

Management of Bid Evaluation Risks in Procurement of Construction Projects of Public Tertiary Institutions in Nigeria

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Bid evaluation stage in project procurement is considered to be one of the critical stages in the public procurement process in Nigeria. This stage determines the outcome of tendering process and can easily be manipulated by procurement officer that wants to favour a particular bidder to be awarded a contract. However, this stage is plagued with risks that impact on contract parties and project objectives. Thus, this article aimed to assess bid evaluation risks management strategies for construction procurement of tertiary institution in Nigeria with a view to ensuring effective delivery of construction projects. The study employed the survey design approach by administering 150 structured questionnaires to purposively selected construction professionals of procurement and physical planning units of tertiary institutions in three states and the Federal Capital Territory. The collected data were analysed using Relative Importance Index (RII) to identify relatively the most important risks factors in the bid evaluation stage of procurement process. Regression analysis was employed to determine the impact of the identified bid evaluation risk factors on parties and the impact on project objectives. The study found that in-house information leakages to bidders (RII=0.97), failure to declare a winner leading to subjective discussions or development of new criteria (RII=0.87), unclear definition of technical specification (RII=0.85) and use of inappropriate evaluation criteria (RII=0.80), are the important bid evaluation risks factors in construction procurement. The study also found that the bid evaluation risks have statistically significant impact on project objectives in terms of time, cost, quality, safety and environment; as well as the parties to the contract all with p-values less than 0.05 significance level. It concluded that any change in the bid evaluation risk factors would lead to a corresponding change in the project objectives. It is recommended that procurement officer should use checklist guide and brainstorm on measure to be established to control bid evaluation risks for effective delivery of construction projects.

Keywords: Bid evaluation, Public procurement, Risks, Tertiary institutions

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INTRODUCTION

Procurement systems have evolved globally with innovations and improvements on service delivery. However, the systems are given little acceptance in some developing countries (Adamu *et al.*, 2017). The traditional procurement system which is widely criticised of ineffectiveness is still the most frequently used in the Nigerian public sectors (Fabi *et al.*, 2015). This procurement system is known to be bedevilled with problems of mismanagement, and corruption (Ebenezer *et al.*, 2019). In Nigeria, public tertiary institutions are generally compelled to follow 'due process' in procurement arrangements (Kareem *et al.*, 2014). The Procurement Act of 2007 makes it mandatory for public tertiary institutions to use the design-bid build procurement route, except in very exceptional circumstances (Kareem *et al.*, 2014). Furthermore, the procurement management practices adopted by most public tertiary institutions in Nigeria are not in full compliance with the current Public Procurement Act of 2007 (Oso, 2017). Similarly, the actual procurement costs in many public tertiary institutions usually exceed 10 percent of the budgeted

cost and this leads to increase in operational costs (Oso, 2017).

The public procurement process is often confronted with inherent risks to include conflict of interest, ineffective project technical feasibility, lack of commitment to transparency, unavailability of indices for bids and costs, contractors' low managerial and technological ability, lack of competition among bidders, over-estimated quantities of work items, low procurement competence, use of inappropriate procurement strategy, and inconsistency of government policies (Dahiru & Bashir, 2015; Oso, 2017). However, these risks and management strategies are given less attention in procurement process of most tertiary institutions in Nigeria and thus, some of the projects are being delayed unnecessarily, and having impact on cost, time and quality objectives of the projects (Emeka, 2016; Bamidele, 2020). Abdul-Mannan-Hussain *et al.* (2017) added that ineffective management of risks factors would lead to dispute, claims, litigation and hence having an impact on the contracting parties (client, contractors and consultants). The Bureau of Public Procurement (BPP) in Nigeria requires that all public construction procurement by

government agencies in Nigeria be executed in line with the nine (9) essential steps, which include efficient procurement plan driven by need assessment, budgetary appropriation, advertisement, transparent prequalification, bid submission, bid opening, bid evaluation, (technical and financial), tender board/Federal Executive Council (FEC) approval, and contract execution (BPP, 2012; Emeka, 2016). Moreso, that the key aspects of the nine (9) which steps (are, appropriate market surveys, extensive feasibility and viability studies, fund sourcing/cash flow analysis, selection of procurement routes/options, and contract management plans) are mostly being compromised by tertiary institutions in Nigeria (Bamidele *et al.*, 2019; Bamidele, 2020; Ezeanyim *et al.*, 2020).

