



CRITICAL REVIEW OF PROCUREMENT PRACTICES AND SUPPLY CHAIN PERFORMANCE OF NGOS IN RWANDA

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Abstract:

Procurement practices have been conceptualized as an overall assessment of service by the customers. It is an important function and a key decision criterion in-service evaluation by the customers in the service sector. Perceived procurement practices are believed to be resulting from a comparison between customers' prior expectations about the service and their perceptions after the experience. The study reviewed the procurement practices and supply chain performance of NGOs in Rwanda, especially in BUFMAR. A descriptive survey design was used, and target population was 96 employees in BUFMAR, questionnaire used in data collection and methods of data analysis were descriptive statistics methods and inferential analysis. The results revealed that there is a significant, and positive strong correlation between procurement planning and supply chain performance of NGOs in Rwanda as Pearson correlation is 0.760** with the p-value of 0.000, which is less than both standard significance levels of 0.05 and 0.01. Findings showed that there is a significant and positive strong correlation between procurement tendering and supply chain performance of NGOs of BUFMAR in Rwanda as Pearson correlation is .752** with the p-value is 0.000, which is less than both standard significance levels of 0.05 and 0.01. The results confirmed that there is a positive and very strong correlation between Supplier selection and supply chain performance of NGOs of BUFMAR as Pearson correlation is 0.746** with the p-value is 0.000, which is less than both standard significance levels of 0.05 and 0.01. The results show that there is a significant and positive strong correlation between contract management and supply chain performance of NGOs of BUFMAR in Rwanda as the Pearson correlation is .754** with the p-value is 0.000, which is less than both standard significance levels of 0.05 and 0.01. Findings generally revealed that the p-value is 0.000 which is less than both standard significance levels of 0.05 and 0.01 as it is an indicator of the existence of the significant relationship between procurement practices and supply chain performance of NGOs of BUFMAR in Rwanda, since, as a Pearson correlation value was 0.762** which is a positive and very strong correlation between two variables (procurement practices and supply chain performance of NGOs of BUFMAR in Rwanda).

Key Words: Procurement Practices, Supply Chain, Performance, NGOs

Introduction:

In Rwanda, the public procurement practices are managed on daily basis by an autonomous organ, the Rwanda Public Procurement Authority (RPPA), which operates under the Ministry of Finance and Economic Planning (MINECOFIN). Public procurement is regulated by the Law N°12/2007 of 27/03/2007 on public procurement which was modified and complemented by the Law N°05/20013 of 13/02/2013. The law is implemented by a Ministerial Order N°001/14/10/TC of 19/02/2014 establishing Regulations on Public Procurement, Standard Bidding Documents, and Standard Contracts. Rwanda has a decentralized public procurement system whereby procuring entities (central government organs, local government entities, government projects, commissions, public institutions, parastatals, agencies, or any other government entity charged by the Chief Budget Manager to manage public funds) have the power to conduct directly their public procurement practices (RPPA, 2016).

The procurement practices in Rwanda are governed by 6 fundamental principles namely transparency, competition, economy, efficiency, fairness, and accountability. In the national system, bidders have the right to appeal against public procurement procedures they may think we're not conducted appropriately. In procurement and disposal entities, almost all purchasing decisions include factors such as delivery and handling, marginal benefit, and price fluctuations. Procurement principles, like many other aspects of management, are top-down. The example set by senior management, its attitude, and its behavior, strongly influence employees at other levels. Senior managers have to demonstrate fairness and transparency to encourage the visibility of the same qualities in procurement executives and teams. Procurement principles have to be on display (RPPA, 2016).

Rwandan District Pharmacies procurement of NGOs was handled at Central Medical Store former CAMERWA and BUFMAR for Faith-based Hospitals and Health Centers, where all the drugs were procured nationally by those two organizations as all public hospitals and public Health Facilities would send their requisitions to CAMERWA and all faith-based hospitals and faith-based Health Facilities would send their requisitions to BUFMAR. This kind of supply chain was neither effective nor efficient since the health facilities were bearing all the cost of logistics from CAMERWA and BUFMAR up to the health facility's premises. After

seeing that the government of Rwanda has introduced the district pharmacies and has allowed BUFMAR and CAMERWA to work as Centrals Medical Stores (BUFMAR, 2018).

