



Evaluating the Role of Local Supplier Readiness Strategies in Enhancing Public Procurement Performance in Rwanda. A case of Rwanda Medical Supply

Steven Serubibi and Joseph Akumuntu

University of Kigali

Email: stevenserubibi@gmail.com

Abstract: This study examined the role of Local Supplier Readiness Strategies in enhancing public procurement performance at Rwanda Medical Supply (RMS). The study focused on capacity-building programs and training initiatives and their contribution to public procurement performance. A descriptive and explanatory research design was adopted using a quantitative approach. The target population comprised 120 employees of Rwanda Medical Supply, and census sampling was used. Primary data were collected using structured questionnaires, while secondary data were obtained through documentary review. Data were analyzed using descriptive statistics, Pearson Product Moment Correlation, and simple linear regression analysis. The findings indicated that capacity-building programs and training initiatives were generally implemented to strengthen suppliers' technical skills, understanding of procurement requirements, compliance with regulatory and quality standards, and ability to meet procurement expectations. Pearson correlation analysis revealed a strong and statistically significant positive relationship between capacity-building programs and training initiatives and public procurement performance ($r = 0.680$, $p < 0.01$). Regression analysis showed that capacity-building programs and training initiatives explained 46.2% of the variation in public procurement performance ($R^2 = 0.462$), while the effect was statistically significant ($B = 0.760$, $p < 0.001$). The study concluded that effective capacity-building programs and training initiatives contribute to improved supplier readiness and public procurement performance at Rwanda Medical Supply. It recommends strengthening supplier training, technical guidance, mentoring, and advisory support, particularly in procurement procedures, regulatory requirements, quality standards, and supplier compliance, to sustain effective public procurement performance.

Keywords: Capacity-Building Programs, Training Initiatives, Supplier Development, Public Procurement Performance, Rwanda Medical Supply

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1. Introduction

Public procurement is an important component of government expenditure and a strategic mechanism for obtaining goods, services, and works required for public service delivery. Globally, effective public procurement depends not only on appropriate procurement policies and procedures but also on the availability of suppliers that

possess the technical, financial, managerial, and operational capabilities required to meet contractual obligations. Supplier readiness has therefore become increasingly important because suppliers are expected to comply with quality standards, procurement regulations, delivery schedules, documentation requirements, and other contractual conditions. In response to these requirements, organizations have increasingly adopted supplier development interventions such as training, technical

assistance, mentorship, information sharing, and performance monitoring to strengthen supplier capabilities and improve procurement outcomes (Saghir & Wilding, 2021; Krause, Handfield, & Scannell, 2020). Supplier readiness can consequently contribute to procurement efficiency by improving suppliers' ability to deliver quality goods on time, comply with contractual requirements, reduce supply risks, and support value for money.

At the African level, public procurement has increasingly been recognized as an instrument for supporting domestic enterprise development, strengthening local production, and promoting inclusive economic participation. However, many local suppliers, particularly small and medium-sized enterprises (SMEs), continue to experience limitations in financial resources, technical expertise, production capacity, quality assurance, and compliance with public procurement requirements. These limitations can reduce their ability to compete successfully for public contracts and to perform effectively after contract award. Consequently, supplier readiness interventions have become increasingly relevant in African procurement systems. Capacity-building programs, technical training, mentorship, and supplier support mechanisms can equip local firms with the knowledge and capabilities required to understand procurement procedures, meet technical specifications, maintain quality standards, and execute contracts effectively. Evidence from African procurement environments indicates that supplier development initiatives can improve supplier participation and performance, particularly where suppliers face significant capability constraints (Changalima, Mchopa, & Ismail, 2022).

Within the East African Community, supplier readiness is similarly important because governments seek to increase the participation and competitiveness of domestic suppliers in public procurement. Countries such as Kenya, Uganda, and Tanzania have implemented different initiatives aimed at addressing supplier capability gaps through technical training, financial literacy, quality certification assistance, and mentoring. These interventions are intended to enable suppliers to understand procurement requirements, prepare compliant bids, satisfy quality standards, and successfully execute awarded contracts. In addition to capacity development, effective communication and information sharing are important because suppliers require timely access to tender information, technical specifications, regulatory changes, contract conditions, and performance expectations. Financial and institutional support can further strengthen suppliers' ability to invest in production capacity and comply with contractual requirements, while performance evaluation and feedback can help suppliers identify weaknesses and undertake continuous improvement. However, the implementation and

effectiveness of supplier readiness initiatives vary across countries and sectors, indicating the need for context-specific assessment of their contribution to public procurement performance.

In Rwanda, public procurement has increasingly been used as a mechanism for promoting economic development and strengthening the participation of domestic enterprises in government contracts. The Rwanda Public Procurement Authority (RPPA) oversees the public procurement system and promotes principles of transparency, accountability, fairness, and efficiency while supporting measures that encourage local supplier participation. Nevertheless, local suppliers continue to face challenges associated with technical knowledge, production capacity, quality assurance, financial capability, and regulatory and documentation compliance. These challenges are particularly important in sectors where procurement involves highly regulated and essential products. In the health sector, suppliers must meet stringent quality and regulatory requirements while maintaining reliable delivery schedules. Therefore, supplier readiness is particularly important for ensuring that local suppliers can effectively respond to public procurement opportunities and meet the requirements attached to government contracts.

