

**EFFECTS OF PROCUREMENT PROCEDURES ON PROJECT  
PERFORMANCE IN TANZANIA: A CASE OF TANZANIA BUILDING  
AGENCY REGIONS OF DAR ES SALAAM, MOROGORO AND DODOMA**

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**A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE DEGREE OF MASTER OF PROJECT  
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**CERTIFICATION**

The undersigned certifies that he has read and hereby recommends for acceptance by the Open University of Tanzania a dissertation entitled: **“Effects of Procurement Procedures on Project Performance in Tanzania: A Case of Tanzania Building Agency Regions of Dar es Salaam, Morogoro and Dodoma”**, in partial fulfillment of the requirements for the degree of Master of Project Management (MPM) of the Open University of Tanzania.

.....

Dr. Saganga M. Kapaya

**(Supervisor)**

.....

Date

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I, **Abdala Ramadhani Mchomvu**, declare that, the work presented in this dissertation is original. It has never been presented to any other university or institution. Where other people's works have been used, references have been provided. It is in this regard that I declare this work as originally mine. It is hereby presented in partial fulfillment of the requirement for the Degree of Master of Project Management (MPM).

.....

Signature

.....

Date

**DEDICATION**

This dissertation is dedicated to my beloved Mother, late Sauda Almas and my late father Ramadhani Yusuph. Special thanks to my guardians Mrs. Rafia Yusuph, my wife Mahija Mpera, my children for their prayers, love, support and encouragement throughout my programme.

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## **ABSTRACT**

The study examined the effects of procurement procedures on the project performance with reference to TBA regions of Dar es Salaam, Morogoro and Dodoma. Specifically, the study sought to examine the effects of specification definition, invitation to bidders, selection of bidders, and pre contract negotiation on project performance. Cross-sectional research design was used along with questionnaires. A sample size of 220 respondents was used. Data collected were analysed descriptively with the aid of Statistical Package for Social Sciences (version 20) where multiple regression analysis was used to find the relationship among variables. The findings revealed that the effects of specification definitions include; having department that prepares the bill of quantities and specification of the project requirements that specify the procurement of goods and services needed. Moreover, the user departments prepared specifications of project materials that enabled everyone in the departments to know the terms used and become conversant with what would be procured. On the other hand, the invitations to bidders influence the achievement of project performance. This aided an organisation to always use the open method to invite bidders to participate in the bidding process. Furthermore, the selection of bidders influenced the achievement of project performance by enabling the organisation to appoint an evaluation committee. Yet, in order to facilitate the pre-contract negotiations, the organisation selected knowledgeable personnel to negotiate with the proposed bidder that resulted into better agreement on price, delivery and timely performance of the project on the available budget. To achieve the project performance; time management, quality enhancement and cost minimization were vital at TBA. It is recommended that specifying specification of project requirements at an early stage of project life cycle enables definitions to be known by all stakeholders.

**Keywords:** Procurement, Procurement Process and Procurement Planning

## TABLE OF CONTENTS

<b>CERTIFICATION .....</b>	<b>ii</b>
<b>COPYRIGHT .....</b>	<b>iii</b>
<b>DECLARATION.....</b>	<b>iv</b>
<b>DEDICATION.....</b>	<b>v</b>
<b>ACKNOWLEDGEMENT.....</b>	<b>vi</b>
<b>ABSTRACT.....</b>	<b>i</b>
<b>LIST OF TABLES .....</b>	<b>vii</b>
<b>LIST OF FIGURES .....</b>	<b>viii</b>
<b>LIST OF ABBREVIATIONS AND ACRONYMS .....</b>	<b>ix</b>
<b>CHAPTER ONE .....</b>	<b>1</b>
<b>BACKGROUND INFORMATION.....</b>	<b>1</b>
1.1 Chapter Overview .....	1
1.2 Background to the Problem.....	1
1.3 Statement of the Problem .....	4
1.4 Research Objectives .....	5
1.4.1 General Objective.....	5
1.5 Specific Objectives.....	5
1.6 Significance of the Study .....	6
1.7 Limitations of the Study.....	6
1.8 Delimitation of the Study .....	6
1.9 Organization of the Study .....	7
<b>CHAPTER TWO .....</b>	<b>8</b>
<b>LITERATURE REVIEW .....</b>	<b>8</b>
2.1 Chapter Overview .....	8



2.2	Conceptual Definitions.....	8
2.2.1	Procurement .....	8
2.2.2	Procurement Process .....	8
2.2.3	Specification.....	8
2.2.4	Procurement Planning .....	9
2.2.5	Solicitation of Bidders.....	9
2.2.6	Selection of Bidder.....	9
2.2.7	Negotiations .....	9
2.2.8	Project .....	10
2.2.9	Project Objective .....	10
2.2.10	Project Deliverable .....	10
2.2.11	Specification Definitions.....	10
2.2.12	Bids Invitation .....	10
2.2.13	Bid Selection .....	11
2.2.14	Pre Contract Negotiation.....	11
2.2.15	Project Performance .....	11
2.3	Theoretical Review .....	12
2.4	Empirical Literature Review .....	14
2.4.1	Specification Definitions and Project Performance .....	14
2.4.2	Invitation to bidders and Project Performance.....	15
2.4.3	Selection of Bidders and Project Performance.....	16
2.4.4	Pre-Contract Negotiation and Project Performance.....	17
2.5	Research Gap .....	22
2.6	Conceptual Framework .....	22

2.7	Research Hypothesis .....	23
<b>CHAPTER THREE .....</b>		<b>25</b>
<b>RESEARCH METHODOLOGY .....</b>		<b>25</b>
3.1	Chapter Overview .....	25
3.2	Area of study .....	25
3.3	Research Design.....	26
3.4	Population .....	27
3.5	Sampling Design .....	28
3.5.1	Sample Size.....	28
3.5.2	Sampling Procedures.....	28
3.6	Types of Data .....	29
3.7	Data Collection Tools .....	29
3.8	Type of Measurements .....	30
3.9	Reliability and Validity of Data .....	31
3.9.1	Reliability.....	31
3.9.2	Validity.....	32
3.10	Management and Analysis of Data .....	32
3.10.1	Data Management .....	32
3.10.2	Data Analysis .....	33
3.11	Ethical Considerations .....	34
3.11.1	Informed Consent.....	34
3.11.2	Deception .....	35
3.11.3	Confidentiality and anonymity.....	35

<b>CHAPTER FOUR.....</b>	<b>36</b>
<b>PRESENTATION OF FINDINGS .....</b>	<b>36</b>
4.1 Introduction .....	36
4.2 Demographic Information .....	36
4.2.1 Gender .....	36
4.2.2 Age .....	37
4.2.3 Length in Service .....	37
4.2.4 Employment Status .....	38
4.3 Effects of Specification Definitions on the achievement of Project Performance at TBA.....	38
4.4 Invitation to bidders influence on the achievement of Project Performance at TBA .....	39
4.5 Selection of bidders' influence on the achievement of Project Performance at TBA .....	41
4.6 Effects of Pre-Contract Negotiations on the achievement of Project Performance at TBA .....	42
4.7 Performance of Procurement Procedures on Projects done at TBA .....	43
<b>CHAPTER FIVE .....</b>	<b>45</b>
<b>DISCUSSION OF FINDINGS .....</b>	<b>45</b>
5.1 Introduction .....	45
5.2 Effects of Specification Definitions on the Achievement of Project Performance at TBA .....	45
5.3 Invitation to Bidders Influence on the Achievement of Project Performance at TBA .....	47

5.4	Selection of Bidders' Influence on the Achievement of Project	
	Performance at TBA .....	49
5.5	Effects of Pre-Contract Negotiations on the achievement of Project	
	Performance at TBA .....	51
5.6	Performance of Procurement Procedures on Projects done at TBA .....	52
5.7	Relationship between Specification Definitions, Invitation to Bidders, Selection of Bidders, Pre-contract negotiations and Performance of Projects at TBA.....	54
5.7.1	Assumptions of Multiple Regression .....	54
	<b>CHAPTER SIX .....</b>	<b>59</b>
	<b>CONCLUSION AND RECOMMENDATIONS .....</b>	<b>59</b>
6.1	Introduction .....	59
6.2	Conclusion.....	59
6.3	Recommendations .....	60
6.4	Areas for Future Research.....	62
	<b>REFERENCES.....</b>	<b>63</b>
	<b>APPENDICIES .....</b>	<b>66</b>

**LIST OF TABLES**

Table 3.1: Sample Size .....	28
Table 4.1: Demographic Information .....	37
Table 4.2: Effects of Specification Definitions.....	38
Table 4.3: Invitation to Bidder's Influence.....	40
Table 4.4: Selection of Bidders' Influence .....	41
Table 4.5: Effects of Pre-Contract Negotiations.....	42
Table 4.6: Performance of Procurement Procedures .....	43
Table 5.1: Linearity Assumption .....	55
Table 5.2: Skewness and Kurtosis Coefficients.....	55
Table 5.3: Durbin-Watson Test.....	56
Table 5.4: Multicollinearity Assumption.....	56
Table 5.5: Regression Model Summary.....	57
Table 5.6: Regressions Coefficients.....	57

**LIST OF FIGURES**

Figure 2.1: Conceptual Framework ..... 23

**LIST OF ABBREVIATIONS AND ACRONYMS**

BOQ	Bill of Quantity
H-PMU	Head Procurement Management Unit
KPIs	Key performance indicators
KPS	Kenya Port Authority
NGOs	Non-Governmental Organizations
NHC	National Housing Cooperation
OUT	Open University of Tanzania
PMOK	Project management book of knowledge
PPA	Public Procurement Authority
PPR	Public Procurement Regulation
ROI	Return on investment
SPSS	Statistical Package Software
TBA	Tanzania Building Agency
ZPPA	Zambia Public Procurement Authority

## **CHAPTER ONE**

### **BACKGROUND INFORMATION**

#### **1.1 Chapter Overview**

The chapter covers the background of the study. It contains the background to the problem, statement of the problem, research objectives, significance, limitations and delimitations; and finally organization of the study.

#### **1.2 Background to the Problem**

Procurement procedures play an important part in project performance as they impact how organizations achieve their objectives (Tweneboah and Ndebugni, 2017). It is assumed that procurement is built on the ground that planning; group and scheduling buying end in more effective organizational operations, cost savings and advance transparency and accountability of the organizations (Lumbanga, 2019). Tweneboah and Ndebugni (2017) describe procurement as the business management task that guarantees identification, access, sourcing and supervision of the external resources. Procurement adds value to the organization and to improve performance with an increased understanding of diverse procurement procedures that affect project performance (Julius and Gershon, 2019). World Bank report of 2018 asserted that due to weak procurement procedures and policies about US\$100 million is wasted. All result from the failure to enforce sanction for abuse of procurement procedures. Thus, to ensure efficiency and quality delivery of service, public project procurement needs to adopt best practices and strategies (Anane et al., 2019).

