

DUE PROCESS AND CONTRACTOR SELECTION FOR PUBLIC WORKS IN NIGERIA

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Abstract

Contract procurement processes have a lot of challenges in the construction industry. These challenges are evident in procedures used for selection of contractors and consequent, performance of projects. This study explores the challenges of *Due Process Policy Model (DPPM)* procedures for the selection of contractors for public projects between 2002 and 2008 in Nigeria. The procedures mandate certain categories of the procurement of public construction contracts to undergo a sequence of activities. Such procedures include *advertisement, prequalification, short-listing, invitation, tender action and project execution*. Observations are made on procedures of selection of contractors for 47 projects using DPPM. Moreover, interviews were conducted to seek clarifications on some of the challenges identified in DPPM processes. Arguably, DPPM is gaining more popularity in Africa. Thus, observations made on the challenges of DPPM will improve its capacity for adoption within and outside Africa; motivate innovative procurement processes, with significant impact on international contract procurement policy makers and contract procurement officers. International contractors willing to explore the growing capacity of the construction market in Africa will discover significant and appropriate understanding of the basic requirements of DPPM.

Keywords: Contract Procurement; Due Process Policy Model (DPPM); Prequalification; Nigeria.

Introduction

Arguably, objectivity in contractor selection for public construction projects is critical and imperative to the success of the project. This paper reviews the application of *Due Process Policy Model (DPPM)* in contractor selection procedures for public works in Nigeria. The *Due Process Policy* is a popular public procurement reform in Nigeria. It was enacted in 2002, before the enactment of the Nigerian Public Procurement Law of 2007. The goal of this procedure is to entrench an effective contractor selection model that is based on world's best practices. Evidently, adopting the ethos of transparency, objectivity and accountability in value-based public procurement systems had been given keen consideration in many countries (Abdul-Aziz, 1995; Wong and Holt, 2004; Salama et al, 2006). However, the poor economic situation in Africa has strong relationships with the performance of public construction projects and this can not be separated from the contract procurement system.

Interestingly, Africa's 30,065,000Km² landmass makes it the second largest continent in the world, hosting 10% of the global population. International Monetary Fund (IMF) *Outlook* (2006) reports an improvement in Africa's GDP (Gross Domestic Product) growth from 3.7% in 2002 to 5.4% in 2006. This can be closely linked to the recent interventions of African Heads of State and Implementation Committee's (HSGIC) keen interest and effort to encourage massive infrastructural development across the region. An example of this commitment is the Short Term Action Plan (STAP) of May 2002, to implement projects worth \$8,125,000.00 in some sensitive

areas that could have positive impacts on Africa's economy. Moreover, the interventions of multinational organizations like World Bank, IMF, UNICEF, UNDP, USAID, ADB, USAID etc as well as partnership arrangements are contributing to the improving prospects of African construction markets. According to African Development Bank (ADB) (2005), only 4% of world PFI (Public Finance Initiative) investment is available in Africa; 51% of which is in telecommunication, while 48% of total PFI investment is in South Africa. However, there is overwhelming evidence in empirical reports showing the impressive growth in construction market capacities of many other African countries (Lopes et al, 2002; Zawdie and Langford, 2002; Chrisna, 2005).

Nigeria's 148,000,000 (2007 UN estimate) population is the largest in Africa and the eighth largest in the world. The contribution of the construction industry to the growth of the Gross Domestic Product (GDP) of Nigeria is steady and improving; from about 5% in 2001 to over 13% in 2007 (Central Bank of Nigeria - CBN, 2008). This growth is motivated by continued interest of government to reposition Nigeria's economy as one of the top 20 largest economies in the world. Interestingly, the government is responsible for about 75% of infrastructural development in Nigeria (BMPIU, 2005). Evidently, there is very strong relationship between the Nigerian construction industry and larger economies, both in Nigeria and Africa at large. Thus, the government is not only keen to the development of the Real Sector of the economy but there is also critical interest for the government to improve the image of the country through the construction sector.