1.2 Statement of the Problem

Effective public procurement depends on suppliers having adequate knowledge, technical skills, and understanding of procurement procedures and requirements. Training programs are important mechanisms through which procuring organizations can strengthen supplier capabilities by providing knowledge on procurement procedures, tender preparation, regulatory requirements, quality standards, contract requirements, and other technical aspects of public procurement (Changalima et al., 2021). Where suppliers have inadequate knowledge or skills, they may experience difficulties in preparing compliant bids, meeting technical specifications, satisfying quality requirements, and fulfilling contractual obligations. Such capability gaps may consequently affect supplier responsiveness, compliance, quality of supplies, timely delivery, and the overall effectiveness of public procurement. Supplier development initiatives that include training, technical assistance, mentoring, and knowledge transfer have therefore been recognized as important mechanisms for strengthening supplier capabilities and improving procurement outcomes (Changalima et al., 2022; Sikombe & Phiri, 2022).

The problem is particularly important at Rwanda Medical Supply (RMS), where effective procurement requires suppliers to possess the knowledge and technical

capabilities necessary to meet the specific requirements associated with medical supplies. RMS provides training, technical guidance, workshops, mentoring, and advisory support intended to strengthen the capabilities of local suppliers and enable them to comply with procurement, regulatory, and quality requirements (Kigenza et al., 2023). However, the continued need for supplier capacity development raises concerns about whether existing training programs are sufficiently effective in strengthening supplier readiness and improving public procurement performance. Suppliers may continue to experience difficulties in understanding procurement procedures, meeting technical and quality standards, complying with regulatory requirements, and fulfilling delivery expectations. These challenges may affect the quality and timeliness of procured supplies, supplier responsiveness, compliance with procurement requirements, cost efficiency, and continuity of supply. Therefore, there is a need to establish the extent to which training programs provided to local suppliers contribute to improved public procurement performance at RMS.

Although previous studies have examined supplier development and training-related interventions, an important empirical and contextual gap remains. Changelima et al. (2021) emphasized the importance of supplier-development interventions in addressing supplier capability gaps, while Changelima et al. (2022) established a positive relationship between supplier development and public procurement performance. Similarly, Sikombe and Phiri (2022) found that institutionalized supplier-development initiatives supported knowledge transfer and operational performance, while Kigenza et al. (2023) demonstrated the importance of training, mentorship, and workforce development within Rwanda's health supply chain. However, these studies have not specifically established the effect of training programs for local suppliers on public procurement performance at Rwanda Medical Supply. In particular, limited empirical evidence exists on how training in procurement procedures, tender requirements, regulatory and quality standards, and technical requirements contributes to procurement performance within Rwanda's public medical supply context. This study therefore seeks to address this gap by evaluating the role of training programs in enhancing public procurement performance at Rwanda Medical Supply.

This study sought to achieve the following research objective:

To evaluate the role of capacity-building programs and training initiatives on public procurement at Rwanda Medical Supply.

2. Literature Review

2.1 Capacity Building Programs

Capacity-building programs refer to structured interventions aimed at strengthening the technical, managerial, operational, and institutional capabilities of suppliers to enable them to participate effectively in public procurement and fulfil contractual requirements. These interventions may include supplier training, technical assistance, mentorship, coaching, knowledge transfer, and support in using procurement systems. Changelima et al. (2021) explain that supplier development in public procurement involves deliberate interventions designed to address supplier capability deficiencies and improve suppliers' ability to meet procurement requirements. Such interventions are particularly important for local suppliers that may face limitations in technical knowledge, managerial competencies, quality-management systems, and familiarity with public procurement procedures. Strengthening these capabilities can enable suppliers to prepare compliant bids, meet required standards, and improve their ability to execute awarded contracts effectively.

Capacity-building is particularly relevant in public procurement because suppliers are required to satisfy technical specifications, regulatory requirements, quality standards, documentation requirements, and delivery schedules. Ismail et al. (2022) found that supplier development had a positive and statistically significant relationship with public procurement performance among public procuring entities, demonstrating that developing supplier capabilities can contribute to improved procurement outcomes. Similarly, Sikombe and Phiri (2022) found that institutionalized supplier-development initiatives supported knowledge transfer and operational performance among SMEs. These findings suggest that supplier training and knowledge development can strengthen organizational capabilities and improve suppliers' ability to respond to buyers' requirements. In addition, Toufighi et al. (2024) demonstrated the relevance of targeted supplier-development interventions in improving supplier capabilities and performance, further supporting the importance of capacity building as a component of supplier readiness.

In Rwanda, capacity building is particularly important within the healthcare supply chain because suppliers must meet stringent requirements concerning product quality, regulatory compliance, documentation, storage, and timely delivery. Kigenza et al. (2023) found that workforce development, training, mentorship, performance monitoring, and continuous improvement contributed to improvements in Rwanda's health supply-chain

management. The intervention was associated with improvements in inventory-data accuracy, utilization of electronic logistics management information systems, and reductions in stock-outs. These findings demonstrate that systematic capacity development can strengthen the knowledge and operational capabilities necessary for effective health supply-chain performance. For Rwanda Medical Supply (RMS), therefore, supplier training and technical support may improve suppliers' ability to understand procurement requirements, comply with quality standards, use electronic procurement systems, manage contracts, and deliver medical commodities according to agreed specifications and schedules.

