

The Effect of Procurement Contracting Process on Costs Escalations in Public Institutions in Rwanda : A Case of Kigali City

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ABSTRACT

Government and government institutions are mandated to provide quality services to the citizens and the residents within their jurisdictions. It is imperative that the public sector adopt procurement contracting practices in order to improve public service delivery in a transparent and accountable manner. This research sought to investigate the effect of procurement contracting process on the cost escalations in public institutions in Rwanda, taking a case of City of Kigali. It was guided by three specific objectives, namely, to investigate the effect of procurement planning on cost escalation in the City of Kigali; to assess the effect of contract administration on cost escalations in the City of Kigali and to investigate the effect of contract maintenance on cost escalations in the City of Kigali. The study was founded on three theories, namely, transaction cost economic theory, theory of incomplete contracts and relational contract theory. The study used both descriptive and analytical research designs. Primary data were collected using structure questionnaire and interview. The target population included 65 staff working at the City of Kigali. Since the target population was less than a hundred, universal sampling technique was used, where all the 65 staff were considered in the study. The data collected were entered in SPSS version 23, presented and analyzed using frequency tables, percentages, mean and standard deviation. Further analytical were done using Pearson's correlation and multiple regression analysis to measure the effect of procurement contracting process on cost escalations. On the first specific objective, 78.5% of the respondents strongly agreed and 12.5% agreed that procurement process is an important factor the influent the performance of procurement. The Pearson correlation analysis between procurement planning and cost escalations showed that procurement planning correlation ($r=-0.831$, $p=0.000$) was strong negative correlation, which implied that good procurement planning would help the public institutions in Rwanda to significantly minimize the cost escalations challenges. The findings on the second specific objective gave a mean score of 4.68(std=0.50) indicating that there was high level of agreement among the respondents that contract administration is an important step to consider in the procurement process. The Pearson correlation analysis between contract administration and cost escalations ($r=-0.639$, $p=0.000$) gave a negative correlation, which implied that efficient use of contract administration would help the public institutions in Rwanda to significantly minimize the cost escalations. On the third objective, all the respondents agreed to the statement that Contract maintenance is important to ensure that there are no cost escalations. The results of Pearson correlation analysis between contract maintenance and cost escalations ($r=-0.773$, $p=0.000$) was a negative correlation, which implied that efficient use of contract maintenance would help the public institutions in Rwanda to significantly minimize the cost escalations. The results from the regression model gave an $R^2=0.450$ indicating that an effective process will save these institutions a great deal of cost escalations up to 45% of the total costs. The results reported from the regression analysis ($F=16.605$, $p=0.000$) showed that the model was statistically significant since the p-value was less than 5%. Consequently, procurement contracting process (PCP) has significant contribution to the control of cost escalations in

public institutions in Rwanda. The study recommends that the public institutions ensure continuous monitoring and revision of the procurement process. The researcher recommends that the officers in charge of procurement to exercise prudence while acting on behalf of the institutions and on behalf of the government.

Key words: *Procurement contracting, procurement planning, contract administration, contract maintenance, cost escalation*

1. GENERAL INTRODUCTION

1.1 Background of the Study

Government and government institutions are mandated to provide quality services to the citizens and the residents within their jurisdictions. In recent years, there has been an increased pressure on governments across the globe towards service delivery. This increased pressure arises due to globalization which has opened up economies and public administrations to scrutiny by international community. Part of the international communities including governments, international agencies like World Bank, international nongovernmental organizations and human rights bodies put a lot of pressure on governments to observe human rights, to provide services to their citizenry, to exercise political restraint and create democratic space for transparency and accountability. As noted by Sjaafjell and Wiesbrock (2016), the international community has a primary duty to play in mediating and pacifying different nations in order to build a sustainable peace. Through these mediations and involvement in international community, different international treaties have been formulated across the globe aiming at unifying nations towards peaceful coexistence, sustainable development and healthcare. For instance, the international agreements by different nations towards Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs) which bind governments towards action plans to achieving these goals.

1.2 Problem Statement

Governments world over procure goods and services through an elaborate procurement process. As noted by Wittig, (2013) public procurement is a business within the political system of a country. In most countries, the public procurement accounts for a sizeable amount of GDP. For instance, in OECD region, public procurement accounts for 12% of GDP, in EU region it accounts for 16% while globally, it accounts for an average of 10-15% (World Bank, 2021). This shows that procurement is a big business for the government and indicates the government spending while procuring for the goods and services. It is therefore imperative that a strong framework be provided to ensure that the PCP does not lead to wasted resources, under-utilized resources, corruption or collusion in the bidding process. Further, Despite the massive efforts that the Government of Rwanda has made in adopting transparency and zero tolerance to corruption within the PCP (World Bank, 2020), the procurement process is usually very lengthy, complex, time consuming and costly. Delays are still experienced in the procurement process due to many protocols to be followed. For instance, the report from City of Kigali show that the tender committee may take considerable time to review all the submitted tender applications (CoK, 2018). These delays make the bidder to receive their payment in much later periods. To cover for these delays, the suppliers tend to increase the costs of the goods and services they are supplying to the government. It is therefore important for the government to address such fears and complains through an elaborate legal framework, effective monitoring, audit and evaluation processes to ensure transparency and openness in

contracting. On these backgrounds, the current research investigated the effect of procurement contracting process on the cost escalations in Rwanda, taking a case of Kigali City.