Before the advent of the *Due Process Policy*, contract procurement process for public construction projects in Nigeria was facing a lot of challenges. These challenges included the implication of project failures on the image of the Nigerian construction industry in terms of project abandonment, delay in project delivery, cost inflation, poor quality of work, high initial cost of projects and so on. Arguably, poor methods and procedures of selection of contractor could be linked to this. However, these methods are not only subjective; decisions on public contract awards are based on informal relationships between contractors, public officials and project teams. Thus, most of the models of assessment used for the selection of contractors are not based on value and merits of bids but on tender price and "initial" lowest bids, as well as other informal factors (Olatunji, 2007a). Therefore, this challenge triggers mismanagement of funds through public contract by erring contractors as well as unethical practices by construction professionals. There was instability and lack of growth in national economy while poverty, unemployment, corruption, undue influence and the image of the construction industry suffered (Obiegbo, 2005).

Evidently, imperfections in contractor selection are not limited to the developing economies (Doree, 2004; Wong and Holt, 2004). However, until recently, perhaps after the advent of Nigeria's *Due Process Policy*, many African countries had not incorporated objectivity in their approaches of selection of contractors for public works. African, as well as other developing countries, could be motivated by the overwhelming success of the strategic application of *Due Process Policy* in Nigeria. According to Obiegbo (2005), the Policy was not only able to save the country over \$1bn within 3 years of its application but there was also a critical factor of national rebirth – "no more business as usual". Therefore, the need to motivate and sustain proactive public procurement system is inevitable. This study focuses on reviewing processes and procedures for the selection of contractors for public construction projects in Nigeria under the *Due Process policy* between 2002 and 2008. The objectives, therefore, include: (1) to identify the procedural framework of contractor selection through *Due Process Policy Model* (DPPM), and; (2) to identify the challenges associated with the current application of DPPM in Nigeria.

The Due Process Policy and Nigerian Public Procurement System

The Nigerian *Due Process Policy* is administered by the Budget Monitoring and Price Intelligence Unit (BMPIU), Office of the President, Federal Republic of Nigeria. The goal of BMPIU is to ensure full compliance with laid down guidelines and procedures for the procurement of major and minor capital projects and associated goods and services. Also, it is to serve as official guide for public contract procurement and as administration system in Nigeria, prior to the enactment of *Public Procurement Act* (2007). It is designed to revamp the system as a disincentive to corruption and unethical practices, through purposeful focus on principles of integrity, transparency, competence-based selection, accountability and value-driven competition as national ethos in public contracting. According to Oguonu (2005), the set objectives of BMPIU include:

- To harmonize existing government policies/practices and update the same for public procurement
- To determine whether or not Due Process has been observed in the procurement of services and contracts
- To introduce more honesty, accountability and transparency into the procurement process
- To establish and update pricing standards and benchmarks for all supplies to government
- To monitor the implementation of projects during execution with a view to providing information on performance, output and compliance with specifications and targets
- To ensure that only projects which have been budgeted for are admitted for execution

Therefore, BMPIU enforces *Due Process* procedures; sets and regulates standards and guidelines for public procurement as well as monitor professional ethics in the process. The Unit also maintains a public procurement database and issues *Due Process Validation Approval* for all procurements that complied with stipulated Contracts Award Processes – this must be done by the recognized *Right Procuring Entity (RPE)*. The RPE is the end-user parastatal, which must present project justifications and details. The Resident Due Process Team is there to ensure that Due Process principles are followed before the approval of BMPIU is sought. Thus, this has been a vital strategy to prioritize openness and fair-play in public procurement, rather than to allow only few people to take the decisions. Figure 1 shows the organization mechanism of BMPIU

