Sub-Sahara African Academic Research Publications
March, 2021, Editions

JECM
Journal of Environmental Design and Construction Mgt. Vol.19, No.4, ISSN 2292-7733

ASSESSMENT OF PROCUREMENT RISKS IN FIRS BUILDING CONSTRUCTION PROJECTS IN NIGERIA

[*]HUSSAINI ZUBAIRU; & [**]IBRAHIM SAIDU
[&**]Department of Quantity Surveying, Federal University of Technology, Minna*

Abstract:
The procurement system practiced by the FIRS is constantly challenged with the problems of fraudulent practices, inefficiencies, lack of transparency, professionalism, and non-adherence to procurement code of ethics. This study assessed the procurement related risks in FIRS building construction projects in Nigeria with a view to minimising the problems of fraudulent practices. The study adopted a quantitative approach using structured questionnaires, which were randomly distributed to clients, procurement officers, contractors and consultants of FIRS building projects. The collected data was analysed using percentile, frequencies and Relative Importance Index. The study categorised risks in FIRS procurement into five major groups and found the important risks factors under each group. The top risks factors under 'Fraud' were: Kick back, shadow vendors, changes in the bids after formal receipt, suspicion about conflict of interest, and conspiracy amongst bidders. The top risks factors under 'transparency problems' were: dishonesty and lack of openness of staff to bidders, non-adherence to award criteria, and improper advertisement of proposal requests. The top risks under 'competitiveness problems' were: lack of competition among tenderers and limited issuance of eligibility forms. On the overall, the top procurement related risks were: Kick back, lack of cost effective tenders among the bidders, shadow vendors, changes in the bids after formal receipt, and suspicion about conflict of interest. It is recommended that a system of checks and balances is put in place in FIRS project to forestall the inherent corruption. Also, contractors and consultants with integrity should be engaged in FIRS projects.

Keywords: *Public building, Procurement Risk, Risk management, and FIRS*

INTRODUCTION

Traditionally, government has full control over infrastructure financing in Nigeria, until 1980s, when reforms were introduced to confront the dwindling oil revenue that challenged state capacity for infrastructure provision (Animashaun, 2011). The 2015 economic downturn in Nigeria has necessitated the adoption of more prudent methods of delivering construction projects. Thus, procuring entities of the government are faced with the challenge of effectively procuring projects within the meagre budget of the government (Osanyinro and Aghimien, 2017). The African Development Fund (ADF) found that government agencies will often rank potential projects in accordance with their benefit cost ratio and build facilities as money becomes available. Procurement of projects by meeting the delivery time, cost, and quality constraints has continued to be a challenge to the design team, the contractors and managers of the investments. Thus, the grounds of procurement method is gradually shifting from just meeting clients' needs into apportionment of risks, as the contractors are gradually taking their stance as business organisations with the aim of making optimum profits at minimum risks (Babatunde *et al.*, 2010).

Saruchera (2016) disclosed that until recently, procurement was seen as a necessity only, which in many developing economies the profession is still being treated as a 'back-office' function. However, the International Training Centre of the International Labour Organisation (ITCILO) in 2017 explained that public procurement has for long been overshadowed with inefficiency, corruption and disregard of fundamental "value for money" considerations. The public procurement has also adversely impacted the rate and quality of progress in realising the objectives of national development, especially in developing and transition countries. Russell and Meehan (2014) noted that public procurement is an obligation to deliver value to its citizens, and are held accountable through complying with regulation, responsible spending of the public purse, and ensuring the third-party delivery of contracted goods and services. Such obligations or efficacy of regulatory frameworks are rarely challenged and the impact of procurement activity is under-researched. A study conducted by Uyarra *et al.* (2014) highlighted numerous barriers which prevent public

organisations from delivering innovation and policy outcomes to includes lack of market engagement by procurement, poor tendering practice, low procurement competence and lack of risk management. Therefore, the risk management framework applied to procurement involves risk anticipation, risk monitoring and risk mitigation (Okonjo, 2014).