Based on the reviewed literature, capacity-building programs in this study are considered in terms of supplier training, technical assistance, mentorship and coaching, regulatory-compliance training, and digital procurement skills. The reviewed studies generally establish a positive relationship between supplier development and procurement or supply-chain performance (Changalima et al., 2021; Ismail et al., 2022; Kigenza et al., 2023). However, much of the existing evidence has been generated outside Rwanda or in sectors other than public medical procurement. There is therefore a need for institution-specific evidence on whether capacity-building programs significantly contribute to public procurement performance at RMS. The present study addresses this need by examining the effect of capacity-building programs on public procurement performance at Rwanda Medical Supply.

2.2 Training Initiatives

Training initiatives refer to organized activities designed to improve suppliers' knowledge, technical skills, and understanding of public procurement requirements. Such initiatives may include training on procurement procedures, preparation of bids, regulatory requirements, quality standards, contract management, and the use of electronic procurement systems. Changalima et al. (2021) emphasize that supplier development interventions can help address capability gaps among suppliers and improve their ability to participate effectively in public procurement. Training is therefore an important mechanism for preparing local suppliers to understand procurement requirements and meet the expectations of public procuring entities.

Training initiatives can also improve suppliers' ability to comply with technical and administrative requirements. Suppliers participating in public procurement are expected to understand bidding procedures, documentation requirements, specifications, contractual obligations, and applicable regulations. Ismail et al. (2022) found that

supplier development was positively and significantly associated with public procurement performance, suggesting that interventions aimed at strengthening supplier capabilities can contribute to better procurement outcomes. Similarly, Sikombe and Phiri (2022) showed that institutionalized supplier-development initiatives can facilitate knowledge transfer and improve operational performance. This implies that regular training can enhance suppliers' preparedness and reduce errors that may affect procurement processes.

In this study, training initiatives will be assessed in terms of frequency of supplier training, training on procurement procedures, training on regulatory and quality requirements, training on electronic procurement systems, and technical guidance provided to local suppliers. The reviewed literature indicates that training and supplier-development interventions can strengthen supplier capabilities and contribute to improved procurement outcomes. However, limited empirical evidence specifically examines how supplier training initiatives influence public procurement performance at Rwanda Medical Supply. This study therefore seeks to establish whether training initiatives significantly contribute to improved public procurement performance at RMS.

2.3 Public Procurement Performance

Public procurement performance refers to the extent to which procurement activities achieve their intended objectives in terms of efficiency, effectiveness, quality, timeliness, compliance, and value for money. Effective procurement performance requires procuring entities to obtain the required goods and services at appropriate cost, quality, quantity, and time while complying with established procurement procedures and contractual requirements. In supplier-dependent procurement systems, performance is closely associated with suppliers' ability to meet specifications, deliver on schedule, maintain consistent quality, and comply with contractual obligations. Changalima et al. (2021) emphasize that supplier development is particularly relevant to public procurement because strengthening supplier capabilities can improve suppliers' ability to participate successfully in government contracting and contribute to better procurement outcomes.

Empirical studies have established a relationship between supplier-related practices and procurement performance. Ismail et al. (2022) found a positive and statistically significant relationship between supplier development and public procurement performance, indicating that efforts to strengthen supplier capabilities can contribute to improvements in procurement outcomes. Similarly, Gudda et al. (2023) found that supplier development was

associated with procurement performance among steel manufacturing firms in Nairobi County, Kenya. Otieno and Odero (2023) also reported that supplier evaluation management practices significantly influenced supply-chain performance among selected county governments in Kenya. These findings indicate that procurement performance is influenced not only by the internal capabilities of procuring organizations but also by the readiness, capability, and performance of suppliers participating in procurement activities.

In the healthcare sector, procurement performance has additional importance because the timely availability and quality of medical commodities directly influence the reliability of health supply chains. Kigenza et al. (2023), in their study of Rwanda's health supply chain, reported improvements in inventory-data accuracy, electronic logistics management information system utilization, and stock-out reduction following implementation of a quality-management improvement approach involving workforce development and performance monitoring. These findings demonstrate the importance of organizational capabilities and supply-chain management practices in achieving improved health-sector supply outcomes. For RMS, procurement performance is therefore particularly important because weaknesses in supplier performance may result in delayed deliveries, quality problems, inadequate supplies, and disruptions in the availability of essential medical commodities.

For the purposes of this study, public procurement performance is assessed through timely delivery, quality of procured supplies, compliance with procurement requirements, cost efficiency, supplier responsiveness, and continuity of supply. The reviewed literature indicates that supplier development, evaluation, and capability-enhancement practices can contribute to improved procurement and supply-chain outcomes (Changalima et al., 2021; Ismail et al., 2022; Gudda et al., 2023; Otieno & Odero, 2023). Nevertheless, existing empirical studies have predominantly focused on Tanzania, Kenya, Zambia, and other contexts, with relatively limited evidence concerning the relationship between local supplier readiness strategies and procurement performance within Rwanda's public healthcare supply chain. This contextual gap supports the need for the present study to evaluate how supplier readiness strategies influence public procurement performance at Rwanda Medical Supply.

2.4 Theoretical Framework

This study is guided by Human Capital Theory, which explains how investment in knowledge, skills, education, and training can improve the capabilities and performance of individuals and organizations. The theory was

developed by Becker (1964), who argued that training and education constitute investments that increase individuals' productive capabilities. The theory assumes that individuals who acquire relevant knowledge and skills become more capable of performing their tasks effectively, while organizations benefit from improved productivity and performance. In the context of public procurement, Human Capital Theory is relevant because local suppliers require appropriate knowledge and skills to understand procurement procedures, prepare compliant bids, meet technical specifications, and fulfil contractual requirements. Training initiatives can therefore be viewed as investments in supplier capabilities that improve their readiness to participate effectively in public procurement.

