



Assessing the Effectiveness of Prime Vendor System for Public Health Performance; A Case of Iringa Municipality, Tanzania

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ABSTRACT

This study examined Effectiveness of Prime Vendor System for Public Health Performance in Iringa Municipality. Specifically, the study assessed the level of effectiveness of operational efficiency of the Prime Vendor System (PVS) in enhancing public health performance in Iringa Municipality, Tanzania. A mixed-methods research approach was employed, involving 130 questionnaire respondents and 24 key informants, making a total sample of 154 participants. Data were collected through questionnaires, semi-structured interviews, and documentary review. Quantitative data were analyzed using descriptive statistics through the Statistical Package for the Social Sciences (SPSS) version 26, while qualitative data were analyzed thematically. The reliability of the questionnaire was satisfactory, with a Cronbach's alpha coefficient of 0.82. The findings indicated that the PVS had improved operational efficiency in public health facilities. Regarding order fulfilment, 66.1% of respondents agreed that orders placed through PVS were fulfilled completely, 62.3% indicated that partial deliveries were rare, and 70.0% agreed that the quantities requested matched those delivered. Regarding procurement delays, 71.6% agreed that PVS had minimized procurement delays, 66.9% reported that the time between placing orders and receiving supplies had decreased, while 70.8% indicated that administrative procedures had become faster under PVS. Key informants further confirmed that PVS had improved procurement responsiveness, supplier communication, order tracking, and delivery consistency, although occasional delays associated with supplier logistics and peak demand were reported. The study concludes that PVS has contributed to improved operational efficiency, particularly through timely procurement processes, better order fulfilment, and reduced procurement delays, thereby supporting the availability of medicines and medical supplies and the delivery of health services. The study recommends strengthening supplier performance monitoring, procurement planning, order tracking, contract compliance, communication, and supportive supervision to sustain and improve PVS performance.

Keywords: *Prime Vendor System, operational efficiency, order fulfilment, procurement delays, timely delivery, public health performance, health facilities.*

1. Introduction

Public health systems in many low- and middle-income countries continue to experience challenges in the procurement and distribution of medicines and other essential health commodities. Frequent stock-outs, lengthy procurement procedures, inadequate supply chain coordination, and weaknesses in supplier performance can limit the ability of health facilities to provide uninterrupted health services. In Tanzania, the Medical Stores Department (MSD) serves as the principal pharmaceutical supplier to public health facilities; however, increasing demand and supply limitations have contributed to situations in which facilities require alternative sources of medicines and medical supplies (Wiedenmayer et al., 2022).

Public-private procurement arrangements have consequently gained attention as a strategy for complementing conventional public pharmaceutical supply systems. In Tanzania, the Jazia Prime Vendor System (PVS) was introduced as a public-private partnership through which contracted private pharmaceutical suppliers provide medicines and medical supplies that are unavailable through the regular MSD supply chain. The system was designed to make supplementary procurement more transparent, efficient and responsive to facility needs (Mbepera et al., 2023). Evidence from the initial implementation of the Jazia PVS demonstrated improvements in medicine availability and reductions in some of the administrative difficulties associated with purchasing medicines from multiple private suppliers (Kuwawenaruwa et al., 2020).

The Prime Vendor System has also been associated with improvements in the availability of essential medicines at public health facilities. A study of the Jazia PVS in Tanzania found that medicine availability increased substantially during the pilot period, while procurement procedures became more standardized and transparent. The study reported an increase in tracer medicine availability from 69% in 2014 to 94% in 2018, demonstrating the potential of the system to complement the national pharmaceutical supply chain (Wiedenmayer et al., 2019). These findings indicate that the involvement of private suppliers through a structured contractual arrangement can contribute to strengthening medicine availability within public health facilities.

However, the effectiveness of a Prime Vendor System depends on more than the availability of private suppliers. Accountability mechanisms, contractual compliance, monitoring and coordination between health facilities and vendors are important for ensuring that the system operates as intended. Research on the Jazia PVS in Tanzania found that financial, performance and procedural accountability mechanisms were important in influencing the performance of the system (Kuwawenaruwa et al., 2020). Similarly, a study examining the acceptability of the Jazia PVS found that stakeholders' perceptions of

increased medicine availability, order fulfilment, timely delivery and collaboration with district managers contributed to acceptance of the system. The study also emphasized the importance of selecting competent vendors and adhering to contractual agreements (Kuwawenaruwa et al., 2021).

Cost considerations are another important dimension of public-private procurement arrangements. The establishment of a Prime Vendor System involves financial and administrative costs associated with contracting, procurement management, monitoring and coordination. Evidence from Tanzania has examined the costs and cost drivers associated with establishing the Jazia PVS and demonstrated the importance of assessing the economic implications of using a contracted private supplier to complement the national medicine supply chain (Kuwawenaruwa et al., 2020). This suggests that assessment of the system should consider not only medicine availability but also the efficiency of procurement and management processes.

Evidence from more recent studies further indicates that the effectiveness of the Prime Vendor System is not uniform across all settings. Pyuza et al. (2023), for example, found that the availability of health commodities in Singida Region increased following implementation of the Jazia PVS, although order fulfilment and timely payment remained challenges. The study reported that prompt payment to vendors was important for strengthening the performance of the system. In another study conducted in Arusha District Council, Elias and Mushi (2024) found that the PVS was not completely effective, with challenges related to vendors' capacity to fulfil orders, lack of supply competition and non-adherence to contractual terms. These findings demonstrate that the implementation of a Prime Vendor System does not automatically guarantee effective procurement and medicine availability.

In Tanzania, public-private procurement practices have also been found to vary in their efficiency and transparency. Wiedenmayer et al. (2022) reported that procurement of medicines from private suppliers was associated with several procedural and management challenges before the implementation of the Jazia PVS in Dar es Salaam. Such evidence highlights the importance of examining how procurement arrangements operate within particular geographical and institutional contexts.

In Iringa Municipality, the Prime Vendor System forms part of the broader effort to strengthen medicine procurement and availability in public health facilities. However, despite evidence from other regions of Tanzania, there is limited published empirical evidence specifically examining the effectiveness of the Prime Vendor System in Iringa Municipality. Findings from Dodoma, Singida, Dar es Salaam and Arusha cannot automatically be generalized to Iringa because differences in facility management, procurement practices, vendor performance, payment mechanisms and monitoring arrangements may influence system effectiveness. This creates a contextual empirical gap that warrants further investigation. Therefore, this study will assess the effectiveness of the Prime Vendor System in improving public health performance in Iringa Municipality, Tanzania.

1.1 Specific Objective

The specific objective for this study was;

- To evaluate the level of effectiveness of operational efficiency of the PVS in enhancing public health performance at Iringa Municipality, Tanzania.