1.3 Research Objectives

The study objectives were classified in to two categories: the general objective and the specific objectives.

1.3.1 General Objective

The main objective of this research was to investigate the effect of procurement contracting process on the cost escalations in public institutions in Rwanda, taking a case of City of Kigali.

1.3.2 Specific Objectives

The research had the following specific objectives:

- i). To investigate the effect of procurement planning on cost escalations in the City of Kigali.

1.4 Research Questions

The research answered the following research questions:

- i). What is the effect the effect of procurement planning on cost escalations in the City of Kigali?

LITERATURE REVIEW

2.1 Conceptual Review

2.1.1 Procurement Contracting

A procurement contract is a formal agreement in which a buyer commits to acquire goods and/or services from a seller within a specified time period in exchange for a consideration. As defined by Rhode(2019), procurement contracting is the process that involves building legally binding agreements between a buyer and a seller. This involves a series of tasks and activities that culminates in contract signing and execution committing both parties to honor their end of the contract.

2.1.2 Procurement Planning

As defined by Suero and Nga. (2018), procurement planning involves a process that identifies and consolidates the requirements of a given entity specifying why, how to acquire them, how much is needed and when should they be acquired. This process therefore outlines the needs of an organizations while at the same time giving clear indications of the timeframes for the acquisition of these needs. It will provide a description of identifying and selecting suppliers or contractors. The main aim of having procurement planning in an organization is to enable the organization acquire its suppliers at low costs, acquire the best quality at the right quantity and time. with an elaborate procurement plan, an entity is able to plan on its material handling to avoid overstocking and stockout. It therefore empowers the entity with the ability to continue in its operations without much disruptions.

2.2 Theoretical Literature

2.2.1 Procurement Planning

Procurement planning is an essential part within an organization that provide guidelines on how best the organization can acquire goods and services it requires. The planning is essential for all organizations as it helps the organization maintain sufficient goods need for its operation. As discussed byKhan (2018), through procurement planning, an organization can enhance its transparency and predictability as a result of open and competitive bidding. As such, procurement planning is the basis for acquisition of goods and services that an organization needs. It is therefore for the management to efficiently plan before hand in order to know the needs of each and every department and the needs of the entire organization. In addition, PP provides managers with information on the process of finding and selecting the best available supplier. In doing so, managers can be able to identify the best supplier who is reliable and provides the best quality in a timely manner(Suero & Nga (2018).

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2.2.2 Contract Administration

Contract administration is an important feature in public procurement contracts. It is a guide on how the contracts that have been drafted are going to be managed, who are the key signatories to authorize formalization of contracts and provide other guideline to be followed during execution of the contract. Further, contract administration is significant in determining whether the acquisition of the goods, works or services is done in accordance to the Public Procurement Act (PPA). With efficient contract management practices, the ministries and other government agencies ensure that the government receives the best value for money for each contract signed (Lynch, 2017). Contract administration is therefore important for CoK and other government agencies and ministries, guiding them on how to manage the contracts agreed upon.

2.2.3Procurement Contracting Process and Cost Escalations

PCP involves the entire process that a procuring entity goes through to bring the contract to existence. In the public sector, this process may involve various stages and different people and signatories to an extent that it takes time to formalize one contract. Such a process may lead to additional costs as the potential vendors seek for a way to cover themselves for the long process. The procurement costs incurred therefore are key performance indicators of the efficiency of the entire PCP that a public entity goes through. Through the measurement of procurement costs, a procuring entity is able to clearly measure the performance of the entire procurement process. This implies that procurement cost measurement can give a picture of the performance of the PCP. An efficient PCP will be one that achieves the goals of the procuring entity at the minimal costs as possible. As such, procurement savings intends to drive the costs of goods and service procured downwards to affordable prices (Lynch, 2017).

2.3 Empirical Literature

Ghossein, Islam and Saliola (2018) carried out a research providing empirical evidence from firm level data on procurement and private business sector. Using secondary data obtained in World Bank database for 109 different countries, the authors covered more than 59,000 firms. The results pointed out that firms operating in countries with efficient procurement systems tend to be more participative in PCP unlike their counter parts in countries with weak PCP system. The authors further indicate that private sector will shun involvement in PCP where the system is prone to corruption, bribery and bureaucracy. In addition, when the system is not closely monitored and maintained, it leads to inefficiencies, delays and increased costs. Dza, *et al.*, (2018) in their study investigated the effect of corruption on the effectiveness of the PP in Ghana. The authors particularly highlighted the following corrupt dealing in the system, influence peddling, inflating contract costs, payments to non-existing contracts, multiple payments for the same contract among others. In their findings, the author consent that existence of corruption practices makes the PCP system inefficient and adds costs to the government and eventually leads to poor service delivery. Chikwereet *al.*, (2019) empirical research focused on the compliance issues with PP regulations in Ghana. The authors took a random sample of 100 practitioners drawn from various government institutions in Ghana. The primary data was collected using structured questionnaire and analyzed using both descriptive and inferential statistics. The findings from the study found that there exists laxity among some institutions and public officials who disregards the laid down processes and systems. Further, the results showed that familiarity ($p < 0.05$), incompetence ($p < 0.05$), political interference ($p < 0.05$) and poor monitoring ($p < 0.05$) negatively influence compliance. The results indicate that it is not enough to have procurement act and regulation, but there must be political willpower to comply with the regulations. The noncompliance makes the system susceptible to corruptions, unnecessary delays, favoritism, collusion all of which tend to inflate the final costs of the tenders.