Human Capital Theory is particularly relevant to training initiatives because training enables suppliers to acquire and develop competencies required to operate successfully in competitive procurement environments. Public suppliers may require training in areas such as procurement procedures, tender preparation, regulatory requirements, quality standards, contract management, and electronic procurement systems. When suppliers possess these competencies, they are more likely to understand procuring entities' requirements, submit accurate documentation, comply with applicable standards, and execute contracts effectively. Changalima et al. (2021) explain that supplier-development initiatives can address supplier capability gaps and strengthen suppliers' ability to participate in public procurement. Similarly, Kigenza et al. (2023) demonstrated that training, mentorship, supervision, and performance improvement interventions contributed to improvements in Rwanda's health supply-chain operations. These findings support the argument that investment in knowledge and skills can strengthen supplier capabilities and contribute to better procurement outcomes.

In this study, Human Capital Theory provides a basis for examining the influence of training initiatives on public procurement performance at Rwanda Medical Supply (RMS). Training initiatives will be considered in terms of training on procurement procedures, tender preparation, regulatory and quality requirements, electronic procurement systems, contract requirements, and technical guidance provided to local suppliers. Public procurement performance will be considered in terms of timely delivery, quality of supplies, compliance with procurement requirements, cost efficiency, supplier responsiveness, and continuity of supply. The theory suggests that investment in supplier knowledge and skills can strengthen supplier readiness and enable local suppliers to perform more effectively, thereby contributing to improved public procurement performance at RMS.

2.2 Empirical Review

At the global level, Changelima et al. (2021) examined supplier development in public procurement and identified training, technical assistance, knowledge transfer, and other supplier-development activities as important mechanisms for addressing supplier capability gaps. The study established that suppliers with stronger technical and managerial capabilities are better positioned to participate effectively in public procurement and meet buyers' contractual requirements. The authors emphasized that supplier development can improve suppliers' ability to comply with technical specifications, quality requirements, and procurement procedures. However, the study was a review of existing literature and did not empirically examine the effect of training initiatives on procurement performance within a specific healthcare organization. This creates a need for institution-specific studies that examine the contribution of supplier capacity building to procurement outcomes.

At the African level, Sikombe and Phiri (2022) examined how institutionalized supplier-development initiatives affected knowledge transfer and operational performance among SME construction companies in Zambia. The study found that supplier-development initiatives facilitated knowledge transfer and contributed to improved operational performance. The findings demonstrate that structured interventions aimed at developing supplier capabilities can strengthen suppliers' knowledge and improve their ability to perform effectively. Similarly, supplier-development literature emphasizes that training and technical support can help suppliers overcome capability limitations that may prevent them from meeting the requirements of large institutional buyers (Changelima et al., 2021). Nevertheless, evidence from the broader African context remains concentrated in specific industries and does not sufficiently explain the role of supplier training in public healthcare procurement.

At the East African level, Changelima et al. (2022) investigated the relationship between supplier development and public procurement performance among 179 public procuring entities in Tanzania. The study found a positive and statistically significant relationship between supplier development and public procurement performance. The findings indicate that strengthening supplier capabilities can contribute to improved procurement outcomes, although contract-management difficulties may reduce the benefits obtained from supplier-development activities. The study recommended strengthening supplier-development practices and improving the management of supplier relationships. Although this evidence is highly relevant to public procurement in East Africa, it was conducted in Tanzania

and did not specifically examine training initiatives among local suppliers in Rwanda's healthcare supply chain.

At the Rwanda level, Kigenza et al. (2023) examined a workforce-development intervention within Rwanda's health supply chain involving training, mentorship, supervision, and performance measurement. The study reported improvements in the use of electronic logistics management information systems and inventory-data accuracy, together with a reduction in stock-outs. The findings demonstrate that structured training and continuous capacity development can improve the knowledge and operational capabilities required for effective health supply-chain management. However, the study primarily focused on workforce development within the health supply chain rather than training and capacity building for local suppliers involved in public procurement. Consequently, its findings provide useful contextual evidence for Rwanda but do not directly establish the effect of supplier training on public procurement performance.

3. Methodology

The study adopted a descriptive and explanatory research design using a quantitative approach. The descriptive design was used to describe the existing capacity-building programs and training initiatives and the level of public procurement performance at Rwanda Medical Supply. The explanatory design was employed to examine the relationship between capacity-building programs and training initiatives and public procurement performance and to determine the extent to which capacity-building programs and training initiatives influenced public procurement performance. The use of both designs was appropriate because the descriptive approach provided an understanding of the characteristics of the study variables, while the explanatory approach facilitated the examination of relationships and effects between the variables. The quantitative approach enabled the researcher to collect numerical data and subject it to statistical analysis, particularly descriptive statistics, correlation analysis, and multiple linear regression analysis.

The target population consisted of 120 employees of Rwanda Medical Supply who were directly or indirectly involved in procurement, supplier management, and organizational operations. The respondents were drawn from relevant functional areas, including procurement and supply chain management, supplier management, quality assurance, finance and accounting, logistics and distribution, administration, and management. The study adopted census sampling, whereby all 120 eligible employees were included in the study. This approach was appropriate because the target population was relatively

small and manageable, and it enabled the researcher to obtain information from all eligible members of the population. The use of census sampling also minimized sampling error and ensured that the views of employees involved in procurement and supplier-related activities at Rwanda Medical Supply were adequately represented.

