



Effect of Procurement Planning on Organizational Performance. A Case of Ministry of Education, Rwanda

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Abstract: The general objective of this research was to evaluate Effect of procurement planning on the performance of organizations within the public sector, focusing specifically on the Ministry of Education in Rwanda. The study aimed to assess Effect of needs assessments, market surveys, supply identification, and payment terms within procurement planning on Performance of Ministry. This study adopted Resource-Based View Theory (RBV), Goal setting theory and Public Value Theory. This study employed a combination of descriptive and correlational research design. The unstandardized coefficient for the constant is 0.262, indicating the baseline value of organizational performance when all predictor variables are zero. The unstandardized coefficient for needs assessments ($\beta = 0.329$, $t = 6.208$, $P = 0.000$). This significant finding suggests that needs assessments positively influence organizational performance. The unstandardized coefficient for market surveys ($\beta = 0.206$, $t = 2.784$, $P = 0.006$). This positive effect underscores the importance of market surveys in enhancing performance. The unstandardized coefficient for supply identification ($\beta = 0.261$, $t = 3.480$, $P = 0.001$). This shows the significance of identifying the right supplies for improving organizational performance. Lastly, the unstandardized coefficient for payment terms ($\beta = 0.151$, $t = 2.849$, $P = 0.005$). These findings confirm the positive impact of payment terms on performance. The study recommended that procurement and logistics teams conduct comprehensive needs assessments, enhance supplier relationship management, and integrate procurement strategies into budgeting and performance evaluations to improve the Ministry of Education's performance.

Keywords: Procurement Planning, Performance of Organizations, Needs Assessments, Market Surveys, Supply Identification and Payment Terms

How to cite this work (APA):

Mukamazimpaka, C. & Nimpano, D. (2025). Effect of procurement planning on organizational performance. A Case of Ministry of Education, Rwanda. *Journal of Research Innovation and Implication in Education*, 9(2), 823 – 832. <https://doi.org/10.59765/vt582>.

1. Introduction

In Rwanda, procurement planning plays an important role in the efficient utilization of public resources and the achievement of national development objectives. The Public Procurement Law No 031/2022 emphasizes the necessity for all public institutions to develop annual procurement plans that align with their budgetary allocations and strategic goals (Ndashimye & Njenga, 2024). This ensures that procurement activities are not only strategically oriented but also integrated within a broader national development framework. The

introduction of an e-procurement system facilitates this process, promoting transparency and accountability through accessible and efficient procurement practices. Specifically, in critical sectors such as education and healthcare, the procurement planning process aims to optimize the use of public funds and improve service delivery (Umumararungu & Irechukwu, 2024).

Additionally, Rwanda's commitment to stakeholder engagement in procurement planning contributes to ensuring alignment with community needs while encouraging local sourcing. This multifaceted approach

enhances accountability and stimulates local economies by empowering domestic suppliers. By focusing on quality and efficiency in procurement activities, Rwanda is positioning itself to achieve its ambitious development goals while improving the quality of life for its citizens (Mbonimana *et al.*, 2021).

Therefore, procurement planning is an essential component of effective governance and management that helps ensure the systematic acquisition of goods and services in a manner that is efficient, transparent, and accountable. It involves assessing the needs of an organization or government, identifying potential suppliers, and establishing processes that promote fairness and equity in the procurement cycle. Procurement planning aids in budget management, reduces the risks of overspending and delays, and enhances the quality of services delivered to the public. Moreover, it fosters stakeholder engagement by involving various parties in the decision-making process, which can lead to improved trust and collaboration (Yornu *et al.*, 2021).

Despite the notable advancements made by public institutions in Rwanda, many continue to encounter significant challenges that hinder their overall performance. Generally, public institutions' performance in Rwanda is undermined by systemic issues, particularly inadequate procurement planning, budget constraints, and inefficient supply chain management. A striking illustration of this problem is found in the Auditor General's Annual (2021) Report, which indicated 55 instances of delayed contracts worth Rwf 644.16 billion in public procurement activities during the previous fiscal year. These delays reflect critical weaknesses in procurement processes essential for effective service delivery, indicating that without significant reform, anticipated efficiencies will remain elusive (Kayitesi & Dushimimana, 2024).

