

Assessment of Effects of Contract Administration in Public Construction Projects in Rwanda

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Abstract: *Success in construction project is indicated by its performance in the achievement of project time, cost, quality, safety and environmental sustainability objectives (Zhou, 2007). Despite the efforts by all players in the construction industry for the performance of construction projects, the Contract management and administration play a great role in its performance. The general objective of this research was to assess effects of contract administration practices in public construction projects in Rwanda. More specifically, the study assessed the construction contract type used in Public construction in Rwanda and then after were ranked. The study also investigated contract type choice factors in Public construction projects in Rwanda; contract administration problems that affect success of Public construction projects in Rwanda and finally investigated the causes of contract administration problems in Public construction projects in Rwanda. This study was conducted through a review of literature and a self-administered structured questionnaire to the public construction projects players. A sample of 100 respondents was selected through a purposive sampling method to participate in this study. Project managers, Technical managers, architects, quantity surveyors and engineers, legal advisors were the respondents in this study; contractors of public construction projects participated in the study as well as consultants Data analysis involved cleaning, sorting and coding of raw data collected from the field and processing for purposes of interpretation by use of statistical package for social science (SPSS) and Microsoft Office Excel. The data provided by the questionnaires was analyzed using both descriptive statistical methods. Findings were presented per study objectives Finally, this study proposed a model aimed at improving public construction contracts administration*

Keywords: *Contract Administration, Construction Contract, Public Construction Projects Success-*

I. INTRODUCTION

The construction industry is one of the major industries contributing significantly to the socio-economic development growth (Choge, 2014). Improper documentation of variations, improper record keeping (site reports, material inventory records and accounting records) within the currency of projects causes a lot of distortion and difficulty in assessing or evaluating claims, as there were usually not enough supporting documents for their claims. It was Common to observe that most government project managers did not have

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their own internal policies to record project events and changes. There were no standard procedures to receive instructions, confirm verbal instructions, registers to capture new drawings and phase out obsolete information, check and document variations.

A common feature of most government projects executed in is inadequate description of the details of the project specifications and drawings for some sections of the works. In addition, some project consultants fail to properly review the standard forms of contracts that are used for the procurement of construction contracts to include appropriate project specific clauses and specifications, as such the Contract Management phase is encumbered with challenges usually to the detriment of the contractors during project execution.

The execution phase of the project is thus marked by disagreements, disputes, and misunderstandings on what was expected in terms of requirements and specifications.

Weaknesses in contract management and administration are still prevalent in most public entities and have resulted into increased cost of Government projects, significant delays in completion and lack of value for money from many Government projects. There are also various failed or abandoned projects which have denied beneficiaries envisaged facilities and services. Effects of contracts administration practices must be assessed to ensure smooth execution of contract for public construction projects.

II. CONTRACT MANAGEMENT AND ADMINISTRATION

Administration: The act of managing duties, responsibilities, or rules is administration. “**Contract Administration**” is a process of carrying out construction work in a planned manner on behalf of the appointee. Construction work include detailed planning, feasibility study etc. from the every stage of project. The objective of Contract Administration is developing better relationship between owner and contractor by reducing conflicts/arbitration (SHAIVAL V PATEL, Mr. ASHOK PATEL, Mr. B M MARVADI, NOV 14 TO OCT 15 | Volume 3, Issue 2). Contract Management could be defined as a multi-stage process that goes on through the entire duration of the contract and ensures that the parties meet their contractual obligations in order to deliver the specific objectives provided in the contract. According to Grimsey and Lewis (2004), cited by Hotterbeekx (2013) Contract management can be defined as the processes undertaken to maintain the integrity of the contract,

and ensure that the roles and responsibilities contractually demarcated are fully understood and carried out to the contracted standard. Another definition of contract management is the process that ensures that all parties to a contract fully meet their obligations, in order to satisfy the operational objectives of the contract and the strategic business goals of the customer (Van Weele and Van der Puil, 2013 cited by Hotterbeekx, 2013). The main purpose of contract management is to make sure that the objectives of the contract (supply of goods, delivery of services or execution of works) are met in a timely fashion and value for money is achieved. In practice, this means optimizing the efficiency of the processes, balancing costs and risks against returns and ideally aiming for a continuous improvement in performance over the life of the contract. (Construction)

A. Roles and Responsibilities of Contract Administrator

Contract administrator is the person designated to manage the various facets of contracts to ensure the contractor's total performance is in accordance with the contractual commitments and obligations to the purchasing agency are fulfilled. (Office S. P.)