Despite the important role played by the procurement system, some public Health Institutions in Rwanda still practice lengthy bureaucratic procurement processes in acquiring goods and services, corruption, and discriminatory awards of tenders. Therefore, these factors can be linked to the procurement practices employed in the respective public health facilities in question (MoH, 2015). The procurement practices in Rwanda are often constrained by limited human resources, inadequate financing, an absence of information on prices and suppliers, a lack of awareness of government and donor regulations, overlapping systems, and unsynchronized or outdated rules and guidelines. These constraints can contribute to delayed shipments, high prices, and, ultimately, reduced access to essential medicines for consumers. Various reports showed that BUFMAR has a problem aligning the procurement practices of health commodities to ensure an uninterrupted supply chain of health commodities for public sectors since its order fill rate remains at 41%. Little information and academic research are available on procurement practices. Most studies have focused on procurement performance in financial institutions and manufacturing firms without incorporating the effects of procurement practices on supply chain performance.

Objectives of the Study:

To examine how procurement practices influence supplier chain performance of NGOs in Rwanda, especially in BUFMAR. Specifically, the study was about:

- To determine the effect of procurement planning on supply chain performance at BUFMAR.
- To assess the effect of procurement tendering on supply chain performance at BUFMAR.
- To establish the effect of supplier selection on supply chain performance at BUFMAR.
- To find out the effect of contract management on supply chain performance at BUFMAR

Research Hypotheses:

This study verified null and alternative hypotheses as follows.

- Ho1: There are no significant effects of procurement planning on supply chain performance at BUFMAR
- Ho2: There are no significant effects of procurement tendering on supply chain performance at BUFMAR
- Ho3: There are no significant effects of supplier selection on supply chain performance at BUFMAR
- Ho4: There are no significant effects of Contract management on supply chain performance at BUFMAR

Concepts of Procurement Practices:

The procurement practices refer to the successful procurement strategy and benefits that are usually derived from adequate and efficient procurement procedures that achieve cost optimization that meet user requirements. Satisfactory procurement activities result in three major advantages: (1) cost savings, (2) product effect, and (3) technology development commitment. Supplier partner management should be customized to those principles that are aligned with the overall strategy of business value. Relationship results may vary from cost savings to collaborative product development (Steven Sin Choon Heong, 2020).

Procurement Planning:

Procurement planning provides the process of agreeing to terms and acquiring goods, services, or works from an external source, often via a tendering or competitive bidding process. Procurement planning is used to ensure the buyer receives goods, services, or works at the best possible price when aspects such as quality, quantity, time, and location are compared (Tirole J., 2015). According to John and Kenya (2016), the ideals of planning suggest that procurement planning can be implemented in an atmosphere of complete harmony. The function, procurement planning endeavors to answer the questions of what do you want to procure; when to procure it; where to procure them from; when the resources are available; the methods of procurement to be used; how timely procurement or failure affect the user of the item (s); the procuring and disposing entity; efficient in the procurement process; and the people to be involved in the procurement.

Procurement Tendering:

The procurement tendering is action aiming to invite bids for a project or accept a formal offer such as a takeover bid. Tendering usually refers to the process whereby governments and financial institutions invite bids for large projects that must be submitted within a finite deadline. The term also refers to the process whereby shareholders submit their shares or securities in response to a takeover offer (Steven, 2020). For projects or procurement, most institutions have a well-defined tender process, as well as processes to govern the opening, evaluation, and final selection of the vendors. This ensures that the selection process is fair and transparent. Regarding tender offers related to takeover attempts, the conditions of the offer are listed and include the purchase price, the number of shares requested, and a deadline for a response (Steven, 2020).