2. Empirical Literature Review

2.1 Theoretical Review

The study is guided by Supply Chain Management (SCM) Theory and Public-Private Partnership (PPP) Theory. SCM Theory, developed by Mentzer et al. (2001), emphasizes coordination, integration, information sharing, procurement, distribution, and performance management across supply chain actors. It is relevant to this study because it explains how effective coordination of PVS activities can improve timely delivery, procurement responsiveness, order fulfilment, vendor coordination, and availability of medicines (Christopher, 2022; WHO, 2021). PPP Theory emphasizes collaboration between public institutions and private entities in delivering public services through clearly defined responsibilities, contractual arrangements, accountability, and performance monitoring (Osborne, 2000; Hodge & Greve, 2022). It is applicable to the PVS because the system involves collaboration between government health institutions and private vendors in supplying medicines and medical supplies. Together, the two theories provide a basis for examining how supply chain coordination and public-private contractual relationships influence the operational efficiency of the PVS and, consequently, public health performance in Iringa Municipality.

2.2 Empirical Literature Review

Kuwawenaruwa et al. (2021) examined the acceptability and operational performance of the Jazia Prime Vendor System (PVS) in four districts of Tanzania. The study used a qualitative approach involving 14 focus group discussions, seven group discussions, and 30 in-depth interviews with health workers and other stakeholders. Data were analysed using framework analysis. The findings showed that stakeholders generally considered the PVS acceptable because it improved the availability of medicines, order fulfilment, and timely delivery. The study further showed that effective vendor selection, compliance with contractual requirements, and good coordination between health facilities and vendors were important for successful implementation of the PVS. The strength of this study was its qualitative approach, which provided detailed information about the experiences and perceptions of stakeholders involved in the implementation of the PVS. The involvement of different stakeholder groups also provided a broad understanding of the benefits and challenges associated with the system. However, the study mainly focused on stakeholder perceptions and did not quantitatively measure operational efficiency using indicators such as procurement lead time, order fulfilment, delivery performance, or stock availability.

In addition, the study was conducted in only four districts, which limits the generalisation of its findings to other geographical and institutional settings. Therefore, there is a need for further research using measurable indicators to assess the operational efficiency of the PVS in specific settings such as Iringa Municipality.

Pyuza et al. (2023) assessed the performance of the Jazia PVS in improving the availability of health commodities in Singida Region, Tanzania. The study used a pre- and post-evaluation design involving 138 public health facilities. Quantitative data were analysed using statistical tests, while additional information was obtained through document reviews and interviews. The findings showed that the mean availability of health commodities increased from 54.39% before implementation of the PVS to 59.17% after implementation. The study also found that 73.7% of orders were delivered on time, although the overall order fulfilment rate remained low. Delayed payment to vendors was identified as one of the factors affecting the performance of the system. The strength of the study was its pre- and post-evaluation design, which enabled the researchers to compare commodity availability before and after implementation of the PVS. The study also used actual supply-chain data rather than relying entirely on respondents' perceptions. However, the study focused mainly on medicine availability, delivery performance, and order fulfilment. It gave limited attention to other dimensions of operational efficiency, including procurement responsiveness, vendor coordination, and contract management. Furthermore, the study was conducted in Singida Region, and its findings may not fully reflect the operational conditions in Iringa Municipality. This creates a need for further research to assess PVS operational efficiency in other geographical settings.

Elias and Mushi (2024) assessed the effectiveness of the Prime Vendor System in the availability of medicines and medical supplies in selected public health facilities in Arusha District Council, Tanzania. The study used a mixed-method approach and involved 77 respondents, including health facility in-charges, patients, a district pharmacist, and a prime vendor. Data were collected using questionnaires, interviews, and observation. The findings showed that the average availability of medicines and medical supplies was 74.8%. However, 80% of the facilities experienced medicine shortages, while 92% of patients reported that they did not receive all the medicines they required. The study identified inadequate vendor capacity, limited competition among suppliers, and failure to comply with contractual requirements as challenges affecting the effectiveness of the PVS. The strength of this study was its use of a mixed-method approach and inclusion of both service providers and service users. This enabled the researchers to obtain information about PVS performance from different perspectives. However, the study was conducted in Arusha District Council and focused mainly on medicine and medical-supply availability. It did not comprehensively examine other operational efficiency indicators such as procurement lead time, payment efficiency, vendor coordination, and contract management. Therefore, the findings cannot automatically be generalised to Iringa Municipality, where health facilities may face different procurement and supply-chain conditions.

Wiedenmayer et al. (2019) examined the development of the Jazia Prime Vendor System from its pilot stage to its wider implementation in Tanzania. The study described the PVS as a public-private partnership designed to complement the Medical Stores Department by providing medicines that were unavailable through the normal public supply system. The study reported improvements in medicine availability during the pilot implementation and highlighted the importance of vendor selection, contractual arrangements, monitoring, and coordination in the successful implementation of the system. The strength of this study was that it provided evidence on the development and implementation of the Jazia PVS in Tanzania. It also explained how the system was designed to complement the existing public medicine supply chain. However, the study mainly examined the development and scale-up of the PVS rather than measuring operational efficiency at individual health facilities. Consequently, it provides limited evidence on current operational performance in specific municipalities. This creates a need for further empirical research focusing on measurable operational indicators within specific local contexts.

2.2 Knowledge Gap

Although previous studies have examined the Jazia Prime Vendor System (PVS) in Tanzania, limited attention has been given to its operational efficiency, particularly in terms of procurement responsiveness, delivery timeliness, order fulfilment, vendor coordination, and contract compliance. Existing studies by Wiedenmayer et al. (2019), Kuwawenaruwa et al. (2021), Mbwasii et al. (2022), Pyuza et al. (2023), and Elias and Mushi (2024) focused mainly on medicine availability, stakeholder acceptability, procurement practices, and delivery performance in other locations. Moreover, limited empirical evidence exists on PVS operational efficiency in Iringa Municipality. This geographical and conceptual gap necessitates the present study to assess the operational efficiency of the PVS in enhancing public health performance in Iringa Municipality, Tanzania.

2.3 Conceptual Framework

The conceptual framework illustrates the relationship between operational efficiency of the Prime Vendor System (PVS) and public health performance in Iringa Municipality, Tanzania. Operational efficiency, the independent variable, will be measured through timely delivery, procurement responsiveness, order fulfilment, vendor coordination, and contract compliance. Public health performance, the dependent variable, will be assessed through availability of essential medicines, reduction of medicine stock-outs, timely provision of health services, and improved service delivery. The framework assumes that improved operational efficiency of the PVS enhances the timely availability of medicines and medical supplies, reduces supply interruptions, and consequently contributes to improved public health performance.