B. Contract administrator for construction contracts

In the construction industry, the contract administrator is the individual responsible for administering the construction standard contracts (designing building wiki, 2018). The contract administrator may be the project architect, but could also be the lead consultant, the cost consultant, a specialist consultant, a client representative or employer's agent, the project manager or an engineer.

C. Types of construction contracts

Nation Council for Construction identifies most common types of construction contracts used in the construction industry as the following:

1. Lump Sum/Fixed Price Contracts;
2. Cost plus Contracts;
3. Unit Price Contracts; and
4. Time and Material Contracts.

The choice of which construction contract to use oftentimes comes down to the owner's risk tolerance.

III. METHODOLOGY

This study was conducted through a review of literature and a self-administered structured questionnaire to the public construction projects players. A sample of 100 respondents was selected through a purposive sampling method to participate in this study out of which 56 members responded. This was a response rate of 56%. The data provided by the questionnaires was analysed using descriptive statistical method. Both qualitative and quantitative approaches were used in the study; although qualitative approach was only used to obtain Clients' views on contract administration processes in Public construction projects in Rwanda.

IV. DISCUSSIONS OF RESULTS

A. Construction contract type used in public construction project in Rwanda

Respondents were asked to identify and rank the types of contracts used in Public construction Projects in Rwanda and the results revealed that the Unit price contract is the most used construction contract type in Rwanda followed by Time and material contract, fixed price contract and finally the cost plus contracts.

B. Construction contract choice factors in public construction project in Rwanda

In order to know the factors that lead the choice of construction contract type to use in public construction projects in Rwanda, the Factors affecting construction contract type in Rwanda and the extent to which construction contract administration practices influence the success of Public construction project have been investigated.

The respondents were asked to identify the most important factors that lead to the choice of a construction contract type.

From the response got, it was observed that, the five the most important factors affecting the choice of construction contract type in public construction project in Rwanda were Value for money, Familiarity and previous experience with the contract type and Desire to avoid claims and improve working relationship, Financial costs and Relative risk aversion of Employer and Contractor. From this study, a list of ten most important factors affecting the choice of construction contract type in public construction project in Rwanda was establish. This comprises of:

1. Value for money
2. Familiarity and previous experience with the contract type
3. Desire to avoid claims and improve working relationship
4. Relative risk aversion of Employer and Contractor (Contractor and Employer diversification and size, project size for the Contractor)
5. Financial costs
6. Duration of the project relationship
7. Expected profit by the Contractor in the Project
8. Contractor's ability to foresee and control costs
9. Quality criticality
10. Qualification of the Contractor

When respondent were asked to rate the Extent to which construction contract administration practices influence on the success of public construction project, results revealed that Performance monitoring (Communications, managing time, Penalties for late completion, Change management) influence higher on the success of public construction project in Rwanda followed by the Payment of executed works and Relationship management.

C. Contract administration problems that affect success of Public construction projects in Rwanda

While assessing contract administration problems that affect success of Public construction projects in Rwanda,



respondents agreed that *poor contract administration* can cause you to violate terms of your contract, which can lead to penalties, fines and a potential lawsuit is the most factor that affect performance of public Construction project, Poor contract administration can also cause each side of an agreement to lose track of the contract term. Another important problem that affect success of Public construction projects in Rwanda is *lack of reporting system*.

D. Causes of contract administration problems in Public construction projects in Rwanda

To assess the causes of contract administration problems in Public construction projects in Rwanda, respondents were asked to identify the main causes of delays of public construction projects and causes of construction conflicts /disputes of public construction projects. It was observed that No previous experience with this type of project, unanticipated weather conditions and inadequate communication skills were found to be the three first main causes of delays of public construction projects in Rwanda. From respondents responses, it was observed that Change orders/extra or out-of-scope work, Differing site conditions and unclear or ambiguous the description of the work in the plans/specifications or when the plans are contradictory to the specifications are the three first main Causes of construction conflicts /disputes of public construction projects in Rwanda.