2.4 Theoretical Framework

2.4.1 Transaction Cost Economic (TCE) Theory

Transaction Cost Economic (TEC) theory is attributed to the Nobel prize winners Ronald Coase in 1991 and Oliver E. Williamson in 2009. According to Farhad (2019) the theory can be traced to the work of Ronald Coase title the nature of the firm Coase (1937) and later development in the work by Williamson Oliver title transaction cost economics: the governance of contractual relations (1979). As per the theory, firms are engaged in different transactions that necessitate different costs which the firm must bear. In this theory, organizations will attempt to minimize their costs as much as possible and will assume those costs that are necessary for the creation of an economic benefit to the firm. Consequently, different transaction costs are experienced. These include the search costs, transport costs, communication costs, legal costs, among others. The TEC theory further proposes that organizations can maximize their efficiency by studying the transaction cost and minimizing them as much as possible.

2.5 Conceptual Framework

Independent Variable:
Procurement Contracting Process

Dependent Variable:
Cost Escalations

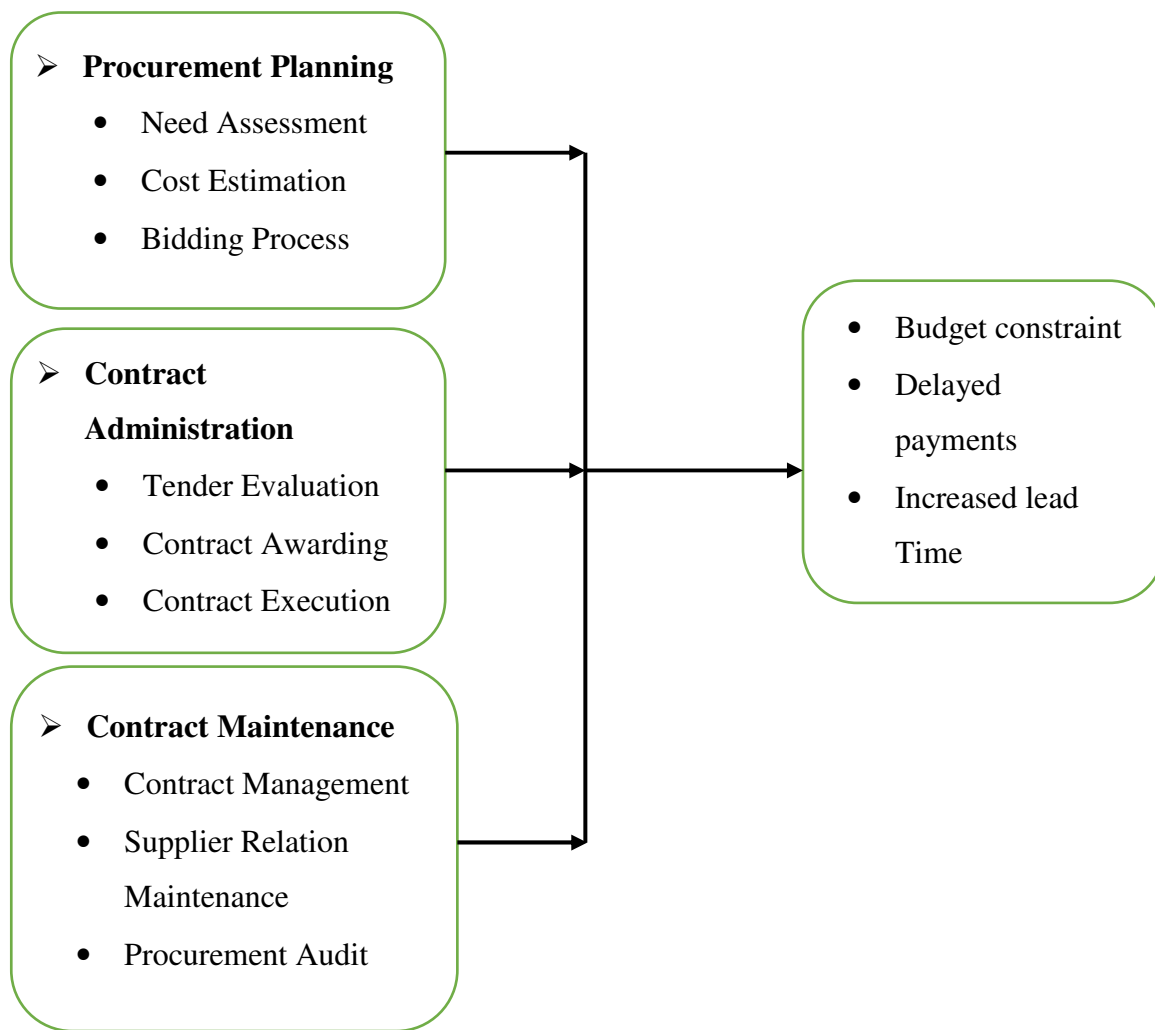


Figure 2.1: Conceptual Framework

Figure 2.1 shows the conceptual framework including the study concepts. On the right side is the independent variable while on the left side is the dependent variable. The independent variable for this study was the procurement contracting process. The indicator variables used to measure the PCP included procurement planning, contract administration and contract maintenance.