Ogunsanya et al (2019) reported that to avoid unsatisfactory project performance, procurement procedures need be tailored to improve the fulfillment of diverse project



objectives. Such procedures include specification definitions that specify what is needed or wanted for use by the users as a definite description for a product or service. Lumbanga (2019) asserts that the general purpose of specification definitions is to offer a basis for finding a good or service that satisfies a particular need at an economical cost and provide reasonable competition. Yet, specification potentially eliminates items found out of the boundaries while setting limits (Msanga, 2020). Likewise, specifications should be prepared by those who know what is required or by a procurement agent or a consultant, come before the preparation of bidding documents, be part of the bid documents and be updated based on market realities (Anane et al., 2019).

Tebele and Jowah (2014) found that the project manager should have an understanding of the structure and culture of the organization for effective management of projects in which the project is rooted. The reason behind this is that service providers can compromise various innovative solutions, as long as the performance brings what is needed by the organization (Goh and Loosemore, 2017).

Anane et al (2019) reported that one of the most important tasks performed by procurement committees during procuring for the project is to select a capable contractor or supplier. In this process each offer must be carefully considered on an equal basis, against the published evaluation criteria during bid evaluation. Full records need to be kept during procurement functions on how each offer is assessed in lieu of the criteria put while demonstrating that each receives due and fair consideration. When an offer is rejected, the reasons for the rejection should relate to the evaluation criteria, be clearly explained and put in writing (Lumbanga, 2019).

According to Enyinda et al (2010) selecting the right suppliers is the quintessential aspect of strategic purchasing and supply chain management that can affect firms or organizations. The selection process involves the evaluation of different alternative suppliers based on a multi-attribute decision-making problem which is affected by different tangible and intangible attributes such as the traditional attributes, quality and cost, service, flexibility, and delivery performance. Enyinda (2010) reported that improper selection of suppliers can dwarf an organization's supply chain performance.

Julius and Gershon (2019) reported that pre-contract negotiation is a formal discussion between the parties in projects in order to reach an agreement. Here exchange of offers, bargaining and concessions are done to attain a win-win situation (World Bank, 2018). Lumbanga (2019) asserted that terms of negotiations need to reflect issues in the contract and a need to have an independent check is vital as the separation of person signing the contract and the day to day person for contract management is important. Anane et al., (2019) stated that to consider all the elements of the situation and identify options for the organization are the key to negotiating a beneficial outcome to seek for the best value of working relationship with suppliers.

Procedures in procurement are conducted to acquire project materials for the project supplier/contractor to execute the project activities. Project materials must be obtained at the right source, with the right cost, quality and quantity, and the right time to achieve the project objective (Julius and Gershon, 2019). To achieve projects objective, proper procurement procedures is key since the acquisition of goods and services at a right time and the right place with the required quality and quantity of the project supplies is a basis for the success of the project implementation (Shiluka,

2018). This study examines the effects of procurement procedures on project performance regarding the Tanzania Building Agency (TBA) regions of Dar es Salaam, Morogoro and Dodoma. The specific procurement procedures examined include; specification definitions, bid invitation, bid selection, pre-contract negotiations and performance with their effects on the achievement of the project objective.

### **1.3 Statement of the Problem**

Experience in Tanzania shows that most projects are conducted without giving weight to the procurement procedures (Lumbanga, 2019). Also, experience shows that contractors have failed to execute projects due to various reasons that include poor capacity and delay of project materials (Msanga, 2020). For example, the CAG report of 2018/2019 pinpoints out 33 water projects worth Tanzania shillings 61,244,676,104/- failed to meet targeted project objectives for supply water on time. Yet, the REA project for supplies of electricity for 12,268 villages failed to meet the targeted project objectives for more than ten years and the selected contractors for both projects failed to perform as per the signed contract.

Ogunsanya (2019) evidenced that in developing countries public procurement procedures have failed to deliver the necessary infrastructure for economic development. It was found that a substantial amount of resources are absorbed in the public infrastructure such as building construction but there is no satisfactory development of those infrastructures (NCC, 2019). Projects are often considered part of program management, which, as a function, is sometimes external to purchasing and supply management have procurement time scales that are sharper and have a

simpler, streamlined process for approval (Shiluka, 2018). Yet, the Tanzania Buildings Agency (TBA) since its inception in 2002, some achievements have been attained including the construction of 1,226 public houses and the sale of over 7,499 houses to public servants (URT, 2018). However, public sector construction projects have been experiencing challenges that lead to failure in completion (Shiluka, 2018). Even though a lot of studies have been done on the success and failures of the procurement procedures in public projects in Tanzania, there is no significant study that examined the effects of procurement procedures on project performance with reference to TBA regions of Dar es Salaam, Morogoro and Dodoma.

## **1.4 Research Objectives**

### **1.4.1 General Objective**

To examine the effects of procurement procedures on project performance with reference to Tanzania Building Agency regions of Dar es Salaam, Morogoro and Dodoma.

### **1.5 Specific Objectives**

- (i) To examine the effects of specification definitions on the achievement of project performance at TBA.
- (ii) To explore how the invitation to bidders influence the achievement of project performance at TBA.
- (iii) To determine the selection of bidders' influence on the achievement of project performance at TBA.
- (iv) To determine the effects of pre-contract negotiations on the achievement of project performance at TBA.

- (v) To examine the performance of procurement procedures on projects done at TBA.

### **1.6 Significance of the Study**

The study might help TBA and other organizations to increase the attention on choosing procurement procedures that will increase project performance. Also, the study becomes a source of knowledge in improving organization project performance by pointing out how specification, an invitation to bidders, selection of bidders, and pre-contract negotiation affects project performance. Finally, the study would be used as partial fulfillment for the requirement for the award of the master's degree in project management.

### **1.7 Limitations of the Study**

This study was conducted at TBA Dar es Salaam headquarters, Morogoro and Dodoma. The study examined the effects of procurement procedures on the performance of project. The main limitations of this study were time frame, financial resources, and difficulties in accessing confidential information related to this study.

### **1.8 Delimitation of the Study**

To overcome the limitations of this study, the researcher used the following ways:-

The researcher used extra time after working hours in collecting data relating to this study as some respondents were reached after working hours and others on weekends.

In case of financial resources, a researcher utilized his pocket money and in case of challenges found the sponsor to help cover some costs required to complete this study.

Moreover, by educating the respondents on the purpose of the study, the researcher was able to access some confidential information relating to this study.

### **1.9 Organization of the Study**

This study is organized into six chapters. Chapter one presents the background information. Chapter two presents and reviews relevant works of literature related to the study. Chapter three presents the research methodology used in the study. Chapter four presents the findings, chapter five presents the discussion of findings and lastly, chapter six presents the conclusion and recommendations.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Chapter Overview**

This chapter reviews works of literature from different authors to build a foundation for this study. It presents the conceptual definitions, theoretical review, empirical review, research gap, conceptual framework and research hypothesis.

#### **2.2 Conceptual Definitions**

##### **2.2.1 Procurement**

According to PPA (2011) procurement is defined as purchasing or buying, leasing, renting or acquiring goods, services or works using a procuring entity. This includes functions pertaining to the obtaining of goods or services. Moreover, in procurement a description of preparation of requirements, invitation of tenderers, selection and award of contracts are important issues.

##### **2.2.2 Procurement Process**

According to PPA (2011) procurement process is defined as the sequential stages in the cycle of procurement namely planning, choice of procedures, measures to solicit offers from bidders, examination, evaluation of offers, award of contract and its contract management.

##### **2.2.3 Specification**

According to PMBOK (2014) specification refers to precise statement for the needs to be satisfied with essential characteristics required. Moreover, specification according

to PPA (2011) includes the description of commodity by reference to its quality, quantity, strength, nature, dimension, grade, origin, age, purity, composition, weight, durability, origin or other characteristics to any substance or material of, or with which, or how, any commodity or works may be manufactured, produced, processed, treated, built or installed.

#### **2.2.4 Procurement Planning**

According to ZPPA (2015) procurement planning is defined as the procedure of categorizing and uniting requirements and determining the timeframes for their procurement to have them as and when they are required.

#### **2.2.5 Solicitation of Bidders**

This is a request for bid used in a situation where potential vendors or service providers differ primarily on price. Issuing an IFB allows a company to provide detailed written specifications, including the terms and necessary conditions for work on the specific project it wants to contract out. Here to deliver invitations to bid may be orally or in writing (Halton, 2021).

#### **2.2.6 Selection of Bidder**

Selection of bidder comprises the opening and examining the bids in order to identify the preferred supplier. Negotiations may then be entered into with one or more suppliers, and the successful supplier awarded the contract (Lumbanga, 2019).

#### **2.2.7 Negotiations**

Negotiation is a procedure where each party tries to achieve its goals in the relationship context with the other party. It is focusing on improving various aspects of bids or proposals (World Bank, 2018).



### **2.2.8 Project**

This is a temporary endeavor undertaken to create a unique product, service or result where a project is commenced to fulfill objectives by producing deliverables. The temporary nature of projects indicates that a project has a definite beginning and end (PMBOK, 2017).

### **2.2.9 Project Objective**

This is well-defined as a result of work directed, a strategic position to be attained, a result to be obtained, a purpose to be achieved, , a product to be produced, or a service to be performed (PMBOK, 2017).

### **2.2.10 Project Deliverable**

This is defined as any unique and verifiable product, result, or capability to perform a service that is required to be produced to complete a process, phase or project. Deliverables may be tangible or intangible (PMBOK, 2017).

### **2.2.11 Specification Definitions**

This highlights the procurement of project materials commencing with the preparation of the bill of quantity (BOQ) to the definition of specification needed for the material. Clear defined specifications of project materials simplify the procurement process and enable to get right materials for the project at right time, right quantity, and at a competitive price (Ogunsanya, 2013).

### **2.2.12 Bids Invitation**

This is the method used to invite bidders for the procurement of project materials or construction project that plays an important role on achievement of project objectives.

The nature of project materials required may determine whether to use competitive procurement or non-competitive procurement method. To get the right supplier, at the right source, at the right time and the right material of the project depends much on the capability of the procurement process initiated at the early stage of the project (Jeptepkeny, 2015).

### **2.2.13 Bid Selection**

Selection of capable suppliers depends much on criteria of selection prepared in tender document and skills and knowledge of evaluation committee involved. If the specification is clearly defined at the early stage of the project and the invitation of bidders is transparent will help to get the lowest evaluated bidder with qualification and capability to deliver the quality project material on time and at a reasonable cost (Goha et al., 2017).

### **2.2.14 Pre Contract Negotiation**

Pre-contract negotiation is a discussion with the lowest evaluated bidder on the performance of the contract, delivery of project material, and other terms and conditions of the contract. For a good practice the negotiation should aim at a win-win situation for both parties. Negotiation of project delivery schedule and project cost is important to ensure the achievement of the project objective (Baily et al., 2015).

### **2.2.15 Project Performance**

Procurement procedures play an important role in project performance for example time used in procurement of project material, cost of procurement of project material, the specification used in procurement of project material, the capability of the selected

supplier to deliver the project material, and the procurement process used has an impact on the achievement of project objective in term of cost, time, and scope. Any weakness in procurement procedure is likely to have an impact on the delivery of project objectives (Anane et al., 2019).

### **2.3 Theoretical Review**

This study was guided by Resource-Based Theory.