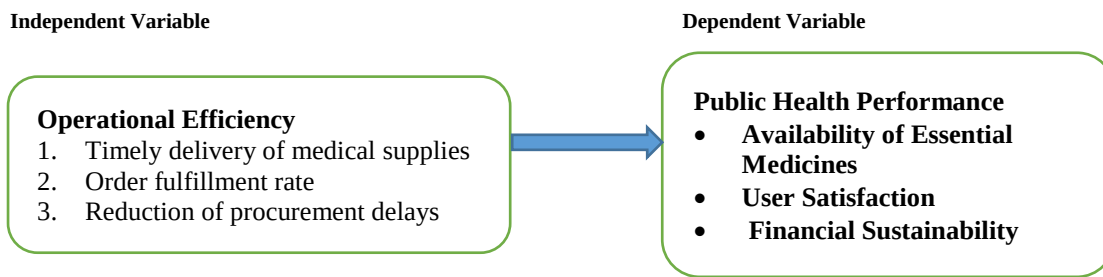


Figure 1: Conceptual Framework on Public Health Performance

Source: Researcher's Data (2026)

3. Research Methodology

The study was conducted in Iringa Municipality, Iringa Region, Tanzania, and covered five selected public health facilities: Iringa Regional Referral Hospital (IRRH), Frelimo Health Centre, Itamba Health Centre, Ngome Health Centre, and UMAT Health Centre. The municipality was selected because the Prime Vendor System (PVS) is implemented in its public health facilities, providing an appropriate setting for assessing its operational efficiency and contribution to public health performance. The study employed a mixed-methods approach combining quantitative and qualitative methods. A descriptive cross-sectional research design was used to collect information from respondents during a single study period (Creswell & Creswell, 2023).

The study population comprised 250 stakeholders directly involved in procurement, pharmaceutical services, stores management, and supervision of the PVS. These included health facility managers, procurement officers, pharmacists and pharmaceutical technicians, storekeepers, and relevant district health officials. Stratified random sampling was used to select questionnaire respondents from different professional categories, while purposive sampling was used to select key informants based on their knowledge and direct involvement in PVS implementation and supervision. The sample size was determined using Yamane's (1967) formula, at a 5% margin of error. Using a population of 250, the calculated sample size was 154, comprising 130 questionnaire respondents and 24 key informants.

The study used both primary and secondary data. Primary data were collected through structured questionnaires administered to 130 respondents and semi-structured interviews conducted with 24 key informants. Secondary data were obtained through review of PVS records, procurement documents, medicine and inventory records, health facility reports, relevant government documents, and published empirical studies. These data collection techniques provided quantitative and qualitative evidence on procurement responsiveness, timely delivery, order fulfilment, vendor coordination, contract compliance, medicine availability, and public health performance.

Quantitative data were coded and analysed using SPSS version 26, with frequencies and percentages used to summarize respondents' views. Qualitative data obtained from interviews and documents were analysed thematically, and findings from both approaches were integrated to facilitate triangulation. Reliability of the questionnaire was assessed using Cronbach's Alpha, which produced a coefficient of 0.82 for 33 items, exceeding the recommended threshold of 0.70 and indicating satisfactory internal consistency. Content validity was established through expert review, while construct validity was assessed using the KMO and Bartlett's tests. The KMO value was 0.85, while Bartlett's Test was statistically significant ($\chi^2 = 324.56$, $df = 190$, $p < .001$), indicating that the data were suitable for factor analysis.

Ethical principles were observed throughout the study. Participants provided informed consent and were informed that participation was voluntary and that they had the freedom to withdraw at any time without penalty. Confidentiality and anonymity were maintained by using identification codes instead of participants' names and protecting the information provided. Permission to conduct the study was obtained from the relevant authorities and participating health facilities. These procedures ensured that participants' rights, privacy, and welfare were protected throughout the research process.

4. Results and Discussion

4.1 Demographic Data of the Respondents

Table 1 presents the demographic characteristics of the 130 respondents in terms of gender, age, level of education, position/designation, years of work experience, and type of health facility. The findings show that 72 (55.4%) respondents were male, while 58 (44.6%) were female, indicating that both male and female respondents were adequately represented. Regarding age, respondents aged 26–35 years constituted the largest group, accounting for 41 (31.5%), followed by those aged 36–45 years with 35 (26.9%). Respondents aged 18–25 years accounted for 22 (16.9%), those aged 46–55 years for 20 (15.4%), and those above 55 years for 12 (9.3%). Thus, respondents aged 26–45 years formed the largest proportion of the sample.

In terms of education level, 46 (35.4%) respondents had Bachelor's degrees, 42 (32.3%) had Diploma qualifications, 28 (21.5%) had Certificate qualifications, while 14 (10.8%) had Master's degrees or above. The findings indicate that most respondents had diploma-level education or higher, suggesting that the majority had an educational background relevant to health service delivery and procurement-related activities. Regarding respondents' positions, Health Officers constituted the largest group with 38 (29.2%), followed by Pharmacists with 30 (23.1%), Procurement Officers with 24 (18.5%),

Storekeepers with 20 (15.4%), and other positions with 18 (13.8%). This distribution shows that the study included respondents from key professional groups involved in health service delivery, procurement, pharmaceutical management, and storage of medical supplies.

Regarding years of work experience, 36 (27.7%) respondents had 1–3 years of experience, 34 (26.2%) had 4–6 years, 25 (19.2%) had 7–10 years, 18 (13.8%) had less than one year, and 17 (13.1%) had more than 10 years of experience. The findings indicate that most respondents had between 1 and 6 years of work experience, suggesting that the study included participants with practical exposure to health facility operations and PVS implementation. Finally, regarding type of health facility, 36 (27.7%) respondents were from district hospitals, 35 (26.9%) from dispensaries, 32 (24.6%) from health centres, and 27 (20.8%) from regional hospitals. Overall, the demographic characteristics show that the study included respondents with varied professional backgrounds, educational qualifications, work experience, and health facility settings, providing an appropriate basis for assessing the operational efficiency of the Prime Vendor System and its contribution to public health performance in Iringa Municipality.

Table 1: Demographic Characteristics of Respondents

Variable	Category	Frequency	Percentage (%)
Gender	Male	72	55.4
	Female	58	44.6
	Total	130	100.0
Age	18–25 years	22	16.9
	26–35 years	41	31.5
	36–45 years	35	26.9
	46–55 years	20	15.4
	Above 55 years	12	9.3
	Total	130	100.0
Highest Level of Education	Certificate	28	21.5
	Diploma	42	32.3
	Bachelor's Degree	46	35.4
	Master's Degree and Above	14	10.8
	Total	130	100.0
Position/Designation	Pharmacist	30	23.1
	Health Officer	38	29.2
	Procurement Officer	24	18.5
	Storekeeper	20	15.4
	Other	18	13.8
	Total	130	100.0
Years of Experience	Less than 1 year	18	13.8
	1–3 years	36	27.7
	4–6 years	34	26.2
	7–10 years	25	19.2
	More than 10 years	17	13.1
	Total	130	100.0
Type of Health Facility	Dispensary	35	26.9
	Health Centre	32	24.6
	District Hospital	36	27.7

Variable	Category	Frequency	Percentage (%)
	Regional Hospital	27	20.8
	Total	130	100.0

Source: Researchers' Data (2026)

4.2 The level of effectiveness of operational efficiency of the PVS in enhancing public health performance in Iringa Municipality

This section presents and discusses the findings on the level of effectiveness of operational efficiency of the Prime Vendor System (PVS) in enhancing public health performance in Iringa Municipality. Operational efficiency is a key dimension of supply chain performance that reflects how well health facilities manage procurement processes, delivery systems, and coordination of medical supplies to ensure timely availability of essential medicines. In the context of this study, operational efficiency is assessed through three main indicators: timely delivery of medical supplies, order fulfilment rate, and reduction of procurement delays.