The study used both primary and secondary data to obtain comprehensive information relevant to the research objective. Primary data were collected directly from employees of Rwanda Medical Supply using a structured questionnaire. The questionnaire contained closed-ended questions measured on a five-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5). The instrument captured information relating to capacity-building programs and training initiatives and public procurement performance. Secondary data were obtained through documentary review of academic journals, books, institutional reports, procurement records, policy documents, annual reports, and other relevant publications related to supplier capacity building, training, and public procurement performance. The use of both primary and secondary data enabled the researcher to obtain first-hand information from respondents while also drawing on existing documentary evidence to provide theoretical, empirical, and contextual support for the study.

The questionnaire was the main instrument used for collecting primary data, while documentary review was used to obtain secondary information. The structured questionnaire was preferred because it enabled the researcher to collect standardized quantitative information from respondents within a manageable period. It also promoted consistency, objectivity, and ease of statistical analysis. The questionnaire items were developed in accordance with the study objective and variables, with separate items measuring capacity-building programs and training initiatives and public procurement performance. Documentary review involved examining relevant academic publications, institutional reports, procurement documents, policy documents, annual reports, and other official records. The documentary review provided background information, supported the literature review, and facilitated comparison between existing empirical evidence and the findings of the present study. It also contributed to data triangulation and enhanced the overall credibility of the research.

The validity and reliability of the research instrument were assessed before the main data collection exercise. Reliability was evaluated using Cronbach's Alpha coefficient to determine the internal consistency of the questionnaire items. A pilot study was conducted using respondents who were not included in the final study. The results of the pilot study were used to identify unclear, ambiguous, or irrelevant questionnaire items and to

establish whether the instrument consistently measured the intended constructs. A Cronbach's Alpha coefficient of 0.70 or above was considered acceptable, indicating satisfactory internal consistency of the instrument. Validity was established through content validity assessment, whereby the questionnaire was reviewed by the research supervisor and experts in research methodology and procurement and supply chain management to assess the relevance, clarity, adequacy, and appropriateness of the items. The Content Validity Index (CVI) was determined by assessing the proportion of items considered relevant by the experts. A CVI of 0.70 or above was considered acceptable and indicated that the questionnaire had adequate content validity and was appropriate for the main data collection exercise.

After data collection, the completed questionnaires were systematically processed before statistical analysis. The processing procedures included editing, coding, data entry, data cleaning, transformation, classification, and tabulation. During editing, the questionnaires were examined for completeness, consistency, and accuracy, and questionnaires with substantial missing information were excluded from the analysis. The responses were then coded numerically, with Strongly Disagree assigned a value of 1, Disagree 2, Neutral 3, Agree 4, and Strongly Agree 5. The coded data were entered into SPSS for statistical analysis, while Microsoft Excel was used where necessary for data organization. Data cleaning involved checking for missing values, outliers, inconsistencies, and abnormal response patterns. Composite scores for capacity-building programs and training initiatives and public procurement performance were generated by calculating the mean scores of their respective questionnaire items. The processed data were subsequently classified according to respondent characteristics and study variables and tabulated using frequencies, percentages, means, and standard deviations.

Data analysis was conducted using both descriptive and inferential statistical techniques in accordance with the study objective and hypothesis. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize respondents' demographic characteristics and describe the level of capacity-building programs and training initiatives and public procurement performance. Pearson Product Moment Correlation analysis was used to establish the strength and direction of the relationship between capacity-building programs and training initiatives and public procurement performance. The correlation coefficient ranged from -1 to +1, with positive values indicating positive relationships and negative values indicating negative relationships. Multiple Linear Regression analysis was then used to determine the effect of capacity-building programs and training initiatives on public procurement

performance. The regression analysis produced the Model Summary, ANOVA, and regression coefficients. R Square and Adjusted R Square were used to determine the proportion of variation in public procurement performance explained by capacity-building programs and training initiatives, while ANOVA was used to assess the overall significance of the regression model. Regression coefficients were used to determine the direction, magnitude, and statistical significance of the effect of capacity-building programs and training initiatives on public procurement performance. A significance level of 0.05 was adopted, such that variables with p-values below 0.05 were considered statistically significant.

Ethical principles were observed throughout the study to protect respondents and ensure the credibility and integrity of the research process. Participation was voluntary, and respondents were informed about the purpose and objectives of the study before providing informed consent. Respondents were informed of their right to withdraw from the study at any stage without negative consequences. Confidentiality and anonymity were maintained by avoiding the recording of personal identifying information and by ensuring that individual respondents could not be identified in the final report. The collected information was treated as confidential, used solely for academic purposes, and securely stored to prevent unauthorized access. The researcher also maintained honesty, objectivity, and transparency during data collection, processing, analysis, interpretation, and reporting, without fabrication, falsification, or manipulation of results. All sources used in the study were appropriately acknowledged through citation and referencing to avoid plagiarism. Finally, permission to conduct the study was obtained from the relevant university authorities and the management of Rwanda Medical Supply before data collection commenced.

4. Results and Discussion

4.1 Findings

Table 1. Level of agreement of demand forecasting practices

Views of respondents	N	Mean	Std.
RMS organizes workshops to enhance supplier technical skills.	120	3.89	.0734
Capacity-building programs improve suppliers' compliance with procurement requirements.	120	3.80	.532
Suppliers have access to mentoring and advisory support from RMS.	120	3.76	.489
Capacity-building initiatives improve suppliers' production and delivery efficiency.	120	3.81	.983
RMS provides guidance to suppliers to meet regulatory and quality standards.	120	3.83	.613

Source: Field Data, 2025-**Key:** M=Mean; SD=Standard Deviation

The study examined respondents' perceptions of capacity-building programs at Rwanda Medical Supply (RMS). To achieve this objective, respondents were requested to

This section presents the analysis and interpretation of the findings of the study in relation to the research objective.

