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EFFECTS OF PROCUREMENT PLANNING, PROCUREMENT PROCESS AND PROCUREMENT TRANSPARENCY ON PUBLIC INSTITUTIONS PERFORMANCE IN RWANDA

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ABSTRACT: Supplier performance has become a critical factor for the organization's success. In this regard, many firms and researchers have attempted to find out variables that affect either positively or negatively on supplier performance. However, very few studies have been carried out on procurement procedures in developing countries like Rwanda. Public procurement system in Rwanda has been characterized by a weak legal framework and lack of professionalism among public procurement practitioners. This study was carried out of in all Districts in Rwanda located in the four provinces and Kigali City. This study considered the agency theory that is having relation with procurement system including the procurement planning, the neoclassic theory that is related to procurement transparency and the theory of regulatory compliance where procurement performance was based on. The entire population was 120 persons from different departments: composed of 60 persons from the procurement departments, 30 persons from the finance departments and 30 persons from the customer service departments. Specifically, the target sample size of this study was comprised of 94 persons who were selected purposively from the departments of procurement, finance and customer service.

Were tested, verified and then they are confirmed referring to the statistical (regression analysis) findings. This leads to confirm that there is significant relationship between procurement process compliance and ethics with their observed indicators (factors) and procurement performance in public procuring entities in Rwanda.

KEYWORDS: Procurement Planning, Suppliers Performance, Procurement Procedure, Public Procurement.

1. INTRODUCTION

Public procurement, as a known and observed phenomenon in Rwanda, is one of the most government business activities most vulnerable to petty, grand, systematic and systemic corruption. Billions of tax payers' and donor funds and money get lost every year due to waste, fraud and corruption in public procurement system as non-compliant procurement practices crop the public procurement system (OAG, 2019).

The Government of Rwanda for the financial year 2018-2019 has lost funds due to non-compliance to public procurement process. Inefficient planning of procurement, long process of procurement process led to lack of funds for some projects from donors where it was identified 18 cases of projects worth 112,552,600,100Frw; Inefficient planning in identifying unnecessary items which led to idle assets worth Frw 17,210,605,457; Poor sourcing of contractors where it was incurred a loss 2,297,606,521Frw that resulted from the failure of contractors to execute the contracted works; Poor contract management where it was paid invoices amounting to 14,391,086,018Frw with delays ranging between 2 and 725 days. These delays proliferate the risk of delaying and abandoning the contracts; Poor contract management and monitoring which led to a total of 65 contracts valued at Frw 107,939,885,720 reported as either delayed or abandoned; Poor contract management and control where most entities did not recover amount of advance payment and performance securities worth 3,534,806,068Frw (OAG, 2019) (Kannan & Tan, 2002).

For Rwanda, ethics in public procurement is guided by the following major principles: transparency, competition, economy, efficiency, fairness and accountability. Unsuccessful bidders, after being notified of the evaluation results, have the rights to appeal to those results. In procuring entities, almost all purchasing decisions include factors such as delivery and handling, marginal benefit, and price fluctuations. Procurement ethics, like many other aspects of management, are top-down. This means that behaviors of top leaders or corporate staffs, and their ability to take decisions is influencing the staffs at lower levels. It is therefore better that those higher ranking staffs in an entity show good behaviors, fairness and be accountable in order to ensure that the procurement is well conducted (RPPA, 2016).

Unethical behaviors in currently existing in Rwandan procurement system. For the RPPA audit conducted in the last year of 2018-2019, it was identified many entities which awarded tenders at

a price higher than the cost budgeted in procurement plan and the incremental cost varied between 23% and 865% of the planned cost attributable to the failure to conduct market research on price before awarding these tenders; Many of the tender documents published were having discriminatory criteria which led to some bidders be rejected from competition; Many of the tenders were evaluated without fairness or without respecting the requirements set in the tender documents or lack of transparency in evaluation; Many cases of incompetent bidders awarded the tenders; Almost public procurement officials are not held accountable for their misconduct and this favors their irresponsibility which lead to unnecessary wastage of the public resources.

This study intends to assess the effects of compliance government's procurement regulations and ethics on procurement performance in Rwanda specifically in the Districts.

1.1 Statement of the Problem

Since 2004, the Government of the Republic of Rwanda has decided to decentralize public procurement activities. It is in this regard that, from 20 February 2011 all responsibilities and activities regarding contract awarding, signing and contract management were transferred to public procuring entities and Rwanda Public Procurement Authority-RPPA remained with the responsibility of being a procurement oversight body having the mission geared towards regulations, capacity building and control.

