



THE ASSESSMENT OF FUNCTIONALITY OF NATIONAL ELECTRONIC PROCUREMENT SYSTEM OF TANZANIA (NEST) IN PROCUREMENT PROCESS ON LOCAL GOVERNMENTS. A CASE OF KINONDONI MUNICIPAL COUNCIL

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Received: Oct 02, 2025

Accepted: Nov 20, 2025

Published: Dec 01, 2025

Abstract:

This study assessed the functionality of the National Electronic Procurement System of Tanzania (NeST) in the procurement process at Kinondoni Municipal Council. The study employed a mixed-methods approach, utilizing questionnaires collected from 100 respondents and interviewing 15 key informants, including procurement officers, contract managers, compliance officers, and other system users. The quantitative data were analyzed by using descriptive statistics through the Statistical Package for the Social Sciences SPSS and thematic analysis for qualitative data. Reliability of the research instruments was established through pre-testing and the computation of Cronbach's alpha coefficients, all of which yielded values exceeding the recommended threshold of 0.7, indicating acceptable internal consistency. The findings indicated that NeST is largely functional, as most users rated its processing speed as moderate to fast and reported low error rates; however, challenges such as system downtime and limited automation persist. Overall, NeST was concluded to be a significant step forward in improving public procurement practices within local government authorities in Tanzania. Therefore, the government should implement appropriate measures to improve the system's speed and ensure that all procuring entities have reliable internet access, allowing users to utilize the system effectively. Moreover, the system should integrate with other systems that are used in procurement contract management.

Keywords:

Electronic Procurement system, Functionality, Local Government Authorities

1. Introduction

Electronic procurement systems bring many benefits to public sector procurement, like enhancing efficiency, transparency, and accountability (Afolabi, 2022). Studies show that public procurement is very vulnerable to corruption malpractice due to the larger amount of public funds used for the provision of necessary services to the general public (Hamisi et al., 2022). Public procurement spent more than 50 per cent of the budget for most of the developing countries (Zaky & Reddy, 2025). Having a system which ensures efficiency and bring value for money like an e-procurement system, is very emphasized. Thus, governments throughout the world have decided to adopt the e-procurement system. A county like the United States of America has adopted the electronic procurement systems for all of its procurement requirements; the system not only helps in minimizing cost but also helps in complying with the procurement rules and regulations (White House, 2024). The same has been experience for Asian countries like South Korea that have adopted the Korean Online e-procurement that help the government to overcome corruption, maintain transparency throughout the procurement process, and increase the confidence of the government as well as the general public in procurement contracts (OECD, 2023; Darnall, 2022; Abubakari & Banchani, 2024).

African countries, like other parts of the world, have adopted the electronic procurement systems aiming to improve the efficiency of procurement contract management for enhancing transparency, reducing manual errors, and curbing corruption. For instance, Rwanda has introduced the Umucyo e-Procurement System, which governs the

entire procurement process, including contract management (Williams & Andrew, 2021). Benmamoun, Benchekroun, & Hachimi (2022) show that e-procurement systems gave the local government authorities the ability to manage contracts more effectively by providing real-time access to contract statuses, timelines, and deliverables, thereby ensuring compliance with legal and regulatory requirements. In Kenya the government has established an e-procurement system that supports electronic contract generation and performance tracking and is integrated into the Financial Management Information System (IFMIS). As a result, it facilitates the payment process and brings transparency and accountability across government tiers (Boafo, 2020).

Beside the efforts which have been undertaken by governments on full adoption of electronic procurement system. Some African countries, the adoption of the e-procurement system has experienced a number of challenges which, in one way or another, have led to the efficiency of the system. For instance, in Nigeria, the system downtime and ineffective internet connectivity led to the failure of the procurement system to complete the procurement as planned (Afolabi et al., 2020). Also, Ibem et al. (2020) noted that the incomplete development of e-procurement systems has made some procurement activities impossible to complete online. These could lead to system failure, corruption of procurement contract management, and other malpractices that prevent the procuring entity from getting value for money for implementing contracts (Musa, Jaafar, & Raslim, 2024).