Consequently, understanding the main categories of risk faced in the procurement process will assist in risk assessment and planning, and devising the management and operational measures that will be taken to mitigate those risks (United Nations Procurement Practitioners Handbook, 2012). For this reason, effective procurement risk management practice requires an understanding of the relationship between procurement and organisational objectives (Okonjo, 2014). Hence, Murray (2013) observed that procurement related risks have not reduced and the FIRS projects are being delayed unnecessarily which Chen (2018) attributed to poor understanding of risks and its management strategies by the organisations.

It is therefore important to understand that risk occur at different stages of the procurement of Federal Inland Revenue Service (FIRS) building construction projects, hence the need to undertake a study to assess the risks in procuring FIRS building projects in Nigeria.

PROCUREMENT RELATED RISKS IN PUBLIC BUILDING PROJECTS

The management of risk in the procurement cycle is crucial in the realisation of project objectives. This is reinforced by the works of many researchers in public sector procurement (Ogunsanmi, 2013). The procurement cycle is characterised by a lot of risk (Abdul-razak, 2013). It is important to note that the slightest error or inconsistency in conducting procurement processes or activities can lead to accusations (Barden, 2010). Barden (2010) further argues that, even if these accusations are ultimately proven to be without merit, they can cause significant and lasting damage to the reputation of an individual and procurement agency. It is unfortunate that buyer and supplier often undertake procurement without risk considerations and sometimes the risk in itself (Gilbert and Anthony, 2016). This way procurement requires risk management plans to be put together for each procurement and to establish what risks are present and the means to reduce or eliminate (Abdul-razak, 2013).

In Nigeria, the major risk in the procurement of public buildings include lack of transparency, competitiveness, corruption, problems of cost effectiveness and professionalism in the execution of procurement functions (FGN, 2007).

Fraud as a risk in public procurement

Procurement fraud can be defined as dishonestly obtaining an advantage, avoiding an obligation or causing a loss to public property or various means during procurement process by public servants, contractors or any other person involved in the procurement (Basweti, 2013). An example is a kickback, whereby a dishonest agent of the supplier pays a dishonest agent of the purchaser to select the supplier's bid, often at an inflated price (http://everything.explained.today/Procurement). Other frauds in procurement include: Collusion among bidders to reduce competition, providing bidders with advance "inside" information, Submission of false or inflated invoices for services and products that are not delivered or work that is never done. "Shadow vendors", shell companies that are set up and used for billing, may be used in such schemes (Colman, 2016)

Lack of transparency as a risk in public procurement

The term procurement transparency implies openness in procurement processes, procedures and adherence to lay down rules. Corruption in construction contracts is becoming widespread due to lack of transparency in procurement and project delivery process (Oyegoke, 2012).

The UN Office on Drugs and Crime (UNODC) states that a procurement system that lacks transparency and competition is the ideal breeding ground for corrupt behaviour (UNODC, 2013). In another contribution by Komakech (2016), transparent procurement procedures can contribute to a more efficient allocation of resources through increased competition, higher quality procurement and budgetary savings for governments and thus for taxpayers.

Transparency, which has long been accepted as a tool for tackling corruption through a number of international agreements, is also an effective tool in addressing challenges SMEs face in public procurement (Kaspar and Puddephatt, 2012). Without transparency, “open competition cannot prevail, corrupt dealings can proliferate, and other failings in the procurement process may be covered up, so weakening accountability” (Jones et al., 2009).

Greater transparency in public procurement

Transparency can improve access to public procurement opportunities through disclosure, publication and dissemination of information on available tenders (Ahmed, 2019). Drawing on examples of good practice, e-procurement stands out as the most commonly employed tool to improve transparency in public procurement (Kaspar and Puddephatt, 2012). According to Scott and Julius (2015) lack of transparency in the award of government contract was among the several factors listed that attributed to the failure of public procurement system in Africa.