4.2.1 Timely Delivery of Medical Supplies

This section presents and discusses the findings on timely delivery of medical supplies as one of the key indicators of operational efficiency under the Prime Vendor System (PVS). Timely delivery is a critical aspect of public health supply chain performance because it ensures that essential medicines and medical supplies are available at the right place and at the right time, thereby supporting uninterrupted healthcare service delivery. The analysis focuses on respondents' views regarding whether medicines are delivered on schedule, whether delays rarely occur under the PVS, and whether delivery schedules are communicated clearly in advance. The findings provide insight into how effectively the Prime Vendor System has improved coordination and reliability in the distribution of medical supplies within public health facilities in Iringa Municipality.

Table 2: Timely Delivery of Medical Supplies

Statement	Strong Disagree	Disagree	Neutral	Agree	Strong Agree	Total
Timely Delivery	F/%	F/%	F/%	F/%	F/%	F/%
Medicines and supplies are delivered to the facility on the scheduled date.	8 (6.2%)	12 (9.2%)	18 (13.8%)	54 (41.5%)	38 (29.3%)	130 (100%)
Delays in the delivery of medicines rarely occur under the Prime Vendor System.	10 (7.7%)	15 (11.5%)	20 (15.4%)	50 (38.5%)	35 (26.9%)	130 (100%)
The delivery schedule is communicated clearly in advance.	7 (5.4%)	11 (8.5%)	17 (13.1%)	56 (43.0%)	39 (30.0%)	130 (100%)

Source: Researchers' Data (2026)

4.2.1.1 Medicines and supplies are delivered to the facility on the scheduled date

The findings presented in Table 2 indicate that the majority of respondents had a positive perception regarding the timely delivery of medicines and medical supplies under the Prime Vendor System (PVS). Specifically, 54 respondents (41.5%) agreed and 38 respondents (29.3%) strongly agreed that medicines and supplies are delivered to the facility on the scheduled date. Meanwhile, 18 respondents (13.8%) were neutral, while 12 respondents (9.2%) disagreed and 8 respondents (6.2%) strongly disagreed. This pattern shows that most respondents acknowledge improvements in delivery timeliness under the PVS, although a small proportion still experience delays or inconsistencies. The implication of these findings is that the Prime Vendor System has generally improved operational efficiency in terms of timely delivery of medical supplies in public health facilities. Timely delivery is essential in ensuring continuous availability of medicines, reducing stock-outs, and supporting uninterrupted healthcare service delivery. However, the presence of neutral and negative responses suggests that some challenges still exist, including logistical constraints, transport inefficiencies, and occasional supplier delays in certain facilities. The quantitative findings indicated that the Prime Vendor System has improved the timeliness of medical supplies delivery in health facilities. The qualitative findings further supported these results. . The Medical Officer In-Charge at Iringa Regional Referral Hospital explained:

The Prime Vendor System has significantly improved the timeliness of medical supplies delivery at our hospital. Before its implementation, we frequently experienced delays in receiving essential medicines and medical supplies, which sometimes affected service delivery and patient care. However, under the PVS, orders are processed more efficiently, and deliveries are made within the expected timeframes. This has helped us maintain adequate stock levels and reduce interruptions in healthcare services. Although occasional delays still occur due to transportation or supplier-related challenges, the overall situation has improved considerably compared to the previous procurement system. (Key Informant No.1, 15 May 2026)

Similarly, the qualitative interview findings from the Procurement Officer at Frelimo Health Center revealed that:

From our experience, the Prime Vendor System has greatly enhanced the timely delivery of medicines and medical supplies. The system has established a more reliable supply chain, allowing health facilities to receive ordered items faster and in a more predictable manner. Timely deliveries have improved our ability to plan healthcare services and respond effectively to patient needs. The reduction in waiting time for essential supplies has also minimized the risk of stock shortages and enabled us to provide continuous quality care. Overall, the PVS has played an important role in strengthening procurement efficiency and improving healthcare service delivery. (Key Informant No.2, 12 May 2026)

The qualitative findings indicate that the Prime Vendor System (PVS) has significantly improved the timeliness of medical supplies delivery in health facilities. Both key informants acknowledged that the system has enhanced the reliability and predictability of the supply chain, resulting in faster delivery of medicines and medical supplies. The responses suggest that timely deliveries have helped health facilities maintain adequate stock levels, reduce interruptions in service provision, and improve the quality of patient care. The findings further imply that the PVS has strengthened procurement efficiency by minimizing delays that were common under previous procurement arrangements. Furthermore, the qualitative findings reveal that improved timeliness of deliveries has enhanced planning and resource management within health facilities. The ability to receive supplies within expected timeframes enables health managers to forecast needs more accurately, reduce the likelihood of stock-outs, and ensure continuous availability of essential medicines. Although occasional challenges such as transportation delays were mentioned, the overall perception among the key informants is that the PVS has made a positive contribution to operational efficiency and public health performance by improving the responsiveness and effectiveness of the medical supply system.

The findings are supported by Mganga et al. (2025), who examined factors affecting the performance of the Prime Vendor System among 149 public health facilities in Tanzania Mainland. The study assessed the availability of PVS management tools, order fulfilment and delivery lead times. The findings showed that lead times varied across regions and were generally longer than the recommended 14 working days, ranging from 17 to 27 days. Although the study identified delays as an area requiring improvement, the findings demonstrate that the PVS had an established delivery mechanism through which health commodities were transported from regional prime vendors to councils and health facilities. The current finding is more favourable because 70.8% of respondents in Iringa Municipality reported that medicines and supplies were delivered on the scheduled date. The difference may be associated with variations in vendor performance, geographical conditions and facility-level implementation of the PVS.

Similarly, Elias and Mushi (2024) assessed the effectiveness of the PVS in selected public health facilities in Arusha District Council using a mixed-method case study involving 77 respondents, including health facility in-charges, patients, a district pharmacist and a prime vendor. The study examined the contribution of the PVS to the supply of medicines and medical supplies and reported that the system contributed to improving the supply situation in the selected facilities, although challenges in availability and supply-chain consistency remained. This supports the current finding by demonstrating that the PVS can improve the regularity of commodity supply when the procurement and distribution arrangements are functioning effectively.