The Government of Rwanda, for every financial year, experiences the loss of funds due to non-compliance to public procurement process and lack of ethical considerations in public procurement. The report of the auditor general of state finances for the financial year 2018-2019, shows that the government of Rwanda has lost almost 257,926,589,884Rwf due to non-compliance to procurement regulations and lack of ethics.

In Rwanda, public procurement process compliance and ethics are still at low level. For example, 47 out of 70 procuring entities audited by RPPA in the financial year 208-2019 have implemented the previous audit recommendations at a rate below 60% and recommendations of the office of the auditor general were implemented at a rate below 56% in 156 entities audited and these recommendations would help them to avoid any loss of public funds.

The aim of the public procurement law No 62/2018 of 25/08/2018 and ministerial order No 002/20/10/TC of 19/05/2020 on public procurement is to promote Economy, Competition, Fairness and Transparency, Efficiency and Accountability in procurement in public institutions with the main aim of ensuring efficient use of public funds. They also help procuring entities to comply with public procurement procedures (Mintzberg 1990).

This study aimed to assess the effects of procurement planning, procurement process and procurement transparency on public institutions performance in Rwanda (Modi and Mabert, 2007; Alaez-Aller and Longas-Garcia, 2010).

2. LITERATURE REVIEW

2.1. Introduction

This chapter concentrates on the overview of existing literature review and the explanation of key words. It focuses on available literature related to this study by different authors. The classical theory of concepts, also called empiricist theory of concepts, the classical theory of concepts says that concepts have a definitional structure. Sufficient interpretations of any types which are stipulated by the said theory, have the form of listed different characteristics. Indications highlighted in the conceptual definition have to be necessary; adequate in the set of members contained in the class of things defined in this particular concept.

2.2. Procurement Planning

Procurement planning is one of the primary functions of procurement with a potential to contribute to the success of local government operations and improved service delivery. We can define it as a function that sets in motion the entire acquisition/procurement process of local governments (Basheka, 2010).

Planning expressed as a concept and function is probably among the extensively talked about concepts in the management literature. It is a function that forms the foundation for the rest of management functions. When planning is properly conceived and implemented, it can serve as an important mechanism for extracting, distributing and allocating resources (James, 2004). Planning

generally, enhances the gathering, evaluating and interpreting of essential data and information for the purpose to produce knowledge relevant to good policy making. In Africa, planning targets were not successfully achieved due to many challenges among which include the problems of lack of skills and financial capacity. In management literature planning implies that managers think through their goals and actions in advance and that their actions are based on some method, plan or logic rather than on a hunch (Stoner, Freeman & Gilbert, 1995).

The planning function encompasses defining an organization's goals, establishing an overall strategy for achieving those goals, and developing a comprehensive hierarchy of plans to integrate and coordinate the activities (Robbins, 2001). Planning for procurements plays the role of setting the all the steps that will be involved. In other words, it is the main engine of the procurement cycle. Measuring from accountability and the participation, an error in planning would totally implicate local administration of the country.

Therefore, by adequate participation of citizens and ensured accountability, planning in procurement, is the key to successful local administration. Accountability will only be achieved by efficient monitoring and application of rule of law in the public and private sector. Accountability as one of the broad elements of good governance involves holding elected or appointed individuals and organizations charged with public mandate to account for specific actions, activities, or decisions to the public from whom they originate their function (Agere, 2001).

Accountability of public officials is critical in deterring corrupt practices and it creates an enabling environment for vibrant private sector activity (Kabaj, 2003). Issues resulting from accountability arise when government disregard or misbehave in ensuring ethics, provisions of the law and the constitution when it is conducting its affairs, administrative systems are fragmented, responsibilities to be undertaken are so hard more complicated to identify who is responsible for what, activities are underfunded so that implementation is very complicated or impossible (Therkildsen, 2001).