Lack of professionalism as a risk in public procurement

This section presents the risks that relate to professionalism in building projects. According to Kalinzi (2014) professionalism in public procurement allows for functionality, transparency and significant savings in public expenditure and this partly explains why it should be given due attention. There is a number of indicators that clearly guide the path to professionalism and these include legislative framework, institutional framework, professional staff transparency and modernisation procedures like use of information and communications technology among other adequacies. Globally, there are recognised bodies that have championed professionalism in various related disciplines. These include the Chartered Institute of Purchasing and Supply (CIPS), Chartered Institute of Logistics and Transport (CILT), The Dutch Association for Purchasing Management (NEVI) (Kalinzi, 2014).

Lack of competitiveness as a risk in public procurement

Competitiveness refers to the active participation of the private sector and or contractors in the procurement process through the making of procurement information accessible to all; through advertising of tenders; sourcing reviews; prequalification and the adoption of transparent procedures in the procurement systems. The benefits of competitiveness cannot be overemphasized and includes potential savings for the economy; increases in the supplier base; and the development of the local industries within the economy and thereby eventually leading to economic development and poverty reduction. Competition underpins the pillars of fairness and transparency, and is the

primary driver of Value for Money (VFM) in virtually all procurement (Office of Government Commerce (OGC), 2008).

RESEARCH METHODOLOGY

This research adopted a survey design approach utilising the quantitative method in the form of a well-structured questionnaire survey for management of risk in procurement of FIRS building construction projects in Nigeria.

The population for this study constituted the client, contractors and consultants who have participated in procurement activities of FIRS building projects in Nigeria. These comprised 211 participants. The sample frame for this study consist of Procurement staff of FIRS = 64, Facility/Project Manager of FIRS = 89, Consultants (QS=5, Arc=4, Builder=6, Engineer=6, Project manager=5) = 26 and Contractors = 32. These totalled to 211 respondents for the questionnaires.

Because of large number of the sample size, the number was subjected to Taro Yamane formula for finite population. The 211 was then reduced to 138 at 5 percent limit of error and at 95 percent confidence level. For the purpose of this research, the sample size was 138 respondents, which is the minimum sample size for this research. A total of 138 questionnaires were distributed in the course of this study. 112 questionnaires were retrieved out of the number distributed and 108 were found valid for the analysis, as 4 were discarded as a result of incomplete responses. The 108 represents an effective response rate of 78.26%.

In order to guarantee equal representation for each of the identified groups of professionals in the population, stratified random sampling method was adopted for the research. The respondents were first categorized into different strata/groups, that is: Clients, Contractors and Consultants before they were selected and randomly sampled accordingly.

The questionnaire asked questions on a 5-point Likert scales. The questionnaire was divided into two (2) main parts. Part A - is related to demographic information of the respondents and their functions in the organisations. Part B- was related to procurement risks in FIRS building construction project. 5- Most Frequent, 4-Frequent, 3-Fairly Frequent, 2-Undecided, 1-Not Frequent

For the purpose of this research, primary data was collected through quantitative research approaches which included the use of well-structured questionnaires.

Since the research is a quantitative approach, the method of data analysis in this research was descriptive in nature, and this included Relative Importance Index (RII); and Ranking methods. The demographic information of respondents was analysed using frequency and percentile.

RESULTS AND DISCUSSION

Demographic information of the respondents

Result in Table 1 shows that most of the respondents are 67.59% male while 32.41 % are female. In terms of professionals' representation, the result revealed that Quantity Surveyors more with 36.11%, followed by Engineers (23.15%), Architects (13.89%), Project Managers (13.89%) and Builders (12.96%). A look at the year of work experience of the respondents shows that only 15.74% of them have their year of working experience to fall within less than 5 years range, while 27.78% and 33.33% falls between the range of 5 to 10 and 11 to 20 years respectively. Also 17.59% and 5.56% of the population falls between the ranges of 21 to 30 years and above 30 years respectively. However, the average years of working experience of the respondents is calculated as approximately 10.75 years. This implies that they are experienced enough to give a valid response.