Specifically, the performance of education firms within the Ministry of Education is particularly concerning. Educational institutions are facing significant difficulties related to procurement processes that directly impact their operational efficiency. For instance, it has been reported that 3.7% of teachers in Rwandan public schools do not consistently report to work, a situation that largely be attributed to inadequate planning within procurement processes, leading to insufficient resources and support (Semana & Kamatari, 2023). Furthermore, findings indicate that 24.7% of teachers lack adequate preparation of professional documents due to delays in acquiring necessary materials, which can significantly hinder their effectiveness in delivering quality education (Higiro, 2021).

Moreover, inefficiencies in procurement manifest as poor performance metrics affecting student outcomes. Reports show that approximately 16.7% of teachers in primary schools do not conduct regular assessments of their students, likely resulting from procurement delays

that affect the availability of essential assessment materials. These procurement challenges are compounded by financial constraints, with schools often facing unplanned expenditures that account for approximately 30% of their total procurement budgets. This situation exacerbates their financial strain and hampers their ability to provide quality education (Usengumuremyi, 2020).

Karigirwa and Rusibana (2021) further highlight that project management challenges, including inadequate control mechanisms in public projects, contribute to poor performance in educational projects in Rwanda. The delayed procurement processes not only hinder educational institutions' ability to deliver quality education but directly impact the effectiveness of government initiatives aimed at improving educational outcomes. Additionally, the lack of efficient procurement puts significant pressure on teachers, who must manage limited resources while striving to meet educational goals. Addressing these issues is essential for ensuring that Rwanda's educational objectives are met and can significantly contribute to national development (Mawo *et al.*, 2023).

This study aims to fill the existing gap in research regarding Effect of procurement planning on organizational performance, particularly within the Ministry of Education in Rwanda. By examining procurement challenges and their effects on educational outcomes, this research seeks to provide actionable insights on enhancing procurement practices to improve performance metrics within educational institutions. In doing so, the study will contribute to the ongoing discourse on public procurement reform as a pathway for institutional improvement and service excellence, which is vital for the advancement of Rwanda's educational sector.

The previous research, including Kayitesi and Dushimimana (2024), Semana and Kamatari (2023), Higiro (2021), Usengumuremyi (2020), Karigirwa and Rusibana (2021) and Mawo *et al.* (2023) did not concentrate on effect of procurement planning on the performance of Ministry of Education in Rwanda. Hence, the need for this study to be carried out specifically addresses the academic parity gap.

The general objective of this study is to evaluate Effect of procurement planning on the performance of organizations within the public sector.

Specific objectives:

1. To assess Effect of needs assessments in procurement planning on performance of Ministry of Education in Rwanda.
2. To analyze Effect of market surveys in procurement planning on performance of Ministry of Education in Rwanda.

3. To examine Effect of supply identification in procurement planning on performance of Ministry of Education in Rwanda.
4. To evaluate the effects of payment terms within procurement planning on performance of Ministry of Education in Rwanda.

2. Literature Review

2.1 Theoretical Review

This study adopted Resource-Based View Theory (RBV), Goal setting theory and Public Value Theory.

2.1.1 Resource-Based View Theory

The Resource-Based View (RBV) theory, initially developed by Wernerfelt in 1984 and further refined by Barney in 1991, offers a lens through which organizations can understand their competitive advantage. Unlike traditional theories that emphasize external market conditions or competitive forces, RBV prioritizes the internal capabilities and resources of a firm as the primary drivers of success. According to this theory, a firm's unique combination of resources—both tangible, such as physical assets, and intangible, like brand reputation and intellectual capital—determines its potential to outperform competitors (Malhotra *et al.*, 2024).

The Resource-Based View (RBV) was fundamentally linked to this study as it emphasized the importance of procurement planning based on organization's internal resources in achieving competitive advantage and superior performance. In the context of the Ministry of Education in Rwanda, effective procurement planning is crucial for identifying, acquiring, and utilizing essential resources such as educational materials, technology, and skilled personnel.

2.1.2 Goal Setting Theory

The Goal Setting Theory proposed by psychologist Edwin Locke in late 1968 together with a management researcher; Gary Latham asserts that the accomplishment of specific and difficult goals elevates performance and motivating force of an individual and team. According to their viewpoints they focused on the belief that Specific, Measurable, Achievable, Realistic/Real-time, and Time-bound (SMART) targets act as powerful tools for encouraging people to work to the top of their capabilities (Latham & Locke, 2019).