2.3. The Complete Procurement Cycle

The complete procurement cycle begins with the procurement planning, a step closely linked with the budget process, then followed by the procurement initiation, bidder selection, notification of

contract award, procurement commitment (contract signing) contract administration, receipt and acceptance of goods, works, services or consulting services and the storage and inventory management of the goods and supplies received. The procurement cycle may also involve administrative law. Procurement cycle starts with the identification of the procurement requirement and ends with the registration of the assets procured into the procuring entities records. It is the role and function of the head of procuring entity to ensure close coordination with the budget process, commitment control, finance and expenditure management and audit. (European Journal of Logistics, 2018).
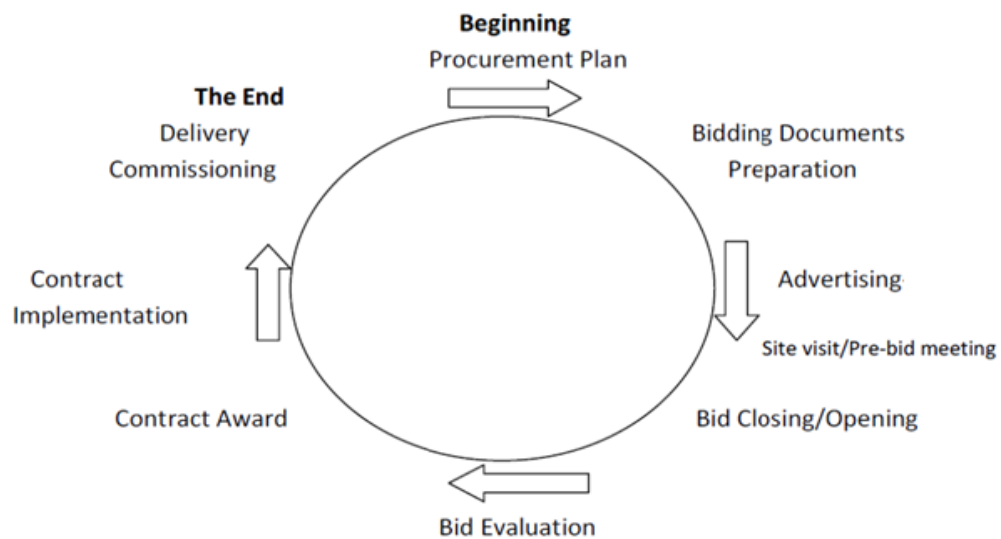

Fig 2.3. Procurement cycle

2.4. Procurement transparency

The term procurement transparency implies openness in procurement processes, procedures and adherence to lay down rules. Transparent procurement and corruption go hand in hand (Coppier and Piga, 2006). In the Netherlands, Nijhof et al. (2009) mentioned toward Priemus (2002) who describe building fraud as all unauthorized activities by construction corporations and customers, which are intended at dropping the efficacy of marketplace in the building business and so minimizing dangers, growing profits or enhancing continuity. Blok and Graafland (2004) categorized fraud activities into three: collusion, double accounting and information about

maximum available budget. The American Society of Civil Engineers (2004) claims that corruption accounts for an estimated $340 billion of worldwide construction costs each year. Collusion between companies is a known problem around the world even in the developed world. There are waves of collusions in different national construction industry, recent examples include (Dango system) in Japan (McMillan, 1991; Oyegoke, 2005), in the Netherlands (Graafland and Nijhof, 2007), in the UK (OFT, 2008), etc.

Competition is another key principle of transparency. With reference to Estache and Limi (2009), rivalry is the single greatest significant aspect to cover the procurement prices and maybe discourage collusive bidding behavior and corrupt practices. Estache and Limi (2009) assume that amid 70 to 100 billion US dollars is consumed annually on the expansion of infrastructure in less developed countries. Inadequate transparency will result to ineffective use of these resources most particularly, the suitability of infrastructure values.

Raymond (2008) debates the important philosophies underpinning procurement and in what way they can be benchmarked in the procurement cycle. It consists of major principles involved in the procurement. With reference to Guidelines of commonwealth procurement (2008), value for money is the essential principle leading public procurement supported by other procurement principles. Nijhof et al. (2009) highlighted the important points for transparency: honesty about threats and prices, gauging of quality-price relations, motives for award or rebuff and improvement of reputation mechanism.