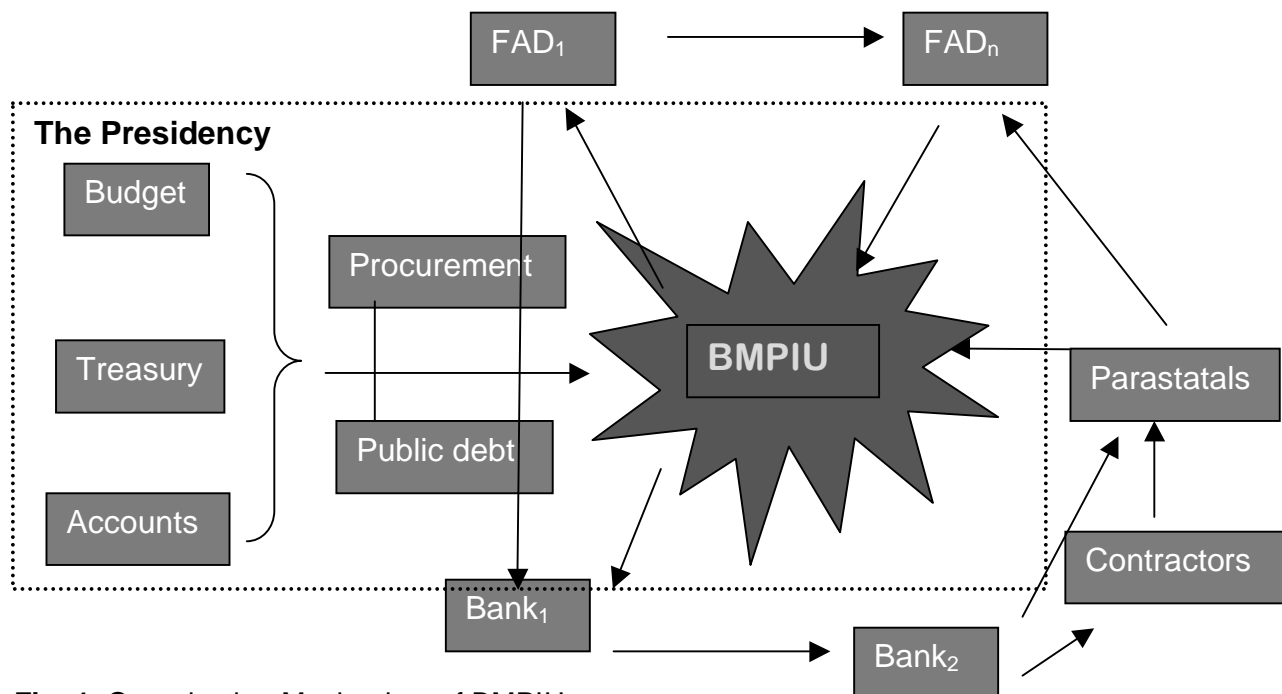


Fig. 1. Organization Mechanism of BMPIU

BMPIU relates with other Offices in the Presidency to facilitate an improved process of fiscal discipline in public procurement. Thus, there are provisions in the Due Process procedures which institutionize capacity correlations between national budget, treasury and the management of federation accounts. This is critical to the system of public procurement and national debt management. Moreover, there are Resident Procurement Officers at all the stages of the Due Process certification and approval processes in bottom-to-top order. Smaller projects, in cost values less than N1m (US \$80,000), may be approved by Executives of parastatals without recourse to approval by BMPIU. Resident Due Process Team (RDPT) of the parastatals is authorized to approve projects with cost values less than N50m (US \$400,000). However, projects of higher cost values are processed in accordance with government guidelines as approved by the Ministerial Tender Board before being forwarded to BMPIU to obtain a *Due Process Certificate*. When certification is obtained from BMPIU, the project would be forwarded to Federal Executive Council for approval before an award can be made.