Resource based theory is founded by Peteraf and Barney (1991). The theory identifies and analyzes an organization's strategic advantages that in turn become a source of competitive advantage (Nason & Wiklund, 2018). These competitive advantages may be organizational, human or financial and their advantages are conferred based on their rareness, uniqueness and value (Mishra et al, 2019). According to the theory, Peteraf and Barney (2003) state two assumptions used in analyzing competitive advantage; one, firms within the same industry may have diverse resources and the other believes this dissimilarity in resources may continue for a long duration. According to the founders, a resource becomes a competitive advantage when it is inimitable (Santoro et al., 2019).

Resource based theory asserts that a firm is said to have sustainable competitive advantage when it is implementing a value creating strategy (value) not simultaneously being implemented by other competitors (rarity), and when these other firms are unable to duplicate the benefits of this strategy (imperfect imitability)' (Santoro et al., 2019). The central focus of this theory is on the essence that the firm resources and how an organization can make use of such resources to create competitive benefit in the given industry (Nason and Wiklund, 2018). The firms have

the specific and unique resources that can utilize to have an advantageous position in delivering a high level of efficiency in the market. Resources (human and physical) enable firms to improve efficiency and save on unnecessary costs (Mishra et al., 2019). If all organizations in an industry have the same resources there would not be any competitive advantage available. The organization can also involve the use of resources such as financial resources, technology, human being, social relationship (Mweru and Maina, 2015). In the construction industry, the firm might decide to use its unique human resource through the use of their competence on creating an innovation that other cannot create in a given period, also the use of firm financial resources may be in use to facilitate projects completion while others waiting for the planned budget. This tendency creates a more favorable environment to have efficient operations (Goh and Loosemore, 2017).

The theory emphasizes that competitive advantage in organizations' procurement is determined through proper planning and functioning of procurement where what is needed by the users can be specified through specification definitions to look for a right bidder through bidder's invitation as per specified requirements. Likewise, the theory argues that with a high commitment human resource strategy selection of bidders against the published criteria may aid alternative service providers leading to firm competitive advantage by creating greater firm-level employee-based resources that are rare and valuable (Nason and Wiklund, 2018).

Additionally, the theory informs that through formal discussions between parties, pre-contract negotiations can be done. This would be improved through exchange of offers, bargaining and concessions. By so doing the performance of an organisation

may be achieved in terms of cost effectiveness, time and quality supply of goods or services from the right service provider (Mishra et al., 2019).

In lieu of examining the effects of procurement procedures on project performance with reference to TBA, resource based theory was used by TBA as a collection of assets, or capabilities whereby its success was based on capabilities that are distinctive from its resources (personnel in particular). Thus, TBA is able to use its personnel to specify definitions, invite bidders, select and conduct pre-contract negotiations and by using its competent personnel would achieve project performance generated jointly through knowledge sharing with partners and alliances. Likewise, using the resource based theory, TBA is able to contribute to and support every decision point of the procurement cycle. Accordingly, these resources and capabilities are necessary for the strategic management practices that would lead to the enhanced organizational performance (Ahmed & Othman, 2019).

However, resource based theory has been criticized because of the intention for generalization and its partial consideration to the institutional environment in terms of understanding how it can impact on industry structure and organizational performance (Mishra et al, 2019).

## **2.4 Empirical Literature Review**

In this section, the researcher reviewed the work done by other researchers that in one way or other related to the topic as discussed as hereunder.

### **2.4.1 Specification Definitions and Project Performance**

Al Khaja (2012) in his study regarding the implementation of procurement functions where specification definitions were among the variable that influence project

performance. Data were collected through interviews and analyzed using the qualitative method. The results showed that issues such as clear interpretation of the scope of work to the invited bidders, specification definitions, qualification-based contractor selection, maintaining proper communication channels, implementation of non-traditional procurement method, and contractor's previous performance before the award contributed to better project performance.

Maqsood et al., (2013) carried a study on the role of procurement practice in the effective implementation of the infrastructure project in Pakistan. Six organizations were selected with a total sample size of 24 respondents. The results showed that the impact of procurement practice on project performance delays in bidding response, delays in approval, proposal and bid evaluation procedures, need to relaxation of rules and project characteristics, and clarity of client need.

#### **2.4.2 Invitation to bidders and Project Performance**

Eriksson and Vennstrom (2010) conducted a study on the effects of procurement on project performance. A survey of Swedish construction clients on the understanding of how procurement procedures affect project performance was done where data was collected from 106 Swedish construction clients. The regression results showed that cooperative procurement procedures to invite bidders positively affected the collaboration among project actors and that collaboration in turn had positive effects on project performance.

Jeptepkeny (2015) conducted a study on the effect of procurement procedures on project performance regarding a light construction project at Kenya port Authority,

Mombasa. A descriptive design and regression analysis was used on 6 light construction projects at Kenya Port Authority. The results from descriptive and regression analysis indicated that specification definition, bid invitation, and contract management count for 78.8% changes in performance. The study concluded that procurement procedures have a strong and positive correlation with project performance in Kenya Port Authority.

### **2.4.3 Selection of Bidders and Project Performance**

Nuluyima (2016) carried a research on the effect of selecting bidders and procurement management on project performance in Uganda. Three key variables such as procurement planning, solicitation of bids, and contract management were analyzed. Data was collected through questionnaires and interviews where the sample size was 108 responsive but 53% responded. The results showed that the variable defining procurement planning, solicitation of bids & selection, and contract management had a significant effect on project performance.

Julius and Gershon (2019) in their study assessed the procurement strategies and contract management practices and how they affect the performance of road construction strategies. The study adopted a mixed-method and purposive sampling in the study methodology. The findings revealed that competitive and restricted tendering gave value for money in road construction due to the lowest coefficient variation compared to other attributes for road construction.

Lastly, the study concluded that procurement strategy positively affected the performance of road construction projects in Ghana due to the proper selection of

bidders. Ogunsanya et al (2019) conducted a study on the effects of procurement-related factors on construction project performance in Nigeria. The study aimed at investigating the effects of procurement-related factors of procurement selection criteria, tendering methods, and variation orders on project performance. Snowballing sampling technique was used in selecting 40 construction organizations in Lagos metropolitan city response were secured from Architects, Builders, Engineers and quantity surveyors. The result indicated that procurement criteria, tendering methods, and variation orders have impacts on project performance, cost, time, quality-related factors, tendering methods, and variation orders strongly affect project performance.

#### **2.4.4 Pre-Contract Negotiation and Project Performance**

Aputo (2017) researched the effects of procurement functions such as pre-contract negotiations on project performance on non-governmental organizations in Nairobi County, Kenya. The general objective of the study was to establish the effects of procurement functions such as need assessment, supplier sourcing, contract management, and inventory management on project performance.

The study employed a descriptive research design and used a questionnaire as its main data collection tool, data were analyzed using SPSS Version 22. The sample size of 76 NGOs was drawn using simple random sampling from a total of 328 NGOs in Nairobi County. Regression analysis results indicated that needs assessment, supplier sourcing, contract management, and inventory management all affect project performance. The study concluded that procurement functions have a positive effect on project performance.



Anane et al (2019) in their study to determine the effect of procurement policy, planning, and sustainable procurement on service delivery and time management employed a quantitative research approach and explanatory design. The target population for the study was staff and management of the Volta River Authority (VRA). From the model estimation, procurement policy was the strongest predictor of service delivery, time management was followed by sustainable procurement and pre-contract negotiation, and lastly procurement planning. The study recommends that the management of VRA should constantly invest in sustainable procurement, procurement planning, and procurement policy to enhance service delivery to the public.

Msanga (2020) in his study examined the effects of procurement procedures on the performance of public projects; focused on the road constructed in Mbagala ward, Temeke municipality and identified effects of procurement procedures on cost performance of a public project examined effects of procurement procedures on the quality performance of a public project and determining effects of procurement procedures on-time performance of a public project. Data were obtained from the procurement officers, road construction, and Mbagala residence. Descriptive and regression analyses were performed to determine the strength of the study variables.

The study findings revealed that; procurement procedures were highly effective on cost performance of public projects, while regression analysis confirmed that the procurement procedures had a moderate correlation with cost performance in the road construction project. Also, it was revealed that procurement procedure highly contributed to the quality performance of public projects. Further regression analysis

revealed that the procurement procedures used had a very strong correlation with quality performance and finally, it was realized that procurement procedures very highly leads to time performance Finally the study concludes that the performance of a public project in Temeke municipality was highly facilitated due to the contribution of procurement procedures on cost performance, quality performance, and time performance.

Mgawe and Masanja (2018) in their research on the influence of procurement practices on the performance of construction projects in Tanzania, a case study of National Housing Corporation, with a descriptor-explanatory design, allowed a detailed description and analysis of variables under study. The target population was 60 employees from five different departments of NHC Headquarters. It was found various procurement practices influence the performance of construction projects in NHC to include supplier selection, contract monitoring, and control, reduce risk, and triggers off an effort to search for solutions to the identified threat to project success.

Kipkemoi (2017) conducted research focused on achieving efficiency and effectiveness within the procurement department to improve overall organizational performance. This study's objective was to determine how organizational performance is affected by procurement practices. Questionnaires were used as a form of data collection. The study population for this research included the finance and procurement employees of the East African Portland Cement Company Limited. This research embraced a descriptive design, which accurately depicts participants; it describes the people who take part in the study. A survey was used and staff from the procurement and finance departments was asked to fill out questionnaires through a

brief interview about specific topics. Primary data was collected through questionnaires that focused on staff from the procurement and finance departments. 46 questionnaires out of a total of 58 were satisfactorily filled signifying a 79 percent rate of reply. Data collected is presented using tables, charts, and graphs. The study recommends the building of robust relationships with key suppliers to guarantee unfailing supply and quality of inputs. Manufacturing companies must assess where their greatest investments are made and the benefit procurement can bring to each category. After significant investments are made in machinery, equipment, and facilities, the next largest investment should be made in inventories. This is where the organization can produce savings through more efficient production, better utilization of floor space, better service and products to customers.