4.2.1.2 Delays in the delivery of medicines rarely occur under the Prime Vendor System

The findings presented in Table 2 show that most respondents perceived a reduction in delivery delays under the Prime Vendor System (PVS). Specifically, 50 respondents (38.5%) agreed and 35 respondents (26.9%) strongly agreed that delays in the delivery of medicines rarely occur under the PVS. Meanwhile, 20 respondents (15.4%) were neutral, 15 respondents (11.5%) disagreed, and 10 respondents (7.7%) strongly disagreed. This indicates that a majority of respondents acknowledge improved reliability in delivery timelines, although a minority still report occasional delays. The implication of these findings is that the Prime Vendor System has contributed to improving supply chain responsiveness in public health facilities by reducing the frequency of delivery delays. This improvement enhances operational efficiency by ensuring timely availability of essential medicines, which supports uninterrupted service delivery and reduces risks of stock-outs. However, the presence of neutral and negative responses suggests that delays have not been fully eliminated, possibly due to transportation challenges, supplier capacity issues, or administrative inefficiencies in some facilities.

Evidence from Kessy et al. (2023) provides relevant support. The study examined lean thinking in medical commodity supply chains in Tanzania and explored the processes affecting the movement of health commodities through the supply chain. The researchers found that delays could occur during ordering and delivery because of lengthy order-processing procedures, misalignment between financial and material flows, and information-system interoperability problems. These findings are important to the current study because they show that delivery delays are not determined solely by the supplier but can also arise from weaknesses in ordering, information processing and coordination. The relatively high proportion of respondents in the present study who reported that delays rarely occurred suggests that these operational barriers were less pronounced in the selected facilities.

Further evidence is provided by Mganga et al. (2024), who examined the fidelity of PVS implementation among 356 respondents from Dodoma, Morogoro, Mtwara and Mwanza regions. The study identified several implementation challenges, including variations in procurement practices and limited awareness of delivery timelines. The study found that 56.18% of respondents were unaware of the delivery timelines used by prime vendors for different destinations. Such implementation weaknesses can contribute to uncertainty and delays in receiving commodities. In contrast, the current study found that 65.4% of respondents agreed that delays rarely occurred, suggesting relatively better delivery performance among the selected facilities in Iringa Municipality.

4.2.1.3 The delivery schedule is communicated clearly in advance

The findings presented in Table 2 indicate that most respondents agreed that delivery schedules under the Prime Vendor System (PVS) are communicated clearly in advance. Specifically, 56 respondents (43.0%) agreed and 39 respondents (30.0%) strongly agreed that the delivery schedule is clearly

communicated. On the other hand, 17 respondents (13.1%) were neutral, while 11 respondents (8.5%) disagreed and 7 respondents (5.4%) strongly disagreed. This pattern shows that a large majority of respondents acknowledge effective communication of delivery schedules under the PVS, although a small proportion still experience communication gaps. The implication of these findings is that the Prime Vendor System has improved coordination and communication between suppliers and health facilities in Iringa Municipality. Clear communication of delivery schedules enables health facilities to plan effectively for storage, distribution, and utilization of medical supplies, thereby reducing operational disruptions. It also contributes to improved inventory planning and reduces the likelihood of unexpected stock-outs. However, the presence of neutral and negative responses suggests that communication is not fully consistent across all facilities, which may be due to differences in supplier responsiveness or weak information-sharing mechanisms in some areas.

Mganga et al. (2024) provides direct evidence on communication of delivery timelines. The study, which involved 356 PVS implementers from four regions of Tanzania, found that 56.18% of respondents were unaware of the delivery timelines used by prime vendors for different destinations. The finding demonstrates that communication and awareness of delivery schedules remain important implementation issues within the PVS. The current study presents a more positive situation, with 73.0% of respondents agreeing that delivery schedules were clearly communicated in advance. This difference may indicate stronger communication and coordination between prime vendors and health facilities in the selected facilities in Iringa Municipality.

Additional evidence can be drawn from Mbwasii et al. (2024), who examined price and procurement arrangements involving contracted regional prime vendors, private suppliers and the Medical Stores Department in Tanzania. The study identified lead time and reliable service as important criteria in the selection of prime vendors. The emphasis on lead time and reliable service demonstrates the importance of clear expectations concerning when commodities should be delivered and the ability of suppliers to comply with those expectations. This is consistent with the current finding that most respondents received delivery schedules in advance, enabling facilities to anticipate and prepare for incoming commodities.

4.2.2 Order Fulfilment Rate

This section presents and discusses the findings on order fulfilment rate as an indicator of operational efficiency under the Prime Vendor System (PVS). Order fulfilment rate refers to the extent to which the Prime Vendor is able to supply the medicines and medical supplies requested by health facilities in the correct quantities and within the required time. A high order fulfilment rate is essential for ensuring continuous availability of medicines, reducing stock shortages, and supporting effective healthcare service delivery. The analysis focuses on respondents' perceptions regarding the completeness of orders placed to the Prime Vendor, the occurrence of partial deliveries, and the extent to which delivered quantities match the quantities requested by health facilities. The findings provide insight into the effectiveness of the Prime Vendor System in meeting the supply needs of public health facilities and enhancing overall public health performance in Iringa Municipality.

Table 3: Order Fulfilment Rate

Statement	Strong Disagree	Disagree	Neutral	Agree	Strong Agree	Total
Order Fulfilment Rate	F/%	F/%	F/%	F/%	F/%	F/%
Orders placed to the Prime Vendor are fulfilled completely.	9 (6.9%)	14 (10.8%)	21 (16.2%)	52 (40.0%)	34 (26.1%)	130 (100%)
Partial deliveries of ordered medicines are rare.	11 (8.5%)	16 (12.3%)	22 (16.9%)	48 (36.9%)	33 (25.4%)	130 (100%)
The Prime Vendor ensures that the requested quantities match what is delivered.	8 (6.2%)	12 (9.2%)	19 (14.6%)	55 (42.3%)	36 (27.7%)	130 (100%)

Source: Researchers' Data (2026)

4.2.2.1 Orders placed to the Prime Vendor are fulfilled completely

The findings in Table 3 show a generally positive perception regarding the completeness of order fulfilment under the Prime Vendor System (PVS). Specifically, 52 respondents (40.0%) agreed and 34 respondents (26.1%) strongly agreed that orders placed to the Prime Vendor are fulfilled completely. Meanwhile, 21 respondents (16.2%) were neutral, 14 respondents (10.8%) disagreed, and 9 respondents (6.9%) strongly disagreed. The pattern of data indicates that a majority of respondents (66.1%) expressed satisfaction with full order fulfilment, suggesting that the PVS is largely effective in ensuring that health facilities receive the quantities of medicines they request. However, the presence of neutral and negative responses shows that some facilities still experience incomplete deliveries, although at a lower proportion. The implication of these findings is that the Prime Vendor System has contributed to improved operational efficiency in public health facilities by enhancing the completeness of order fulfilment. When orders are fully satisfied, health facilities are able to maintain adequate stock levels, reduce the frequency of emergency procurement, and ensure continuous availability of essential medicines. However, the existence of some incomplete deliveries implies that challenges such as supplier stock limitations, forecasting inaccuracies, or distribution inefficiencies may still affect full order satisfaction in some cases. Overall, the system demonstrates strong performance, but there is still room for improvement in achieving consistent full-order fulfilment across all facilities.