2.5. Conceptual framework

Conceptual framework shows and presents the main roles and factors of literature variables. This study consists two research variables, which are procurement process compliance and ethics as independent variables and the performance to procurement as dependent variable:

INDEPENDENT VARIABLES
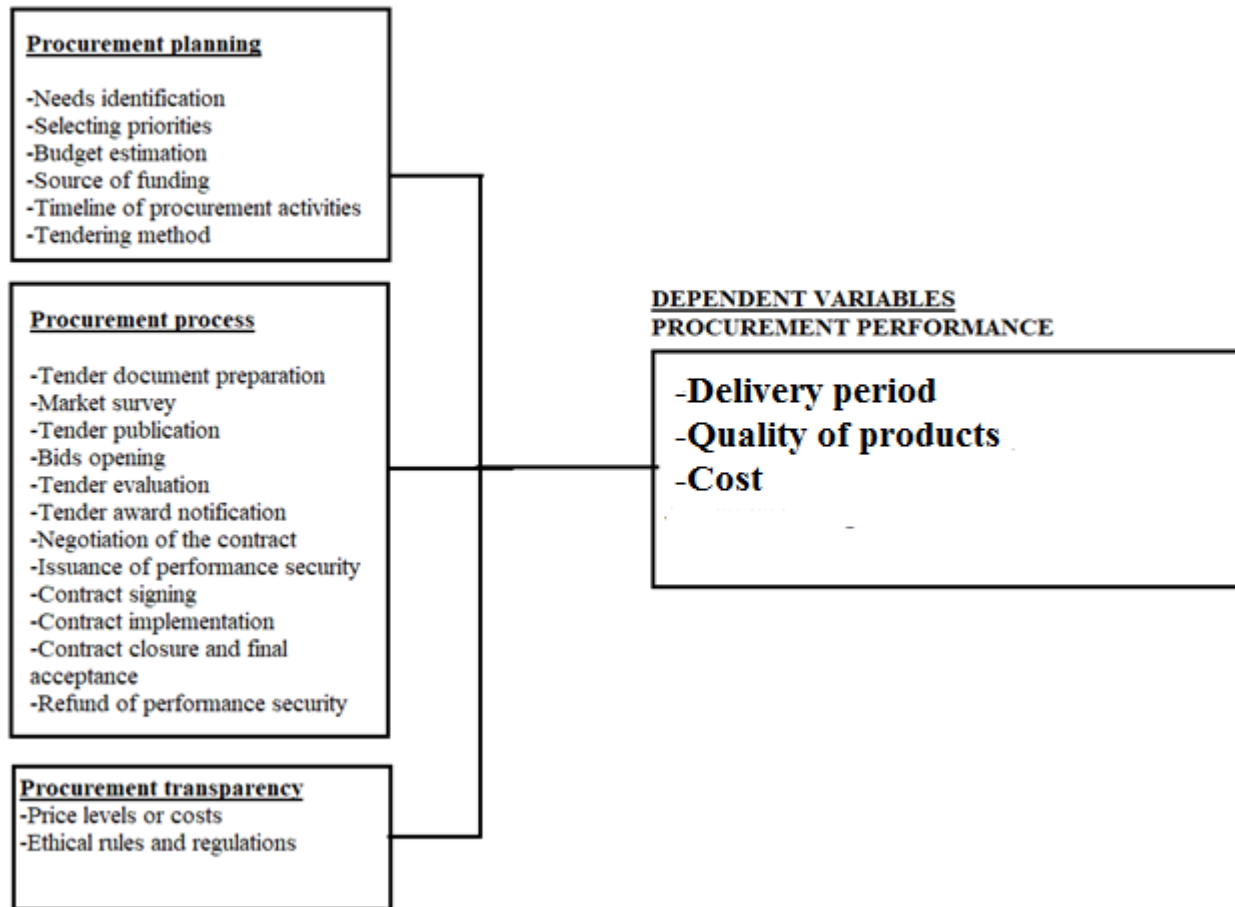**PROCUREMENT PROCESS COMPLIANCE AND ETHICS**

Procurement planning

-Needs identification
-Selecting priorities
-Budget estimation
-Source of funding
-Timeline of procurement activities
-Tendering method

Procurement process

-Tender document preparation
-Market survey
-Tender publication
-Bids opening
-Tender evaluation
-Tender award notification
-Negotiation of the contract
-Issuance of performance security
-Contract signing
-Contract implementation
-Contract closure and final
acceptance
-Refund of performance security

Procurement transparency
-Price levels or costs
-Ethical rules and regulations

DEPENDENT VARIABLES
PROCUREMENT PERFORMANCE

-Delivery period
-Quality of products
-Cost

Fig 2.5. Conceptual framework

3. RESEARCH DESIGN AND METHODOLOGY

3.1. Research design

Research design refers to how data collection and analysis are structured in order to meet the research objectives through empirical evidence economically (Cooper and Schindler, 2006). This study was conducted through a descriptive survey research design. According to Wallen, (1993) a descriptive survey is to collect data from a population for the purpose to determine the current status of that population vis a vis of different variables.