Bid evaluation is a critical stage in the procurement cycle. Bid evaluation is the most easily manipulated stage by procurement officers that wants to favour a particular bidder. According to Imran (2017), tender evaluation is critical because it determine the outcome of tendering process in term of the bidder to be awarded the contract. This stage is mostly confronted with risks of in-house information leakages to bidders' unclear definition of technical specification and use of inappropriate evaluation criteria, thereby affecting the delivery of construction projects (Bamidele, 2020). Dahiru and Bashir (2015) suggested effective risk control, and risk reduction as an important in any procurement management system. Waziri and Isa (2017) noted that management of risks in public procurement cannot be successful without a detailed understanding of the main categories of the risks, as the lack of understanding would lead to poor risks assessment and monitoring, which would have negative impact on time, cost and quality objectives of a project. It is against this backdrop, that this paper aims to assess bid evaluation risks management strategies for construction procurement in tertiary institution in Nigeria with a view to ensuring effective delivery of projects.

LITERATURE REVIEW

Bid evaluation in Procurement process

Bid evaluation begin with the evaluation of offer (bid/proposal) received, an evaluation panel is formed and

approved. Ideally, procurement practitioner should, oversee the evaluation process and assist with the drafting of the evaluation report. Procurement officer cannot be expected to be technical experts on all requirements but have an in-depth knowledge of the procurement aspect of the requirement, it is good, to ensure separation of functions in order to prevent any entity or individual exercising control over the entire procurement process (Imran, 2017). Bid evaluation system is an integral component of performance in public procurement sector and construction projects. The choice of selecting a contractor or supplier for a project depends on the bid award approach in place, which has a significant influence on the success or failure of such project or services (Letarge *et al.*, 2016). Usually, public procurement and construction projects are largely based on the competitive lowest bid award system. This practice is universally accepted since it ensures the lowest cost of completing a project. However, clients and construction industries have realised that accepting the least bid price does not guarantee maximum value and quality delivery.

Bid Evaluation Risk Factors

Construction bidding is a complex process that involves several potential risks and uncertainties for all the stakeholders involved. Such as inaccurate cost estimates, inappropriate tender documents, nonproper or untimely notification of errors in a submitted bid, nonproper or untimely notification of errors in tender documents, and noncompliance with request for proposals' requirements. if uncontrolled, can lead to the rise of claims, conflicts, and disputes during the course of a project. (Shumank *et al.*, 2017). Letarge *et al.* (2016) identified bid evaluation risks to include conflict of interest, lack of transparency, inadequate evaluation criteria and lack due diligence among others. These could lead to favouritism or corruption, which could affect credibility of the process. Similarly, Zuo and Zhang (2018) and Sedoame (2019) highlighted that bid evaluation risks to include conflict of interest, non-compliance with bid evaluation criteria, inexperience bid evaluator, collusion and changing the submitted document and financial failure of the contractor.

Table 1: Summary for bid evaluation risks

Bid evaluation risks and impacts	Authors
The Article identified the following bid evaluation risks to include conflict of interest, lack of transparency, inadequate evaluation criteria and lack due diligence These could lead to favouritism or corruption, which could affect credibility of the process if uncontrolled, can lead to the rise of claims, conflicts, and disputes during the course of a project.	Letarge <i>et al.</i> , 2016; Mangvwat <i>et al.</i> , 2020
The article listed inaccurate cost estimates, inappropriate tender documents, nonproper or untimely notification of errors in a submitted bid, and noncompliance with request for proposals' requirements as bid evaluation risks	Shumank <i>et al.</i> , 2017
conflict of interest, non-compliance with bid evaluation criteria, inexperience bid evaluator, collusion and changing the submitted document and financial failure of the contractor.	Zuo and Zhang, 2018; Sedoame, 2019

Effects of Bid Evaluation Risks on Project

Execution

Common bid evaluation risks impact on project execution includes disruptions or changes in project works, late contract payment, financial failure of the client, labour disputes, use of defective materials or equipment's, poor work quality, financial failure of the contractor and increase in the overall project cost which affect the smooth process of project appraisal, which requires coordinated efforts and analysis to ensure value for money in project execution (Zuo and Zhang, 2018). According to Meng and Gallagher (2012), complexity, urgency, lack of resources, poor project quality, time and cost overrun were some of the key risks impact that could arise when smooth bid evaluation processes are not being adhered to.