Goal setting theory helped to establish measurable targets related to cost efficiency, timely delivery, and supplier performance, and public institutions drove improvements in procurement practices. This, in turn, enhances overall performance of Ministry of Education

in Rwanda by optimizing resource allocation, ensuring transparency, and fostering accountability.

2.1.3 Public Value Theory

Public value Theory is the value that an organization or activity adds to society. Harvard professor Mark Moore created the concept in 1995, seeing it as the counterpart of shareholder value in public management. Public value is intended to give managers an idea of how entrepreneurial activities might contribute to the common good. Public value is being employed by many types of organizations, including non-governmental organizations and private sector enterprises, rather than just the public sector (Enz & Lambert, 2023).

Public Value Theory was linked to this study as it stresses the importance of creating value for society through public service delivery. For the Ministry of Education in Rwanda, procurement planning played a vital role in ensuring that resources are allocated effectively to meet the educational needs of the population. By aligning procurement processes with the goal of maximizing public value, the Ministry enhanced educational quality ultimately benefiting students and communities.

2.2 Empirical Review

Research by Higirow (2021) on how Strategic Procurement Planning improved the efficiency of government agencies in Rwanda's Kicukiro District. In Rwanda, a procurement strategy must be created by a government agency prior to bids may be awarded. Inaccuracies in the procurement strategy will have a ripple effect on success, preventing maximum value from being realized. The purpose of this research was to examine procurement planning and its impact on public sector performance in Rwanda, specifically in the Kicukiro District. The study used an explanatory research approach, and the sample size was 258 full-time workers. One of the most important indicators of improving public institution performance was found to be the timely and accurate assessment of requirements. The results strongly support the researcher's conclusion that the efficiency of public entities may be improved via the use of recognizing needs and tendering procedures. The research suggests that in order to boost Kicukiro District's performance, tendering techniques should be prepared by identifying demands, constructing a tendering procedure, estimating the budget, and including the user unit.

Awuah *et al.* (2022) aimed to look at the impact of the procurement process on Ghanaian tertiary institutions. The study aimed to determine the impact of procurement planning, controlling, and monitoring on the procurement performance of public tertiary universities. It also sought to establish the effect of monitoring on procurement performance. The study aimed to answer

certain issues by collecting cross-sectional data from staff members at different Ghanaian tertiary institutions using a casual research approach. After collecting data from the respondents, SPSS was used to analyze the results. After that, the descriptive statistics and regression results were generated from SPSS for use in data analysis. The data was then shown in tabular form. The study's tertiary institutions' procurement performance is positively and significantly impacted by procurement strategy, control, and monitoring. Staff members of all public institutions should be trained on the importance of the procurement process to their success, according to the report. Public tertiary institution auditors should also make it a priority to investigate and report procurement violations so that these institutions can fix them.

Oenga *et al.* (2022) examined how procurement planning affects public university procurement in Eastern Kenya. A descriptive research approach was utilized to analyze 94 departmental heads from user departments at five public institutions in that area. A census and primary data collection yielded a high response rate, with 91 of 94 intended respondents participating. A linear regression model showed that procurement planning affects process effectiveness. A t-test was used to examine the independent variable's significance, whereas chi-square analysis showed a significant relationship between these two variables. Results showed a statistically significant beneficial impact of procurement planning on procurement process effectiveness ($p\text{-value} = 0.000$, coefficient = 0.285). Public universities should increase user department participation in procurement planning to improve procurement effectiveness, according to the report. Universities should include user departments in procurement planning development to improve procurement efficiency. This study's conclusions inform procurement policies and additional research. These findings can help procurement policymakers improve public procurement policies and procurement professionals make educated judgments that satisfy user department demands. Finally, the study expands procurement practice information for academics and researchers.

Adamu *et al.* (2021) examine the Metropolitan, Municipal, and District Assemblies (MMDAs) in Ghana's Ashanti Region as a case study to examine public sector procurement practices and their impact on organizational performance. This study aimed to examine the connections between different procurement practices and organizational success. It used a survey study design and collected data from 113 participants who were chosen at random to fill out a questionnaire. In order to determine the relevance of these purchasing procedures, the research used the Probit Regression Model. In the end, the study hoped to show how successful procurement techniques are for improving public sector organizational performance and how practitioners should pay equal attention to each part of procurement for the best results.