3.2. Target population

A population refers to an entire group of individuals, events or objects having a common observable characteristic. This study employed a stratified purposive sampling in selecting the respondents from the population of this study which comprises the departments of procurement, finance and customer service department in all thirty (30) Districts in Rwanda.

In every District, random selection was four (4) persons which means 2 persons in procurement department, 1 person in finance department and 1 person from the customer service department.

3.2.1. Sample size

Bailey, (2014) says that the population is universal objects over which research is to be carried out. The ideal practice in research would be to gather information from the entire population; this ensured maximum coverage of the population concerned in the research.

The study employed the model and formula of Cochran (1963:75). The sample size (n) has been adjusted using the following Equation:

$n = \frac{N}{1+(N \times \epsilon^2)}$ (Eq 3.1)

Where:

N: is the total population

ϵ : is the accepted sampling error

n: is the sample size

The sampling error is determined based on the sampling confidence level. In this study, the confident level to be considered is 95% and hence the sampling error is 5% or 0.05.

The sample size is n= $\frac{N}{1+(N \times \epsilon^2)} = \frac{123}{1+(123 \times 0.05^2)} = \frac{123}{1.3} = $ **94**

3.2.2 Sampling Design

According to Cohen, at al: (2001), a sample is a representative group drawn from the population in such a way that the findings from the sample can be generalized on population. Kombo and Tromp (2006) defined sample as the analysis of large population where bias is minimized and the

chance of inclusion of every member. Both random and purposive sampling technique were used in this study.

This study employed a stratified purposive sampling in selecting the respondents from the department of finance, procurement department and the customer service department and the selected respondents surely represented the entire population.

3.3. Data collection instruments

According to Robert (2014), the data collection instruments are the tools used by researchers in order to collect primary and secondary information to be assessed in their researches and or studies. Therefore, this section is aiming to show the data collection techniques of the study such questionnaire and documentation research techniques.

3.3.1. Questionnaire

According to Kendall, (2012), the questionnaire is information-gathering technique that gathers information about, attitudes, beliefs, behaviors and characteristic from several respondents in the institution, who may be affected by given phenomenon or system. The questionnaires were filled and they provided free and fair responses from the respondents. The questionnaires used are closed questions, where the respondents were limited to specific answers. Therefore, the closed questions were used because they provided data that are comparable for all respondents.

3.3.2. Measurements of variables

In order to make effective measurement of variables; it is required to present the regression analysis model that the researcher used by calculating; analyzing and interpreting the relationship among variables through the collected data, as follows:

- The procurement plan (or **P1**), Procurement process(**P2**), the procurement transparency (or **P3**) as independent variables;
- The procurement performance (or **P4**) which is lead time, quality products, cost minimization as dependent variables;
- β_0 is constant and β_1; β_2; and β_3 are parameters of equation model;
- ε_t is the error term of equation model

These are specifically stated as simple regression model that is evaluated and is represented as follows:

$Y(P4)= \beta_0 + \beta_1(P1) + \beta_2(P2)+ \beta_3(P3)+ \varepsilon_t$

$Log (P4)=\beta_0+\beta_1Log(P1)_{t1}+\beta_2Log(P2)_{t2} +\beta_3Log(P2)_{t3} +\varepsilon_t;$

Then the above equation is constructed from generated model set as:

$Y= \beta_0 + \beta_1X_{it1} + \beta_2X_{iit2} ++ \beta_3X_{iit3} + \varepsilon_t$

And/ or

$LogY= \beta_0 + \beta_1LogX_{it1} + \beta_2LogX_{iit2} + \beta_3LogX_{iit3} + \varepsilon_t.$

Therefore, the above equation model provides the findings in figures as statistical results to be interpreted by basing on the regression analysis, with these following important coefficients:

- **Sig(P-Value)** is significance probability value;
- **R^2** is Regression squared;
- **AR^2** is Regression squared Adjusted;

ANOVA is Analysis of Variance

EVALUATION OF MEAN	
Range	**Interpretation of the mean**
[1-1.8 [	Very weak
[1.8-2.6 [	Weak
[2.6-3.4 [	Neutral
[3.4-4.2 [	Strong
[4.3-5]	Very strong