Supplier Selection:

Supplier selection is the process of selecting a supplier to acquire the necessary materials to support the outputs of organizations. Selection of the best and/or the most suitable suppliers is based on assessing supplier

capabilities (Shih et al., 2014).

Contract Management:

According to (Klara, 2021) Contract management is the process of managing contract creation, execution, and analysis to maximize operational and financial performance at an organization, all while reducing financial risk. Organizations encounter an ever-increasing amount of pressure to reduce costs and improve company performance. Contract management proves to be a very time-consuming element of business, which facilitates the need for an effective and automated contract management system. When two companies wish to do business with each other, a contract specifies the activities entered into by both organizations and the terms through which they each fulfill their parts of the agreement. Contracts affect business profitability in a very large way due to the emphasis on revenue and expenses.

Supply Chain Performance:

A supply chain is a network between a company and its suppliers to produce and distribute a specific product to the final buyer. This network includes different activities, people, entities, information, and resources. The supply chain also represents the steps it takes to get the product or service from its original state to the customer. Companies develop supply chains so they can reduce their costs and remain competitive in the business landscape. Supply chain management is a crucial process because an optimized supply chain results in lower costs and a faster production cycle (Will Kenton, 2020). A supply chain involves a series of steps involved to get a product or service to the customer. The steps include moving and transforming raw materials into finished products, transporting those products, and distributing them to the end-user. The entities involved in the supply chain include producers, vendors, warehouses, transportation companies, distribution centers, and retailers (Will Kenton, 2020).

Procurement Theory:

The main disciplinary underpinning of this procurement theory is in organizational sociology, with a focus on political models of decision-making. The basic assumptions underpinning such models are that actors have bounded rationality and differing motivations and preferences and that intra-organizational conflict is inevitable in situations of joint decision-making. By viewing organizational buying behavior as a multi-actor, multi-agenda process, this literature conceptualizes buying decisions as being a potential locus of intra-organizational politics. This, in turn, highlights the possibility for power to be used to resolve conflicts of interest. Deciding what to buy, drawing up a specification, choosing a shortlist of potential suppliers, assessing the bids submitted, and selecting a supplier are seen as intensely political rather than purely technical decisions (Robinson et al., 2009).

Price Negotiation Theory:

Various price negotiation theories have been proposed to explain the process of haggling. Price negotiation theory proposes that certain people have different personalities or dispositions toward negotiations rather than taking prices as they are given. Price negotiation theory proposes solutions to bargaining problems as part of strategic action and can be interpreted as part of reaching a Nash equilibrium (Keith Bonnie and Handley David, 2011). Mainstream (neoclassical) economics, however, supposes that all market prices are jointly determined by supply and demand and so there would be no need for haggling since all prices would always reflect an equilibrium level. Negotiation is a strategic discussion that resolves an issue in a way that both parties find acceptable. In a negotiation, each party tries to persuade the other to agree with the point of view. By negotiating, all involved parties try to avoid arguing but agree to reach some form of compromise (Keith Bonnie and Handley David, 2011).

Principal Agency Theory of Procurement:

Rokkan Buvik (2003) contributed to the literature on principal-agent theory. All these contributions have one main theme which is the relationship between a principal and an agent. The principal-agent theory is concerned with the arrangement that exists when one person or entity (called the agent) acts on behalf of another (called the principal). The principal's contract with the agent to perform some services on the principal's behalf. These contracts require the agent to exert effort and make decisions. For example, shareholders of a company (principals) elect management (agents) to act on their behalf, and investors (principals) choose fund managers (agents) to manage their assets. That is the management makes operational decisions on behalf of the company shareholders for instance maximization of revenues and minimization of costs among other decisions.

The procurement contributes about 60%-70% of an organization's expenditures. Following the operational nature of procurement expenditures, decisions must be taken by the organization's management (agents) on behalf of the company owners (principals) under the power entrusted to them through their employment contracts. This theory is useful because it answers two specific problems that are, the goals of the principal and agents are not in conflict and that the principal and agent reconcile different tolerances for risk. The principals and agents seek to maximize their utility from the same organizations. As the shareholders' risk appetite levels are normally low because of the need to protect the value of their wealth, management normally tolerates higher risk; these are normally reconciled for the company to operate well. Procurement management is an essentially risky function that involves management decisions in optimally allocating the limited resources

that are provided by the shareholders hence the need to minimize the involved risks so as ensure the competitiveness of BUFMAR.