E. Public construction industry views by respondents

While seeking for the views of the public construction industry players regarding what can be done to improve contract administration system in public construction project in Rwanda.

The views of respondents are summarized below according to the phases of construction projects

Planning Phase

- ✓ Establish a legal and regulatory framework to ensure proper coordination, reporting and regular M&E
- ✓ Conduct Pre-Feasibility and Full Feasibility Studies for Public Construction Projects using reliable “Companies” with professional capacities (human and material resources) to make sure that all design gaps and unforeseen topographic features are avoided.
- ✓ Technical specifications of the Supervising Consultant should be drafted with utmost care and make sure all the aspects of the assignment are well understood and captured(scope, time inputs of the Consultant, qualification and experience of the key staff)

Implementation phase:

- ✓ To provide capacity building especially in construction project management
- ✓ To respect all terms of contract during project implementation.
- ✓ Payment of executed works on time
- ✓ Establish regular and strong communication channels between all actors to the public construction project for update and on time “Situation Report”

- ✓ during contract implementation, the Client should make sure that all key staff of the Consultant are actually performing the assignment on field as per the Contract;
- ✓ before the contractor can start works, it is normally advisable to do a design review by the Supervisor and Contractor and see if all is in order to enable the starting of the project and smooth implementation of the project;
- ✓ Regarding the hiring of the Contractor, the Client should make sure that the best contractor is hired, to this end, a careful due diligence should be conducted by the Public Tender Committee/Internal Tender Committee before awarding the tender, to make sure that all the information presented by bidders is genuine.
- ✓ The Client should make sure the contract manager/ fonctionnaire dirigeant is well experienced and well conversant with contract management of construction projects.

F. Proposed Public construction contract administration processes in Rwanda

Based on the views of respondents and the experience of the researcher, the following model is proposed to improve contract administration practices in Rwanda

- ✓ Appoint an experienced contract administrator to be supported by a contract management committee composed by a of multidisciplinary team(finance, Legal advisor, engineers, architects, procurement officers)
- ✓ develop technical specifications of the consultants to ensure all aspects of the assignment are well understood during the project planning (project scope ,deliverables, consultants qualification and staff)
- ✓ conduct a due diligence of the contractor before awarding the tender to ensure that all the information presented by bidders is genuine
- ✓ develop a proper coordination and reporting framework
- ✓ conduct the study review directly after the signature of the contract before starting works
- ✓ to monitor the contractors’ personnel to ensure that those submitted in the bids are those who are implementing the project
- ✓ comply with all contract terms and conditions
- ✓ develop a clear channel of communication between parties
- ✓ manage all contract changes with a proactive change management approach
- ✓ develop a dispute resolution framework
- ✓ develop a work breakdown structure
- ✓ track and report regularly the project performance
- ✓ conduct site meetings regularly with the contractors to review the progress, discuss problems and consider necessary changes preferably on weekly basis
- ✓ provide copies of the contract to all actors in the project
- ✓ keep all documents related to the contract under implementation
- ✓ Establish a clear payment strategies so that all executed works are timely paid.

V. CONCLUSION

The general objective of this study was to assess effects of contract administration practices in public construction projects in Rwanda. Based on the study specific objectives, the following general conclusions were made from the findings

- ✓ The unit price contract is mostly used in public construction project in Rwanda
- ✓ Value for money, Familiarity and previous experience with the contract type ,Desire to avoid claims and improve working relationship , Relative risk aversion of Employer and Contractor (Contractor and Employer diversification and size, project size for the Contractor) and Financial costs are the most factors affecting the choice of contract type in construction projects in Rwanda among others
- ✓ poor contract administration and lack of reporting system are the most factor that affect performance of public Construction project
- ✓ Lack of previous experience with a given type of project , unanticipated weather conditions and inadequate communication skills are the three first main causes of delays of public construction projects in Rwanda
- ✓ The three first main Causes of construction conflicts /disputes of public construction projects in Rwanda are Change orders/extra or out-of-scope work, Differing site conditions and unclear or ambiguous description of the work in the plans/specifications or when the plans are contradictory to the specifications

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