EVALUATION OF STANDARD DEVIATION-CORRELATION	
Scales	**Interpretation of Scales**
[-1.00 - 0.00 [	Negative correlation
[0.00 - 0.25 [	Positive and very low correlation
[0.25 - 0.50 [	Positive and low correlation
[0.50 - 0.75 [	Positive and high correlation
[0.75 - 1.00]	Positive and very high correlation

Table 3.2.2 ANOVA table

4. RESULTS AND DISCUSSION

This chapter shows the findings of the research and linked information that were collected in relation with research questions. In addition, this chapter presents statistical analyses which were done using Statistical Package for Social Sciences (SPSS) 23rd version and interpretations of demographic profile of respondents, perceptions of respondents on independent variable which is procurement process compliance and ethics and how they affect the procurement performance. This chapter also shows the relationship between procurement process compliance and ethics and procurement performance by testing hypothesis using statistical regression analysis.

4.1. Demographic profile of respondents
This study concerned 94 respondents who were supposed to respond on the effects of procurement process compliance and ethics on procurement performance.

The demographic profile of the respondents covers their gender, age, marital status, education level, as follows:

4.1.1. Gender of respondents

The following table discusses the distribution of respondents by gender, where the table indicates how different Districts have respected and made in action the government policy related to the gender policy implementation:

Source: Researcher; Field Data, February 2021

Gender of respondents	Number of respondents	Percentages
Male	56	59.6%
Female	38	40.4%
Total	**94**	**100**

Table 4.1. Distribution of respondents by gender

According to table 4.1 that was generated from respondents according to their gender (sex) where in different Districts, the male gender is represented by 56 respondents corresponding to 59.6% of all respondents and then female gender is represented by 38 corresponding to 40.4% of all respondents.

4.1.2. Educational level of respondents

The following table analyzes the education level of respondents, where this table shows how in the Districts, the respondents present the good understandings of what they work daily according to their education levels as follows:

Source: Researcher; Field Data, February 2021

Education of respondents	Number of respondents	Percentages
Bachelor degree	67	71.2
Master degree	27	28.8
Total	**94**	**100**

Table 4.2. Distribution of respondents by education level

According to table number 4.2, that shows the education level of respondents, the masters' level are presented by 27 respondents of all participants which corresponds to 28.8%, and the bachelor's degree holders in different domains of study was represented by 67 which corresponds to 71.2%

of all respondents. Since the majority of the respondents have the bachelor's level, it implies that the respondents are significantly educational qualified in implementation of procurement rules and regulations and their responses were relied.

4.1.3. Marital status of the respondents

The following table summarizes the marital status of respondents as follows:

Source: Researcher; Field Data, February 2021

Marital status of respondents	Number of respondents	Percentages
Single	32	34
Married	55	58.5
Divorced	0	0
Widowers	7	7.5
Total	**94**	**100**

Table 4.3. Distribution of respondents by marital status

The requested respondents classed according to their marital status, 32 were single representing 34% of all respondents, 55 were married representing 58.5% of all respondents, 7 were widowers representing 7.5% of all respondents. There was no divorced among the respondents. Considering that the married respondents dominate others, this means that they work carefully in their respective domains of activities and hence their response are viable.

4.1.4. Age of the respondents

The following table shows the age of respondents, where this table shows the maturity of respondents thus they provide the specific and positive harvest:

Source: Researcher; Field Data, February 2021

Age of respondents	Number of respondents	Percentages
21-30	24	25.6

31-40	48	51
41-50	18	19.2
51-65	4	4.2
Total	**94**	**100**

Table 4.4. Distribution of respondents by age

The majority of the respondents range between 31-40 years which means that they are matured enough and they are able to give the meaningful information required in this research.

4.2. Presentation of findings related to the research objectives of the study

This section helps in answering the questions of the research concerning to compliance to procurement process and procurement ethics which lead to procurement performance; and then the questions deal with the perceptions of the surveyed respondents on the designed questions; hence, the results (findings) documented in the following tables:

4.2.1. The effects of procurement planning to procurement performance

The following table 4.5 represents the perceptions of respondents related to the first research objective by showing the factors that determine the effects of procurement planning on procurement performance in Rwanda.