United Republic of Tanzania, like other developing countries, has taken a number of initiatives in the procurement function, including the automation of its procurement process as the main objective, not only to speed up service delivery but also to avoid corruption and promote transparency and good governance (PPRA, 2024). The most remarkable effort which has been undertaken by the government is the adoption of the National e-Procurement System of Tanzania (NeST) in 2024, which is the centralized digital platform developed by the Public Procurement Regulatory Authority (PPRA) to manage the entire public procurement process electronically and officially launched to modernise procurement across government entities. NeST is mandated under the Public Procurement Act, Cap 410, which requires procuring entities, including local government authorities, to conduct procurement processes through an electronic system to ensure transparency, accountability, and efficiency of the procurement process (PPRA, 2024). Its core duties include automating procurement workflows, facilitating real-time monitoring of procurement activities, standardizing procurement procedures across ministries, departments, agencies (MDAs), and local governments, and reducing opportunities for corruption and mismanagement of public funds (PPRA, 2024).

However, besides these initiatives that have been undertaken, there are some challenges that the users of the system have experienced when using the system (MAPS, 2025). The issue of the system's functionality, especially during peak hours when a larger number of users are using it, has been raised by the users on different occasions. Unfortunately, there was no exhaustive study which has been undertaken to assess the functionality of the NeST on the implementation of procurement process. Therefore, this study aimed to assess the functionality of the system in the execution of procurement process in local government authorities and proposed the possible solutions for the identified challenges.

1.1. Statement of the Problem

The United Republic of Tanzania has taken several steps to fully automate its procurement system, notably establishing the Tanzania Electronic Procurement System (TANePS) in 2018 and subsequently adopting the National Electronic Procurement System of Tanzania (NeST) in 2024. The aim of adopting this system is to increase efficiency in the procurement process, prevent the misuse of public funds, enhance transparency and bring fairness, provide value for money, and curb corruption (PPRA, 2024). To ensure that the system performs well and yields the required results. A number of initiatives have been undertaken by the government, through PPRA, for instance, conducting capacity-building programs all over the country aimed at ensuring that users have thorough knowledge and competence in using the system (PPRA, 2024). Also, the government amended the Public Procurement Act (Cap. 410) and its regulation in 2024 and made it mandatory for all procuring entities to use NeST when procuring their requirements. Not only that, but also thousands of firms, suppliers, and users are registered in the system. Also, the government has constructed the National Information Communication Technology Broadband Backbone, having implemented the Universal Communications Service Access Fund and the construction of telecommunication towers and many more. However, despite those initiatives undertaken by the government and other stakeholders, the functionality level of the NeST is not promising in some parts of the country, especially in remote areas (MAPS, 2025). The system has faced several challenges, including slowness during peak hours when

many users are accessing it. Additionally, the system suffers from poor functionality in areas with weak or unreliable internet facilities. The system did not yet connect with other procurement systems like e-payment (PPRA, 2024). To the best of researchers' knowledge, there are scant studies which studied the adoption of NeST in Tanzania, like Mzuguno and Makula (2025) and Assey (2025), while Chawala & Maagi (2025) studied the impact of e-procurement mitigation of risks. However, none of these studies have assessed the functionality of the system, specifically the processing time, error rate and scope of automation of NeST in procurement process, which this study has managed to study so as to bridge the gap.

2. Literature Review

2.1. Theoretical Literature Review

This study is governed by Technology Acceptance Model that was developed by Davis in 1989, to understand how users come to accept and use new technologies regardless of the nature of the environment. According to Granic (2018), this theory has two primary factors that under any reasons was influence technology adoption in any country. These are; the perceived usefulness and perceived ease of use. Whereby the perceived usefulness refers to the degree to which a person believes that using a particular technology was enhancing their performance or efficiency, while the perceived ease of use refers to the extent to which a person believes that using the technology would be free of effort. On top of that Holden, (2010) show that, this theory believes that, if users perceive a technology to be both useful and easy to use, they are more likely to adopt and continue using it, therefore, this model is widely utilized for assessing the factors that determine the acceptance of new technologies across various fields, including public sector initiatives like e-procurement systems.

One of the major strengths of the Technology Acceptance Model is its simplicity and clarity in explaining users' acceptance of new technology through two core constructs: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU), and this makes TAM a practical and widely applicable model in both public and private sector ICT studies. Whereby in this study, TAM effectively guided the exploration of NeST's user-friendliness and system functionality, with 69% of respondents rating the system as easy to navigate and 80% requiring minimal training. These results align well with TAM's premise that if a system is perceived as easy to use and beneficial, users are more likely to accept and adopt it. On top of that, the model's predictive strength helped explain why NeST has gained adoption among procurement personnel despite its partial automation limitations and the system downtime.