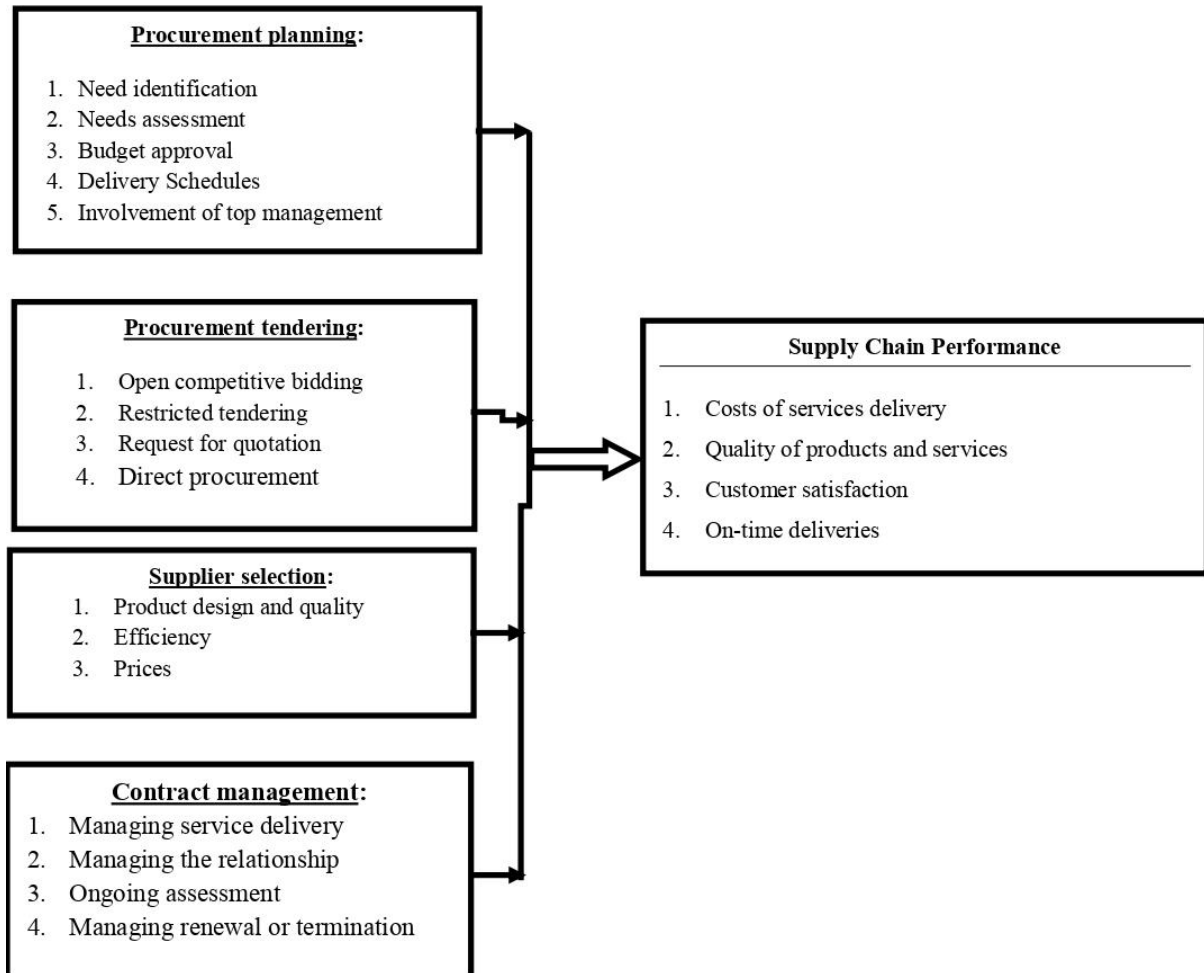
Empirical Review:

The study of Miceli and Near (2014) whistle blowing provides the disclosure by organizational members (former and current) of illegal, immoral, or illegitimate practices under the control of their employers, to persons or organizations that may be able to affect action (Whistle blowing can both internal and external issue. It is the act, for an employee (or former employee) of disclosing what he believes to be unethical or illegal behavior to higher management (Internal-Whistle blowing) or to an external authority or public which means the external-whistle blowing. An agency should hold the vendor responsible for meeting all contract requirements for quality, quantity, and timeliness. For contracts that involve monthly or quarterly payments, agencies should require a vendor to submit programmatic reports in advance of or concurrent with its invoices. The programmatic reports should be directly related to the terms of the contract. This arrangement permits the agency to delay payment of the invoice if all required reporting is not submitted in a timely and complete manner.

Conceptual Framework:

The conceptual framework shows and presents the main roles and factors of literature variables. This study consists of two research variables which are procurement practices as the independent variable and supply chain management as a dependent variable:

Procurement Practices:



Source: Researcher; documentation and own conceptualization, (2021)

Figure 1: Conceptual Framework

Materials and Methods:

The research design refers to the overall strategy that you choose to integrate the different components of the study coherently and logically, thereby, ensuring they effectively address the research problem; it constitutes the blueprint for the collection, measurement, and analysis of data. Apart from questionnaire used to collect data, descriptive survey design and inferential statistics were used in this study to describe the prevailing situation on the procurement planning; procurement tendering, supplier selection, and contract management can affect the supply chain performance at BUFMAR. The entire population of the study who are supposed to

provide the information data related to the objectives of the research (study) employed the target population of 96 including 60 customers (2 employees per district) and 36 regular employees of BUFMAR.

The universal sampling technique and purposive sampling techniques to select a sample size of 96 respondents. The questionnaires were used, and they were distributed among employees and clients of BUFMAR. And then the collected data was analysed through Statistical Package for Social Sciences (SPSS). The descriptive statistical method was used to describe the frequency, percentages of data collected from respondents. The coefficient of determination specifically the regression analysis model was applied to test the relationship between variables. The models were X is independent variable equals procurement practices (PP), which has four indicators such as x1 = Procurement Planning (PP); x2 = Procurement tendering (PT); x3 = Supplier selection (SS); x4 = Contract management (CM) while Y = dependent variable = supply chain performance of NGOs of BUFMAR in Rwanda which also has indicators which were costs of services delivery; quality of products and services; customer satisfaction; and on-time deliveries. Therefore, $Y = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta_4x_4 + \epsilon$. β_0 = Constant; ϵ = Error; β = Coefficient of the Disbursement

Data Analysis and Findings:

After the evaluation of answered questionnaires, the researcher found a 100.0% of participation rate of respondents. Data collected were analyzed mainly quantitatively using computer software of Statistical Package for Social Sciences (SPSS) 22.0 version. The results were presented and interpreted by research objectives which were to determine the effect of procurement planning on supply chain performance at BUFMAR; assess the effect of procurement tendering on supply chain performance at BUFMAR; to establish the effect of supplier selection on supply chain performance at BUFMAR, and find out the effect of contract management on supply chain performance at BUFMAR. Findings presented 62.5% of respondents were males while 37.5% of respondents were females who dealt with procurement practices and supplier chain performance of BUFMAR. The table No1 illustrates the findings on the correlation matrix test of this study between variables of procurement practices as an independent variable and Supply chain performance of NGOs in Rwanda as a dependent variable.