Source: Researcher, field data February 2021

Statement	SA	A	N	D	SD	Mean	Standard deviation	Standard error
1. The needed items are well identified so that it will be delivered items of good quality which meet client's satisfaction.	48	29	6	9	2	4.191489362	1.060296122	0.109361195
2. The selection of priority items is done appropriately	32	50	0	7	5	4.031914894	1.062074736	0.109544645

so that there will be no idle items.								
3. The estimation of the budget of the tender is well done and tender awarded when the budget is available and secure; to avoid any future lack of funds during contract execution.	70	15	2	2	5	4.521276596	1.034134862	0.106662867
4. Timeline of procurement activities is well planned and dates are realistic to avoid any eventual delay to deliver the procured items.	54	36	0	4	0	4.489361702	0.714589601	0.07370429

Table 4.5. The effects of procurement planning on procurement performance

The table 4.5 shows the results about 4 items that were assessed about effects of procurement planning on procurement performance of public procuring entities in Rwanda. The results showed an overall very strong mean of 4.309 meaning that the respondents, strongly agree that the procurement planning has strong effect on the procurement performance of public procuring entities with positive and very high correlational standard deviation of 0.96777383. With a very small standard error of 0.099818249, it shows that the sample mean is a more accurate reflection of the actual population mean.

The first item has shown that, the procurement planning helps PEs to well identify items so that it will be delivered items of good quality which meet client's satisfaction. It proves that respondents strongly agreed with strong mean of 4.191489362 and with positive and very high correlational standard deviation of 1.060296122.

The second item has shown that, the procurement planning helps PEs in selection of priority items so that there will be no idle items. It proves that respondents strongly agreed with strong mean of 4.031914894 and with positive and very high correlational standard deviation of 1.062074736.

The third item has shown that, the procurement planning helps PEs in estimation of the budget of the tender and tender awarded when the budget is available and secure to avoid any future lack of funds during contract execution. It proves that respondents strongly agreed with strong mean of 4.521276596 and with positive and very high correlational standard deviation of 1.034134862.

The fourth item has shown that, the procurement planning helps PEs to set timelines of procurement activities to avoid any eventual delay to deliver the procured items. It proves that respondents strongly agreed with strong mean of 4.489361702 and with positive and high correlational standard deviation of 0.714589601.

Source: Researcher, field data, February 2021

Regression Statistics	
Multiple R	0.995238359
R Square	0.990499392
Adjusted R Square	0.990182705
Standard Error	0.095823365
Observations	94

Table 4.6. Model summary analysis

	df	Sum of squares(SS)	Mean square(MS)	F	Significance F
Regression	3	60.18630231	20.0621	3127.693	0000
Residual	90	0.577291069	0.006414		
Total	93	60.76359338			

Table 4.7.A NOVA table analysis

For testing whether variables are correlated or not, it is better to find the division and variation of Sum of Squares. Therefore, the variables significantly correlated at regressive level.

Therefore, the equation model provides the findings in figures as statistical results, which was interpreted by basing on the regression analysis, with these following important coefficients:

Then the following equation constructed from generated model set as well as the following:

$Y (P4) = \beta o + \beta 1 (P1) + \beta 2(P2) + \beta 3(P3) + \varepsilon t$

P1: Procurement planning

P2: Procurement process compliance

P3: Procurement transparency

$\beta o = -0.02105967$; $\beta 1 = 0.217891302$; $\beta 2 = 0.61666738$; $\beta 3 = 0.135143797$; $\varepsilon t = 0.095823365$

P1; P2; P3 stand for t-values in the table of regression summary

P1= 13.13249; P2= 51.38419; P3= 10.15027

Y= -0.02105967+0.217891302(13.13249) + 0.61666738(51.38419)+ 0.135143797(10.15027)+ 0.095823365= 35.995

4.3. Procurement planning
t=51.38419 which is greater than 1.96, P-value (sign) =0.0124 less than 0.05 which is very strong probability and highly significant.

The finding of the study is supported with the findings in the report of the Rwanda's office of the auditor general of states finance, for the financial year 2018-19, which shows that the Government of Rwanda has lost funds due to inefficient procurement planning where it was identified unnecessary items which led to idle assets worth 17,210,605,457Frw.

4.4. Model summary analysis
R=0.995, shows a very strong relationship of research variables.

R-squared: R^2=0.9904 the contribution of three variables (procurement planning; procurement process compliance; procurement transparency) to procurement performance, can be reported at a percentage of **99.04** percent. R-squared measures the strength of the relationship between the model and the dependent variable son a convenient 0 – 100% scale.