**Table 2 1: Literature Summary**

<b>Author &amp; Year</b>	<b>Aspects Studied</b>	<b>Methodology used</b>	<b>Findings</b>	<b>Areas for Future study</b>
AlKhaja (2012)	Implementation of procurement functions that influence project performance	Case study design with qualitative approach using interview guide	Clear interpretation of the scope of work to bidders, specification definitions, proper contractor selection, and contractor's previous performance contributed to better project performance	Contract negotiations and award to suppliers need to be reflected with skilled personnel
Maqsood et al., (2013)	Role of procurement practice in the effective implementation of the infrastructure project	Case study design with descriptive statistics analysis	The impact of procurement practice on project performance delays in bidding response, delays in approval, proposal and bid evaluation procedures, need to relaxation of rules and project characteristics, and clarity of client need.	Role of guideline in enhancing procurement efficiency
Eriksson and Vennstrom (2010)	Effects of procurement on project performance	Survey design and factor analysis	Cooperative procurement procedures to invite bidders positively affected the collaboration among project actors and that	Impact of procurement procedures on bidders' performance

			collaboration in turn had positive effects on project performance	
Jeptepkeny (2015)	Effect of procurement procedures on project performance	Cross-sectional design and descriptive statistics analysis	Specification definition, bid invitation, and contract management count for 78.8% changes in performance	Effect of procedure management in implementing procurement guidelines
Nuluyima (2016)	Effect of selecting bidders and procurement management on project performance	Survey study design with Multiple Regression analysis	The variable defining procurement planning, solicitation of bids & selection, and contract management had a significant effect on project performance	Challenges for delays of supply of goods and services
Julius and Gershon (2019)	Procurement strategies and contract management practices and how they affect the performance of road construction strategies	Survey design and factor analysis	Competitive and restricted tendering gave value for money in road construction due to the lowest coefficient variation compared to other attributes for road construction	Role of training in implementing procurement procedures
Ogunsanya et al (2019)	Effects of procurement-related factors on construction project performance	Cross-sectional study design with Multiple Regression analysis	Procurement criteria, tendering methods, and variation orders have impacts on project performance, cost, time, quality-related factors, tendering methods, and variation orders strongly affect project performance	Factors influencing compliance in procurement of works
Aputo (2017)	Effects of procurement functions on non-governmental organizations performance	Survey study design with Multiple Regression analysis	Needs assessment, supplier sourcing, contract management, and inventory management all affect project performance	Role of procurement functions on organisational performance
Anane et al (2019)	Effect of procurement policy, planning, and sustainable procurement on service delivery and time management	Explanatory design and quantitative research approach	The model estimation showed that procurement policy was the strongest predictor of service delivery, time management was followed by sustainable procurement and pre-contract negotiation, and lastly procurement planning.	Impact of procurement planning on service performance
Msanga (2020)	Effects of procurement procedures on the performance of public projects	Cross-sectional design and descriptive statistics and regression analysis	Procurement procedures were highly effective on cost performance of public projects, while regression analysis confirmed that the procurement procedures had a moderate correlation with cost	Effectiveness of procurement procedures on project performance

			performance in the road construction project	
Mgawe and Masanja (2018)	Influence of procurement practices on the performance of construction projects	Descriptor-explanatory design, with detailed description and analysis	Supplier selection, contract monitoring, and control, reduce risk, and triggers off an effort to search for solutions to the identified threat to project success	Factors influencing procurement practices performance
Kipkemoi (2017)	Efficiency and effectiveness within the procurement department to improve overall organizational performance	Survey study design with descriptive analysis	The organization can produce savings through more efficient production, better utilization of floor space, better service and products to customers.	The impact of procurement practices in the sustainability of firms

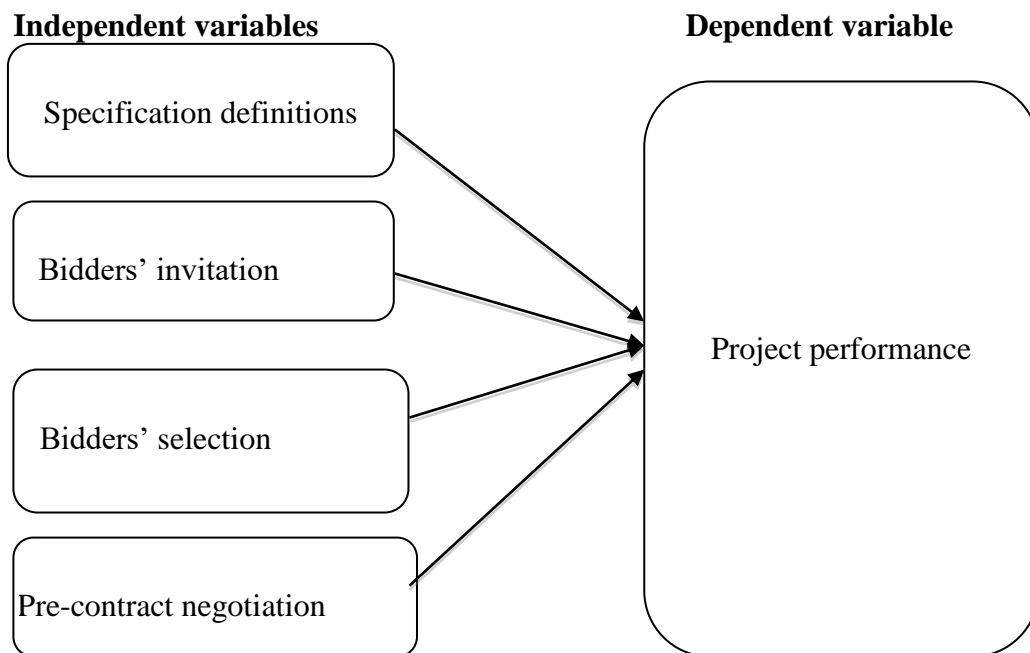
## 2.5 Research Gap

The study has discovered that little research has been done on building construction projects specifically concerning the effects of the procurement procedures on project performance. However, few researchers investigated the effects of procurement procedures on project performance, yet in Tanzania, there is a limited number of studies examining the effect of specification definitions, bid invitation, bid selection criteria, and pre-contract negotiation on the achievement of project performance. Therefore, this provides room to research at Tanzania Build Agency (TBA) to fill the gap that exists.

## 2.6 Conceptual Framework

Figure 2.2 provides the conceptual framework. This is defined as an abstract idea or a theory used to develop new concepts or to reinterpret existing ones (Yin, 2003). It gives the relationship between the dependent and independent variables. Procurement procedures are the independent variables while project performance is a dependent variable. This conceptual framework looks to establish whether procurement

procedures have any effects on project performance in Tanzania reference to Tanzania Building Agency (TBA). Below is the illustration of a conceptual framework.



**Figure 2.1: Conceptual Framework**

Source: Researcher's Model (2021)

## 2.7 Research Hypothesis

This is a statement of expectation that were tested by the research in line with the objectives of this study; null hypothesis and alternative hypothesis were developed to be tested. The following hypotheses were tested.

(i) *Null Hypothesis: (HO<sub>1</sub>):* The effects of specification definitions have no impact on the achievement of project performance at TBA

*Alternative Hypothesis: (HA<sub>1</sub>):* The effects of specification definitions have impact on the achievement of project performance at TBA

(ii) *Null Hypothesis: (HO<sub>2</sub>):* The invitation to bidders do not influence the achievement of project performance at TBA

*Alternative Hypothesis:* (HA<sub>2</sub>): The invitation to bidders influence the achievement of project performance at TBA

(iii) *Null Hypothesis:* (HO<sub>3</sub>): The selection of bidders' do not influence the achievement of project performance at TBA

*Alternative Hypothesis:* (HA<sub>3</sub>): The selection of bidders' influence the achievement of project performance at TBA

(iv) *Null Hypothesis:* (HO<sub>4</sub>): The effects of pre-contract negotiations have no impact on the achievement of project performance at TBA

*Alternative Hypothesis:* (HA<sub>4</sub>): The effects of pre-contract negotiations have impact on the achievement of project performance at TBA

(v) *Null Hypothesis:* (HO<sub>5</sub>): The procurement procedures have no impact on the performance of projects done at TBA

*Alternative Hypothesis:* (HA<sub>5</sub>): The procurement procedures have impact on the performance of projects done at TBA

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Chapter Overview**

This chapter presents the systematic approach through which this research was conducted. It consists of research philosophy, research design, population and sample size, sampling procedures, types of data, data collection tools, types of measurement, reliability, and validity, data management and analysis, and ethical considerations.

#### **3.2 Area of study**

Research philosophy is a belief about how data about a phenomenon should be gathered, analyzed, and used. The term epistemology (what is known to be true), as opposed to doxology (what is believed to be true), encompasses the various philosophies of the research approach. In other words, it is the basis of the research, which involves the choice of research strategy, formulation of the problem, data collection, processing, and analysis (Greene *et al.*, 2010). Four main trends of research philosophy are distinguished and discussed in the works by many authors: the positivist research philosophy, interpretivism research philosophy, pragmatist research philosophy, and realistic research philosophy. The Positivist research philosophy claims that the social world can be understood objectively.

In this research philosophy, the scientist is an objective analyst and, based on it, dissociates himself from personal values and works independently. The opposite of the above-mentioned research philosophy is the interpretivism research philosophy, where a researcher states that based on the principles it is not easy to understand the social world.



Interpretivist research philosophy says that the social world can be interpreted subjectively. The greatest attention here is given to understanding the ways through which people experience the social world. Interpretivist research philosophy is based on the principle, which states that the researcher performs a specific role in observing the social world. According to this research philosophy, the research is based and depends on what the researcher's interests are. On the other hand, the Pragmatist research philosophy deals with the facts. It claims that the choice of research philosophy is mostly determined by the research problem. In this research philosophy, the practical results are considered important. Thus, researchers have freedom of choice. They are free to choose the methods, techniques, and procedures that best meet their needs and scientific research aims. Moreover, pragmatists do not see the world as an absolute unity.

Finally, the Realistic research philosophy is based on the principles of positivist and interpretivist research philosophies. Realistic research philosophy is based on assumptions that are necessary for the perception of the subjective nature of the human (Greene *et al.*, 2010). Therefore, in this study, a pragmatic philosophy was used as it focuses on mixed or multiple approaches. It also utilizes triangulation that involves quantitative and qualitative approaches. Moreover, this study used only a quantitative approach.

### **3.3 Research Design**

Kothari (2009) defines a research design as a conceptual structure within which the research is conducted. It constitutes the blueprint for the collection, measurement, and analysis of data. This study adopted a cross-sectional research strategy. This cross-

sectional strategy utilizes questionnaire or interview guide to solicit information. With cross-sectional strategy very often, the elements in the sample surveyed are selected purposively or at random to make inference about the population as a whole. According to Zheng (2015) cross-sectional research strategy is a research approach in which the researcher investigates the state of affairs in a population at a certain point in time.

Cross-sectional design is especially useful in situations where contextual conditions of the event being studied are critical and where the researcher has no control over the events as they unfold. Therefore, given the interpretive position adopted in this research and the nature of the research questions, the cross-sectional design is considered the most appropriate design to employ because it provides a systematic way to collect data, analyze information and report the results, thus understand a particular problem or situation in great depth. Yin (2003) defines a cross-sectional design or strategy as an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly defined. Therefore, this research describes the characteristics of project performance to the four independent procurement variables such as specification definitions, bid invitation, bid selection, and pre-contract negotiation.

### **3.4 Population**

Cooper and Schindler (2014) describe study population as those people, events, or records that contain the needed information and can answer the research questions. This study was conducted at TBA regional offices of Dar es Salaam, Morogoro and

Dodoma with an estimated population of 370 people that includes procurement professional experts, the management team and stakeholders.

### 3.5 Sampling Design

Is a definite plan for obtaining a sample from a given population, it indicate technique and procedure the researcher would adopt in selecting items of the sample.

#### 3.5.1 Sample Size

The sample size is an important feature of any empirical study in which the goal is to make inferences about the population from a sample. In practice, the sample size is used on the expenses of data collection and the need to have sufficient statistical power. Empirical literature says that regardless of the population size a sample or sub-sample of 30 cases is the bare minimum for studies (Bailey, 2004).