RESEARCH METHODOLOGY

3.0 Introduction

This chapter presents methodology to be used in this research. The chapter provides the research design, target population, sampling design, data collection methods, data processing and analysis and ethical consideration.

3.2 Target Population

This study focused on procurement contracting process and its effect on cost escalation in public sectors in Rwanda. In particular, the study is carried out in the City of Kigali. Therefore, the target population was the staff working at the City of Kigali. It was therefore, made up of a total of 65 who comprise the employees at City of Kigali.

3.3.1 Sample Size

As described by Tan (2017), sample size is a portion of the population selected to represent the entire study population. The author further states that the choice to use a sample in a research is dictated by various reasons. These include inaccessibility of the entire population, where the population covers a very wide geographical area, where the population is not clearly defined, or where the population is vast. However, the author notes that if a population is less than 100, there it is no necessary to sample. Therefore, in this research the entire target population of 65 was used in this research.

3.4.2 Reliability and Validity

Bryman (2016) states that reliability test of research instrument is essential as it provides the researcher the degree of confidence that the instrument is consistent. Reliability therefore tests whether a research instrument can give similar results if repeated more than once. Reliability test in this study was assured using the Cronbach's alpha statistics. This statistic helped to measure the reliability using Statistical Package for Social Science (SPSS). A research instrument is said to be reliable if the Cronbach's alpha is 0.7 or above.

Table 3.1: Cronbach's alpha statistics

Cronbach's Alpha	N of Items
.718	38

Table 3.1 shows the reliability test statistics. As per the findings the alpha =0.718 was slightly above the threshold. This implied the data collection tool was reliable enough for administration.

Bryman (2016) further states that validity of research instruments indicates how adequate the instrument measure the concepts it is supposed to measure. The test for validity involves checking whether the instrument is measuring what it is intended to test. Therefore, the validity test is more concerned with the concepts captured in a research. In this study the validity of the instrument was assured by the supervisor who is an expert in the area of procurement. With his constructive review and criticism, the researcher was able to come up with relevant concepts that helped in achieving the research objectives.

DATA ANALYSIS, FINDINGS AND INTERPRETATION

Table 4.1: Respondents’ Background Information

		Count	Column N %
Gender of Respondents	Male	42	64.6%
	Female	23	35.4%
Age of Respondents	Below 25 years	2	3.1%
	26-30 years	8	12.3%
	31-35 years	11	16.9%
	36-40 years	9	13.8%
	41-45 years	14	21.5%
	46-50 years	21	32.3%
	51-55 years	0	0.0%
	Above 55 years	0	0.0%
Time spent working in this institution	1-5 years	20	30.8%
	5-10 years	7	10.8%
	Above 10 years	38	58.5%
Education level of Respondents	O Level	3	4.6%
	Diploma	0	0.0%
	Bachelors	49	75.4%
	Masters	13	20.0%

Source: Researcher, (2022)

Table 4.1 shows the description of the participants in this study giving their background information. As per the findings, 64.6% of the participants were male while the female participants were 35.4%. This showed that there was fair representation of both the female and male genders in this study as well as at the City of Kigali. Concerning the age group of the participants, majority were in the 46-50 years of age with 32.3% followed closely by those in the age group of 41-45 years at 21.5%. Those aged between 31-35 years were 16.9%. 13.8% of the participants were aged between 36-40 years, 12.3% were between 26-30 years while those below 25 years were only 3.1%. There no participants in the ages above 50 years. On the working experience of the respondents, 58.5% of the participants had worked for more than 10 years. While those with 1-5 years of working experience were 30.8% participants. Concerning the highest education level of the participants, majority to the tune of 75.4% of the participants were at bachelor’s level followed by 20% in the master’s level. 4.6% were at the O level. There were no participants with the highest education as diploma. This information is important as it gives a picture of the ability and reliability of the responses obtained in the field.

4.1. Findings on Objective One

The first specific objective was concerned with investigating the effect of procurement planning on cost escalations in the City of Kigali. The researcher identified three main indicator variables to enable adequate measurement of procurement planning. These included need assessment, cost estimation and bidding process as sub-variables. Hence, the investigation was done along these indicators to ensure that the effect of procurement planning on cost escalations in the public institutions was adequately captured. In addition, to achieve this objective, the respondents were required to tick against a five-point Likert scale with 5=strongly agree, 4=agree, 3=not sure, 2=disagree and 1=strongly disagree.