Wafula and Juma (2021) looked at Effect of procurement strategy on public sector procurement performance perceptions at Masinde Muliro University of Science and Technology (MMUST). A total of 286 workers were surveyed out of 1,157 using stratified, simple random, and deliberate sampling techniques. A systematic questionnaire was used to gather data, and its reliability was confirmed by calculating its Cronbach Alpha coefficient, which was set at 0.7 as a criterion. The study instrument was fine-tuned using construct and content validity. To investigate the connections between independent and dependent variables, SPSS version 25 was used for data analysis. Descriptive analysis and the Pearson correlation coefficient were used. Users' impressions of MMUST's procurement performance are heavily influenced by procurement planning techniques, according to the findings. This emphasizes the need of long-term planning for public sector procurement in improving service quality and customer happiness. In order to enhance overall procurement effectiveness and generate better results for user departments, the research suggests that MMUST administration adopt procurement planning into their operational strategy.

3. Methodology

This section provides a comprehensive overview of the study's methodology and participants, detailing the sampling methods employed and the data collection processes. It discusses the types of data acquired, the techniques used for processing it, and the conclusions drawn from the analysis.

3.1 Research Design

This study employed a combination of descriptive and correlational research design. It is descriptive in nature, as it aims to outline the quality of procurement planning activities and organizational performance using descriptive statistics based on respondents' perceptions. The study is correlational because it seeks to evaluate the relationship or impact of procurement planning on organizational performance. The correlation analysis was conducted using various indicators as outlined in the conceptual framework.

3.2 Study Population

For this study, the population comprises 317 employees from various departments within the Ministry of Education in Rwanda, all of whom have direct involvement in procurement planning activities.

3.3 Sampling

The main purpose of sampling is to collect data that can be generalized to the entire population without the need to study every individual within that population.

Researcher determined the appropriate sample size and sampling technique.

The sample size influences the accuracy of estimates and the ability to generalize the results to the broader population.

The sample size is determined by the help of Slovin's formula.

$$n = \frac{N}{1 + N(e)^2}$$

Where n is the sample size, N is the population size which are 317, and e is the marginal error (5%).

$$N = \frac{317}{1 + 317(0.05)^2} = \frac{317}{1 + 0.7925} = \frac{317}{1.7925} = 177$$

Researcher used cluster sampling to randomly select participants from each department within the Ministry of Education in Rwanda. This method enabled researcher to obtain a sample that is both statistically valid and demographically representative of the various departments involved in procurement planning and its effects on organizational performance.

3.4 Data Collection Methods

In this study, closed-ended questions were designed to gather in-depth feedback from participants. A total of 177 employees from the Ministry of Education in Rwanda and its various departments were distributed questionnaires containing closed-ended questions to facilitate this research.

Document analysis involves the review of both public and unpublished sources, which can enhance the depth of the research. For this study, annual reports and efficiency reports from the Ministry of Education in Rwanda were analyzed to provide valuable insights into the effects of procurement planning on organizational performance.

3.5 Data Analysis

Using SPSS 25, the researcher computed percentages, means, standard deviations, and frequency distributions to determine descriptive statistics. While correlation and regression analysis were used to assess the relationship between variables.

Descriptive statistics were used to offer background information in the form of tables, charts, and graphs to make the analyses more understandable. The mean determined using the intervals and equivalences. The standard deviation was used to determine how close the data is to the mean.

Researcher used correlation analysis to identify the degree and direction of a relationship between many variables. The correlation coefficient is a numerical figure that, when provided, reveals the presence of a statistical link between variables.

Regression is a statistical approach for predicting the future values of a dependent variable using a collection of independent variables. In order to foretell future occurrences or comprehend the impact of independent variables on dependent ones, one may employ the mathematical equations provided by regression analysis. Additionally, it specifies the kind of connection.

The adopted model was presented as follow:

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

Where:

Y= Organization Performance

β_0 = Constant Term

X_1 = Needs Assessments

X_2 = Market Surveys

X_3 = Supply Identification

X_4 = Payment Terms

$\beta_1, \beta_2, \beta_3$ = Beta Coefficient

ϵ =error

3.6 Ethical Consideration

The researcher protected the confidentiality of the respondents in order to honor their right to free speech. To accomplish these research goals, for instance, researcher talked with those who would be most affected and obtained their informed consent. Please be kind by asking for their time and answering inquiries promptly. An inclusive and diverse group of people chose at random, without regard to their race, ethnicity, religion, or sexual orientation. Researcher promise to keep all responses to this poll strictly confidential and to use them for the purposes stated. To protect the confidentiality of the survey takers, researcher didn't include their names anywhere on the form.