**Table 3.1: Sample Size**

S/N	Respondents	Population	Sample
1.	H-PMU	1	1
2.	Project managers	20	10
3.	PMU staffs	40	20
4.	User departments	190	92
5.	Stakeholders	119	97
<b>Total</b>		<b>370</b>	<b>220</b>

#### 3.5.2 Sampling Procedures

A purposive sampling procedure was used because the researcher can select individuals who have required information depending on the nature of the problem.

The purposive method was used by focusing on people with good knowledge and understanding of the effects of procurement procedures on project performance. Therefore, Procurement Management Unit staffs, user department staff, project manager, head of procurement management unit, and stakeholders were used.

### **3.6 Types of Data**

Data are facts, figures, and other element materials past and present serving as bases for study and analysis (Saunders et al., 2012). To gather sufficient and convenient data, the researcher used primary data. Primary data are those which are collected afresh and for the first time, and thus happen to be original. The primary data were gathered through questionnaires (Kothari, 2009). The data collected included examining the effects of specification definitions on the achievement of project performance; exploring how the invitation to bidders influence the achievement of project performance; determining the selection of bidders' influence on the achievement of project performance; determining the effects of pre-contract negotiations on the achievement of project performance; and examining the performance of procurement procedures on projects done at TBA.

### **3.7 Data Collection Tools**

To be able to realize the study objectives, the study used a well-designed questionnaire as the main data collection method. Questionnaires were developed and administered to various levels of procurement and non-procurement staff at TBA that contained closed-ended questions. Closed-ended questions in the form of multiple choices and respondents were asked to put a tick against the answer of their selection. Therefore, several questionnaires were prepared and answered by respondents.

Questionnaires are preferred because they are efficient, cheap, and easy to be administered (Mugenda and Mugenda, 2003). The questionnaires were administered personally by the researcher and the researcher waited for the respondents to fill in. The questionnaire were divided into five categories; the first category was for information about the specification in project procurement, the second category was about the information on the invitation of bidders, the third category was about the information on selection of bidders, the fourth category was for information on pre-contract negotiation and the fifth category was information on performance of procurement procedures on project.

In this, a closed-ended questionnaire was used depending on the level of education and experience of the staff within the organization concerned. The advantage of this method is that it enables the researcher to evaluate the entire organization over the study concerned. It is convenient as it gathers information from a large number of people at minimum cost (Kothari, 2009).

### **3.8 Type of Measurements**

Measurement is a process of mapping aspects of the domain onto other aspects of range according to some rule of correspondence (Kothari, 2009). The most widely used classifications of measurement of scales are nominal, ordinal, interval, and ratio scale. A nominal scale is a system of assigning numbers to the event to label them (e.g. Male-1 and female-2). Ordinal scale places events in order but there is no attempt to make the intervals of the scale equal in terms of some rule. Thus, this is the lowest level of the ordered scale commonly used. Interval scale normally intervals are adjusted in terms of some rule that has been established as a basis of making the unit

equal. This scale provides a more powerful measurement than the ordinal scale. Ratio scale: this scale has an obsolete or true zero of measurement. It represents the actual amounts of variables.

The researcher used a nominal scale. Using a nominal scale the researcher was able to describe differences between variables such as male and female, and various departments.

### **3.9 Reliability and Validity of Data**

#### **3.9.1 Reliability**

Reliability refers to the consistency of a research study or measuring test or the repeatability of findings. If findings from the research are replicated consistently they are reliable (Cresswell, 2009). Mohajan (2017) defines reliability as a measure of how consistent the results from a test or measuring instrument are; that is the consistency with which a test measures what it is supposed to measure. It is the ability of the measurements or the degree to which instrument measures the same way each time it is used under the same condition with the same subjects. The researcher used a scientific research methodology in the acquisition of data hence no doubt about the results obtained by the researcher, whoever used the same procedures would obtain the same or more likely as the researcher (Mohajan, 2017).

This study pilot study was carried out to test the questionnaire in the respective study area for their reliability; afterward, corrections were done, to obtain reliable data for the research. This allows the researcher to study the properties of measurement scales and the items that make them. Since the reliability of data goes with the accuracy or

precision of a measuring instrument, in this research study, reliability was concerned with the questions' consistency of responses in repeated measurements (Carmines & Zeller, 2006).

### **3.9.2 Validity**

Validity is defined as the instrument's ability to measure exactly what concept it is supposed to measure (Cresswell, 2009). It also refers to the credibility or believability of the research. To validate the data and instruments (questionnaires) used in the research, the researcher asked the experts to recommend their representativeness and suitability. Besides, the researcher allowed suggestions to be made to the structure of the questions as argued by Cooper and Schindler (2008). In this study validity of data were ensured by choosing the sample from a true representative of the population, preparing a good research tool, having appropriate methods of data collection, pre-testing research instruments, and proper recording of data (Mohajan, 2017).

## **3.10 Management and Analysis of Data**

### **3.10.1 Data Management**

To identify and eliminate errors and bias ratings made by respondents thereafter data were edited, coded, and analyzed. The coded items were then be analyzed with the aid of computer software for analyzing data. This part states clearly how data were inspected corrected, error cleaned, and analyzed and state the program used (Kothari, 2004). It involved systematically organizing mass raw data, which were collected in a manner that facilitated analysis of data. For closed-ended questions, the researcher assigned numbers to them directly. Data coding, classification, and editing was done

to ensure data completeness, accuracy, clarity, and meaning before interpreting them with the aids of SPSS software version 20 with multiple regression analysis.

### **3.10.2 Data Analysis**

At the end of every field data collection day, the filled questionnaires were checked for completeness and consistency of information before storage. The data from the completed questionnaires were cleaned, coded, and entered into the computer using the statistical packages for social sciences (SPSS) for analysis. The software packages enable the researcher to analyze the data into percentages, means, and standard deviations.

Multiple regression analysis was used to determine whether the group of factors proposed influences project performance. Multiple regression analysis was used to predict the relationship that exists between variables as assumed that more than one independent variables and one dependent variable are used (Hair et al, 2014). This study used multiple regression analysis in data analysis because it has four independent variables that include; specification definitions, invitation to bidders, selection of bidders and pre-contract negotiations and one dependent variable, which is performance of projects. The researcher is interested to measure the contribution of each independent variable to dependent variable.

The following regression model was used

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Whereby:

Y = Dependent Variable (Project performance)

$\beta_0$  = y intercept (Constant)



$\beta_1$  = regression coefficient for specification definitions

$\beta_2$  = regression coefficient for invitation to bidders

$\beta_3$  = regression coefficient selection of bidders

$\beta_4$  = regression coefficient for pre-contract negotiations

$X_1$  = Specification definitions

$X_2$  = Invitation to bidders

$X_3$  = Selection of bidders

$X_4$  = Pre-contract negotiations

$\varepsilon$  = error term

### **3.11 Ethical Considerations**

All necessary procedures were followed to conform to the ethical standards of research. The researcher sought permission from the relevant authorities before carrying out the research. All information obtained in this research was strictly used for academic purposes and respondents were assured of the confidentiality of information given. Moreover, anonymity together with accessibility to research information was observed. Treatment was done according to the organizational protocol for the management of data collection. Other issues to be considered were as follow:

#### **3.11.1 Informed Consent**

Participants were given a written statement that explains all the aspects of a study. They were required to formally consent and participate before the commencement of the study by signing the consent form.

### **3.11.2 Deception**

Participants were given the choice of whether they were willing to participate before engaging in the study. The researcher did not mislead or coerce any of the participants into participating. Such transparency was encouraged to support the participants during the study.

### **3.11.3 Confidentiality and anonymity**

Information obtained from the participants was held with confidentiality. This ensured that no one has access to individual information or the names of the participants except the researcher (Cresswell, 2009). In addition, participants were assured that their personal information, including their names and addresses, would not be revealed in any way without their permission.

## **CHAPTER FOUR**

### **PRESENTATION OF FINDINGS**

#### **4.1 Introduction**

This chapter presents the findings emanating from the examination of the effects of procurement procedures on project performance with reference to selected TBA regions of Dar es Salaam, Morogoro and Dodoma. The first part explores the demographic information. The second part examines the effects of specification definitions on the achievement of project performance, the third part explores how the initiation to bidders influence the achievement of project performance while the fourth part determines the selection of bidders' influence on the achievement of project performance. Moreover, fifth part determines the effects of pre-contract negotiations on the achievement of project performance and the last part examines the performance of procurement procedures on projects done at TBA. To start with, the demographic information is presented and discussed hereunder.

#### **4.2 Demographic Information**

The demographic information includes; gender, age, length of service with the organisation and employment status. Table 4.1 shows the results.

##### **4.2.1 Gender**

The results in Table 4.1 reveal that based on gender, the respondents consisted of 72.7% males and 27.3% females. Males dominated the study from the fact that, most of them have been participating in procurement related issues. Moreover, females were few due to less involvement in procurement aspects but showed that they were influential and contributed a lot in the study.

**Table 4.1: Demographic Information**

<b>Category</b>	<b>Frequency</b>	<b>Percentage %</b>
<b>Gender</b>		
Male	160	72.7
Female	60	27.3
<b>Age (in years)</b>		
< 20	08	3.7
21-30	28	12.7
31-40	72	32.7
41-50	17	7.7
51 and above	95	43.2
<b>Employment Status</b>		
Civil servant	123	55.9
Non civil servant	97	44.1
<b>Length in service (in Years)</b>		
1-2	12	5.4
3-4	90	40.9
5-7	45	20.5
8 and above	73	33.2

Source: Research data, 2021

#### **4.2.2 Age**

The results in Table 4.1 with regards to ages show that 3.7% of respondents were with less than 20 years. Respondents who were between 21 to 30 years were 12.7%, those who were between 31 to 40 years were 32.7%, those who were between 41 to 50 years were 7.7% and those between 51 and above were 43.2%. The results show that respondents aged above 51 years occupied a great percentage from the fact that this is the age of people with experience on the job. Yet, a few who were aged below 20 years were found to learn and avoid mistakes in carrying out procurement activities.

#### **4.2.3 Length in Service**

The results in Table 4.1 show that 5.4% of respondents had a working experience of 1 to 2 years, 40.9% had a working experience of 3 to 4 years, 20.5% had a working experience of 5 to 7 years while 33.2% had a working experience of 8 years and

above. Those who had more than 5 years were able to adhere and practice procurement procedures well due to experience attained.

#### 4.2.4 Employment Status

The results in Table 4.1 show that 55.9% of respondents were civil servants that included PMU staff, project managers, and user departments. However, 44.1% of respondents were stakeholders who in one way or the other participate in procurement activities.