This procedure is aimed at making sure that Due Process procedures are complied at all levels; thus, institutionizing the culture of openness in public procurement. However, project conception originates from end-user parastatals, the size of which must correspond with budgetary allocations and justifications available with the Financial Administrative Division (FAD) of the end-user Ministry. For projects of cost values higher than N1m, FAD_n of parastatals relates with FAD₁ (or Office of the Account General of the Federation), Ministry of Finance. Consequently, the contractor would be paid directly from the Federation account through the Central Bank (Bank₁). Interestingly, Contractor's Bankers (Bank₂) are liable in case of default; having established bonding arrangement with the contractor in respect of the project. Moreover, proper documentation is critical before BMPIU's *Due Process Compliance Certification* is granted. The requisite documents include the Project Policy file, evidence of openness and transparency in the procurement processes, Tender Returns, Tender Evaluation Report, Contract Award Letter and Agreement, Original Contract Bills of Quantities, Contract Drawings, Other Contract Documents, Financial Summary and Statements, Progress Reports, Variation Requests and Variation Orders arising, Interim Valuation, and Certificates. Therefore, once the set conditions are met, the recommended winner of contract is believed to be the *Right Bidder*, whose bid offers the appropriate value for money in respect of the project milestones (Quality, Time, and Safety).

Challenges of Contractor Selection Model of Due Process Policy

Generally, the processes of public contract procurement stipulated by BMPIU must pass through the following: Project planning, Advertisement, Prequalification, Short-listing, Tender action, Determination of Winning Bid, Award of Contract and project execution. Mostly, consultants are engaged to handle Project Planning, while Invitations for prequalification for major projects are done via major national dailies and the *Federal Tenders' Journal*. Prequalification is a significant aspect of selecting contractors for public projects in Nigeria. Arguably, it aimed at "filtering" out incompetent hands from the contract procurement system.

Prequalification is a mechanism for assessing the capability of candidate competitors to ascertain their competencies in handling prescribed technicalities and financial investments of clients (Russell and Skibniewski, 1998; Hatush and Skitmore, 1997). It has been a significant tool to ensure risk-free project delivery system and maximize value for money in the project delivery system in the construction industry. The assessment criteria are similar to global standards and these have been applied to generate national models for selection of contractors for public works in Nigeria (Olatunji 2005b). However, the principle of prequalification is to enact the ability of contract administrators to understand desires of clients and establish the best set of criteria to be used for assessing contractors (Bulama 2005). Thus, these criteria are not meant to be rigid because expectations of clients on performance and functional requirements of projects are dynamic and flexible (Herbsman and Ellis, 1992).

Generally, prequalification is based on multivariate selection criteria like past performance records for similar projects, financial capacity, management capability, location factor, technical capability in terms of human and mechanical resources, general information about candidate firms, as well as other indices that might be very significant to the success of the project (Holt et al, 1995). However, these variables are often markedly assessed using other sets of sub-variables (Olatunji 2007a). Thus, Due Process Policy Model (DPPM) is not designed for rigid application in the Nigerian procurement process. Evidently, this is why some criteria carry heavy points on some projects and may be considered less significant on other projects. For instance, the DPPM used as prequalification criteria guide reflects some fundamental information about candidate contractors as having null weightings. However, competitors may be disqualified for not having them. Such include evidence of incorporation of business name registration, registration with Federal Ministry of works (in relevant category), company's audited account for three years, and evidence of tax clearance certificate for three years. Arguably, these items might be considered imperative to the success of some other projects and be awarded points.

The guide also considers the following as graduated criteria and may carry stipulated weightings:

Table 1. Graduated criteria may carry stipulated weightings

(1)	Evidence of financial capacity and banking support	15%
(2)	Experience / Technical qualification and experience of key personnel	25%
(3)	Similar project executed and knowledge of the industry	20%
(4)	Equipment and Technology capacity	20%
(5)	Annual Turnover	5%
(6)	Faithfulness to Value Added Tax	5%
(7)	Bonus of 5% each for contractor's evidence of commitment to Local Content emphasis and Community Social responsibility.	10%
TOTAL		100%

Also, the stipulated criteria and weightings are not fixed. Contract administrators in various public procurement offices have the mandate to review the criteria and the weighting at their discretion. Though it must be done in fairness, and commitment to openness and accountability.