Procurement Risks Management Techniques

Risk management in the construction project management context is a comprehensive and systematic way of identifying, analyzing and responding to risks to achieve the project objectives. All the phases of construction procurement have associated risks which need to be identified during all the stages. Gbadebo (2012), Kalam (2017), Koul *et al.* (2018) and Nawaz *et al.* (2019) suggested a holistic six (6) stages of overlapping procurement project risk management thus; planning, identification, analysis, response, monitor and control.

Risk identification

Risks in each construction project is identified by the project management level using brainstorming techniques or expert panel discussions. Kalam (2017) and Koul *et al.* (2018) stated that risk identification is characterised by isolating the possible risks through risk breakdown structure, use of interview, delphi method, checklist guide, risk register, brainstorming the sources and classification of the risks, as well as the effects of the project.

Risk assessment

Risk assessment is determined by evaluating the probability of its occurrence and potential impacts or severity through qualitative or quantitative performance (Koul *et al.*, 2018). Qualitative risk analysis sometimes involves considering each risk in a purely descriptive way to imagine various characteristics and the effect that it might have on the project. It could also involve assigning probability to risk occurrence and risk impact using subjective probabilities (Ogunsanya *et al.*, 2016; Koul *et al.*, 2018; Nkrumah & Boateng 2020). On the other hand, quantitative analysis is based on numeric estimation in which probability of risk occurrence and impact of that risks are determined. The Project Management Institute. (PMI) (2004) and Abdul Mannan Hussain *et al.* (2017) highlighted the qualitative risks assessment technique to include check list / risk register, interview, probability impact table, priority table, iso – risk curves, event and fault trees, brainstorming, cause/effect diagram, flowcharts, influence diagrams and assumption analysis. While quantitative risks assessment technique includes brainstorming, check list / risk register, interview, scenario analysis, sensitivity analysis, probabistic sums, monte carlosimulation, decision trees, event and fault tree, delphi technique.

Risk response/mitigation

Risks identified and analysed must be mitigated by developing options and actions to enhance opportunities and reduce threats to project objectives. The technique or methods commonly used in the industry to mitigate these occurrences includes risk avoidance, risk prevention, risk acceptance, risk reduction, risk transfer, risk exploitation for both negative and positive risks (Kalam, 2017; Ceocea *et al.*, 2020).

RESEARCH METHODOLOGY

This research employed the survey design approach utilising the features of quantitative method by administering well-structured questionnaires to the respondents. The sample frame for the study constituted the Procurement officers, Architects, Quantity Surveyors, Builders, Engineers, and contractors in procurement and the physical planning units, in selected public tertiary institution in Kwara, Kogi, Niger States and the Federal Capital Territory. A total of 150 questionnaires were administered to the purposively selected professionals, 112 were returned and found valid for analysis. This represents a response rate of 74.66% which is considered adequate for analysis.

To analyse the collected data in this study, both descriptive and inferential analytical tools were utilised. The descriptive methods included Relative Importance Index (RII) and rankings. The RII was used to identify relatively the most important risks factors in the bid evaluation process of procurement. The RII values of 0.75 and above were deemed high or important (Morenikeji, 2006). Regression analyses were used to determine the impact of the identified bid evaluation risk factors on parties and as well as on project objectives. The data on risk factors were the independent variables and data on the impact of the

identified bid evaluation risk factors on parties and on project objectives were considered as dependent variables.

RESULTS AND DISCUSSION

Demographic Information

Table 2 shows demography of the respondents. Four percent (4%) of the respondents were directors; seven percent (7%) were deputy director; eleven percent (11%) were head of department; seventy-eight (78) were others. Similarly, sixty percent (60%) of the respondents were HND/ BSc/ B Tech holders; thirty seven percent (37%) of the respondents were MSC/ MTech holders while three percent (3%) of the respondents were PhD holders. Also, forty-three (43%) percent of the respondents were having 6-10 years of experience in procurement exercise; forty-six (46%) percent of the respondents were having 11-15 years of experience in procurement exercise; while eleven (11%) percent of the respondents were having 16 years and above experience. Equally, seventeen (17%) percent of the respondent were procurement officers with professional affiliation; forty-six (46%) percent of the respondents were quantity surveyor; twelve (12%) percent of the respondents were Architecture; fourteen (14%) percent of the respondents were Builders and eleven (11%) percent of the respondents were engineer.