Descriptive Statistics on Procurement Planning

Table 4.2: Respondents’ views on the Procurement Planning

Statements	D		NS		A		SA		M	std
	n	%	n	%	n	%	N	%		
1.Procurement process is an important factor the influent the performance of procurement	0	0.0%	0	0.0%	14	21.5%	51	78.5%	4.78	.41
2.Procurement planning is the first step of achieving efficiency in the procurement process	0	0.0%	2	3.1%	13	20.0%	50	76.9%	4.74	.51
3.Organizations must carry out need assessment to determine what to procure	0	0.0%	0	0.0%	15	23.1%	50	76.9%	4.77	.42
4.In City of Kigali, need assessment is conducted by a different committee	0	0.0%	3	4.6%	12	18.5%	50	76.9%	4.72	.55
5.All the stakeholders are involved in the need assessment process	0	0.0%	10	15.4%	9	13.8%	46	70.8%	4.55	.75
6.City of Kigali is able to identify what to procure and when because of need assessment	0	0.0%	0	0.0%	17	26.2%	48	73.8%	4.74	.44
7.During the procurement planning, it is important to provide an estimate of the costs of acquiring the goods.	0	0.0%	0	0.0%	16	24.6%	49	75.4%	4.75	.43
8.Cost estimation help the organization to plan before hand	0	0.0%	0	0.0%	17	26.2%	48	73.8%	4.74	.44
9.The committee in charge at City of Kigali always provides the cost estimate for every planned procurement	0	0.0%	7	10.8%	24	36.9%	34	52.3%	4.42	.68
10.Procurement contracting process should also include bidding process adopted by the organization	5	7.7%	11	16.9%	21	32.3%	28	43.1%	4.11	.95
11.During the bidding process, the procuring officers are able to evaluate different bidding	5	7.7%	3	4.6%	26	40.0%	31	47.7%	4.28	.88
13.The bidding process should evaluate each bid against some set organization	1	1.5%	12	18.5%	29	44.6%	23	35.4%	4.14	.77
There are clear requirements for each bid that are used to evaluate the bids	0	0.0%	6	9.2%	20	30.8%	39	60.0%	4.51	.66
Overall Mean									4.56	0.61

D=disagree, NS=not sure, A=Agree, SA=strongly agree, M=mean, std=standard deviation

Source: Researcher, (2022)

Table 4.2 shows the respondents views with regards to procurement planning. In this study, three key areas of procurement planning included need assessment, cost estimation process and the bidding process. As shown in the table, 78.5% of the respondents strongly agreed and 12.5% agreed that procurement process is an important factor the influent the performance of procurement. This showed a high mean score of 4.78 and low standard deviation of 0.41, implying that most of the respondents highly agreed about this statement. On whether procurement planning is the first step of achieving efficiency in the procurement process, a total of 96.9% of the respondents agreed with the statement. This gave a mean score of 4.74(std=0.51) which indicated that there was high level of agreement among the respondents. On whether organizations must carry out need assessment to determine what to procure, a high mean of 4.77(std=0.42) was an indication of strong agreement among the respondents. On whether in City of Kigali, need assessment is conducted by a different committee, a total of 95.4% agreed giving a high mean of 4.72(std=0.55). This indicated that the participants were in agreement on the separation of procurement activities within City of Kigali. On whether all the stakeholders are involved in the need assessment process, 70.8% strongly agreed and 13.8% agreed. The mean score in this case was 4.55(std=0.75).

The respondents also gave similar responses when asked whether City of Kigali is able to identify what to procure and when because of need assessment. The mean here was 4.75 with a low standard deviation of 0.44. On whether it is important to provide an estimate of the costs of acquiring the goods during the procurement planning, all the respondents agreed to this which gave a very high mean score of 4.75(std=0.44). Asked whether cost estimation help the organization to plan before hand, 73.8% of the respondents strongly agreed and the remaining 26.2% agreed. The mean obtained was 4.74 with a standard deviation of 0.44 showing that the respondents were in agreement. Similar results with a mean of 4.42(std=0.68) showed that majority of the respondents were agreeing that the committee in charge at City of Kigali always provides the cost estimate for every planned procurement. On whether procurement contracting process should also include bidding process adopted by the organization, a total of 75.4% of the respondents agreed giving a mean score of 4.11(std=0.95). On whether the procuring officers are able to evaluate different tenders during the bidding process, a mean of 4.28(std=0.88) implied that the respondents were in agreement though with divergent views. On whether the bidding process should evaluate each bid against some set organizational goals, 44.6% of the respondents agreed and 35.4% strongly agreed. The mean in this case was 4.14(std=0.77). On whether there are clear requirements for each bid that are used to evaluate the bids, a total of 90.8% of the respondents agreed which gave a mean of 4.51(std=0.66). Looking at the overall mean score for all the statements in respect to the procurement process, a mean of 4.56(std=0.61) showed that there was high level of agreement with procurement as process needed in the contract management.

The researcher also conducted an interview with three key informants identified in the data collection process. The interviews were conducted at the interviewees' workstation and according to their availability. The interview took place on Wednesday 21st September 2022. The findings from the interview showed that the participants were in agreement that procurement process in City of Kigali is an important process for the acquisition of goods and services. The interviewees also indicated that the process is quite different from that of private institutions since the objectives and laws are different. It was also discussed that the planning process in the procurement contracting is an important step in ensuring that the public institutions control for contract delay and consequently control for cost escalations.

Table 4.3: Correlation Analysis between Procurement Planning and Cost Escalations

		CostEscalations	ProcurementPlan ning
CostEscalations	Pearson Correlation	1	-.831**
	Sig. (2-tailed)		.000
	N	65	65
ProcurementPlanning	Pearson Correlation	-.831**	1
	Sig. (2-tailed)	.000	
	N	65	65

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Researcher, (2022)

Table 4.3 shows the Pearson correlation analysis between procurement planning and cost escalations. The results showed that procurement planning correlation ($r=-0.831$, $p=0.000$) was strong negative correlation. It was also statistically significant which implied that good procurement planning in the procurement contracting process would help the public institutions in Rwanda to significantly minimize the cost escalations challenges. These findings are consistence with previous researchers who indicated the significance of procurement planning to the performance of the procurement process. For instance, Ghossein, Islam and Saliola (2018) and Dza, *et al.*, (2018) found that without effective planning in the pulic procurement, private sector will shun involvement in the process or when involved quate higher prices than the normal. The authors also contend that if such procurement processes are prone to corruption, bribery and bureaucracy when the system is not closely monitored and maintained, it leads to inefficiencies, delays and increased costs. Again, undue political interferences, corruption and favoritism in the process leads to inflating contract costs, payments to non-existing contracts, multiple payments for the same contract among otherS