In terms of academic qualification, the highest is BSc/MTech (53.70%), followed by HND (21.30%), then MSc./MTech (12.96%), ND and Others are 5.56% and 6.48% respectively.

The functions in the organisations shows that 28.70% are consultants, 37.96% are contractors, project/facility manager, and procurement officers are 19.44%. Based on the result on the respondents' background information, it was concluded that the respondents are well equipped professionally and in terms of experience to give reasonable insight in the subject under consideration.

Table 1: Demographic information of the respondents

Category	Variables	Frequency	Percentage
Gender	Male	73	67.59%
	Female	35	32.41%
	Total	**108**	**100%**
Profession	Architects	15	13.89%

	Builders	14	12.96%
	Engineer	25	23.15%
	Quantity Surveyors	39	36.11%
	Project Managers	15	13.89%
	Total	**108**	**100%**
Years of Experience	Less than 5years	17	15.74%
	5-10years	30	27.78%
	11-20years	36	33.33%
	21-30years	19	17.59%
	Above 30	6	5.56%
	Total	**108**	**100%**
Academic qualification	ND	6	5.56%
	HND	23	21.30%
	BSc/BTech	58	53.70%
	MSc/MTech	14	12.96%
	Others	7	6.48%
	Total	**108**	**100%**
Function in the Organisation	Consultant	31	28.70%
	Contractors	41	37.96%
	Project/Facility manager	15	13.89%
	Procurement Officer	21	19.44%
	Others	0	0.00%
	Total	**108**	**100%**

Source: Researcher's analysis (2019).

Procurement Related Risks in FIRS Building Construction Projects

Table 2 shows the result of the analysis of the procurement risks associated with FIRS building construction projects. It can be seen that the top five (5) procurement risks under the Fraud as a risk factor in procurement group are; Kick back (contractor given out money to procurement officials) (RII=0.98), Shadow vendors (submission of inflated invoices for work not delivered) (RII = 0.89), Changes in the bids made after their formal receipt (RII=0.88), Suspicion about conflict of interest (RII=0.87), and Conspiracy amongst

bidders to reduce competition (RII=0.86). Under the problems of transparency as a risk in procurement, the top risks factors are; Dishonesty and lack of openness of staff to bidders in procurement process (RII=0.81), Non-adherence to award criteria (RII=0.80), and Improper advertisement of proposal requests (RII=0.77).

For the Professionalism as a risk in procurement, the top risks are; inadequate skill-based and theoretical knowledge of the procurement staff (RII=0.84), and Unclear definition of specifications (RII=0.84). The Competitiveness as a risk in procurement group, shows that lack of competition among tenderers (RII=0.84), and limited issuance of eligibility forms (only to favoured/selected contractors) (RII=0.77), are the top risks factors. Under the Problems of cost effectiveness as risk in procurement, the top risks factors are; Lack of cost effective tenders among the bidders (RII=0.96), In adequate detailed engineering activities (RII=0.86), and Over-estimated quantities of work items (RII=0.78).

Overall, the top five procurement related risks are; Kick back (contractor given out money to procurement officials) (RII=0.980, Lack of cost effective tenders among the bidders (RII=0.96), Shadow vendors (submission of inflated invoices for work not delivered) (RII=0.89), Changes in the bids made after their formal receipt (RII=0.88), and Suspicion about conflict of interest (RII=0.87). The least procurement related risks are; Inadequate justification for single source procurement (RII=0.68), Over -estimated construction duration (RII=0.65), Discrimination or favouritism by any clause in the contract (RII=0.62), Very limited number of offers received (RII=0.56), and Non-adherence to procurement laydown rules and regulations (RII=0.51). These findings are in line with the conclusion of Jones et al. (2009) on the risks factors in procurement system. Some of these findings are also in line with the statement that the major risk in the procurement of public buildings In Nigeria, include lack of transparency, competitiveness, corruption, problems of cost effectiveness and professionalism in the execution of procurement functions (FGN, 2007)