4. Results and Discussion

The section provides detailed statistical insights into the responses received from participants. The presentation of data is followed by analysis and interpretation to draw conclusions from the study.

4.1 Response Rate

This section presents the response rate of the survey conducted for the study, detailing the number of distributed, filled, and incomplete questionnaires. A high response rate enhances the reliability and validity of the study's findings.

Table 1: Response Rate

Distributed questionnaire	Filled	Incomplete
177	164	13
100%	92.65%	7.35

Source: Field data, 2025

Table 1 presents the distribution of questionnaires, with 177 distributed, 164 filled, and 13 incomplete. The response rate of 92.65% is high, providing a substantial amount of reliable data for analysis, with only 7.35% of questionnaires incomplete. This large response rate contributes to the validity of the study findings and reflects strong engagement with the survey.

4.2 Correlation Analysis

The correlation analysis involved examining the relationship between the independent and dependent variables of the study. The researcher conducted the Pearson correlation analysis, as detailed in Table 2 below.

Table 2: Correlations

		Needs Assessments	Market Surveys	Supply Identification	Payment Terms	Organization Performance
Needs Assessments	Pearson Correlation	1	.686**	.592**	.419**	.733**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	164	164	164	164	164
Market Surveys	Pearson Correlation	.686**	1	.806**	.521**	.762**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	164	164	164	164	164
Supply Identification	Pearson Correlation	.592**	.806**	1	.629**	.755**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	164	164	164	164	164
Payment Terms	Pearson Correlation	.419**	.521**	.629**	1	.588**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	164	164	164	164	164
Organization Performance	Pearson Correlation	.733**	.762**	.755**	.588**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	164	164	164	164	164

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

Source: Field data, 2025

Table 2 presents the correlation between needs assessments, market surveys, supply identification, payment terms, and organization performance. Needs assessments exhibit a strong positive correlation with organization performance ($r = 0.733$), indicating a significant effect. These findings resonate with Asiimwe and Mayanja (2024), who emphasized the importance of user needs assessments in improving local government efficiency in Uganda. Their study indicated that needs assessments play a crucial role in enhancing performance, aligning with the correlation observed in this study.

Market surveys also demonstrate a strong correlation with organization performance ($r = 0.762$), underscoring their importance in predicting performance. This aligns with Mebrate and Shumet (2024), who highlighted that effective procurement planning significantly contributes to organizational performance. Their study indicated that efficient procurement strategies lead to improved outcomes, consistent with the correlation findings here.

Similarly, supply identification has a strong correlation ($r = 0.755$), demonstrating its contribution to performance. These findings align with Adamu et al.

(2021), who examined procurement practices in Ghana and indicated that effective procurement practices improve organizational performance, resonating with the strong correlation observed in this study.

Payment terms show a moderate correlation with organizational performance ($r = 0.588$), further confirming their importance. This finding is consistent with Wafula and Juma (2021), who found that procurement strategy impacts public sector procurement performance. Their study indicated that procurement planning plays a significant role in enhancing procurement effectiveness, aligning with the moderate correlation observed here.

Since correlation values above 0.7 denote a strong effect and those between 0.4 and 0.6 indicate a moderate effect, these findings confirm that needs assessments, market surveys, supply identification, and payment terms significantly contribute to organizational performance.

4.3 Regression Analysis

The multiple regression analysis was conducted to test the study hypotheses by assessing the contribution of

independent variables to the dependent variable. It aims to determine the extent to which a single dependent

variable can be predicted from a set of independent variables.

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.851 ^a	.723	.716	.35243	1.475

a. Predictors: (Constant), Payment Terms, Needs Assessments, Supply Identification, Market Surveys

b. Dependent Variable: Organization Performance

Source: Field data, 2025

The model summary in Table 3 presents the regression analysis results, indicating a strong relationship between the independent variables and organization performance. The R Square value of 0.723 demonstrates that approximately 72.3% of the variation in organization performance is explained by the four variables. The Durbin-Watson statistic of 1.475 ensures that autocorrelation among the residuals is not significant, supporting the validity of the regression model.