Table 4.4: Respondents' views on Contract Administration

Statements	D		NS		A		SA		M	std
	n	%	n	%	n	%	N	%		
1.Contract administration is an important step to consider in the procurement process	0	0.0%	1	1.5%	19	29.2%	45	69.2%	4.68	.50
2.City of Kigali has laid down obligations and duties for evaluating the bids submitted for review	11	16.9%	4	6.2%	30	46.2%	20	30.8%	3.91	1.03
3.All contracts have to evaluating before any award is given	9	13.8%	6	9.2%	24	36.9%	26	40.0%	4.03	1.03
4.Tender evaluation helps the City of Kigali to reduce on the total costs of procuring	3	4.6%	0	0.0%	25	38.5%	37	56.9%	4.48	.73
5.Each successful tender is communicated to the vendor on time	0	0.0%	0	0.0%	16	24.6%	49	75.4%	4.75	.43

6.Contract awarding is conducted based on the tender evaluation process	0	0.0%	0	0.0%	23	35.4%	42	64.6%	4.65	.48
7.Each vendor receives the communication about the successful contract	4	6.2%	0	0.0%	25	38.5%	36	55.4%	4.43	.79
8.The procurement officers in City of Kigali have powers to cancel a successful bid based on the response by the vendor	7	10.8%	5	7.7%	31	47.7%	22	33.8%	4.05	.93
9.There are different signatories to ascertain the selected bid	12	18.5%	13	20.0%	14	21.5%	26	40.0%	3.83	1.15
10.By signing the contracts, both parties become legally bound to honor their part of the deal	0	0.0%	8	12.3%	21	32.3%	36	55.4%	4.43	.71
Overall mean										4.32 0.78

D=disagree, NS=not sure, A=Agree, SA=strongly agree, M=mean, std=standard deviation

Source: Researcher, (2022)

Table 4.4 shows the respondents' views when asked their agreement or not about contract management. On whether contract administration is an important step to consider in the procurement process, 69.2% of the respondents strongly agreed and 29.2% agreed. This showed a mean score of 4.68(std=0.50) indicating that there was high level of agreement among the respondents on the importance of contract administration. On whether City of Kigali has laid down obligations and duties for evaluating the bids submitted for review, 46.2% of the respondents agreed and 30.8% strongly agreed. This totaled to 77% of those in agreement, giving a mean of 3.91(std=1.03) which clearly indicated that majority were in agreement. On whether all contracts have to be evaluated before any award is given, a mean of 4.03 and standard deviation of 1.03 indicated the respondents were in agreement. On whether tender evaluation helps the City of Kigali to reduce on the total costs of procuring, a mean of 4.48(std=0.73) showed that most of the respondents were in agreement. This indicated that majority of the respondents agreed about the contribution of tender evaluation on cost reduction.

On whether each successful tender is communicated to the vendor on time, a mean of 4.75(std=0.43) showed high level of agreement among the respondents. Similarly, the statement that contract awarding is conducted based on the tender evaluation process scored highly with a mean of 4.65(std=0.68). On the statement that each vendor receives the communication about their successful contract, an average of 4.43(std=0.79) attested to the agreement level of the respondents. On whether the procurement officers in City of Kigali have powers to cancel a successful bid based on the response by the vendor, 47.7% of the respondents agreed and 33.8% strongly agreed. This means that most of the respondents were in agreement, which also can be attested to by the mean score of 4.05(std=0.93). On whether there are different signatories to ascertain selected bid, a mean of 3.83(std=0.71) indicated that the respondents were in agreement about the statement. On whether by signing the contracts, both parties become legally bound to honor their part of the deal, 55.4% of the respondents strongly agreed and 32.3% agreed. This resulted in to a mean of 4.43(std=0.71) showing a high level of agreement. The overall mean for all the responses obtained in regards to contract administration was 4.32(std=0.78) showed that even though there were divergent views, most of the respondents were on agreement.

The interview conducted on Wednesday 21st September 2022 revealed that long processes and bureaucracy cause delays in contract administration and tender executions. This tends to lead to cost escalations as the service providers look for ways to cover for the cost associated with delays. However,

the informants pointed out that processes cannot be done away with, but have been reduced through automation and use of e-procurement processes. Moreover, the processes ensure openness and transparency required in public procurement.

Table 4.5: Correlation Analysis between Contract Administration and Cost Escalations

		CostEscalation	Contract Administration
CostEscalation	Pearson Correlation	1	-.639**
	Sig. (2-tailed)		.000
	N	65	65
Contract Administration	Pearson Correlation	-.639**	1
	Sig. (2-tailed)	.000	
	N	65	65

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Researcher, (2022)

Table 4.5 shows the Pearson correlation analysis between contract administration and cost escalations. The results showed there was a negative correlation ($r=-0.639$, $p=0.000$) between the two variables. The correlation was also statistically significant which implied that efficient use of contract administration in the procurement contracting process would help the public institutions in Rwanda to significantly minimize the cost escalations. These findings concur with earlier findings by other researchers like Chikwereet *al.*, (2019) who pointed out that compliance issues with PP regulations is important in the contract administration process. The authors further found that the noncompliance makes the system susceptible to corruptions, unnecessary delays, favoritism, collusion all of which tend to inflate the final costs of the tenders. Afolabi, *et al.*, (2020) found that increased efficiency lowering the costs in contract execution and management. Further, the research by Thumbi and Mutiso (2018) found that the effective way of executing procurement contracts is through compliance with processes, procedures and the governing regulations. As such, these would reduce the problems within the system and increase efficiency, transparency and consequently can increase value for money in the system as well as reduce cost escalations in the system.