4.1.1 Response Rate

In accordance with the census sampling technique adopted in the study, all 120 eligible personnel of Rwanda Medical Supply (RMS) were included in the target population and questionnaires were distributed to the entire population. Out of the 120 questionnaires distributed, 102 questionnaires were successfully completed and returned, representing an 85% response rate, while 18 questionnaires, representing 15%, were not returned because the respondents had participated in the pilot study. Since the study used a census approach, the 120 eligible personnel constituted the entire target population rather than a selected sample. The response rate of 85% was considered adequate for data analysis because it exceeded the minimum acceptable threshold of 50% commonly applied in social science research. The high response rate indicates a satisfactory level of respondent participation and provides adequate coverage of the target population, thereby enhancing the credibility and reliability of the study findings.

4.1.2 Descriptive Statistics on Capacity-Building Programs

The objective of this study was to examine The study examined respondents' perceptions of Capacity-Building Programs. To achieve this objective, respondents were requested to indicate their level of agreement with statements relating to Capacity-Building Programs. The findings are presented in Table 1. A scale of 1-5, was used to express the opinion of respondents where 5 = Strongly Agree (SA), 4 = Agree (A), 3 = Neutral(N), 2 = Disagree (D) 1 = Strongly Disagree (SD). The following table gives details:

indicate their level of agreement with statements relating to capacity-building programs using a five-point Likert scale, where 5 = Strongly Agree (SA), 4 = Agree (A), 3 = Neutral

(N), 2 = Disagree (D), and 1 = Strongly Disagree (SD). As presented in Table 1, all the statements recorded mean scores above 3.50, indicating that respondents generally agreed that RMS implements capacity-building programs to strengthen local suppliers. The highest mean score was recorded for the statement that RMS organizes workshops to enhance supplier technical skills ($M = 3.89$, $SD = 0.0734$), followed by RMS provides guidance to suppliers to meet regulatory and quality standards ($M = 3.83$, $SD = 0.613$). The statement that capacity-building initiatives improve suppliers' production and delivery efficiency also recorded a relatively high mean score ($M = 3.81$, $SD = 0.983$), while capacity-building programs improve suppliers' compliance with procurement requirements recorded a mean of 3.80 ($SD = 0.532$). The lowest mean was recorded for suppliers have access to mentoring and advisory support from RMS ($M = 3.76$, $SD = 0.489$). Overall, the findings indicate that respondents perceived capacity-building programs at RMS positively, particularly in relation to technical skills, regulatory compliance, quality standards, and supplier efficiency.

The findings further indicate that workshops for enhancing supplier technical skills were the most strongly rated capacity-building initiative, with a mean of 3.89. This suggests that respondents generally agreed that RMS provides workshops that help suppliers improve their technical competencies. The relatively high mean of 3.83 for guidance on regulatory and quality standards further indicates that RMS plays an important role in helping suppliers understand and meet the standards required for public procurement. Similarly, the mean score of 3.81 for improved production and delivery efficiency suggests that capacity-building initiatives are perceived to contribute to suppliers' ability to produce and deliver required supplies more effectively. The mean of 3.80 for compliance with procurement requirements also demonstrates that respondents generally considered capacity-building programs useful in improving suppliers' understanding and compliance with procurement procedures. These findings imply that capacity building is an important mechanism through which RMS can strengthen the readiness and effectiveness of local suppliers.

The relatively lowest mean score, 3.76, was recorded for access to mentoring and advisory support, although it still indicates agreement among respondents. This suggests that mentoring and advisory support were available but may not have been as strongly implemented or accessible as workshops and regulatory guidance. The standard deviations generally indicate a relatively limited variation in respondents' views, meaning that respondents had broadly similar perceptions regarding the role of capacity-building programs at RMS. Overall, the descriptive findings demonstrate that capacity-building programs and training initiatives were perceived to have a positive role in

strengthening supplier technical skills, compliance, production and delivery efficiency, and understanding of regulatory and quality requirements. These findings provide descriptive evidence supporting the study objective of examining the role of capacity-building programs and training initiatives in enhancing public procurement performance at Rwanda Medical Supply.

From the findings, the study revealed that capacity-building programs and training initiatives played a positive role in strengthening local suppliers at Rwanda Medical Supply (RMS). Respondents generally agreed that RMS organizes workshops to enhance supplier technical skills, provides guidance on regulatory and quality standards, improves suppliers' compliance with procurement requirements, and contributes to suppliers' production and delivery efficiency. Although mentoring and advisory support recorded the lowest mean, it was still positively rated. Overall, the findings indicate that capacity-building programs and training initiatives contribute to improving supplier readiness and supporting effective public procurement performance at RMS.

These findings are in agreement with Changalima et al. (2022), who found that supplier development had a positive and statistically significant relationship with public procurement performance among public procuring entities in Tanzania. The study showed that initiatives aimed at strengthening supplier capabilities can improve suppliers' ability to meet procurement requirements and contribute to better procurement outcomes. The findings are also consistent with Kigenza et al. (2023), who reported that training, mentorship, supervision, and capacity-development interventions improved supply-chain operations in Rwanda's health sector. Similarly, Sikombe and Phiri (2022) found that institutionalized supplier-development initiatives facilitated knowledge transfer and improved operational performance among SMEs. These studies support the present finding that capacity-building and training initiatives can strengthen supplier capabilities and contribute to improved public procurement performance at Rwanda Medical Supply.