In most cases, successful candidate contractors must satisfy the client in terms of facts relating to capabilities, competencies and sound understanding of project peculiarities in terms of evidences of past performance on similar projects (including the presentation of letters of awards and certificates of practical competition on recent and similar completed projects). Moreover, depending on the number of applicants, a successful applicant contractor during prequalification must have scored not less than 70% in the assessment. Thus, with a minimum of 3 prospective bidders of good assessment scores, it is unlikely a successfully prequalified is turned down during bidding for reasons of incompetence.

Based on the foregoing, there may be some challenges the current models of prequalification have yet to provide answers to:

- (1) **Presentation Problems:** Most contractors with excellent performance records may not have impressive scores during assessments. This is largely a result of presentation problems. It is either that the intending contractor does not have good understanding of how to present basic data required for assessment or that the client's requirements are ambiguous. For instance, evidence of past performance does not mean pictures of executed projects; assessors expect copies of letters of awards and certificates of practical completion on similar jobs executed in the last five years. Commendation letters from previous clients may be added advantage. Moreover, when contractors are requested to present details of plants and equipment intended for the work, the list of plants and equipment by name, location, age,

ownership details and availability details are required, not pictures and plant catalogues. Also, information required for prequalification may not be limited to primary information contained in company profile; contractors may need to review company profiles to conform to the required size of information at every point in time. Therefore, smaller firms with specific verifiable documents are more likely to be considered at the expense of the larger and competent firms.

- (2) Vulnerability of paper based prequalification: Basically, DPPM's guide for prequalification is based on contractors' information and evidence given on paper records. This provides avenues to present the firm's capabilities on facts based on documents showing relevant past experience and peculiar reputation in such projects. In most cases, public contracts are procured within a valid annual budget. This means most decisions in the construction process must be made within a year. Perhaps, due to time limitations during procurement processes, consultants usually do not have the time and resources to confirm the state of some of the claims of the contractors. Moreover, as some contractors form fictitious claims on ongoing and recently executed projects, there are possibilities that cartels be formed in the process. The problem associated with cartels in public contract procurement system is such that a group of contractors can connive in such a way as to debilitate the competition processes.

On the other hand, technical capacities of contractors are measured based on the credentials of key technical and support staff on the payroll of the contractors. In most cases, assessors are misinformed. Perhaps, due to skill shortages, fictitious lists and credentials are presented. This implies many firms can lay claim to a single individual, without his consent or to untraceable persons (dead, bankrupt, and illegal entities) as the technical members of their firm. Evidently, many contractors do not have the capacity to sustain the required number of qualified professionals in their payroll and may not use them on the projects.

Moreover, bank financial statements are parts of the documents used for the assessment of contractors. Arguably, an indication of huge credit balance may not signify the credit worthiness for a contractor. This is because it may be difficult to separate contractor's liabilities from his credit base in relation to his intended commitment for the project. Regrettably, information provided in annual audited accounts can not be effective in communicating this. This may mean that contractors would wait for mobilization from clients after award of contract, before they mobilize on site. Unfortunately, amortization of mobilization may be difficult; leaving the client with very limited options of effective project funding – for the project to progress, some financially weak contractors may need to be paid upfront throughout the project.

- (3) Prequalification of consultants: Arguably, the problems with the construction industry are not limited to contractors alone (Latham, 1994; Egan 1998). However, consultants on construction projects are mostly over-protected from prequalification. Perhaps, due to limited time, many construction contracts have been executed without prequalifying consultants. This implies there is no basis for the validation and physical assessment of records regarding the capacities claimed by consultants. Moreover, contractors may be spared the full responsibilities for some problems in the construction process e.g. design error, professional negligence, professional misconduct, corruption and so on. Thus, prequalifying the capacity and competence of consultants will improve project delivery process in construction.
- (4) Prequalification and the growth of the construction industry: The assessment of contractors' competencies and capabilities are based on credible financial bases, convincing records of past performance on relevant projects and strong technical strengths. Evidently, this may put new and keen contractors at serious disadvantage. For instance, that a firm is new and has not undertaken many projects does not mean the firm will fail if given an opportunity. If the technical strength of the firm under assessment is composed of *real* and experienced