Table 2: Demographic information of respondents

	Frequency	percentage
Position of respondents in procurement unit or physical planning unit		
Director	4	4
Deputy director	8	7
Head of dept/ unit	12	11
Other	88	78
Total	112	100
Academic Qualification		
HND/ BSc /BTech	67	60
MSC/ MTech	42	37
PhD	3	3
Total	112	100
Years of experience in procurement exercise		
0-5	0	0
6-10	48	43
11-15	52	46
16 above	12	11
Total	112	100
Professional affiliation		
Procurement officer	19	17
Quantity surveyor	52	46
Architecture	13	12
Builder	16	14
Engineer	12	11
Total	112	100

Bid Evaluation Risk Factors in Procurement of Construction Projects in selected tertiary institution

The results in Table 3 shows that in-house information leakages to bidders was ranked 1st with RII value of 0.97, failure to declare a winner leading to subjective discussions or development of new criteria was ranked 2nd with RII value of 0.87, unclear definition of technical specification was ranked 3rd with RII value of 0.85, use of inappropriate evaluation criteria was ranked 4th with RII value of 0.80, discrimination/unequal treatment of tender was ranked 5th with RII value of 0.79, selection of inappropriate consultant

team during bid evaluation was ranked 6th with RII value of 0.76, inconsistency and interferences by unauthorized parties in tender evaluation process was ranked 7th with RII of 0.70. The results were deemed high risks factors because they had RII values of 0.75 and above. These results are in line with the findings of Mangvwat *et al.* (2020) identified that lack of transparency, bias or favouritism toward certain bidders, inadequate evaluation criteria, insufficient experience of evaluator, conflict of interest and inconsistencies in evaluation process were among the important risks factors in bid evaluation processes.

Table 3: Bid Evaluation risk factors in procurement of construction projects

S/NO	Risks factors in procurement process	RII	Rank
1	In-house information leakages to bidders	0.97	1
2	Failure to declare a winner leading to subjective discussions or development of new criteria	0.87	2
3	Unclear definition of technical specification	0.85	3
4	Use of inappropriate evaluation criteria	0.80	4
5	Discrimination / unequal treatment of tender	0.79	5
6	Selection of inappropriate consultant team during bid evaluation	0.76	6
7	Inconsistencies and interferences by unauthorised parties in tender evaluation process	0.70	7
8	None confidential tender evaluation process	0.70	7

Impact of Bid Evaluation Risks on Parties (Client, Contractor and Consultant)

Table 4 shows the result of the simple linear regression analyses conducted to test the impact of bid evaluation risk factors on contract parties (clients, contractors, and consultants). The result shows that the predictor expressed 56.70%, 64.7% and 54.5% of the variances ($R^2=0.567$, $p<0.031$); ($R^2=0.647$, $p0.017<0.047$); and ($R^2=0.545$, $p<0.016$) for clients, contractors, and consultants respectively. These results imply that procurement bid evaluation risk factors significantly impact on project clients, contractors, and consultants, respectively during procurement process. This risk factors could lead to client receiving poor project

delivery this could result in dissatisfaction, loss of trust, and damage to the client relationship. Moreover, this risk factors could undermine credibility and reputation of both the contractor and consultant associated with poor project delivery. These depict that any of the bid evaluation risk factors that is not properly managed would result into a negative impact on the parties. The results corroborate the findings of Abdul-Mannan-Hussain *et al.* (2017) who noted that ineffective management of risks factors would lead to dispute, claims, litigation and hence having an impact on the contracting parties (client, contractors and consultants).

Table 4: Impact of Bid Evaluation risks on Parties (client, contractor and consultant)

S/N	variables X	Y	Type of model	Inference R	R ²	P value	Strength of relationship	Remarks
1	Bid evaluation risks	Impact on client	Linear regression	0.623	56.7%	0.031	Strong	Statistically significant
2	Bid evaluation risks	Impact on contractor	Linear regression	0.804	64.7%	0.047	Very strong	Statistically significant
3	Bid evaluation risks	Impact on consultant	Linear regression	0.738	54.5%	0.016	Strong	Statistically significant