Despite its strengths, Holden (2010) show that, TAM has been criticized for oversimplifying user behavior, as it largely overlooks external factors such as organizational culture, individual attitudes, technical support, and infrastructure readiness. Therefore, in this study, while users expressed positive views about NeST's interface and usefulness, many also reported occasional system downtime and limited automation, but these issues though not directly addressed in TAM played a role in shaping overall satisfaction and compliance outcomes. For instance, interview findings highlighted frustrations related to infrastructure challenges and system downtime which influenced how users perceived and engaged with NeST, hence this show that, TAM's limitation in fully capturing the contextual and environmental dynamics that impact technology acceptance in real-world public sector settings.

TAM has gained wide empirical validation and has been successfully extended through models like TAM2 and UTAUT, making it a flexible foundation for examining technology acceptance across sectors (Boafo, 2020). Therefore, in the case of NeST, the model's constructs helped identify how perceived ease of use and perceived usefulness influenced user compliance, contract completion, and satisfaction, like for example, 72% of respondents reported improved contract completion rates, and 63% noted enhanced compliance with procurement regulations findings that can be interpreted through the lens of perceived usefulness, hence this reinforces TAM's utility in explaining the behavioral link between technology acceptance and improved performance outcomes in electronic contract management.

Another limitation of TAM is its emphasis on initial acceptance rather than long-term usage or system sustainability, and while NeST was largely accepted by respondents with moderate to high experience levels, the model does not account for long-term system improvement, evolving user needs, or policy integration, but the study showed that only 32% of respondents viewed NeST as fully automated, suggesting that while initial acceptance exists, the system's limited development may hinder continued engagement and performance. Therefore, relying solely on TAM may overlook the strategic and institutional dimensions critical for sustaining ICT systems in public administration,

as the result this highlights the need to complement TAM with broader organizational theories or governance frameworks in future studies.

In this study, TAM is relevant because it provides guidance to understand how Kinondoni Municipal Council officials perceive two primary factors that under any reasons influence technology adoption in any country, for example, the first is perceived usefulness and perceived ease of use. Whereby the perceived usefulness refers to the degree to which a person believes that using a particular technology was enhancing their performance or efficiency, while the perceived ease of use refers to the extent to which a person believes that using the technology would be free of effort. Therefore, this theory is very important in providing an idea of how and why the factors influencing the success or failure of NeST's implementation in local government procurement processes.

2.2. Empirical Literature Review

The functionality of the electronic procurement system ensures the effective implementation of the procurement process. As argued by Nyeko (2019), the adoption of the system depends on many factors; among them are the functionality of the system and the sense of the system's usability, reliability and efficiency. It is believed that when the functionality of a system is strong, the user will embark on using it, and the vice versa is true. As Compel (2017) demonstrates, the Korean KONEPS system functions well, as most of the procurement functions are integrated into the system, like, tendering process, contract awards, and contract management. Due to that, the system can manage to execute more than 600,000 contracts per year. This assists a high level of compliance with the rules and regulations, as the payment and taxation systems are linked together. Darnall (2022) insists on how the system integration gains attraction around the globe, especially in supply chain and public management functions. The adoption of systems like Ethereum and Hyperledger Fabric could assist systems in minimizing errors and delays (Njuu et al., 2025). However, these technologies are not yet used in many developing countries, like Tanzania.

Despite its importance, the functionality of the system in many developing countries is still a challenge, especially in the linkage between the procurement function and other financial systems like taxation and payment systems (MAPS, 2025). This compels the procuring entities to use the manual system to complete the procurement process (PPRA,2024). Also, the unreliable internet infrastructure and lack of security system have been identified are the big drawbacks to the full implementation of the e-procurement system. Nevertheless, fully automated procurement systems are praised for their ability to automate contract tracking, enforce deadlines, and centralize contract data, enabling governments to manage multiple agreements simultaneously with minimal paperwork (Granic, 2018). These functionalities not only enhance efficiency but also reduce human error and improve accountability. Taken together, the literature suggests that the functionality of NeST in Tanzania's local government setting will be central to its success in electronic procurement contract management. Strong functionalities such as integration, automation, and centralised data management can enhance transparency and compliance, while functional weaknesses—such as interoperability gaps and user resistance—may hinder system effectiveness (Mlinga, 2021; URT,2024). As with international experiences, the degree to which NeST can overcome these challenges will determine its role in strengthening its functionality on implementation of the procurement process at the procuring entities in the United Republic of Tanzania (Hunja, 2003; OECD, 2016; United Republic of Tanzania, 2024).