The findings are supported by Mbepera et al. (2022), who assessed public-private procurement practices for medical commodities in Dar es Salaam, Tanzania. The study reviewed procurement records and found that the 72 completed orders placed with 17 prequalified private suppliers had an order fulfilment rate of 100%. The study demonstrates that private-sector supplier arrangements can achieve high levels of order fulfilment when procurement processes and supplier arrangements are effectively managed. Similarly, Mganga et al. (2025) examined factors affecting the performance of the PVS in complementing health commodities in public health facilities in Tanzania. The study involved 149 health facilities and assessed indicators including order lead time and order fulfilment. The authors found variations in PVS performance across regions, indicating that although the system contributes to the supply of health commodities, differences in implementation and supplier performance can affect fulfilment outcomes. The findings of the current study are broadly consistent with these studies because the majority of respondents reported that orders were completely fulfilled. However, the 17.7% of respondents who disagreed or strongly disagreed indicates that some facilities still experience incomplete fulfilment. This suggests that continued monitoring of supplier performance, order processing, and commodity availability is necessary to improve consistency in complete order fulfilment.

4.2.2.2 Partial deliveries of ordered medicines

The findings presented in Table 3 indicate a generally positive perception regarding the rarity of partial deliveries under the Prime Vendor System (PVS). Specifically, 48 respondents (36.9%) agreed and 33 respondents (25.4%) strongly agreed that partial deliveries of ordered medicines are rare. On the other hand, 22 respondents (16.9%) were neutral, while 16 respondents (12.3%) disagreed and 11 respondents (8.5%) strongly disagreed. The pattern of responses shows that a majority of respondents (62.3%) perceive partial deliveries as uncommon, suggesting that the PVS has improved consistency in supplying complete orders. However, the presence of neutral and negative responses indicates that partial deliveries still occur in some facilities, although not frequently. The implication of these findings is that the Prime Vendor System has enhanced operational efficiency by reducing cases of partial delivery in public health facilities. When partial deliveries are rare, health facilities can better plan their inventory levels and reduce disruptions caused by incomplete supply shipments. This contributes to improved continuity of healthcare services and reduces the need for repeated ordering or emergency procurement. However, the existence of some negative responses suggests that supply constraints, stock availability issues, or logistical challenges may still occasionally lead to incomplete deliveries.

The findings can be compared with Pyuza et al. (2023), who evaluated the performance of the Jazia PVS in Singida Region using records from 138 public health facilities. Their analysis of 421 recorded orders showed that only 25.9% of orders were fulfilled as requested, while 74.1% were not fulfilled as requested. The study therefore demonstrated that incomplete fulfilment can remain a challenge even where the PVS is operational. In contrast, Wiedenmayer et al. (2019) reported strong performance of the Jazia PVS during its pilot phase in Dodoma Region. The study reported an order fulfilment rate of 99% for the contracted Prime Vendor and found that the system had established standardized procedures for ordering, receiving, and monitoring supplies. The study therefore provides evidence that a well-coordinated PVS can achieve a high level of order fulfilment and reduce problems associated with incomplete supply. The findings of the current study fall between these contrasting empirical results. While 62.3% of respondents in Iringa Municipality considered partial deliveries to be rare, 20.8% reported that they were not rare and 16.9% remained neutral. This suggests that the PVS is performing relatively well in minimizing partial deliveries in the study area, but the problem has not been completely eliminated. Differences between facilities may be associated with supplier stock availability, variations in demand, ordering practices, and implementation of PVS procedures.

4.2.2.3 The Prime Vendor effectiveness on requested quantities

The findings presented in Table 3 indicate that respondents generally have a positive perception regarding the ability of the Prime Vendor to deliver quantities that correspond to those requested by health facilities. Specifically, 55 respondents (42.3%) agreed and 36 respondents (27.7%) strongly agreed that the Prime Vendor ensures that the requested quantities match what is delivered. Meanwhile, 19 respondents (14.6%) were neutral, while 12 respondents (9.2%) disagreed and 8 respondents (6.2%) strongly disagreed. The pattern of responses shows that the majority of respondents (70.0%) believe that the Prime Vendor consistently delivers quantities that align with facility orders. This suggests a high level of confidence in the vendor's ability to meet demand requirements accurately. However, the existence of a small proportion of neutral and negative responses indicates that discrepancies between ordered and delivered quantities still occur in some instances. The implication of these findings is that the Prime Vendor System has significantly improved operational efficiency by enhancing order accuracy in public health facilities. Accurate matching of requested and delivered quantities helps health facilities maintain adequate stock levels, improves inventory planning, and minimizes the occurrence of shortages or excess stock. It also reduces the need for corrective procurement actions and strengthens confidence in the supply chain system. Nevertheless, the responses from those who disagreed suggest that occasional mismatches may arise due to supplier stock limitations, forecasting errors, or logistical challenges during distribution. Therefore, continuous monitoring of supplier performance remains necessary to ensure consistency in order fulfilment.

The findings are supported by Kuwawenaruwa et al. (2021), who examined the acceptability of the Jazia PVS in public healthcare facilities in Tanzania. The study found that the ability of the Prime Vendor to supply medicines according to facility needs contributed to positive perceptions of the system. Participants reported very high order fulfilment and indicated that, in most cases, quantities requested by facilities were supplied as required, although a small number of items could occasionally be missing and supplied later. Further support is provided by Kuwawenaruwa et al. (2020), who assessed the costs and cost drivers associated with establishing the Jazia PVS in Tanzania. The study reported that the PVS had high medicine order fulfilment rates and that medicines were delivered within relatively short lead times. The findings indicate that the structured arrangement of facility orders through a contracted Prime Vendor can strengthen the reliability of complementary procurement and improve the ability of the system to respond to health facility commodity requirements. The findings of the current study are therefore consistent with the evidence from Tanzania showing that the PVS can strengthen the alignment between health facility requirements and supplies received. The 70.0% positive response in Iringa Municipality suggests that most

respondents perceive the Prime Vendor as capable of supplying quantities that correspond with facility orders. However, the 15.4% negative responses indicate that quantity discrepancies still occur in some cases. Such discrepancies may be associated with supplier stock availability, changes in facility demand, or limitations in order processing. Continuous monitoring of order accuracy and supplier performance is therefore important for sustaining effective order fulfilment.

4.2.3 Reduction of Procurement Delays

This section presents and discusses the findings on the reduction of procurement delays as one of the key indicators of operational efficiency under the Prime Vendor System (PVS). Procurement delay refers to the time lag experienced between identifying a need for medical supplies and the actual receipt of those supplies in health facilities. In public health systems, such delays can negatively affect service delivery by causing stock-outs, interrupting treatment processes, and forcing facilities to rely on emergency procurement, which is often costly and inefficient. Therefore, reducing procurement delays is essential for ensuring timely availability of medicines and improving overall health service performance.