Table 1: Correlation coefficient Matrix Analysis

		Procurement Planning	Procurement Tendering	Supplier Selection	Contract Management	Procurement Practices	Supply Chain Performance of NGOs in Rwanda
Procurement Planning	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	96					
Procurement Tendering	Pearson Correlation	.974**	1				
	Sig. (2-tailed)	.000					
	N	96	96				
Supplier Selection	Pearson Correlation	.954**	.951**	1			
	Sig. (2-tailed)	.000	.000				
	N	96	96	96			
Contract Management	Pearson Correlation	.980**	.980**	.979**	1		
	Sig. (2-tailed)	.000	.000	.000			
	N	96	96	96	96		
Procurement Practices	Pearson Correlation	.992**	.988**	.977**	.995**	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
	N	96	96	96	96	96	
Supply chain performance of NGOs in Rwanda	Pearson Correlation	.760**	.752**	.746**	.754**	.762**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	96	96	96	96	96	96

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

From the correlation coefficient matrix Table no1, results showed that there is a significant, and positive strong correlation between procurement planning and supply chain performance of NGOs in Rwanda as Pearson correlation is 0.760** with the p-value of 0.000, which is less than both standard significance levels of 0.05 and 0.01. This indicates that out of the considered other factors affecting the supply chain performance of BUFMAR, only procurement planning from procurement practices has a significant effect on 76.0% of the supply chain performance of NGOs in Rwanda. The results show that there is a significant and positive strong correlation between procurement tendering and supply chain performance of BUFMAR in Rwanda as a Pearson correlation is .752** with the p-value is 0.000, which is less than both standard significance levels of 0.05 and 0.01, and this indicates that, out of the considered other factors of procurement practices, only the procurement tendering has a significant relationship of 75.2% with supply chain performance of NGOs in Rwanda. The correlation table presenting the results shows that there is a positive and very strong correlation between Supplier selection and supply chain performance of NGOs of BUFMAR as Pearson correlation is 0.746** with The p-value is 0.000, which is less than both standard significance levels of 0.05 and 0.01. This indicates that, out of the considered other factors that affect supply chain performance of NGOs in Rwanda, only Supplier selection has a significant relationship of 74.6% with supply chain performance of NGOs in Rwanda. The

results show that there is a significant and positive strong correlation between contract management and supply chain performance of NGOs of BUFMAR in Rwanda as the Pearson correlation is .754** with the p-value is 0.000, which is less than both standard significance levels of 0.05 and 0.01. This indicates that out of the considered other factors that affect supply chain performance of NGOs of BUFMAR, only contract management has a significant relationship of 75.4% on supply chain performance of NGOs of BUFMAR in Rwanda Findings generally revealed that the p-value is 0.000 which is less than both standard significance levels of 0.05 and 0.01 as it is an indicator of the existence of the significant relationship between procurement practices and supply chain performance of NGOs of BUFMAR in Rwanda, since, as a Pearson correlation value was 0.762** which is a positive and very strong correlation between two variables (procurement practices and supply chain performance of NGOs of BUFMAR in Rwanda).

This study section helps to verify and test research hypotheses. The models were as follows: X = independent variable = procurement practices (PP), which has four indicators: x1 = Procurement Planning (PP); x2 = Procurement tendering (PT); x3 = Supplier selection (SS); x4 = Contract management (CM) while Y = dependent variable= supply chain performance of NGOs of BUFMAR in Rwanda which also has indicators which were costs of services delivery; quality of products and services; customer satisfaction; and on-time deliveries. Based on these variables, the following functions have been set:

$Y = f(X)$, Therefore, $Y = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta_4x_4 + \epsilon$. However, this study verified each of the four null research hypotheses as follows.

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.764 ^a	.584	.566	2.17356	1.854
a. Predictors: (Constant), Contract management, Supplier selection, Procurement planning, Procurement tendering					
b. Dependent Variable: Supply chain performance of NGOs in Rwanda					

Findings in Table 2 shows the value of R-square in this study is .584 means that the proportion of supply chain performance of NGOs of BUFMAR in Rwanda (dependent variable) is explained by the independent variable indicated by procurement practices (PP) represented by x1= Procurement Planning (PP); x2= Procurement tendering (PT); x3= Supplier selection (SS); x4= Contract management (CM) at 58.4%. This indicates that the model is significant and positive strong, as the independent variable highly explains the dependent variable. The adjusted R-square is used to compensate for additional variables in the model. In this case, the adjusted R-square is also 56.6%.