### 4.3 Effects of Specification Definitions on the achievement of Project

#### Performance at TBA

The first objective of the study examined the effects of specification definitions on the achievement of project performance at TBA. Questionnaires were administered among respondents in order to know if procurement procedures achieved the desired results while testing the hypothesis for acceptance or rejection. The respondents' views are presented as in Table 4.2 as follows:

**Table 4.2: Effects of Specification Definitions**

Statements	% strongly agree	% agree	% uncertain	% disagree	% strongly disagree	X <sup>2</sup>
The organization has a department responsible for the preparation of bill of quantity and specification of project requirement	90	10	0	0	0	0.129 NS
Procurement requirements are defined at an early stage of the project life cycle	80	20	0	0	0	0.109 NS
User departments are always involved in the preparation of specification of project materials	70	20	0	10	0	0.019 NS
There are relationships between project success with specifications prepared	80	0	10	10	0	0.219 NS
Clear defined specifications of project material simplify the procurement process	95	05	0	0	0	0.201 NS

**NS=Non Significant P> 0.05**

Source: Research data, 2021

With the *Null Hypothesis*: ( $H_{O1}$ ): The effects of specification definitions have no impact on the achievement of project performance at TBA and *Alternative Hypothesis*: ( $H_{A1}$ ): The effects of specification definitions have impact on the achievement of project performance at TBA; the null hypothesis is rejected while the alternative hypothesis is accepted.

Therefore, the effects of specification definitions include; having departments for preparing the bill of quantities and specifications of the project requirements that specify for the procurement of goods and services needed. Likewise, specifying definitions at an early stage of project life cycle enables definitions to be known by all stakeholders. Moreover, the other effects include user departments being involved in the preparation of specification of project materials something that enable everyone in the departments to know the terms used and become conversant with what would be procured. Thus, there grows a relationship between project success and specifications prepared leading to the probability of project success to be higher while with clear defined specifications of the project material simplify the procurement process.

#### **4.4 Invitation to bidders influence on the achievement of Project Performance at TBA**

The second objective of the study explored how the invitation to bidders influences the achievement of project performance at TBA. Questionnaires were administered among respondents in order to know how invitation to bidders influences the achievement as desired while testing the hypothesis for acceptance or rejection. The respondents' views are presented as in Table 4.3 as follows;

**Table 4.3: Invitation to Bidder's Influence**

Statements	% strongly agree	% agree	% uncertain	% disagree	% strongly disagree	X <sup>2</sup>
An organization always uses the open method in the invitation of bidders	85	15	0	0	0	0.111 NS
Invitation for bidders are always prepared before commencement of procurement of project material	90	10	0	0	0	0.109 NS
The invitation method used to have a relationship with obtaining a qualified supplier for the project	70	10	0	20	0	0.223 NS
Enough time is provided to allow bidders to respond to procurement advertisement	90	10	0	0	0	0.207 NS
The organization issues bid documents with clear specifications to bidders	80	20	0	0	0	0.319 NS

NS=Non Significant P> 0.05

Source: Research data, 2021

With the *Null Hypothesis*: (HO<sub>2</sub>): The invitation to bidders do not influence the achievement of project performance at TBA and *Alternative Hypothesis*: (HA<sub>2</sub>): The invitation to bidders influences the achievement of project performance at TBA; the null hypothesis is rejected while the alternative hypothesis is accepted.

Therefore, the influence of invitation to bidders to the achievement of project performance revealed that an organisation always uses the open method to invite bidders to participate in the bidding process. This invitation method enhances a relationship in obtaining a qualified supplier for the project. Moreover, it was found that invitation to bidders provides enough time to allow bidders respond to procurement advertisement. Yet, the influence of invitation to bidders facilitates the achievement of project performance from the fact that the organisation issues bid documents with clear specifications to bidders in order to enable the procurement process to take place.

#### 4.5 Selection of bidders' influence on the achievement of Project Performance at TBA

The third objective of the study determined the selection of bidders' influence on the achievement of project performance at TBA. Questionnaires were administered among respondents in order to know how selection is achieved while testing the hypothesis for acceptance or rejection. The respondents' views are presented as in Table 4.4 as follows:

**Table 4.4: Selection of Bidders' Influence**

Statements	% strongly agree	% agree	% uncertain	% disagree	% strongly disagree	X <sup>2</sup>
The organization used to appoint an evaluation committee for evaluating bidders for each project procurement	75	25	0	0	0	0.062 NS
Evaluation committee always helps an organization to get right bidder to accomplish project requirement on time	80	20	0	0	0	0.123 NS
The bidder that is obtained through the competitive method is always performing better than the one that is not obtained from the non-competitive method	90	10	0	0	0	0.201 NS
Obtaining the bidder through competitive method is always reducing the cost of running the project	80	20	0	0	0	0.177 NS
The evaluation committee is always appointed by the Accounting Officer	90	10	0	0	0	0.203 NS

NS=Non Significant  $P > 0.05$

Source: Research data, 2021

With the *Null Hypothesis*: ( $H_{O3}$ ): The selection of bidders' do not influence the achievement of project performance at TBA and *Alternative Hypothesis*: ( $H_{A3}$ ): The selection of bidders' influences the achievement of project performance at TBA; the null hypothesis is rejected while the alternative hypothesis is accepted. Therefore, the selection of bidders' influence on the achievement of project performance enables the organisation to appoint an evaluation committee for evaluating bidders for project procurement. Likewise, in enhancing selection of bidders the evaluation committee



always helps an organisation to get right bidder to accomplish project requirements on time. Yet, the bidder that is obtained through the competitive method is always performing better than the one that is not obtained from a non-competitive method. Additionally, obtaining the bidders through competitive method is always reducing the cost of running the project while the evaluation committee is always appointed by the accounting officer who is responsible in supervising the whole works in the organisation.

#### **4.6 Effects of Pre-Contract Negotiations on the achievement of Project Performance at TBA**

The fourth objective of the study determined the effects of pre-contract negotiation on the achievement of project performance at TBA. Questionnaires were administered among respondents in order to know the effects while testing the hypothesis for acceptance or rejection. The respondents' views are presented as in Table 4.5 as follows;

**Table 4.5: Effects of Pre-Contract Negotiations**

Statements	% strongly agree	% agree	% uncertain	% disagree	% strongly disagree	X <sup>2</sup>
The organization selects knowledgeable personnel to negotiate with the proposed bidder for a project	80	0	20	0	0	0.124 NS
Negotiation with bidder adds value on achievement of the project objectives	90	10	0	0	0	0.910 NS
Negotiation with the lowest evaluated bidder always results into better agreement on price, delivery and timely performance of the project	80	0	20	0	0	0.101 NS
Negotiation with the lowest evaluated bidder always considers the available budget for the project	80	20	0	0	0	0.231 NS
The negotiation team is always appointed by the Accounting Officer	90	10	0	0	0	0.115 NS

**NS=Non Significant P> 0.05**

Source: Research data, 2021

With the *Null Hypothesis*: (HO<sub>4</sub>): The effects of pre-contract negotiations have no impact on the achievement of project performance at TBA and *Alternative Hypothesis*: (HA<sub>4</sub>): The effects of pre-contract negotiations have impact on the achievement of project performance at TBA; the null hypothesis is rejected while the alternative hypothesis is accepted.

Therefore, the results show that to facilitate the pre-contract negotiations the organisation selects knowledgeable personnel to negotiate with the proposed bidder for a project implementation. It was found that negotiation with the bidders adds value on achievement of the project objectives while negotiations with the lowest evaluated bidders always results into better agreement on price, delivery and timely performance of the project while considering the available budget for the project with the negotiation team being often appointed by the accounting officer.

#### 4.7 Performance of Procurement Procedures on Projects done at TBA

The last objective of the study examined the performance of procurement procedures on projects done at TBA. Questionnaires were administered among respondents in order to know if the projects achieved the desired results while testing the hypothesis for acceptance or rejection. The respondents' views are presented as in Table 4.6 as follows:

**Table 4.6: Performance of Procurement Procedures**

Statements	% strongly agree	% Agree	% uncertain	% disagree	% strongly disagree	X <sup>2</sup>
Performance in terms of Time	85	15	0	0	0	0.610 NS
Performance in terms of Quality	80	10	10	0	0	0.152 NS
Performance in terms of Cost	90	10	0	0	0	0.131 NS

NS=Non Significant P> 0.05

Source: Research data, 2021

With the *Null Hypothesis*: ( $H_0$ ): The procurement procedures have no impact on the performance of projects done at TBA and *Alternative Hypothesis*: ( $H_A$ ): The procurement procedures have impact on the performance of projects done at TBA; the null hypothesis is rejected while the alternative hypothesis is accepted.

Therefore, the results revealed that to achieve the project performance, time management, quality enhancement and cost minimization were vital and enabled the achievement of project performance at TBA.

## **CHAPTER FIVE**

### **DISCUSSION OF FINDINGS**

#### **5.1 Introduction**

This chapter discusses the findings according to objectives as hereunder.

#### **5.2 Effects of Specification Definitions on the Achievement of Project Performance at TBA**

The first objective of the study examined the effects of specification definitions on the achievement of project performance at TBA. The results on Table 4.2 show that, on average the majority of respondents (95%) were in agreement with the effects of specification definitions on the achievement of project performance at TBA which were not generally statistically significant at  $P>0.05$ . This implies that, respondents were in favour of what is needed by users towards attaining good service.

Further, the results in Table 4.2 reveal that 90% of respondents strongly agreed while 10% of respondents agreed that at TBA regions, the organisations have departments for preparation of bill of quantity and specification of the project requirements that specify what is required for the purpose of procuring goods and services needed. Therefore, the departments are required to define the issues needed, clarify the terms and enable the bids to be properly articulated by stakeholders. Similarly, 80% of respondents strongly agreed while 20% of respondents agreed that on specifying definitions the procurement requirements are defined at an early stage of project life cycle. The purpose of enabling definitions at the early stage is that stakeholders need to know and if required, comment on what is not clearly known in order to have a

universal understanding of the terms. It is through that each stakeholder understands what the terms mean. The statements above concur with the affirmations by Lumbanga (2019) who asserted that the general aim of specification definitions is to offer the basis for finding a good or service that satisfies a particular need at an economical cost and provide reasonable competition.

On the other hand, the results in Table 4.2 reveal that 70% of respondents strongly agreed while 20% of respondents agreed that user departments are always involved in the preparation of specification of project materials something that enable everyone in the departments to know the terms used and become conversant with what would be procured. This implies that each stakeholder understands what needs to be ordered for the department leading to proper follow-up. The statements above are in agreement with Msanga (2020) who reported that specifications potentially eliminate items found out of the boundaries while setting limits while enabling each stakeholder to understand the terms used for proper procurement.

Furthermore, the results in Table 4.2 reveal that 80% of respondents strongly agreed that there are relationships between project success with specifications prepared as when specifications are well done, the probability of project success becomes bigger and bigger while 10% of respondents were undecided on the matter. Yet, 10% of respondents disagreed that there are no relationships between project success with specifications prepared as there have been incidences where what is prepared does not lead to success. The results concur with Mishra et al., (2019) who insisted that specification definitions are part and parcel of what need to be described fully to enable users and service provider have the same meaning.

Additionally, the results in Table 4.2 reveal that 95% of respondents strongly agreed while 5% of respondents agreed that clear defined specifications of the project material simplify the procurement process. This implies that with proper and simple terms in a procurement process, simplicity in procurement process is obvious. The statement above concurs with Julius and Gershon (2019) who stated that with clear defined specifications, procurement of good and services adds value to the organization and to improve performance with an increased understanding of diverse procurement procedures that affect project performance.