professional, innovation and growth of the industry may be motivated. On the other hand, the fact that a firm performed on a similar project some years ago is not, in itself, an indicator that the same firm can perform again. Thus, to a reasonable extent, there is a limit to discriminating contracting firms based on records of past performance. Interestingly, work environments are not perfectly identical, while the industry remains dynamic. Therefore, the growth of the industry may depend largely on the commitment by all stakeholders to be more objective in assessing contractors for selection based on tangible variables at hand rather than using subjective methods

- (5) Cumbersomeness of prequalification criteria: The construction industry requires objective assessment criteria to guarantee an effective procurement system. However, it has been a critical challenge for the construction industry to generate universal assessment criteria (Hatush and Skitmore, 1997). This has significantly affected procurement processes for construction and supply projects. Evidently, similar prequalification models are still being used for both construction and supply projects in many cases. Whereas, desire and risk variables for both are very different. For instance, most supply projects may have a shorter *initial contract period* when compared to an average construction project. Thus, considerations for risks variables in terms of insurance, bonding arrangements, equipment, and method related technologies, etc are different.

Additionally, there is still confusion as to the level of content of professionalism a supplying firm should have. For instance, a technically sound construction contracting firm should have fully registered professionals like Architects, Quantity Surveyors, Engineers and Builders. However, in a supply project having to do with the procurement of laboratory equipments, the firm may only need to demonstrate convincing expertise in laboratory instrumentation. There may be basic academic provisions but insisting on professional qualifications may be very cumbersome.

Research methods

Structured interviews of randomly selected individuals and direct observation methods are used for this study. 7 senior public Procurement Officers and 12 contractors were interviewed. The respondents are qualified and experienced professionals with basic construction backgrounds. They have taken part in an average of 6 construction projects per annum in the last 5 years; mostly in the construction of educational and health projects. Due Process Policy is applied equally across board, thus their opinions may represent a fraction of possibilities of challenges in the application of DPPM in the Nigerian public procurement process. This may not reflect overall opinions of all the stakeholders in public contract procurement system in Nigeria. However, their opinions are responsive to findings on observations made on randomly selected 47 construction projects reviewed and reported in this study.

Research question:

- How effective is DPPM in establishing the relationship between project delivery and competence of selected contractors for public projects?

Research Objectives:

- To establish the need for transparency and fair-play in contracting procedures for the procurement of public contracts.
- To investigate the relationship between objectiveness in models used for selecting contractors for public works and standards of project delivery
- To review public procurement structure and challenges of culture on models used for the selection of public contractors in Nigeria

Research results

The aim of the interview is to establish the implications and challenges of DPPM in the Nigerian construction industry as it relates to the trade-off between purpose and results of application. On the structure of DPPM, all interviewees strongly believe in the transparency and accountability mechanism of Due Process Policy in public procurement in Nigeria. However, about half of them are not totally convinced that the policy has created more job opportunities. Paradoxically, 53% own up to the fact that a lot of incapable hands have been faded out of the system, while competent hands have more opportunities. About 85% of the respondents consider this as an advantage in the economic reform of Nigeria. This confirms media reports that the Policy has saved the system from recurrent incidences of project abandonment after advance payment as used when incompetent hands are involved (Wahab, 2005). About 25% see the lowest bid selection criteria as not the best option to save cost as the project is at the risk of optimum performance in the project's economic life.

Moreover, on issues related to DPPM's systemic effectiveness, respondents strongly agree that Due Process Policy makes the procurement of public contracts in Nigeria faster and orderly. However, 62% of the respondents see prequalification system in use as not an effective mechanism to assess contractors' competence. They expect a more decisive mechanism to motivate keener, accurate, effective and objective contractor selection technique. Moreover, about 45% of the interviewees believe in the strength of prequalification as a function of the pre-qualifiers' mindset to uphold professionalism and show commitment to the course of government. Also, 85% consider it imperative that the assessment criteria should be modified to make it more effective. 35% of the respondents opine that going by lowest bid syndrome, which in most cases are cover price bids, quality cheat is the cheapest way out. However, 85% of the interviewees believe that contractors under Due Process are employed on merit of competence and capabilities as the best available and at the best of their capacities to dispense highest order of quality jobs.