Table 3: ANOVA

Model	Sum of Squares	DF	Mean Square	F	Sig.
1	Regression	603.418	4	150.855	31.931
	Residual	429.915	91	4.724	.000 ^b
	Total	1033.333	95		
a. Dependent Variable: Supply chain performance of NGOs in Rwanda					
b. Predictors: (Constant), Contract management, Supplier selection, Procurement planning, Procurement tendering					

The analysis of variance is a partitioning of the total variance in a set of data into several parts so that the relative contributions of identifiable sources of variation to the total variation in measured responses can be determined. From this partition, suitable F-tests can be derived that allow differences between sets of means to be assessed. Thus, ANOVA is a biostatistical method for determining whether a difference exists between the means of three or more independent populations. The one-way ANOVA parametric test results in either accepting or rejecting this null hypothesis. If we reject the null hypothesis, then we can conclude that the population means are not equal. We do not know however whether all the means are different from one another or only some of them are different. This additional specificity is determined by conducting multiple comparison procedures, i.e., additional statistical tests. In this case, from the ANOVA Table no3, the level fit mode is 31.931 with a p-value is 0.000b which is less than 0.05 and 0.01, set as standard significance levels. This means that the study has rejected all null hypotheses stated that "There is no significant effect of procurement practices represented by Procurement Planning (PP); Procurement tendering (PT); Supplier selection (SS); Contract management (CM) on Supply chain performance of NGOs in Rwanda" because findings indicated a significant and positive relationship between variables, and for that, the study has retained the alternative hypotheses stated that the independent variable affecting significantly and positively the supply chain performance of NGOs in Rwanda.

Table 4: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.221	.698		1.748	.004
	Procurement Planning	.325	.240	.493	1.351	.000
	Procurement Tendering	.239	.387	.227	.616	.006
	Supplier Selection	.473	.524	.307	.902	.000
	Contract Management	.240	.561	.252	.427	.001
a. Dependent Variable: Supply chain performance of NGOs in Rwanda						

The models where X is independent variable equals procurement practices (PP), which has four indicators such as x1 = Procurement Planning (PP); x2 = Procurement tendering (PT); x3 = Supplier selection (SS); x4 = Contract management (CM) while Y = dependent variable= supply chain performance of NGOs of BUFMAR in Rwanda which also has indicators which were costs of services delivery; quality of products and services; customer satisfaction; and on-time deliveries. $Y = 1.221 + 0.325x_1 + 0.239x_2 + 0.473x_3 + 0.240x_4 + 0.698$ The regression equation shows that the supply chain performance of NGOs of BUFMAR in Rwanda always depends on a constant factor of 1.221 regardless of the existence of other factors. The other variables explain that; every unit change in procurement practices will change also x1, x2, x3, x4 equivalent with 0.325; 0.239; 0.473; 0.240; and with 0.698 as standard error for affecting supply chain performance of NGOs of BUFMAR in Rwanda.

Conclusion:

According to general findings, revealed the p-value is 0.000 is less than both standard significance levels of 0.05 and 0.01 as it is an indicator of the existence of the significant relationship between procurement practices and supply chain performance of NGOs of BUFMAR in Rwanda, since, as a Pearson correlation value was 0.762** which is a positive and very strong correlation between two variables (procurement practices and supply chain performance of NGOs of BUFMAR in Rwanda). In this case, from the ANOVA, the level fit mode is 31.931 with a p-value is 0.000b which is less than 0.05 and 0.01, set as standard significance levels. This means that the study has rejected all null hypotheses stated that "There is no significant effect of procurement practices represented by Procurement Planning (PP); Procurement tendering (PT); Supplier selection (SS); Contract management (CM) on Supply chain performance of NGOs in Rwanda" because findings indicated a significant and positive relationship between variables, and for that, the study has retained the alternative hypotheses stated that the independent variable affecting significantly and positively the supply chain performance of NGOs in Rwanda. Based on the findings obtained above, the research problem was solved, research objectives were achieved, and research questions were answered. It is therefore the study confirmed that there is a significant and positive relationship between procurement practices and the supply chain performance of NGOs in Rwanda.