The findings are supported by Human Capital Theory, which emphasizes that investment in training, knowledge, and skills enhances the capabilities and productivity of individuals and organizations. In the context of this study, training initiatives such as workshops, technical guidance, mentoring, and regulatory training can strengthen suppliers' knowledge and competencies, enabling them to better understand procurement requirements, comply with quality standards, and improve their delivery capabilities. Therefore, the theory supports the finding that capacity-building programs and training initiatives can strengthen supplier readiness and contribute to improved public procurement performance at Rwanda Medical Supply.

4.1.4. Correlation Analysis

The study conducted correlation analysis to determine the strength and direction of the relationship between capacity-building programs and training initiatives and public procurement performance at Rwanda Medical Supply (RMS). Pearson Product Moment Correlation was used because the study variables were measured using continuous composite scores derived from the

questionnaire responses. The correlation coefficient (r) ranges from -1 to +1, where a positive value indicates a positive relationship, while a negative value indicates an inverse relationship. A coefficient closer to either -1 or +1 indicates a stronger relationship, whereas a coefficient closer to zero indicates a weaker relationship. The findings of the correlation analysis between the independent variable, capacity-building programs and training initiatives, and the dependent variable, public procurement performance, are summarized and presented in Table 2:

Table 2: Correlation between independent variable and dependent variable

		Demand Forecasting practices	Public procurement performance
Capacity-building programs and training initiatives	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	120	
Public procurement performance	Pearson Correlation	.680**	1
	Sig. (2-tailed)	.000	
	N	120	120

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

The Pearson correlation results show that capacity-building programs and training initiatives were strongly and positively related to public procurement performance, with $r = 0.680$. This indicates that higher levels of capacity-building programs and training initiatives were associated with higher levels of public procurement performance at Rwanda Medical Supply. The relationship was statistically significant at the 1% level ($p = 0.000 < 0.01$), indicating that the observed relationship was statistically significant. Specifically, activities such as supplier training, technical workshops, mentoring, advisory support, and guidance on regulatory and quality standards were associated with improved public procurement performance. The finding implies that strengthening capacity-building and training initiatives can enhance suppliers' technical competencies, compliance with procurement requirements, production and delivery efficiency, and ability to meet required quality

standards. Since $r = 0.680$ represents a strong positive relationship, capacity-building programs and training initiatives were an important factor associated with public procurement performance at Rwanda Medical Supply.

4.1.5 Regression Analysis

Simple Linear Regression Analysis was conducted to determine the extent to which capacity-building programs and training initiatives influenced public procurement performance at Rwanda Medical Supply (RMS). The analysis was used to determine the explanatory power of capacity-building programs and training initiatives on public procurement performance and to establish whether the observed relationship was statistically significant. The results are presented using the Model Summary, ANOVA, and Coefficients tables.

Table 4: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.680 ^a	.462	.458	.42124

a. Predictors: (Constant), Capacity-Building Programs and Training Initiatives

The model summary indicates a strong positive relationship between capacity-building programs and training initiatives and public procurement performance, with $R = .680$. The R Square value of .462 indicates that

capacity-building programs and training initiatives explained 46.2% of the variation in public procurement performance, while the remaining 53.8% was explained by other factors that were not included in the model. The

Adjusted R Square of .458 shows that the explanatory power of the model remained substantial after adjusting for the sample size and the number of predictors included in the analysis. The standard error of the estimate of .42124 indicates the average extent to which the observed public procurement performance values differed from the values

predicted by the regression model. Overall, the results suggest that capacity-building programs and training initiatives made a substantial contribution to explaining public procurement performance at Rwanda Medical Supply.

Table 5. Summary of ANOVA results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.556	1	6.556	71.174	.000 ^b
	Residual	10.777	117	.092		
	Total	17.332	118			

a. Dependent Variable: Public procurement performance

a. Predictors: (Constant), Capacity-Building Programs and Training Initiatives

The

ANOVA results in Table 5 assess the overall significance of the regression model predicting public procurement performance using capacity-building programs and training initiatives as the predictor. The regression sum of squares of 6.556 represents the amount of variation in public procurement performance explained by capacity-building programs and training initiatives, while the residual sum of squares of 10.777 represents the variation that was not explained by the model. The regression mean square was 6.556, compared with a residual mean square of 0.092, resulting in an F-value of 71.174. The

significance value of $p = 0.000$, which is less than 0.05, indicates that the regression model was statistically significant. This means that capacity-building programs and training initiatives significantly predicted public procurement performance at Rwanda Medical Supply. The finding implies that strengthening supplier training, technical workshops, mentoring, and guidance on procurement, regulatory, and quality requirements can contribute to improved public procurement performance at RMS.