Table 4.6: Correlation Analysis between Contract Maintenance and Cost Escalations

		CostEscalations	Contract Maintenance
CostEscalations	Pearson Correlation	1	-.773**
	Sig. (2-tailed)		.000
	N	65	65
Contract maintenance	Pearson Correlation	-.773**	1
	Sig. (2-tailed)	.000	
	N	65	65

** . Correlation is significant at the 0.01 level (2-tailed).

D=disagree, NS=not sure, A=Agree, SA=strongly agree, M=mean, std=standard deviation

Source: Researcher, (2022)

Table 4.7 shows the Pearson correlation analysis between contract maintenance and cost escalations. The results showed there was a negative correlation ($r=-0.773$, $p=0.000$) between the two variables. The correlation was also statistically significant which implied that efficient use of contract maintenance in the procurement contracting process would help the public institutions in Rwanda to significantly minimize the cost escalations. The researcher further conducted regression analysis to be able to sufficiently measure the effect of procurement contracting process on cost escalations in public institutions in Rwanda. This also helped to measure the contributing effect of each indicator variables used in this study on reduction of cost escalations. The findings are in line with earlier findings from author like Thumbi and Mutiso (2018). These authors found that the use procurement audit can enhance contract maintenance and increase efficiency in the system. This would in turn cut the costs associated with ineffective PCP. On their part, Gamariel, Akumuntu and Arsene(2021) found that quality service deliver, costs savings and price competitiveness can be enhanced if the procurement contracting process is effectively and continuously monitored and evaluated. Such exercises help the organization maintain those contracts that add value for money to the institutions.

Table 4.7: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.670 ^a	.450	.422	.19140

a. Predictors: (Constant), Contract maintenance, ProcurementPlanning, Contract Administration

Source: Researcher, (2022)

The results shown in Table 4.8 related to the regression model summary to find whether there was a good fit in the analysis. The results gave an $R^2=0.450$ which is an indication of a fairly fit model. This also implied that 45% of the reduction in cost escalation can be attributed to how well the public institutions carry out their procurement contracting process. An effective process will save these institutions a great deal of cost escalations up to 45% of the total costs. Such savings can be utilized in other beneficial areas. The findings in this study can be understood to extend the findings from earlier researchers who found the significance of procurement contracting process. Authors like Thumbi and Mutiso (2018) who indicated procurement processes should have procedures and regulations governing each contract to increase compliance and consistence. This would help reduce cost of procurement.

Table 4.8: Regression Analysis of Variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.825	3	.608	16.605	.000 ^b
	Residual	2.235	61	.037		
	Total	4.060	64			

- a. Dependent Variable: CostEscalation
- b. Predictors: (Constant), Contract maintenance, ProcurementPlanning, Contract Administration

Source: Researcher, (2022)

Table 4.8 relates to the test of whether the regression model was significant or not. According to the normal test, if the probability of the F-statistics is greater than 5%, then the model is deemed to be insignificant. Otherwise, it is deemed to be statistically significant. The results reported in Table 4.9 (F=16.605, p=0.000) showed that the model was statistically significant since the p-value was less than 5%. Consequently, procurement contracting process (PCP) has significant contribution to the control of cost escalations in public institutions in Rwanda.

Table 4.9: Analysis of Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	5.181	.496		10.444	.000
1 ProcurementPlanning	-.270	.079	-.357	-3.430	.001
Contract Administration	-.149	.073	-.213	-2.043	.045
Contract maintenance	-.368	.074	-.473	-4.973	.000

- a. Dependent Variable: CostEscalations

Source: Researcher, (2022)

The researcher further analyzed the regression coefficients of each of the variables in the regression model. As per the discussions in this study, the three key indicator variables for procurement contracting process include procurement planning, contract administration process and contract maintenance. The researcher had proposed that the effect use of these processes or strategies would help the public institutions control the cost escalations challenges experience in many organizations due to contract delays a lot of bureaucracies. As per the findings all the three variables had a negative and statistically significant effect on cost escalations. For procurement planning ($\beta_1 = -0.270, p = 0.001$) showed that the coefficient was significant at 5% since the p-value was less than 5%. It also implied that a one unit increase in efficient use of procurement planning would help organizations reduce cost escalations by 0.27 units. Similarly, for contract administration ($\beta_2 = -0.149, p = 0.045$) showed that the coefficient was significant at 5% since the p-value was less than 5%. It also implied that a one unit increase in efficient use of contract administration would help the public institutions in Rwanda to save in cost escalations by 0.149 units. Lastly, for contract maintenance ($\beta_3 = -0.368, p = 0.000$) showed that the coefficient was significant at 5% since the p-value was less than 5%. It also implied that a one unit increase in efficient use of contract maintenance would help organizations reduce cost escalations by 0.368 units.