Impact of Procurement Bid Evaluation Risks on Project Objectives

Table 5 shows the result of the simple linear regression analysis conducted to test the impact of bid evaluation risk factors on project objectives (time, cost, quality, environment, and safety). The result shows that the predictors expressed 61.70%, 72.80%, 69.30%, 05.10% 03.40% of the variances ($R^2=0.617$, $p<0.004$; $R^2=0.728$, $p<0.000$; $R^2=0.693$, $p<0.000$; $R^2=0.051$, $p<0.040$; $R^2=0.034$, $p<0.000$) for time, cost, quality, and safety, and environment respectively. These imply that the procurement bid evaluation risk factors significantly impact on project time, cost, quality, environment, and safety objectives respectively. This risk factors could lead to delays in evaluation process as wrong factors are being consider these could affect project execution. This could lead to dispute and re-evaluation of bid. Equally, this risk factors could lead

to inflated bids if bidders have access confidential cost information leading to high project cost. Similarly, this risk factors could lead to selection of un skill or in experience contractor leading to poor quality project delivery. Moreover, these risk factors could also lead to selection of bidder who does not prioritise safety in their work practices, putting workers, public as well as environment at risks. The results therefore infer that persistent bid evaluation risks would lead to corresponding increase in project duration, project cost, project quality, safety and meeting environmental requirements. These results were in conformity with findings of Salako (2010) who concluded that procurement risk factors have impact on time, cost and quality objectives of projects. The results are also in line with the findings of Bamidele (2020) who noted that these risks are given less attention in procurement process of most tertiary institutions in Nigeria.

Table 5: Impact of Bid Evaluation Risk Factors on project objective

G S/N	variables X	Y	Type of model	Inference R	R ²	P value	Strength of relationship	Remarks
1	Bid evaluation risks factors	Impact on time	Linear regression	0.786	0.617	0.004	Very strong	Statistically significant
2	Bid evaluation risks factors	Impact on cost	Linear regression	0.853	0.728	0.000	Very strong	Statistically significant
3	Bid evaluation risks factors	Impact on quality	Linear regression	0.833	0.693	0.000	Very strong	Statistically significant
4	Bid evaluation risks factors	Impact on safety	Linear Regression	0.230	0.050	0.040	strong	Statistically significant
5	Bid evaluation risks factors	Impact on environment	Linear regression	0.185	0.034	0.000	Very strong	Statistically significant

Risks Management Techniques on Procurement Bid Evaluation

This section presents the techniques for managing procurement bid evaluation risks factors for construction projects in tertiary institutions. These techniques include risk identification, qualitative and quantitative risks management techniques, and risks response techniques.

Risk identification techniques in procurement bid evaluation process

Table 6 shows the important risk identification techniques during the bid evaluation of procurement process where checklist guide was ranked 1st with RII value of 0.88, brainstorming was ranked 2nd with RII

value of 0.86, expert judgment or opinion was ranked 6th with RII of 0.83, and Delphi techniques was ranked 7th with RII value of 0.82. The results were deemed important because the fall between RII values of 0.75 and above. The results were in alignment with the findings of Kalam (2017) who identified brainstorming among project stakeholders, use of interviews, delphi, checklist and risk register as important risks identification technique. The result also corroborates the finding of Mahendra *et al.* (2013) that risks management is a process which consist of risks identification, risks assessment both qualitatively and quantitatively, risks response using appropriate control measures.

Table 6: Risk Identification Techniques in Bid Evaluation process

S/NO	Bid Evaluation Risk Identification Techniques	RII	Ranking
1	Checklist guide	0.88	1
2	Brainstorming	0.86	2
3	Meeting on Risks review	0.85	3
4	Discussion with end user	0.84	4
5	Root Cause Analyses	0.83	5
6	Expert Judgment /Opinion	0.83	6
7	Delphi technique	0.82	7
8	Interview	0.82	8

Quantitative bid evaluation risks management techniques

Table 7 shows the important quantitative bid evaluation risks management techniques are checklist/ risk register was ranked 1st with RII value of 0.88, brainstorming was ranked 2nd with RII of 0.81, and Delphi method was ranked 3rd with RII value of 0.77. They were deemed important because they fall between RII values of 0.75 and above. Therefore, is significant to use checklist guide to evaluate potential risks. that could be associated with bid evaluation process. Similarly, procurement team during bid evaluation

exercises should always brainstorm with key stakeholder involved in the bidding process to identify potential risks, prioritize the risks and develop mitigation strategies. Equally, it is important to used Delphi technique to gather expert opinions on assessment of potential risks factors during bid evaluation process. This could help to identify risks that was not considered initially and provide a more comprehensive assessment of the risk profile. These results are in accordance with the findings of Koul *et al.* (2018) who believes that risks s assessment could be performed qualitatively or quantitatively.