Table 2: Procurement related risks in FIRS building projects

S/N	procurement related risks	RII	Rank	Overall Rank
A	**Fraud as a risk factor in procurement**			
1	Kick back (contractor given out money to procurement officials)	0.980	1	1

2	Conspiracy amongst bidders to reduce competition	0.852	5	7
3	In-house information leakages to bidders	0.798	10	18
4	Shadow vendors (submission of inflated invoices for work not delivered)	0.887	2	3
5	Eligibility envelopes received beyond the deadline set for submission	0.796	11	19
6	Boycotting observers to be invited	0.796	11	19
7	Splitting of contracts	0.728	13	29
8	Suspicion about conflict of interest	0.867	4	5
9	Lowest responsive bidder not selected	0.850	6	8
10	Changes in the bids made after their formal receipt	0.883	3	4
11	Unusual involvement of procurement official in the contract documents	0.698	15	34
12	Evidence of early receipt of information by some contractors	0.722	14	30
13	Unusual handling of the bidding process	0.828	8	13
14	Inconsistent evaluation criteria for different bidding process	0.826	9	14
15	Exceptions to the tender deadlines	0.830	7	12
16	Inadequate justification for single source procurement	0.680	16	37
17	Discrimination or favouritism by any clause in the contract	0.617	17	39
B	**Problems of transparency as a risk in procurement**			
1	Dishonesty and lack of openness of staff to bidders in procurement process	0.807	1	16
2	Non-adherence to procurement laydown rules and regulations	0.515	7	41
3	Inadequate publicity (advertisement of procurement procedures for tenders)	0.720	5	31

4	Non-availability of technical specifications to all tenderers	0.696	6	35
5	Non-adherence to selection criteria of tenderers	0.743	4	25
6	Non-adherence to award criteria	0.802	2	17
7	Improper advertisement of proposal requests	0.769	3	23
C	**Professionalism as a risk in procurement**			
1	Inadequate skill-based and theoretical knowledge of the procurement staff	0.844	1	9
2	Inadequate training of procurement staff	0.824	3	15
3	Non-adherence to procurement code of ethics	0.720	4	31
4	Lack of professional membership of procurement staff	0.696	5	35
5	Unclear definition of specifications	0.843	2	10
D	**Competitiveness as a risk in procurement**			
1	lack of competition among tenderers	0.839	1	11
2	Limited issuance of eligibility forms (only to favoured/selected contractors)	0.770	2	22
3	Non-posting of the Invitation to Apply for Eligibility and to Bid (IAEB) in a newspaper of general nationwide circulation	0.730	4	27
4	Inadequate posting of the IAEB	0.735	3	26
5	Very limited number of offers received.	0.565	5	40
E	**Problems of cost effectiveness as risk in procurement**			
1	Lack of cost effective tenders among the bidders	0.959	1	2
2	In adequate detailed engineering activities	0.865	2	6
3	Over-estimated quantities of work items	0.778	3	21
4	Over-estimated construction duration	0.648	7	38
5	Excessive prices of materials	0.763	4	24
6	Excessive labour or equipment rental rates	0.709	6	33

7	Price escalation granted not in accordance with the prescribed formulae	0.730	5	27

CONCLUSION AND RECOMMENDATIONS

This study was set to assess the procurement related risks in FIRS building construction projects in Nigeria with a view to minimising the problems of fraudulent practices. The study concludes that procurement risks in FIRS building projects are found under Fraud, transparency, professionalism, competitiveness and cost effectiveness. The study also concludes that the common procurement related risks in FIRS building projects are: kick back, lack of cost effective tenders among the bidders, shadow vendors, changes in the bids after formal receipt, and suspicion about conflict of interest. It is concluded that effective management of the identified risks factors would translate into reduction in the rate of procurement fraud in FIRS building projects. It is recommended that a system of checks and balances is put in place in FIRS project to forestall the inherent corruption. Also, contractors and consultants with integrity should be engaged in FIRS projects.