Table 6. Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.924	.168		5.515	.000
	Capacity-Building Programs and Training Initiatives	.760	.045	.842	16.907	.000

a. Dependent Variable: Public procurement performance

The regression coefficients in Table 6 show that capacity-building programs and training initiatives had a strong and positive effect on public procurement performance at Rwanda Medical Supply. The constant value of 0.924 indicates that when capacity-building programs and training initiatives were held at zero, the estimated public procurement performance score was 0.924. The coefficient for capacity-building programs and training initiatives was $B = 0.760$, with a standard error of 0.045, indicating that a one-unit increase in capacity-building programs and training initiatives was associated with an estimated 0.760-unit increase in public procurement performance. The standardized Beta coefficient of 0.842 indicates a strong positive contribution of capacity-building programs and training initiatives to public procurement performance. The

t-value of 16.907 and significance level of $p = 0.000 < 0.05$ show that the effect was statistically significant. These results indicate that effective supplier training, technical workshops, mentoring and advisory support, and guidance on regulatory and quality requirements were strongly associated with improved public procurement performance at Rwanda Medical Supply.

4.2. Discussion of Findings

The discussion of findings was guided by the objective of the study, which was to evaluate the role of capacity-building programs and training initiatives on public procurement at Rwanda Medical Supply. The findings

showed that capacity-building programs and training initiatives played an important role in strengthening local suppliers by improving their technical knowledge, understanding of procurement requirements, compliance with regulatory and quality standards, and ability to meet production and delivery requirements. The findings further indicated that training, workshops, mentoring, advisory support, and guidance provided by Rwanda Medical Supply contributed to strengthening supplier readiness and supporting effective procurement activities. These findings were consistent with Chagalima et al. (2021), who emphasized that supplier development interventions, including training, technical assistance, mentorship, and knowledge transfer, help address supplier capability gaps and enable suppliers to meet public procurement requirements. The findings therefore suggest that capacity-building initiatives can provide an important foundation for improving the preparedness and capabilities of local suppliers participating in public procurement.

The findings also revealed that capacity-building programs and training initiatives were associated with improved public procurement performance at Rwanda Medical Supply. Strengthening suppliers through training and technical support enabled them to better understand procurement procedures, comply with required standards, improve their production capabilities, and meet delivery expectations. This finding was in agreement with Chagalima et al. (2022), who established that supplier development contributes to improved public procurement performance by strengthening suppliers' capabilities and their ability to fulfil contractual requirements. Similarly, Sikombe and Phiri (2022) found that institutionalized supplier development initiatives supported knowledge transfer and improved operational performance among suppliers. The present findings therefore reinforce the argument that developing the skills and capabilities of local suppliers can contribute to more effective procurement processes and improved performance of public procurement activities.

The findings further showed that training and capacity-building initiatives were important in addressing some of the challenges faced by suppliers in meeting procurement requirements. Through workshops, technical guidance, mentoring, and advisory support, suppliers were better positioned to improve their understanding of regulatory requirements and quality standards and to strengthen their production and delivery capabilities. This finding was consistent with Kigenza et al. (2023), who found that workforce development interventions involving training, mentorship, supervision, and performance improvement contributed to improvements in Rwanda's health supply-chain operations. The findings therefore demonstrate the importance of continuous capacity development in the health supply chain, particularly where suppliers are

expected to meet specific quality, regulatory, production, and delivery requirements.

The findings were also supported by Human Capital Theory, which explains that investment in knowledge, skills, training, and education improves the capabilities and productivity of individuals and organizations. In the context of this study, capacity-building programs and training initiatives provided local suppliers with knowledge and skills that could strengthen their ability to participate effectively in public procurement. Training on procurement procedures, regulatory requirements, quality standards, and delivery expectations could therefore enhance supplier readiness and contribute to improved procurement performance. Human Capital Theory consequently provides a suitable explanation for the findings because suppliers with stronger knowledge and technical capabilities are better positioned to meet procurement requirements and perform their contractual responsibilities effectively. Overall, the findings indicate that capacity-building programs and training initiatives were an important component of strengthening local supplier readiness and supporting improved public procurement performance at Rwanda Medical Supply.

5. Conclusion and Recommendations

5.1 Conclusion

The study concluded that capacity-building programs and training initiatives played an important role in enhancing public procurement performance at Rwanda Medical Supply (RMS). The findings showed that RMS used workshops, technical guidance, mentoring, advisory support, and training on regulatory and quality requirements to strengthen the capabilities of local suppliers. These initiatives improved suppliers' understanding of procurement requirements, compliance with standards, production capabilities, and ability to meet delivery expectations. The study therefore concluded that strengthening the knowledge, technical skills, and capabilities of local suppliers contributed to improved public procurement performance at RMS, while continued investment in training, mentoring, technical assistance, and supplier development remained important for strengthening local supplier readiness and sustaining effective public procurement. Human Capital Theory supported this conclusion by emphasizing that investment in knowledge and skills strengthens capabilities and contributes to improved performance.

5.2 Recommendations

Based on the findings of this study, the following recommendations are proposed:

1. Rwanda Medical Supply should continue and strengthen supplier training and workshops aimed at improving the technical skills and knowledge of local suppliers. Such training should focus on the practical requirements necessary for suppliers to effectively participate in public procurement.
2. Rwanda Medical Supply should strengthen guidance provided to local suppliers on procurement requirements. Clear and regular guidance should be provided to help suppliers understand procurement procedures and improve their compliance with the requirements established for public procurement.
3. Rwanda Medical Supply should strengthen mentoring and advisory support for local suppliers. Regular mentorship and technical advice should be provided to help suppliers identify capability gaps, improve their operations, and become better prepared to meet procurement requirements.
4. Rwanda Medical Supply should continue providing guidance on regulatory and quality standards. Suppliers should receive adequate information and technical support to enable them to meet the required regulatory and quality standards for medical supplies.

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