4.3 Discussions

This research sought to investigate the effect of procurement contracting process on the cost escalations in public institutions in Rwanda. To conduct this research, the researcher identified three key areas of concern, namely, the procurement planning, the contract administration and the contract maintenance. As per the findings presented, it is evidence that the use of effective procurement processes is important in ensuring that the public institutions are able to control for the costs associated with procurement. It is also important to note that procurement is one of the biggest spending for any government. The government always acquire goods and services through procurement. Hence, there is need for effective monitoring of the process to ensure that the laid down legal procedures are followed without undue political interferences and favoritism.

Moreover, the system should be competitive enough to allow for effectiveness in the bidding process. Such would create transparency, accountability and remove inefficiencies in the process. In addition, private sector will shun involvement in PCP where the system is prone to corruption, bribery and bureaucracy when the system is not closely monitored and maintained, which would in turn leads to inefficiencies, delays and increased costs. Many developing countries especially in Africa still struggle with which has a negative effect on the public procurement with the political class awarding tenders to benefit themselves and their relatives and acquaintances. These inefficiencies only tend to increase the costs further. This practices if eliminated can make the procurement process become more effective, provide quality services and increase value for money for the citizens. Thereby, this would increase service delivery by the public institutions as well as reduce the incompetent of public official costing of public contracts which is a challenge, with many suppliers inflating costs at the expense of the government.

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter provides the summary of findings, the conclusion, recommendations and study limitations. The chapter also presents the suggestions for further studies for future researchers.

5.1 Summary

Majority of the participants who filled the questionnaires and who participated in interview were male represented by 64.6% of the participants, majority were in the 46-50 years of age with 32.3% and 38% had a working experience of more than 10 years. 75.4% of the participants were at bachelor's level.

5.1.2 Summary on Objective One

The first specific objective was concerned with investigating the effect of procurement planning on cost escalations in the City of Kigali. The researcher identified three main indicator variables to enable adequate measurement of procurement planning. These included need assessment, cost estimation and bidding process as sub-variables. 78.5% of the respondents strongly agreed and 12.5% agreed that procurement process is an important factor the influent the performance of procurement. On whether procurement planning is the first step of achieving efficiency in the procurement process, a total of 96.9% of the respondents agreed with the statement. This gave a mean score of 4.74(std=0.51) which indicated

that there was high level of agreement among the respondents. On whether in City of Kigali, need assessment is conducted by a different committee, a total of 95.4% agreed giving a high mean of 4.72(std=0.55). On whether the procuring officers are able to evaluate different tenders during the bidding process, a mean of 4.28(std=0.88) implied that the respondents were in agreement though with divergent views. The Pearson correlation analysis between procurement planning and cost escalations. The results showed that procurement planning correlation ($r=-0.831$, $p=0.000$) was strong negative correlation. It was also statistically significant which implied that good procurement planning in the procurement contracting process would help the public institutions in Rwanda to significantly minimize the cost escalations challenges.

5.2 Conclusion

This research sought to investigate the effect of procurement contracting process on the cost escalations in public institutions in Rwanda. To conduct this research, the researcher identified three key areas of concern, namely, the procurement planning, the contract administration and the contract maintenance. The findings showed that procurement contracting process helps organizations control the costs and therefore reduce the probability of cost escalations in the procurement process. Since procurement is one of the biggest spending activities of governments all over the world, effective management of this process would see the governments save a lot of costs that are usually inflated in the process at the cost of the government. With effective procurement contracting process, City of Kigali and other public institutions in Rwanda can be able to control their procurement costs and save the government unnecessary costs. In addition, the compliance with the public procurement act, the automation of the process and the government overall oversight would work to increase efficiency in the process. It is imperative therefore to ensure that the public sector delivers quality services to the public while at the same time doing so at reasonable costs. Cost is an important factor to consider while measuring the effectiveness of procurement contract. Through this study, and from the findings in this research, it is important for public procurement officers to adequately measure the costs of procurement. This would enable them to control for cost escalations especially through efficient procurement contracting.

5.3 Recommendations

The study recommends that the public institutions ensure continuous monitoring and revision of the procurement process to ensure that the processes are compliant with the public procurement act. This can be effectively done through frequent compliance audit. Based on the findings, it is imperative that the public organizations should work to provide quality services to the citizens while at the same time providing value for the money. The unnecessary costs that can be avoided in the process should be controlled to ensure that the government is getting the goods and services it needs at the best competitive prices. Therefore, the researcher recommends that the officers in charge of procurement to exercise prudence while acting on behalf of the institutions and on behalf of the government. Further, the researcher recommends that the government and the Rwanda Public Procurement Authority (RPPA) should develop a model for evaluating the performance of public procurement following a cost estimation approach. This would enable the body to measure the efficiency of the process by cost-benefit perspective.

5.4 Study Limitations

This study covered one public institution as a representative of all the public institutions in Rwanda. It was therefore limited in its coverage. However, the study was scientific and therefore the results can be generalized to other institutions. The study also focused on the costs of procuring by looking at the contracting processes. Further researches could be carried to investigate the costs from a different perspective including the inefficiency in public institutions.

5.5 Suggestions for Further Studies

- i). The effective of public e-procurement on the creation of value for money in the public sector in Rwanda.
- ii). The role of public sector oversight committee on the public tendering compliance in Rwanda.
- iii). The effect of procurement officers' competence on the performance of public procurement in Rwanda.

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