Table 4: Reduction of Procurement Delays

Statement	Strong Disagree	Disagree	Neutral	Agree	Strong Agree	Total
Reduction of Procurement Delays	F/%	F/%	F/%	F/%	F/%	F/%
The PVS has minimized delays in the procurement process.	6 (4.6%)	13 (10.0%)	18 (13.8%)	57 (43.9%)	36 (27.7%)	130 (100%)
The time taken from placing an order to receiving supplies has significantly decreased.	9 (6.9%)	14 (10.8%)	20 (15.4%)	53 (40.8%)	34 (26.1%)	130 (100%)
Administrative procedures related to procurement are now faster under PVS.	7 (5.4%)	12 (9.2%)	19 (14.6%)	55 (42.3%)	37 (28.5%)	130 (100%)

Source: Researchers' Data (2026)

4.2.3.1 The PVS impact on delays in the procurement process

The findings presented in Table 4 indicate that the majority of respondents agreed that the Prime Vendor System (PVS) has minimized delays in the procurement process. Specifically, 57 respondents (43.9%) agreed and 36 respondents (27.7%) strongly agreed with the statement. Meanwhile, 18 respondents (13.8%) were neutral, while 13 respondents (10.0%) disagreed and 6 respondents (4.6%) strongly disagreed. The pattern of data shows that more than two-thirds of the respondents (71.6%) expressed positive opinions regarding the ability of the PVS to reduce procurement delays. This suggests that the system has improved the speed and efficiency of procurement activities in public health facilities. However, the presence of neutral and negative responses indicates that some respondents still experience delays in certain procurement processes. The implication of these findings is that the Prime Vendor System has enhanced operational efficiency by streamlining procurement procedures and reducing the time required to acquire medicines and medical supplies. Reduced procurement delays enable health facilities to obtain essential medicines more quickly, thereby improving medicine availability and ensuring continuity of healthcare services. Furthermore, minimizing delays contributes to better planning, efficient resource utilization, and reduced reliance on emergency procurement. The findings therefore suggest that the PVS has made a positive contribution to strengthening public health performance in Iringa Municipality through improved procurement efficiency. The qualitative findings revealed that the Prime Vendor System (PVS) has generally contributed to the reduction of procurement delays and improvement of order fulfilment rates across health facilities. In line with this view, the Senior Procurement Officer at Iringa Regional Referral Hospital (IRRH) stated that:

Yes, in my experience the Prime Vendor System has significantly reduced procurement delays and improved order fulfilment rates at our facility. Previously, the procurement process involved multiple administrative steps and lengthy approval procedures, which often caused delays and partial deliveries. Under the PVS, orders are processed more directly and suppliers are more accountable for timely delivery and completeness of orders. As a result, we now receive most of our supplies within the expected time and in the required quantities. However, occasional delays still happen, mainly due to supplier logistics or transportation issues, but overall performance has improved compared to the previous system. (Key Informant No.3, 10 May 2026)

Similarly, the Procurement Officer at Frelimo Health Center explained that:

From our operational experience, the PVS has greatly improved procurement efficiency, especially in reducing delays and ensuring better order fulfilment. We no longer experience long waiting periods after placing orders, and most deliveries now match the requested quantities. This has reduced stock interruptions and improved service continuity. The system has also improved communication between the facility and suppliers, making it easier to track orders. Although there are still minor challenges such as delayed responses in peak demand periods, the overall impact has been positive. (Key Informant No.4, 20 May 2026)

In the same vein, the Procurement Officer at UMAT Health Centre noted that:

Yes, the introduction of the Prime Vendor System has helped reduce procurement delays and improved how orders are fulfilled. Compared to the previous system, the process is now faster and more structured. We receive supplies more consistently, and partial deliveries have become less common. This has improved our ability to manage patient demand without frequent shortages. However, at times we still experience delays when there are supply chain disruptions from the vendor side, but generally the system has improved efficiency and reliability in procurement. (Key Informant No.5, 13 May 2026)

The qualitative findings indicate that the Prime Vendor System (PVS) has generally contributed to the reduction of procurement delays and improvement of order fulfilment rates in health facilities. The responses from key informants consistently show that the system has streamlined procurement processes by reducing unnecessary administrative procedures and improving coordination between health facilities and suppliers. This has resulted in faster processing of orders, improved delivery timelines, and better alignment between requested and delivered quantities of medical supplies. Furthermore, the findings suggest that the PVS has strengthened efficiency in supply chain management by enhancing accountability and communication between vendors and health facilities. Most respondents reported that order fulfilment has improved, with fewer cases of partial deliveries compared to the previous procurement system. This improvement has contributed to better availability of medical supplies and reduced interruptions in service delivery. However, the findings also indicate that occasional delays still occur, mainly due to logistical challenges and supply chain disruptions on the vendor side. The qualitative evidence implies that while the PVS is not completely free from operational challenges, it has significantly improved procurement performance in terms of timeliness and order fulfilment. This suggests a positive contribution of the system toward enhancing operational efficiency and strengthening public health service delivery in the study area.

The findings are supported by Wiedenmayer et al. (2019), who examined the implementation of the Jazia PVS in Tanzania. The study found that the PVS simplified, shortened, standardized, and made complementary procurement procedures more transparent. The authors reported that the system was developed specifically to address the bureaucratic and inefficient procedures previously experienced when public health facilities sought medicines from private suppliers during MSD stock-outs. Similarly, Mbwasii et al. (2022) assessed public-private procurement practices for medical commodities in Dar es Salaam and found that procurement from private suppliers outside the regular MSD system was bureaucratic and lengthy. The process involved at least 13 signatures and 16 steps from order preparation to approval. The study concluded that improving the transparency and efficiency of procurement procedures through a prime vendor approach could help address these inefficiencies. The findings of the current study are consistent with this evidence. While the Dar es Salaam study identified lengthy procedures and multiple approval stages as sources of delay, the current findings indicate that 71.6% of respondents perceived delays to have been reduced under the PVS. This suggests that the more structured procurement arrangement under the PVS may have reduced some of the administrative and procedural barriers associated with complementary procurement. Nevertheless, the 14.6% of respondents who disagreed or strongly disagreed indicate that delays may still arise in some circumstances.