References

Abdul-razak, S. (2013). The impat of project risk factors on the selection of public works procurement methods in ghana. (Issue Pg 7175912).

African Development Fund (ADF). (2010). Capacity Building for PPP Infrastructure. Project Appraisal Report.

Ahmed, K. M. (2019). The Role Of Small and Medium- Sized Interprises (SMEs) Participation in Public Procurement Implementation: A Case of Banadir Region. EPRA International Journal of Research and Development (IJRD), April.

Ali, B.-B. (2017). Research Design. https://www.researchgate.net/post/What_is_research_design

Ameyaw, C., & Mensah, S. (2013). Curbing corruption in the public Procurement process in Ghana‖ Public Policy and Administration Research ISSN 2224-5731(Paper) ISSN 2225-0972(Online) Vol.3, No.5, 2013.

Animashaun, A. M. (2011). Public private patnership as a policy strategy of infrastructure financing in nigeria. njpg.pactu.edu.np/njpgfiles/4.

Babatunde, S. ., Opawole, A., & Ujaddughe, I. . (2010). An Appraisal of Project Procurement Methods in the Nigerian Construction Industry. Civil Engineering Dimension, 12(1), 1–7.

Barden, K. E. (2010). Managing risk in the procurement process.

Basweti, D. N. (2013). An empirical analysis of the obstacles derailing Procurement Process in Public Institutions in Kenya. Industrial Engineering Letters, 3(12), 64–72.

Chen, J. (2018). Procurement. https://www.investopedia.com/terms/p/procurement.asp

Colman, M. (2016). Blockchain & Public Procurement reducing corruption, increasing

efficiency. https://www.linkedin.com/pulse/blockchain-public-procurement-reducing-corruption-colman-mcmahon

FGN. (2007). The procurement act, Federal Republic of Nigeria Official Gazette (Vol. 94, Issue 14).

Girlbert, M., & Anthony, E. (2016). Contract Matters: Procurement and Risk, A practical guide for buyers and suppliers. Kisslibrary.

Gyamfi, T. A., & Boateng, V. (2016). Open Access Risk Management of Procurement Challenges : The Implication To Construction Firms In Ghana American Journal Of Engineering Research (AJER). 8, 164–172. http://www.ajer.org/papers/v5(08)/W050801640172.pdf

Interagency Procurement Working Group (IAPWG). (2006). United Nations Procurement Practitioners Handbook. https://www.ungm.org/Areas/Public/pph/channels/PPH.pdf

International Training Centre of the International Labour Organisation (ITCILO). (2017). Procurement management in the public sector (goods , works and services). https://www.itcilo.org/en/flyers/2017/public-sector

Isatolo, T. (2017). Basics of Statistics. https://docplayer.net/5451940-Basics-of-statistics.html

Jones, L. R., Wescott, C., & Bowornwathana, B. (2009). Corruptin, Anti-Corruption Policy and Management Reform. In The Many Faces of Public Management Reform in the Asia-Pacific Region.

Kalinzi, C. (2014). Level of professionalism in public procurement : A survey of selected districts in Uganda. 2(June), 1–7.

Kaspar, B. L., & Puddephatt, A. (2012). Benefits of transparency in public procurement for SMEs General lessons for Egypt (Issue March).

Komakech, R. A. (2016). Public Procurement in Developing Countries : Objectives , Principles and Required Professional Skills. International Handbook of Public Procurement, 6(8), 20–29. www.iiste.org

Laerd Dissertation. (2012). Non-probability sampling Lærd Dissertation. http://dissertation.laerd.com/non-probability-sampling.php

Lumencandela. (2019). The Research Process. https://courses.lumenlearning.com/boundless-sociology/chapter/the-research-process/

Merriam-Webster. (2018). Population Definition of Population by Merriam-Webster. https://www.merriam-webster.com/dictionary/population

Murray, J. G. (2013). The need for procurement risk management Debate : The need for procurement risk management. July 2013. https://doi.org/http://dx.doi.org/10.1080/09540962.2013.799834

Office of Government Commerce (OGC). (2008). An Introduction to Public Procurement. https://webarchive.nationalarchives.gov.uk/20110406052414/http://www.ogc.gov.uk/documents/Introduction_to_Public_Procurement.pdf

Ogunsanmi, O. E. (2013). Effects of procurement related factors on construction project performance in Nigeria. Ethiopian Journal of Environmental Studies and Management, 6(2).

