0.896	Accept

Table 5: Cont.

Fraudulent practices and kickbacks	0.040	0.980	Accept
Kickbacks and padding	0.997	0.608	Accept
Bid award for lowest price	3.644	0.162	Accept
Tendering methods	4.978	0.083	Accept
Wrong method of valuation	3.038	0.219	Accept
Delay in contract award process	8.875	0.012*	Reject
Delay in payment of mobilization fee	0.389	0.823	Accept
Delay caused by site handing over process to the contractor	0.416	0.812	Accept
Incompetent consultant engineer's staff assigned to supervise the project	0.169	0.919	Accept
Ambiguities and mistakes in specifications and drawings	1.435	0.488	Accept
Bureaucratic bottlenecks in the approval of contractors queries.	2.222	0.329	Accept
Poor coordination among the supervising consultants engineer with the parties involved	0.006	0.997	Accept
Poor on-site supervision by the consultants	2.162	0.339	Accept
Slow response among the consultants regarding testing, inspection of materials to be used on site	0.275	0.871	Accept
Competence of technical staff assigned to the project	0.084	0.959	Accept
Construction techniques adopted by the contractor	1.369	0.504	Accept
Delay in contractor's claim settlements	8.001	0.018*	Reject
Reckless Spending by the contractor	0.671	0.715	Accept
Inadequate contractor's experience	10.153	0.006*	Reject
Managerial skill of the project manager	4.547	0.103	Accept
Financial difficulties faced by the contractor	0.748	0.688	Accept
Poor site management	2.235	0.327	Accept
Improper technical study of the contract by the contractor during the tendering stage	0.584	0.747	Accept
Ineffective quality control by the contractor	1.411	0.494	Accept
Delay in resource allocation by the contractor	0.202	0.904	Accept
Lack of use of appropriate Project planning technique adopted (Gantt chart, Network programming, MS project, etc.)	1.663	0.435	Accept
Poor communication of design (drawings and specification)	0.470	0.790	Accept
Poor method of applying fluctuations on the contract	0.128	0.938	Accept
Lack of contractor's administrative personnel	1.999	0.368	Accept
Shortage of technical professionals in the contractor's organization	2.279	0.320	Accept
Prevailing economic conditions at the moment (boom or meltdown)	6.687	0.035*	Reject
Appointment of inexperienced/unqualified contractors	3.886	0.143	Accept
Lack of coordination among the construction parties	0.569	0.753	Accept
Improper assessment of project location and site conditions	0.930	0.628	Accept
Galloping inflation(acute)	3.854	0.146	Accept

Significant at  $p \leq 0,05$



All the 39 causes of poor performance of government-funded construction projects were subjected to Kruskal-Wallis test. The results of the test revealed that four-items had significant difference: delay in contract award process, delay in contractor's claim settlements, inadequate contractor's experience and prevailing economic conditions at the moment (boom or meltdown). The result revealed that owners, consultants, and contractors agree on the significance of the causes of poor performance of government-funded construction projects.

## CONCLUSION

The main goal of this study was to identify and examine the causes of poor performance of government-funded construction projects in Nigeria. Thirty-nine problems were identified from the review of literature and interaction with industry professionals in Nigeria. Political instability, delays in receiving interim payments from public agencies, changes in government policies, appointment of inexperienced/unqualified contractors and competence of technical staffs assigned to the project were found to be the most significant causes of poor performance. In addition, there was strong agreement towards these problems among the different groups of

respondents that participated in the survey.

Deeper analysis revealed that there was an underlying relationship among the 39 causes of poor performance of government-funded construction projects. Factor analysis was applied to the 39 items. Subsequently, the items were grouped in four factor groupings: (1) managerial and technical factor; (2) corruption and attitudinal; (3) financial and red tape; and (4) poor procurement practice and economic. The results of the present study corroborate those found in earlier study which suggest that human and management challenges are main factors affecting performance of construction projects. These findings suggest that there is a need to encourage training and re-training construction professionals to improve the knowledge and skills in project management. To stem corruption and attitudinal issues bogging the performance of government-funded projects, discretionary powers of professionals involved in award decisions and monitoring or quality certification of government-funded project should be subject to third party verification.

By addressing the problems identified in this study and others that may emerge in future projects, it is hoped that performance of government-

funded in Nigeria can be improved. The agreement of several findings in this research with those of previous studies in other developing countries confirms that public construction projects in developing countries are faced similar problems. It is important to reflect on the limitations of the current study and future research opportunities. The work presented here is focused on factors

affecting performance of government-funded construction projects in Nigeria. There is a need to gain deeper insights into the issue mitigating the impact of new strategies and policies meant to facilitate improvement in the performance of government-funded construction projects in Nigeria.



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