In order to establish the effects of DPPM on contract procurement, 47 selected sites were observed for 90 days between January and March 2008. The average contract period of the projects is 24 weeks. Perhaps due to lowest tender price syndrome, about 35% of the contractors on the project sites do not have the appropriate competencies. For the substantial period of observation, there were shortages of workmen on site, while materials in use were not likely to conform to minimum standards. Plant capacity is poor and obsolete and crises are common among workmen. Crises observed were as a result disagreements on fair pay, respect and faithfulness to terms and conditions of employment and job security. As of the time of survey, about 60% of the construction projects visited might result in delay of delivery. Based on work-program targets, about 10% of the projects are about 90 days behind schedule; 45% are about 60 days behind schedule, while; 35% are about 30 days behind time target. Moreover, 10% of them are about 10 days behind time. About 48% of interviewees blame delays on shortfalls in cash-flow as a result of resource allocations being made available beyond 21 days after payment

certificates are raised. Other causes of delay in project delivery witnessed were poor project planning methods and techniques, and uprising among workmen due to challenges of fair remuneration and welfare.

65% of the respondents affirm that project expectations in terms of functional specification and performance are too complex and not comprehensive enough to facilitate error-free construction. In some cases, consultants are alleged to be negligent and frequently deny faults.

Discussion and conclusions

The Due Process Policy Model (DPPM) of contractor selection for public works in Nigeria is a proactive mechanism to institutionalize transparency and accountability against corruption, favouritisms and professional indiscipline between construction contractors and public contract administrators. This is an improvement over previous practices where the processes of selecting contractors for public works are subjective. The study confirms the lowest-bid syndrome as the largest single factor compelling contractors to deliver low quality projects. Also, Nigerian local contractors are technically challenged. This is evident in their dispositions to contemporary advancement in construction technology, and effective planning tools and techniques. However, this does not mean that when provided with appropriate atmosphere, they can be found wanting. Moreover, as DPPM is gaining more popularity in Africa and other developing nation, it is vital that some of the challenges identified are effectively addressed with time.

Arguably, project performance in Nigeria depends largely on ethical inadequacies rather than conditionality of procurement policies. Thus, it is strongly recommended that:

- There should be strict adherence to global standard in contractor selection and this should be based on objectivity, flexibility, reliability, and adaptability of the chosen criteria as they apply to projects peculiarities.
- There should be flexibility in the procurement conditionality under Due Process to de-emphasize price–data driven selection process and uphold tender value as the bases for contractor assessment.
- More focus should be motivated to re-orientate the public procurement system about ethics, procedures and standards rather than reforms. Faithfulness in habit may be the main traceable solution to moral decadence, perhaps not paper facts.

Key Lessons Learned:

- Objectivity is critical to value-based procurement principles; however, paper-based evidences may not be sufficient justifications for defining the competence of contractors.
- Communication is as vital as technical strength in reputation and corporate goodwill of contracting firms. Contractors should improve on their marketing strategies through appropriate but flexible presentation techniques.
- Keeness in the selection of contractors has its merits; however, it could damage value-sharing, innovation and competition when misapplied.