The findings are consistent with Nzimakwe (2023), who emphasized the importance of procurement planning in driving organizational performance and social equity. Nzimakwe (2023) highlighted the transformative impact of policies like the PFMA and PPPFA on procurement in South Africa, aligning with the strong relationship between the independent variables and organization performance in the regression model. Both studies underscore the critical role of procurement planning in fostering economic growth and ensuring organizational success through well-structured strategies.

Table 4: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	51.643	4	12.911	104.121	.000 ^b
	Residual	19.749	159	.124		
	Total	71.392	163			

a. Dependent Variable: Organization Performance

b. Predictors: (Constant), Payment Terms, Needs Assessments, Supply Identification, Market Surveys

Source: Field data, 2025

The ANOVA results in Table 4 show the statistical significance of the regression model. The F-value of 104.121, with a p-value of 0.000, indicates that the combined effects of needs assessments, market surveys, supply identification, and payment terms significantly affect organization performance.

The findings are consistent with Ama *et al.* (2023), who highlighted that the institutionalization of procurement reforms through the Bureau of Public Procurement (BPP) in Nigeria aims to improve procurement planning

and enhance organizational performance. Ama *et al.* (2023) emphasized the significance of standardized procurement processes, aligning with the ANOVA results, which demonstrate that needs assessments, market surveys, supply identification, and payment terms collectively and significantly affect organizational performance. Both studies emphasize the role of structured procurement planning in improving public sector outcomes.

Table 5: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance VIF
1	(Constant)	.262	.162		1.617	.109	
	Needs Assessments	.329	.053	.359	6.208	.000	.523 1.914
	Market Surveys	.206	.074	.217	2.784	.006	.283 3.528
	Supply Identification	.261	.075	.271	3.480	.001	.289 3.457
	Payment Terms	.151	.053	.154	2.849	.005	.601 1.665

a. Dependent Variable: Organization Performance

The adopted model for analysis was structured as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Hence,

$$\text{Organization Performance} = 0.262 + 0.329(\text{Needs Assessments}) + 0.206(\text{Market Surveys}) + 0.261(\text{Supply Identification}) + 0.151(\text{Payment Terms})$$

Table 5 presents the coefficients for the regression model analyzing the impact of needs assessments, market

surveys, supply identification, and payment terms on organizational performance within the Ministry of Education in Rwanda. The unstandardized coefficient for the constant is 0.262, indicating the baseline value of organizational performance when all predictor variables are zero.

The unstandardized coefficient for needs assessments is 0.329, indicating that a one-unit increase in needs assessments results in a 0.329-unit increase in organizational performance ($\beta = 0.329$, $t = 6.208$, $P = 0.000$). This significant finding suggests that there is need assessments positively influence organizational performance. This significant finding aligns with Ingabire and Dushimimana (2024), who emphasized that addressing procurement planning needs improves organizational performance. Their study indicated that needs assessments had a similar positive influence on performance at Ruhengeri Referral Hospital, reflecting the strong impact seen in this study.

The unstandardized coefficient for market surveys is 0.206, indicating that a one-unit increase in market surveys leads to a 0.206-unit increase in organizational performance ($\beta = 0.206$, $t = 2.784$, $P = 0.006$). This positive effect underscores the importance of market surveys in enhancing performance. This finding supports the results of Oenga *et al.* (2022), who found that procurement planning, which includes market surveys, significantly affects procurement process effectiveness in public universities. Their study indicated that involving user departments in procurement planning improves procurement efficiency, aligning with the positive relationship observed here.

The unstandardized coefficient for supply identification is 0.261, indicating that a one-unit increase in supply identification results in a 0.261-unit increase in organizational performance ($\beta = 0.261$, $t = 3.480$, $P = 0.001$). This shows the significance of identifying the right supplies for improving organizational performance. This finding resonates with Lartey *et al.* (2024), who found that procurement planning, including the identification of quality supplies, positively affects organizational performance in the private sector. Their study showed procurement planning as a strong determinant of performance, supporting the significance of supply identification.