5. CONCLUSION AND RECOMMENDATIONS

This chapter presents the summary of the previous four chapters; concluded on the whole study and gives recommendations related to the understanding the effectiveness of procurement process compliance and ethics towards procurement performance in selected public procuring entities in Rwanda.

5.1. Effects of procurement transparency on procurement performance

The table 4.7 shows the results from about 6 items that were assessed about effects of procurement transparency on procurement performance of public procuring entities in Rwanda. The results showed an overall strong mean of 4.209219858 meaning that the respondents, strongly agree that the procurement process has strong effect on the procurement performance of public procuring entities with positive and very high correlational standard deviation of 0.95387069. With a very small standard error of 0.09838425, it shows that the sample mean is a more accurate reflection of the actual population mean. The first item has shown that, the procurement transparency helps PEs to ensure the transparency process for selection and evaluation of bidders and that selected bidders are competent and qualified to fulfil the contractual obligations. It proves that respondents strongly agreed with very strong mean of 4.382978723 and with positive and high correlational standard deviation of 0.606530464. The second item has shown that, the procurement transparency helps PEs to ensure that all stakeholders are involved in planning for procurement and preparation and that the procured items are those really needed by users. It proves that respondents had tendency to agree with strong mean of 3.925531915 and with positive and very high correlational standard deviation of 1.175368729. The third item has shown that, the procurement transparency helps PEs to ensure that tenders are advertised in newspapers of wide circulation and websites so that all bidders are invited to bid and hence tenders awarded to potential bidders. It proves that respondents agreed with very strong mean of 4.606382979 and with positive and high correlational standard deviation of 0.706621298. The fourth item has shown that, the procurement transparency helps PEs to set procurement guidelines and rules known to all bidders so that equity to all bidders is ensured. It proves that respondents agreed with strong mean of 4.138297872 and with positive and high correlational standard deviation of 0.938573225. The fifth item has shown that, the procurement transparency helps PEs to ensure that there are specific and clear requirements relating to goods and services to be procured to allow fair and open competition among competitors. It proves that respondents agreed with very strong mean of 4.606382979 and with

positive and high correlational standard deviation of 1.150979609. The sixth item has shown that, the procurement transparency helps PEs to ensure there are standard bidding documents that incorporate technical specifications. It proves that respondents agreed with strong mean of 4.021276596 and with positive and high correlational standard deviation of 1.145150818. Therefore, as revealed by the majority of respondents as employees of selected public procuring entities in Rwanda, they provided testimonies by saying that the procurement transparency has strong effects on the procurement performance.

5.2. Conclusions

The findings reveal that in long run, the procurement performance in public procuring entities is explained by probability of 0.0124 for procurement planning; by probability of 0.007 for procurement process compliance; by probability of 0.0139 for procurement transparency and that respectively expected to 1.24% & 0.7% & 1.39% and of probabilities, which are less than 5%. Basing on simple regression theories each factor of procurement process compliance and ethics is presenting the good fitness variability by each probability that is less than 5%.

The **R^2 =0.9904** and **Adjusted R^2 =0.9901**, show the goodness of fit of the estimated model. Up to **99.04%** of long run appreciation in procurement performance is influenced by changes in procurement planning; procurement process compliance; procurement ethics as implemented by public procuring entities. Therefore, the researcher can conclude by saying that the research hypotheses including: **H1:** Procurement planning has statistical effects towards procurement performance; **H2:** Procurement process compliance has statistical effects towards procurement performance; **H3:** Procurement transparency has statistical effects towards procurement performance" all were tested, verified and then they are confirmed referring to the statistical (regression analysis) findings. This leads to confirm that there is significant relationship between procurement process compliance and ethics with their observed indicators (factors) and procurement performance in public procuring entities in Rwanda.

5.3. Recommendation

In order to make strong procurement performance, the researcher suggests to procuring entities to follow the guidance provided by the RPPA's published procurement control manual to help them to always make self-assessment for their compliance with the existing procurement law and

regulations in order to achieve the value for money through competitive, transparent, efficient and fair procurement.

The current researcher would like to provide the partial suggestions regarded to further researchers who can be willing to carry out their researches, thus they suggested taking reference to this research project in order to improve their researches and information as findings. Therefore, the future researchers suggested working on the following research topics:

1. The effects of procurement planning towards procurement performance of public procuring entities in Rwanda.

2. The effects of procurement process compliance towards procurement performance of public procuring entities in Rwanda.

3. The effects of procurement transparency towards procurement performance of public procuring entities in Rwanda.

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