Recommendations:

According to the findings that showed the value of R-square in this study is 0.584 means that the proportion of supply chain performance of NGOs of BUFMAR in Rwanda (dependent variable) is explained by the independent variable indicated by procurement practices (PP) represented by x1 = Procurement Planning (PP); x2 = Procurement tendering (PT); x3 = Supplier selection (SS); x4 = Contract management (CM) at 58.4%. The study indicated significant and positive strong, as the independent variable highly explains the dependent variable. It is therefore to get the very strong relationship between procurement practices and supply chain performance of NGOs of BUFMAR in Rwanda; the decision-makers and implementers of BUFMAR should deliver different pieces of training to employees in the procurement unit.

References:

1. Angeles C., (2017). "Taxonomy of Buying Decision Approaches". Journal of Marketing. American Marketing Association.
2. Arjan M., (2016). Using effective supplier appraisal techniques to improve the supply chain.
3. Bailey U., (2014). Introduction to the Philosophy of Methodology. London: Sage Publications.
4. Chen R. and Paulraj A., (2017). Contracts, relationships, and integration: Towards a model of the procurement of complex performance. International Journal of Procurement Management.
5. Churchill S., (2017). Qualitative Research: Issues of Theory, Method and Practice, Third Edition. London, Thousand Oaks, New Delhi, Singapore: Sage Publications
6. European Union (2017). Purchasing Performance: Measuring, Procurement, and Selling the Purchasing.
7. Favre L., et al., (2014). Supplier evaluation and performance excellence: a guide to meaningful metrics and successful results. J. Ross Publishing.
8. Gurdarshan D., (2017). Purchasing and Supply Chain Management: Analysis, Strategy, Planning, and Practice. Andover: Cengage Learning.
9. Johnston T. and Lewin G., (2010). The understanding of current business-to-business e-procurement practices by describing the success factors and challenges to its implementation in the corporate setting. Nairobi-Kenya.
10. Keith B. and Handley D., (2011). Contracts, relationships, and integration: Towards a model of the procurement of complex performance. International Journal of Procurement Management.
11. Kendall E., (2012). Fundamentals of Methodology", a series of papers On the Social Science Research Network (SSRN).
12. Krlinger P., (2017). Research Methods in Anthropology: Qualitative and quantitative methods. 3rd edition. Alta Mira Press, Walnut Creek, California.
13. Murray K., (2018). Purchasing and Supply Chain Management. Cengage Learning.

14. Paige H., (2012). Qualitative inquiry and research design: Choosing among five traditions. Thousand Oaks, California: Sage Publications.
15. Robert D., (2014). "Combining qualitative and quantitative research in developing 'indicators' of research". International Journal of Social Research Methodology.
16. Roehrich F., (2016). A Theory of Incentives in Procurement and Regulation. MIT Press.
17. RPPA, (2018). Procurement and Supply Operations in Rwandan public institutions, 2012.
18. Shih et al., (2014). Development and validation of a measurement instrument for studying supply chain management practices. Journal of Operations Management 23(6).
19. Steven Sin Choon Heong (2020). Procurement in public institutions: An Exploratory Multi-Case Study from Switzerland. Journal of Theoretical and Applied Electronic Commerce Research.
20. Tirole J., (2015). Understanding supply chain management: critical research and a theoretical framework. International Journal of Production Research, Vol. 42, No. 1, 2004, pp. 131-163.
21. Webster N., Wind P., and Sheth D., (2009). The Power to Procure a look inside the City of Austin Procurement Program. Retrieved 26 October 2010.
22. Weele Van G., (2019). Procurement practices in retail product management: Buying and Merchandising.
23. Will Kenton, (2020). E-Ordering and E-Informing on Supply Chain Performance in Retail Marketing Outlets in Kenya. Journal of Marketing and Consumer Research.