Okonjo, E. A. (2014). Procurement risk management practices and supply chain performance of mobile phone service providers in kenya (Issue October).

Osanyinro, O., & Aghimien, D. O. (2017). Assessment of the procurement methods adopted by public procuring entities in Ondo State, Nigeria. Assessment of the Procurement Methods Adopted by Public Procuring Entities in Ondo State, Nigeria, 9, 1–15.

Oyegoke, A. S. (2012). Transparency in public procurement : A study of the European Union

directive for public works , supply and services contracts Transparency in public procurement : a study of the European Union directive for public works , supply and services contracts Ade. International Journal of Business Excellence, May 2012. https://doi.org/10.1504/IJBEX.2012.046639

Oyewobi, L. O., Ibrahim, A. D., & Ganiyu, B. O. (2012). Evaluating the Impact of Risk on Contractor ' s Tender Figure in Public Buildings Projects in Northern Nigeria. May 2016. https://doi.org/10.32738/JEPPM.201201.0002

Rashid, A. (2016). summary of the generic areas of procurement risk. Mitsubishi Electric Saudi Ltd.

Research Lifeline. (2012). Five Steps in Creating a Survey Sampling Plan. http://cdn2.hubspot.net/hub/58820/docs/rl_process_wp_five_step_sampling.pdf

Reza, M. (2014). Research Design. 2014. https://www.researchgate.net/post/What_is_research_design

Rezakhani, P. (2012). Classifying Key Risk Factors in Construction. Lxii. https://www.researchgate.net/publication/260882_Classifying_key_risk_factors_in_construction_projects

Russell, C., & Meehan, J. (2014). Exploring legitimacy in major public procurement projects. Journal of Public Procurement, 14(4), 495–537. https://doi.org/10.1108/jopp-14-04-2014-b003

SAGE Research Methods. (2010). SAGE Research Methods, primary data. https://doi.org/https://dx.doi.org/10.4135/9781412961288.n333

Saruchera, F. (2016). Challenges facing procurement professionals in developing economies : Unlocking value through professional international purchasing. Journal of Transport and Supply Chain Management 9(1), February, 1–9. https://doi.org/10.4102/jtscm.v9i1.152

Scott, O., & Julius, O. (2015). Public procurement, governance and economic growth: some policy recommendations for Africa's growth and development. International Journal of Development and Management Review, 10(1), 110-124–124

Smith, M. (2006). Procurement and Risk Management Case Study Managing The State ' s Risk. March, 1–10. http://www.irbnet.de/daten/iconda/CIB1645.pdf

Sollish, F., & Semanik, J. (2012). The procurement and supply mangers' desk reference (2nd Ed.). USA, New Jersey: Wiley & Sons.

Thai, K. (2007). Introduction to public procurement. (2nd edition). Herndon, VA: National Institute of Governmental Purchasing, Inc.

Trepte, P. (2005). Transparency and Accountability as Tools for Promoting Integrity and Preventing Corruption in Procurement: Possibilities and Limitations.

United Nations Procurement Practitioners Handbook (UNPPH). (2012). Risk Management, risk types and effects. https://www.ungm.org/Areas/Public/pph/ch04s01.html

UNOC. (2013). Good practices in ensuring compliance with article 9 of the United Nations Convention against Corruption. In Guidebook on anti-corruption in public procurement and the management of public finances.

Uyarra, E., Edler, J., Garcia-estevez, J., Georghiou, L., & Yeow, J. (2014). Barriers to innovation through public procurement : A supplier perspective. Technovation, 34(10), 631–645. https://doi.org/10.1016/j.technovation.2014.04.003