4.2.3.2 Impact on the time taken from placing an order to receiving supplies

The findings presented in Table 4 indicate that a majority of respondents agreed that the time taken from placing an order to receiving supplies has significantly decreased under the Prime Vendor System (PVS). Specifically, 53 respondents (40.8%) agreed and 34 respondents (26.1%) strongly agreed with the statement. In contrast, 20 respondents (15.4%) were neutral, while 14 respondents (10.8%) disagreed and 9 respondents (6.9%) strongly disagreed. The pattern of data shows that 87 respondents (66.9%) expressed positive views regarding the reduction in order lead time, suggesting that the PVS has improved the speed at which medicines and medical supplies are delivered to health facilities. However, the presence of some neutral and negative responses indicates that delays still occur in certain situations, although they are not experienced by the majority of respondents. The implication of these findings is that the Prime Vendor System has enhanced operational efficiency by shortening procurement lead times between ordering and receiving supplies. Reduced lead time enables health facilities to replenish stocks more quickly, respond effectively to patient demands, and maintain adequate levels of essential medicines. This contributes to improved healthcare service delivery and reduces the likelihood of stock-outs caused by prolonged waiting periods. Furthermore, faster procurement cycles allow health facilities to plan their inventory more effectively and minimize disruptions in service provision. Therefore, the findings suggest that the PVS has played a significant role in strengthening supply chain responsiveness and improving public health performance in Iringa Municipality.

Empirical evidence from Tanzania provides a useful comparison. Pyuza et al. (2023) assessed Jazia PVS performance in Singida Region using documentary records from public health facilities. The study analysed 434 delivery notes and found that 320 (73.7%) deliveries were completed within the contractual lead time of less than 14 days, while 114 (26.3%) were delayed. The study therefore demonstrated that although most deliveries met the contractual lead-time requirement, a considerable proportion still experienced delays. Further evidence is provided by Mganga et al. (2025), who assessed factors associated with PVS performance among public health facilities in Tanzania. Their study considered order lead time as one of the indicators of PVS performance and reported variation in delivery lead times across regions. The study therefore indicates that PVS performance in relation to lead time is not necessarily uniform across all locations and facilities. This provides an important comparison with the current findings, where most respondents perceived a reduction in the time between ordering and receiving supplies. The current findings are therefore broadly consistent with the Tanzanian evidence showing that the PVS can support shorter and more predictable supply lead times, although delays can still occur. The positive response of 66.9% in Iringa Municipality indicates that most respondents perceived an improvement in procurement responsiveness. However, the 17.7% who disagreed or strongly disagreed demonstrate that improvements in lead time are not universal. Factors such as supplier capacity, transportation, commodity availability, payment arrangements, and demand fluctuations may continue to affect the time between ordering and receipt.

4.2.3.3 Administrative procedures related to procurement

The findings presented in Table 4 show that the majority of respondents perceived administrative procedures related to procurement to be faster under the Prime Vendor System (PVS). Specifically, 55 respondents (42.3%) agreed and 37 respondents (28.5%) strongly agreed that administrative procedures are now faster under the PVS. Meanwhile, 19 respondents (14.6%) were neutral, while 12 respondents (9.2%) disagreed and 7 respondents (5.4%) strongly disagreed. The pattern of data indicates that 92 respondents (70.8%) expressed positive views regarding the speed of administrative procedures under the PVS. This suggests that the system has reduced bureaucratic complexities and improved the efficiency of procurement processes within public health facilities. However, the existence of neutral and negative responses indicates that some facilities may still face administrative challenges that affect procurement efficiency. The implication of these findings is that the Prime Vendor System has enhanced operational efficiency by simplifying and accelerating procurement-related administrative procedures. Faster administrative processes reduce the time required for approval, ordering, documentation, and communication between health facilities and suppliers. This enables health facilities to obtain medicines and medical supplies more efficiently, thereby improving service delivery and reducing interruptions caused by procurement delays. In addition, streamlined administrative procedures reduce workload on procurement personnel, improve accountability, and contribute to better utilization of institutional resources. Therefore, the findings suggest that the PVS has positively influenced procurement management and strengthened public health performance in Iringa Municipality.

The findings are strongly supported by Kuwawenaruwa et al. (2021), who investigated the acceptability of the Jazia PVS in public healthcare facilities in Tanzania. The study found that stakeholders perceived a substantial reduction in bureaucratic procedures following implementation of the PVS. Before the PVS, facilities and districts reportedly required more than 15 signatures during procurement authorization, resulting in lengthy approval processes. The study therefore provides direct evidence that the PVS can reduce administrative bureaucracy associated with complementary procurement. In addition, Kalison et al. (2025) examined procurement management practices in Tanzania's Medical Stores Department and reported that procurement processes in the health sector continue to face challenges associated with inefficiencies, regulatory requirements, financial limitations, and delays. The study emphasized the importance of appropriate procurement planning and decision-making for efficient acquisition of medicines and medical supplies. The findings of the current study are therefore consistent with evidence that administrative arrangements are important determinants of procurement efficiency in Tanzania's health sector. The 70.8% positive response suggests that the PVS has improved administrative efficiency from the perspective of health-facility respondents. The reduction of bureaucratic procedures can shorten the time required to initiate, authorize, and process orders. However, the 14.6% negative response indicates that some administrative challenges remain

5. Conclusions and Recommendation

5.1 Conclusion

The study concludes that the Prime Vendor System has been highly effective in improving operational efficiency in health facilities within Iringa Municipality. The system has significantly strengthened the timeliness of medical supplies delivery, whereby most facilities now receive medicines and medical commodities within the agreed schedules. This represents a considerable improvement compared to the previous procurement system, which was associated with frequent delays and unreliable supply patterns. Furthermore, the study concludes that the PVS has improved order fulfilment, as most health facilities reported receiving complete quantities of requested medicines and supplies with fewer cases of partial deliveries. This improvement has contributed to uninterrupted service provision and enhanced the ability of health facilities to meet patient needs. The study further concludes that the PVS has simplified procurement procedures by reducing unnecessary administrative delays and improving coordination between suppliers and health facilities. The improved communication and coordination mechanisms have increased responsiveness within the medical supply chain and enabled facilities to plan their procurement activities more effectively. Therefore, the study concludes that the PVS has significantly enhanced operational efficiency through timely deliveries, improved order completion, reduced procurement delays, and strengthened supply chain reliability, thereby contributing to improved public health performance in Iringa Municipality.

5.3 Recommendations

Based on the findings and conclusions of the study, health facility management, procurement authorities, the Municipal Health Authority, Prime Vendors, and the Ministry of Health should strengthen the implementation and monitoring of the Prime Vendor System (PVS) by improving procurement planning, demand forecasting, stock recording, timely order submission, supplier performance monitoring, and communication between health facilities and vendors. Prime Vendors should improve order processing, commodity availability, transportation, delivery scheduling, and communication, while relevant authorities should strengthen contract enforcement, supportive supervision, staff training, and the use of digital systems for order tracking and procurement monitoring. Future studies should examine the long-term effectiveness of the PVS using longitudinal designs and objective indicators such as medicine availability, frequency and duration of stock-outs, order lead time, order fulfilment rates, and service interruptions. Further research should also investigate supplier-related factors, compare PVS performance across regions and facility levels, and assess how digital technologies can improve procurement responsiveness, order fulfilment, transparency, and the availability of medicines and medical supplies.

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