Lastly, the unstandardized coefficient for payment terms is 0.151, indicating that a one-unit increase in payment terms results in a 0.151-unit increase in performance ($\beta = 0.151$, $t = 2.849$, $P = 0.005$). These findings confirm the positive impact of payment terms on performance. This is consistent with Abdallah *et al.* (2024), who highlighted the importance of procurement planning and management competency in enhancing organizational performance. Their study showed that procurement strategies, including payment terms, play a crucial role in improving business outcomes, aligning with the findings in this study.

The tolerance values for all variables range from 0.523 to 0.601, and the VIF values range from 1.665 to 3.528, suggesting no multicollinearity issues among the predictor variables.

Table 6: Hypotheses Results

Hypotheses	Sig.	Comment
H01: There is no significant effect of needs assessment in procurement planning on performance of Ministry of Education in Rwanda.	p<0.05	Rejected
H02: There is no significant effect of market survey in procurement planning on performance of Ministry of Education in Rwanda.	p<0.05	Rejected
H03: There is no significant effect of supply identification in procurement planning on performance of Ministry of Education in Rwanda.	p<0.05	Rejected
H04: There is no significant effect of payment terms in procurement planning on performance of Ministry of Education in Rwanda.	p<0.05	Rejected

Table 6 presents the findings of hypothesis testing for the effects of various factors in procurement planning on Performance of Ministry of Education in Rwanda. The null hypotheses (Ho1, Ho2, Ho3, Ho4) propose that the respective factors need assessment, market survey, supply identification, and payment terms do not significantly affect organizational performance.

For H01, the p-value is 0.000, which is less than 0.05, leading to the rejection of the null hypothesis. This indicates that needs assessment in procurement planning has a significant effect on Performance of Ministry of Education in Rwanda. For H02, the p-value is 0.006,

which is also less than 0.05, resulting in the rejection of the null hypothesis. This confirms that market surveys in procurement planning significantly affect the performance of the Ministry of Education in Rwanda.

For H03, the p-value is 0.001, which is less than 0.05, leading to the rejection of the null hypothesis. This shows that supply identification in procurement planning has a significant effect on Performance of Ministry of Education in Rwanda. For H04, the p-value is 0.005, which is again less than 0.05, leading to the rejection of the null hypothesis. This indicates that payment terms in

procurement planning have a significant effect on organizational performance.

Thus, all independent variables (needs assessment, market survey, supply identification, and payment terms) significantly contribute to the performance of the Ministry of Education in Rwanda.

5. Conclusion and Recommendations

5.1 Conclusion

The findings of this study emphasize the positive impact of procurement planning strategies on Performance of Ministry of Education in Rwanda. Specifically, needs assessments, market surveys, supply identification, and payment terms were found to be integral in improving procurement outcomes.

Needs assessments were perceived as crucial in aligning the procurement process with the actual needs of the Ministry, ensuring that resources are allocated efficiently and effectively. The importance of conducting thorough assessments to guide procurement decisions was strongly agreed upon by respondents.

Market surveys were also viewed as a key factor, with respondents highlighting the significant role they play in gathering accurate market information. This process ensures that procurement decisions are well-informed, cost-effective, and aligned with market trends.

Supply identification emerged as another important factor, with respondents emphasizing that identifying suitable suppliers through a well-structured procurement process contributes to the Ministry's ability to provide quality services. The alignment of supply identification with organizational goals was seen as essential for enhancing overall performance.

Finally, payment terms were identified as a critical element in fostering positive relationships with suppliers and ensuring the smooth flow of the procurement process. Clear and fair payment terms contribute to maintaining supplier trust and collaboration, which in turn enhances the Ministry's ability to deliver on its objectives. These procurement strategies were seen as essential in improving the performance and efficiency of the Ministry of Education in Rwanda.

5.2 Recommendations

Based on the study findings, the following recommendations are made:

1. Procurement and logistics teams are recommended to regularly conduct comprehensive needs assessments to ensure alignment between

procurement planning and actual organizational requirements.

2. Procurement and logistics should invest in conducting detailed market surveys to gather updated data on supplier performance, market trends, and pricing.
3. The Ministry should enhance supplier relationship management by incorporating feedback mechanisms into procurement processes to improve long-term cooperation and performance outcomes.

5.3. Area for Further Research

Future researchers are encouraged to examine the impact of procurement strategy alignment on Performance of Ministry of Education, investigate the role of supplier relationship management on Performance of Ministry of Education and assess the influence of procurement policy reforms on Performance of Ministry of Education.

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