### **5.3 Invitation to Bidders Influence on the Achievement of Project**

#### **Performance at TBA**

The second objective of the study explored how the invitation to bidders influences the achievement of project performance at TBA. The results on Table 4.3 show that, on average the majority of respondents (90%) were in agreement with how invitation to bidders influence project performance which was not generally statistically significant at  $P > 0.05$ . This implies that, respondents were in favour of specified requirements to invite bidders.

Furthermore, the results in Table 4.3 reveal that 85% of respondents strongly agreed while 15% of respondents agreed that an organisation always uses the open method in the invitation to bidders to influence stakeholders to participate in the bidding process. Similarly, the results in Table 4.3 reveal that 90% of respondents strongly agreed while 10% of respondents agreed that invitation to bidders are always prepared before the commencement of procurement of project materials. This implies that materials are identified and known before hand for the purpose of enabling stakeholders get

invited with clarity on terms. This is in line with Nason and Wiklund (2018) who emphasized the role played by bidders when invited and those who meet the specified requirements.

Further, the results in Table 4.3 reveal that 70% of respondents strongly agreed while 10% of respondents agreed that the invitation method enhances a relationship in obtaining a qualified supplier for the project. This implies that when bidders are invited, all qualifying bidders seek for selection, but only the qualified supplier gets rewarded for the work. This is in line with Msanga (2020) who stated that the invitation method enables bidders to fulfill all obligations required in order to be selected for the supply of goods or services. Thus, in a competitive way, bidders become players of which the winner gets the job. Moreover, 20% of respondents disagreed that the invitation method does not bring about the relationship in order to obtaining the qualified supplier for the project because, the final stages are not attained. Invitation to bidders becomes an initial stage towards supplier success.

On the other hand, the results in Table 4.3 reveal that 90% of respondents strongly agreed while 10% of respondents agreed that invitation to bidders provide enough time to allow bidders respond to procurement advertisement. This implies that with enough time, bidders prepare documents and all legible issues to enable the facilitation of the requirements for tender. This affirmation concurs with Enyinda (2010) who reported that adequate time provided by the procuring entity enables bidders find and adhere to the requirements needed for evaluation purposes.

Finally, the results in Table 4.3 reveal that 80% of respondents strongly agreed while 20% of respondents agreed that the influence of invitation to bidders facilitates the

achievement of project performance from the fact that the organisation issues bid documents with clear specifications to bidders in order to enable the procurement process to take place. By so doing, the bidders team up and apply for the bid waiting for evaluation and award.

#### **5.4 Selection of Bidders' Influence on the Achievement of Project**

##### **Performance at TBA**

The third objective of the study determined the selection of bidders' influence on the achievement of project performance at TBA. The results on Table 4.4 show that, on average the majority of respondents (90%) were in agreement with how selection of bidders influence the achievement of projects performance which was not generally statistically significant at  $P > 0.05$ . This implies that, respondents were in favour of selection that does not go against the published criteria to follow.

Additionally, the results in Table 4.4 reveal that 75% of respondents strongly agreed while 25% of respondents agreed that with regard to the selection of bidders' influence, the organisation appoints an evaluation committee for evaluating bidders for each project procurement. This committee is always appointed by the accounting officer from the specialized personnel. The statement above concurs with Anane et al (2019) who reported that one of the most important tasks performed by procurement committees during procuring for the project is to select a capable contractor or supplier. In this process each offer must be carefully considered on an equal basis, against the published evaluation criteria during bid evaluation.

Furthermore, the results in Table 4.4 reveal that 80% of respondents strongly agreed while 20% of respondents agreed that in enhancing selection the evaluation committee



always helps an organisation to get right bidder to accomplish project requirements on time. This implies that the evaluation committee adheres to all stipulated requirements in order to select the right bidders with the adherence to multi-attributes such as quality, cost and time. The statements above concur with World Bank (2018) that stated that the selection process has to involve the evaluation of different alternative suppliers based on a multi-attribute decision-making problem which is affected by different tangible and intangible attributes such as the traditional attributes, quality and cost, service, flexibility, and delivery performance.

On the other hand, the results in Table 4.4 reveal that 90% of respondents strongly agreed while 10% of respondents agreed that the bidder that is obtained through the competitive method is always performing better than the one that is not obtained from a non-competitive method. This implies that selecting bidders in a competitive manner enhances competition and results into getting a less cost bidder while enabling timely delivery of services and vice versa. The statement above concurs with Enyinda (2010) who reported that improper selection of suppliers can dwarf an organization's supply chain performance.

Similarly, the results in Table 4.4 reveal that 80% of respondents strongly agreed while 20% of respondents agreed that obtaining the bidders through competitive method is always reducing the cost of running the project. This implies that competition brings about good bidders with experience and specializations. Such ingredients enable the evaluation committee to have alternative bidders who can supply goods and services in a quality manner. Moreover, 90% of respondents strongly agreed while 10% of respondents agreed that the evaluation committee is

always appointed by the accounting officer who is responsible in supervising the whole works in the organisation.

### **5.5 Effects of Pre-Contract Negotiations on the achievement of Project Performance at TBA**

The fourth objective of the study determined the effects of pre-contract negotiation on the achievement of project performance at TBA. The results on Table 4.5 show that, on average the majority of respondents (85%) were in agreement with the effects of pre-contract negotiations on achieving project performance which were not generally statistically significant at  $P > 0.05$ . This implies that, respondents were in favour of formal discussions between parties that results into good performance.

Similarly, the results in Table 4.5 reveal that 80% of respondents strongly agreed that to facilitate the pre-contract negotiations; the organisation selects knowledgeable personnel to negotiate with the proposed bidder for a project implementation. The one appointed does the work for the interest of the organisation in order to enable all the specified items of the project are agreed upon. Here offers are exchanged to attain a consensus. The statement above concurs with Julius and Gershon (2019) who reported that pre-contract negotiation is a formal discussion between the parties in projects in order to reach an agreement. The World Bank (2018) stresses that here exchange of offers, bargaining and concessions are done to attain a win-win situation for the betterment of both parties in contract. Moreover, 20% of respondents were undecided on the matter.

On the other hand, the results in Table 4.5 reveal that 90% of respondents strongly agreed while 10% of respondents agreed that negotiation with the bidders adds value

on achievement of the project objectives. This implies that in negotiations issues not understood are explained, matters arising get elaborated with consensus being attained. Moreover, the results in Table 4.5 reveal that 80% of respondents strongly agreed that negotiations with the lowest evaluated bidders always results into better agreement on price, delivery and timely performance of the project. This implies that when consensus is arrived, the implementation becomes easier to each party. The statement above concurs with Lumbanga (2019) who asserted that terms of negotiations need to reflect issues in the contract and a need to have an independent check is vital as the separation of person signing the contract and the day to day person for contract management is important. Moreover, 20% of respondents were undecided on the matter.

Furthermore, the results in Table 4.5 reveal that 80% of respondents strongly agreed while 20% of respondents agreed that negotiation with the lowest evaluated bidder always considers the available budget for the project. This implies that budget allocation determines the negotiations and all matters that are discussed in order to arrive at the agreement. Similarly, the results in Table 4.5 reveal that 90% of respondents strongly agreed while 10% of respondents agreed that the negotiation team is always appointed by the accounting officer for the purpose of accountability matters.

## **5.6 Performance of Procurement Procedures on Projects done at TBA**

The last objective of the study examined the performance of procurement procedures on projects done at TBA. The results on Table 4.6 show that, on average the majority of respondents (85%) were in agreement with the performance of procurement

procedures on projects done at TBA which was not generally statistically significant at  $P > 0.05$ . This implies that, respondents were in favour of procuring the right service provider that can meet the requirements for the contract in terms of time, cost and quality services.

Moreover, the results in Table 4.6 reveal that 85% of respondents strongly agreed while 15% of respondents agreed that there have been performance of procurement procedure in terms of time something that enabled the achievement of project performance at TBA. This implies that with time management bidders may facilitate project performance. The statements above concur with Shiluka (2018) who reported that projects are often considered part of program management, which, as a function, is sometimes external to purchasing and supply management have procurement time scales that are sharper, have a simpler and streamlined process for approval.

On the other hand, the results in Table 4.6 reveal that 80% of respondents strongly agreed while 20% of respondents agreed that there has been performance of procurement procedure in terms of quality something that enabled the achievement of project performance at TBA. This implies that, the selection of the lowest evaluated bidder went hand in hand with the multi-attributes put that necessitated the quality of the work. The statement above concurs with Julius and Gershon (2019) who affirmed that project materials must be obtained at the right source, with the right cost, quality and quantity and the right time to achieve the project objective.

Furthermore, the results in Table 4.6 reveal that 90% of respondents strongly agreed while 10% of respondents agreed that there has been performance of procurement

procedure in terms of cost something that enabled the achievement of project performance at TBA. This implies that, cost minimization aided the facilitation of the projects towards projects objective achievement that was guided by proper procurement procedures as a key since the acquisition of goods and services at a right time and the right place with the required quality and quantity of the project supplies is a basis for the success of the project implementation as reported by Shiluka (2018).

## **5.7 Relationship between Specification Definitions, Invitation to Bidders, Selection of Bidders, Pre-contract negotiations and Performance of Projects at TBA**

### **5.7.1 Assumptions of Multiple Regression**

Multiple regression analysis assumes a number of assumptions about the collected data (Pallant, 2005). Some of the assumptions include; linearity assumption, normality assumption, Autocorrelation's assumption, Multicollinearity assumption and Multiple linear regression analysis.

#### **(a) Linearity Assumption**

This assumption requires that, relationship between dependent and independent variables should be linear in nature. Pearson correlation was used to establish this assumption. The results show that the performance of projects at TBA has significant positive linear relationship with independent variables ( $p < 1.000$ ) [1- Tailed]. Also, the relationship between the variable has strong positive or negative value such that, specification definitions (+ve),  $r(220) = .485$ , invitation to bidders (-ve),  $r(220) = -.071$ , selection of bidders (+ve),  $r(220) = .992$ , and pre-contract negotiations (-ve),  $r(220) = -.076$  as demonstrated in Table 5.1.

**Table 5.1: Linearity Assumption**

		Correlations				
		Performance of Projects at TBA	Specification Definitions	Invitation to Bidders	Selection of Bidders	Pre-contract negotiations
Pearson Correlation	Performance of Projects at TBA	1.000	.485	-.071	.992	-.076
	Specification Definitions	.485	1.000	-.063	.487	-.066
	Invitation to Bidders	-.071	-.063	1.000	-.073	.407
	Selection of Bidders	.992	.487	-.073	1.000	-.077
	Pre-contract negotiations	-.076	-.066	.407	-.077	1.000
Sig. (1-tailed)	Performance of Projects at TBA	.	.000	.146	.000	.132
	Specification Definitions	.000	.	.178	.000	.164
	Invitation to Bidders	.146	.178	.	.140	.000
	Selection of Bidders	.000	.000	.140	.	.127
N	Pre-contract negotiations	.132	.164	.000	.127	.
	Performance of Projects at TBA	220	220	220	220	220
	Specification Definitions	220	220	220	220	220
	Invitation to Bidders	220	220	220	220	220
	Selection of Bidders	220	220	220	220	220
	Pre-contract negotiations	220	220	220	220	220

**(b) Normality Assumption**

This assumption demands the independent variables errors to be normally distributed. Skewness and Kurtosis were employed to test normality. Moreover, all variables' errors are assumed normally distributed as per rule of thumb for Skewness-Kurtosis of  $\pm 2.58$ . The test is depicted in Table 5.2.