Table 7: Quantitative Bid Evaluation Risk Management Techniques

S/NO	Bid Evaluation Risk Quantitative Techniques	RII	Ranking
1	Checklist / risks register	0.88	1
2	Brainstorming	0.81	2
3	Delphi technique	0.77	3
4	Decision trees	0.73	4
5	Interview	0.70	5
6	Multi-criteria decision-making method	0.69	6
7	Sensitivity Analysis:	0.69	7
8	Scenario Analysis:	0.67	8
9	Probability analysis/ Monte Carlo Simulation	0.66	9

Qualitative bid evaluation risks management techniques

Table 8 shows the important qualitative bid evaluation risks management techniques are brainstorming was ranked 1st with RII value of 0.86, checklist/ register was ranked 2nd with RII value of 0.85, probability impact table was ranked 3rd with RII value of 0.84 and interview was ranked 4th with RII value of 0.83. They

were deemed important because the fall between RII values of 0.75 and above. These results corroborate Safi Ullah *et al.* (2023) who explained that combination of quantitative and qualitative risks management techniques is essential for construction projects team to effectively identify, assess, and manage risks throughout the project construction.

Table 8: Qualitative Bid Evaluation Risk Management Techniques

S/NO	Bid Evaluation Risk Qualitative Techniques	RII	Ranking
1	Brainstorming	0.86	1
2	Checklist / risks register	0.85	2
3	Probability impact table	0.84	3
4	Interview	0.83	4
5	Influence diagrams	0.79	5
6	Data precision ranking	0.60	6
7	Cause / effect diagram	0.55	7
8	Risk Priority table	0.54	8
9	Assumption analysis	0.52	9

Risks response techniques for bid evaluation stage of procurement

The results in Table 9 shows that the key procurement risk response strategies for bid evaluation where bond and guarantees agreement was ranked 1st with RII value of 0.85, risks avoidance or prevention through (detailed planning, alternative approaches, protection and safety systems, reviews of operation, regular inspections, training and skills enhancements) was ranked 2nd with RII value of 0.84, Insurance cover was ranked 3rd with RII value of 0.82, Risk reduction through (contingency planning; quality assurance; separation or relocation of activities and resources;

contract terms) was ranked 5th with RII value of 0.80. The results were deemed important because they fall between RII values of 0.75 and above. These results were in accordance with the findings of Kalam (2017) and Ceocea *et al.* (2020) who classified risk response strategies into risk allocation and or risk sharing amongst contracting parties in construction projects. Safi Ullah *et al.* (2023) emphasised that the utilisation of response techniques is crucial for any project execution and can only be accomplished through a comprehensive assessment of identified risks.

Table 9: Risk Response Techniques for Bid Evaluation stage of procurement

S/NO	Bid Evaluation Risk Response Techniques	RII	Ranking
1	Bond and guarantees agreement	0.85	1
2	Avoidance/prevention of the risks (detailed planning; Alternative approaches; Protection and safety systems; Reviews of operation; Regular inspections; Training and skills enhancements)	0.84	2
3	Insurance cover	0.82	3
4	Escrow agreements	0.81	4
5	Reduction (Contingency planning; Quality assurance; Separation or relocation of activities and resources; Contract terms)	0.80	5
6	Retain or accepting the risks e.g., for low level risks	0.79	6
7	Transfer or share the risks through insurance	0.78	7

CONCLUSION

Bid evaluation process is an integral component of performance in public procurement process and construction projects. The choice of selecting a contractor or supplier for a project depends on the bid award approach in place, which has a significant influence on the success or failure of such project. However, this stage is confronted with risks of In-house information leakages to bidders, failure to declare a winner leading to subjective discussions or development of new criteria, unclear definition of technical specification, use of inappropriate evaluation criteria, discrimination / unequal treatment of tender and Inconsistencies and interferences by unauthorised parties in tender evaluation process. The study concludes that the bid evaluation risks were found to have statistically significant impact on project objective time, cost, quality, safety and environment; as well as the parties to the contract (clients, contractors, and consultants). Implying that, any change in the bid evaluation risks would lead to a corresponding change in project objective (time, cost, quality).

The study concludes that bid evaluation risks can be identified and assessed through checklist guide, brainstorming and delphi technique in order to achieve project objective. The study concludes further that detailed planning in bid evaluation process, reviews of

operation, regular monitoring and inspection can be used as part of response strategies to prevent information leakage to contractors and other risk factors. It is recommended that procurement officer should use checklist guide and brainstorm on measure to be established in order to minimise bid evaluation risks for effective delivery of construction projects.

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