References

- Abdul-Aziz, A R (1995) Examination of the eclectic paradigm as applied to international contracting: with emphasis on the internalization dimension. *Engineering, Construction and Architectural Management*, 2(2), 105-20.
- Budget Monitoring and Price Intelligences Unit (BMPIU) (2005) *A manual on public procurement reform Programme in Nigeria*. State House, Abuja.
- Bulama, Mustapha (2005) Prequalification/Selection of Consultants and Contractors under Due Process. *35th National conference / Annual General Meeting of the Nigerian Institute of Building on Due Process and the Construction Industry*
- Central Bank of Nigeria (CBN) (2008) *Annual Reports and Statement of Accounts (of the Federal Republic of Nigeria) for the Year ended 31st December, 2007*, The Central bank of Nigeria, Page 1 – 131.
<http://www.cenbank.org/OUT/PUBLICATIONS/REPORTS/RD/2008/ARP2007-PART%201.PDF> , accessed 26th August, 2008.
- Chrisna du Plessis (2005) Action for sustainability: preparing an African plan for sustainable building and construction, *Building Research and Information*, 33(5), 405–415
- Doree, A. G (2004) Collusion in the Dutch Construction Industry. An industrial Organization Perspective. *Building Research and Information*, 32(2), pp 145 -156.
- Egan, J. (1998) *Rethinking Construction*, Department of the Environment, Transport and the Regions, London
- Hatush, Z and Skitmore, M R (1997) Criteria for contractor selection. *Construction Management and Economics*, 15(1), 19-38.
- Herbsman, Z., and Ellis R., (1992) Multi-parameter bidding system – innovation in contract administration, *Journal of Construction Engineering and Management*, 118(1), p 167 – 172.
- Holt, G. D., Olomolaiye P. O. and Harris, F. C. (1995) A Review of contractor selection practice in the UK Construction Industry. *Building and Environment* vol. 30 (4) pg. 553 – 561
- Latham, J. (1994) *Constructing the Team*, Joint Review of Procurement and Contractual Arrangements in the UK Construction Industry, Ministry of Environment, Transport and the Regions, London.
- Lopes Jorge, Ruddock Les and Loforte Ribeiro Francisco (2002) Investment in construction and economic growth in developing countries, *Building Research & Information*, 30(3), 152–159
- Herbsman, Z. and Ellis, R (1992) Multiparameter bidding system innovation in contract administration. *Journal of construction Engineering and Management*, 118(1), 142 – 150.
- Obiegbu, M.E. (2005) Due Process and the Procurement Methods in the Construction Industry. *Proceedings of 35th National conference / Annual General Meeting of the Nigerian Institute of Building on Due Process and the Construction Industry*, Nigerian Institute of Building, Nigeria, Pg 23-47.

- Oguonu C. N. (2005) Due Process and Procurement in the Nigerian Public Sector *Featured Articles, Holler Africa*. <http://www.hollerafrica.com/showArticle.php?catId=1&artId=248>, accessed, 28th August, 2008.
- Olatunji O. A (2007a) Evaluating the Efficiency of Pre-Qualification as an Imperative Tool in Competitive Equation in Construction in Developing Countries, *Proceeding of 2007 Quantity Surveyors' International Convention*, Kuala Lumpur, Malaysia, pp 132 – 141.
- Russell, J. S and Skibniewski, M. J., (1998) Decision Criteria in Contractor Prequalification. *Journal of Management in Engineering* 4 (2) 148 – 164.
- Salama, M, Aziz, H A E, Sawah, H E and Samadony, A E (2006) Investigating the criteria for contractors' selection and bid evaluation in Egypt. *In: Boyd, D (Ed.), 22nd Annual ARCOM Conference*, 4-6 September 2006, Birmingham, UK, Association of Researchers in Construction Management, Vol. 1, 531-40.
- Wahab, Kunle Ade (2005) the Builders and Due Process Proceeding. *35th National conference / Annual General Meeting of the Nigerian Institute of Building on Due Process and the Construction Industry*. Pg. 63-76.
- Wong C and Holt G (2003) Developing a contractor classification model using a multivariate discriminate analysis approach, Royal Institution of Chattered Surveyors, Foundation Research Papers Series, Volume 4, Number 20, pp 1 - 24
- Zawdie G. and Langford D.A. (2002) Influence of construction-based infrastructure on the development process in Sub-Saharan Africa, *Building Research & Information*, 30(3), 160–170

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