**Table 5.2: Skewness and Kurtosis Coefficients**

Variable	N	Skewness		Kurtosis	
		Statistic	Std. Error	Statistic	Std. Error
Specification Definitions	220	<b>-.611</b>	.712	<b>.124</b>	.235
Invitation to Bidders	220	<b>-1.112</b>	.712	<b>1.011</b>	.235
Selection of Bidders	220	<b>-.467</b>	.712	<b>-.130</b>	.235
Pre-contract Negotiations	220	<b>.387</b>	.712	<b>-.660</b>	.235

**(c) Autocorrelations Assumption**

Autocorrelations means that errors between independent variables remain independent (Osborne and Waters, 2002). Durbin-Watson was used to check this assumption.

Moreover, Field (2009) notes that, Durbin-Watson guarantees low autocorrelations when its coefficient lies between 1.5 and 2.5. Table 5.3 shows the results.

**Table 5.3: Durbin-Watson Test**

Model Summary <sup>b</sup>										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.992 <sup>a</sup>	.985	.985	.096	.985	3508.292	4	215	.000	2.058

a Predictors: (Constant), Pre-contract negotiations, Specification Definitions, Invitation to Bidders, Selection of Bidders

b Dependent Variable: Performance of Projects at TBA

#### (d) Multicollinearity Assumption

To test this assumption, the Variance Inflation Factor (VIF) and Tolerance Rate were determined. VIF and tolerance conform to the thumb rule, which implies extremely low collinearity between independent variables. Stevens (2009) suggest that, low VIF and large tolerance implies presence of low multicollinearity. Tolerance rate coefficient ranges between 0 and 1 whereas VIF ranges between 1 and 10.

**Table 5.4: Multicollinearity Assumption**

Model	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
1 Specification Definitions	.761	1.314
Invitation to Bidders	.833	1.201
Selection of Bidders	.760	1.316
Pre-contract negotiations	.832	1.202

#### (e) Multiple Linear Regression Analysis

The findings of the regression analysis ought to indicate its R Square variable implying that, independent variables explain the percentage of the model variations.

The results indicate that, the model was statistically significant at ( $p < 1.000$ ). Table 5.5 shows the analysis.

**Table 5.5: Regression Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Sig.
1	.992 <sup>a</sup>	.985	.985	.096	0.000

**Table 5.6: Regressions Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.023	.019		-1.174	.242
1 Specification Definitions	.001	.011	.001	.133	.894
Invitation to Bidders	.001	.009	.001	.089	.929
Selection of Bidders	1.016	.010	.992	103.194	.000
Pre-contract negotiations	.001	.009	.001	.101	.920

Regression coefficients on Table 4.6 suggest that, all variables were significant predictors ( $p < 1.000$ ) of the model. This informs that one unit increase of specification definitions explains 0.001 increase in project performance at TBA. An Increase in one unit of invitation to bidders suggests 0.001. unit decrease of project performance at TBA. Also, one unit increase of selection of bidders explains 1.016 unit increase in project performance. In addition, single unit increase in pre-contract negotiations explains 0.001 decrease in project performance at TBA respectively.



The following regression model was used

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

**Then;**

$$Y = \beta_0 + \text{SD } \beta_1 + \text{IB } \beta_2 + \text{SB } \beta_3 + \text{PN } \beta_4 + \varepsilon$$

Whereby:

Y = Project performance at TBA

$\beta_0$  = Constant

$\beta_1$  = regression coefficient of specification of definitions

$\beta_2$  = regression coefficient of invitation to bidders

$\beta_3$  = regression coefficient of selection of bidders

$\beta_4$  = regression coefficient of pre-contract negotiations

SD = Specification Definitions

IB = Invitation to Bidders

SB = Selection of Bidders

PN = Pre-contract negotiations

$\varepsilon$  = error term

*Hence,*

$$Y = -0.023 + 0.001 \beta_1 + 0.001 \beta_2 + 1.016 \beta_3 + 0.001 \beta_4 + \varepsilon$$

## **CHAPTER SIX**

### **CONCLUSION AND RECOMMENDATIONS**

#### **6.1 Introduction**

This chapter presents the conclusion and recommendations arising from the study findings. It finally presents the areas for further research.

#### **6.2 Conclusion**

The study examined the effects of procurement procedures on the project performance with reference to TBA regions of Dar es Salaam, Morogoro and Dodoma. Specifically, it was found that the effects of specification definitions include; having department that prepares the bill of quantities, specifications of the project requirements that specify the procurement of goods and services needed. Yet, specifying specification of project requirements at an early stage of project life cycle enabled definitions to be known by all stakeholders. Moreover, the user departments prepared specifications of project materials that enabled everyone in the departments to know the terms used and become conversant with what would be procured. Therefore, with clear defined specifications of the project material simplified the procurement process.

On the other hand, the influence of invitation to bidders to the achievement of project performance aided an organisation to always use the open method to invite bidders to participate in the bidding process. This invitation method enhanced a relationship in obtaining a qualified supplier for the project. Moreover, the invitation to bidders

provided enough time to allow bidders respond to procurement advertisement something that facilitated the achievement of project performance.

Furthermore, the selection of bidders influenced the achievement of project performance by enabling the organisation to appoint an evaluation committee for evaluating bidders. This helped an organisation to get the right bidder to accomplish project requirements on time. Yet, it was found that the bidder that is obtained through the competitive method performed better than the one that is obtained from a non-competitive method. Additionally, obtaining the bidders through competitive method reduced the cost of running the project.

Similarly, in order to facilitate the pre-contract negotiations the organisation selected knowledgeable personnel to negotiate with the proposed bidder for a project implementation. It was found that negotiation with the bidders added value on achievement of the project objectives while negotiations with the lowest evaluated bidders resulted into better agreement on price, delivery and timely performance of the project with consideration of the available budget. Finally, the results revealed that to achieve the project performance; time management, quality enhancement and cost minimization were vital that enabled the achievement of project performance at TBA.

### **6.3 Recommendations**

The subsequent recommendations are put forward based on conclusion as follows;

- (i) It is recommended that, specification definitions was vital, thus, specifying specification of project requirements at an early stage of project life cycle enables definitions to be known by all stakeholders and bidders during bid solicitation.

- (ii) It is recommended that, invitation to bidders influences the achievement of project performance hence clear evaluation criteria and specification should be prepared and accommodated in tender document. Also it recommended that organizations have to always use the open method to invite bidders to participate in the bidding process rather than the use of other method of procurement.
- (iii) It is recommended that, selection of bidders influenced the achievement of project performance, therefore organization have to appoint an evaluation committee with knowledgeable and experience with subject matter for evaluating bidders. If the initial stage of invitation to bidders and tender document prepared with clear information it will help evaluation process and hence high possibility of get the right bidder to accomplish project requirements on time.
- (iv) It is recommended that, in order to facilitate the pre-contract negotiations the organisation selected knowledgeable personnel to negotiate with the proposed bidder for a project implementation. This kind of negotiation needs to be implemented in order to add value on achievement of the project objectives.
- (v) It is recommended that, to achieve the project performance; time management is very important to be considered in management of project at TBA and to enhance this it requires monitoring the delivery of project requirements, timely payment of suppliers raised certificate, identify and resolve the issue of variation on time. Quality enhancement and cost minimization strategies must be used to facilitate the achievement of project performance at TBA.

#### **6.4 Areas for Future Research**

The study examined the effects of procurement procedures on project performance with reference to selected TBA regions. It is advised that further studies be done on the following issues:

The effects of procurement procedures on the performance of TANROADS projects in Tanzania.

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## APPENDICIES

### Appendix 1: Research Questionnaire

*Dear Prospective Respondents;*

This questionnaire is designed to solicit information from you. The purpose of this research is for the academic award of a Master's degree in project management from the Open University of Tanzania. Kindly fill in the required information as per the researcher's requirement.

Gender: Male (  ), Female (  )

Age: under 20 (  ), 21 to 30 (  ), 31 to 40 (  ), 41 to 50 (  ), over 50 (  )

Length of services with the organization (In years) -----,

Employment status: Civil servant (  ), Non civil servant (  )

*For each of the following aspects shown below rate your level of agreement using the following scale provided*

Agreement: 1= strongly agree, 2= Agree, 3= Not sure, 4= Disagree, 5= strongly disagree

Na.	Specification Definitions	Level of agreement				
1.	The organization has a department responsible for the preparation of bill of quantity and specification of project requirement	1	2	3	4	5
2.	Procurement requirements are defined at an early stage of the project life cycle	1	2	3	4	5
3.	User departments are always involved in the preparation of specification of project materials	1	2	3	4	5
4.	There are relationships between project success with specifications prepared	1	2	3	4	5
5.	Clear defined specifications of project material simplify the procurement process	1	2	3	4	5

	<b>Invitation to bidders</b>	<b>Level of agreement</b>				
6.	An organization always uses the open method in the invitation of bidders	1	2	3	4	5
7.	Invitation to bidders is always prepared before the commencement of procurement of project material	1	2	3	4	5
8.	The invitation method used has a relationship with obtaining a qualified supplier for the project	1	2	3	4	5
9.	Enough time is provided to allow bidders to respond to procurement advertisement	1	2	3	4	5
10.	The Organization issues bid documents with clear specifications to bidders					
	<b>Selection of bidders</b>	<b>Level of agreement</b>				
11.	The organization appoints an evaluation committee for evaluating bidders for each project procurement	1	2	3	4	5
12.	Evaluation committee always helps an organization to get the right bidder to accomplish project requirement on time	1	2	3	4	5
13.	The bidder that is obtained through competitive method always performs better than one that is obtained from the non-competitive method	1	2	3	4	5
14.	The obtained bidder through competitive method always reduces the cost of running the project	1	2	3	4	5
15.	The evaluation committee is always appointed by Accounting Officer	1	2	3	4	5
	<b>Pre-contract negotiation</b>	<b>Level of agreement</b>				
16.	The organization selects knowledgeable personnel to negotiate with the proposed bidder for a project	1	2	3	4	5
17.	Negotiation with bidder adds value on the achievement of the project objectives	1	2	3	4	5
18.	The negotiation with the lowest evaluated bidder always results in better agreement on price, delivery and timely performance of the project	1	2	3	4	5
19.	The negotiation with the lowest evaluated bidder always considers the available budget for the project	1	2	3	4	5
20.	The negotiation team is always appointed by Accounting Officer	1	2	3	4	5
	<b>Project Performance</b>	<b>Level of Agreement</b>				
21	Performance in terms of Time	1	2	3	4	5
22	Performance in terms of Quality	1	2	3	4	5
23	Performance in terms of Cost	1	2	3	4	5