3. Methodology

This study adopted a mixed research approach, combining both quantitative and qualitative methods to provide a comprehensive analysis of the National Electronic Procurement System of Tanzania (NeST) in managing electronic contracts within local governments. The quantitative aspect focused on collecting and analysing measurable data, such as user satisfaction rates, system functionality, and compliance levels, using surveys, structured interviews, and system-generated reports. This enabled the evaluation of specific indicators like processing times and error frequencies. On the other hand, the qualitative approach provided in-depth insights into users' experiences, challenges, and perceptions through interviews and open-ended questionnaires, allowing the study to capture the human and institutional dimensions of NeST's implementation. Together, these approaches offered a balanced and reliable assessment of the system's effectiveness and areas needing improvement.

The study employed a descriptive research design, which allowed for a systematic exploration of the system without manipulating variables. Kinondoni Municipal Council in Dar es Salaam was selected as the study area due to its central role in public procurement and its representativeness of challenges faced by local governments across

Tanzania, such as inadequate infrastructure and limited training. The targeted population included procurement officers, contract managers, compliance officers, and other system users, from which 100 respondents were selected randomly based on Yamane's (1967) formula from the population of 135 respondents. These groups of respondents were selected because they are heavily involved in the procurement process, which means they are expected to be knowledgeable about the topic and capable of providing reliable information. In addition to the 100 survey respondents, 15 key informants including procurement officers, contract managers, and compliance officers were purposively selected for interviews until thematic saturation was reached. Data collection involved questionnaires for quantitative measures and interviews for qualitative insights. The quantitative data were analyzed by using descriptive statistics through the Statistical Package for the Social Sciences SPSS and thematic analysis for qualitative data. Reliability of the research instruments was established through pre-testing and the computation of Cronbach's alpha coefficients, all of which yielded values exceeding the recommended threshold of 0.7, indicating acceptable internal consistency. Validity was enhanced by ensuring that the research instruments were aligned with the study objectives, as well as through expert consultation with professionals in procurement and contract management. Based on their recommendations, several refinements were made to the research questions, which were subsequently incorporated into the final data collection tools. This methodological rigour ensured that the findings were both accurate and applicable to policies and practices in local government procurement.

4. Research Findings and Discussion

4.1. Response Rate

The response rate is a crucial indicator of the data quality and the extent to which the results can be considered representative of the target population (Roopa, 2018).

Table 1: Response Rate

Description	Frequency (n)	Percentage (%)
Questionnaires Distributed	100	100%
Questionnaires Returned (Valid)	83	83.0%
Questionnaires Not Returned/Invalid	17	17.0%

In this study, as shown in Table 1, a total of 100 questionnaires were distributed to employees across various sections of the procuring entity, which involved the procurement officers and contract management team members, system users and compliance officer. Out of these, 83 were properly filled, returned, and deemed valid for analysis, resulting in a high response rate of 83.0%; hence, the remaining 17 questionnaires, accounting for 17.0%, were either not returned or were incomplete and thus excluded from the analysis.

4.2 Demographic Information of Respondents

Table 2: Age Distribution of Respondents

Age Group	Frequency (n)	Percentage (%)
18–25 years	14	14%
26–35 years	37	37%
36–45 years	31	31%
Above 45 years	18	18%

Table 2 shows the age distribution, which indicates that the majority of respondents (68%) are aged between 26 and 45 years, representing the core professional age group actively engaged in technical and administrative tasks within the council; hence, this demographic is likely to be digitally literate and capable of providing meaningful feedback on the use of NeST, but the presence of younger (14%) and older (18%) respondents further contributes to a balanced perspective across generations in local government service.

Table 3: Gender Composition of Respondents

Sex	Frequency (n)	Percentage (%)
Male	60	60%
Female	40	40%

Table 3 indicates that the sample comprises 60% male and 40% female respondents, which demonstrates a moderate gender imbalance. Although both sexes are sufficiently represented, the data reflects the actual gender distribution in technical roles such as procurement and IT within local government. Therefore, this insight informs future gender inclusion policies and training interventions aimed at promoting equity in the adoption and use of digital procurement systems like NeST.

Table 4: Occupational Roles of Respondents

Occupation	Frequency (n)	Percentage (%)
Procurement Officer	30	30%
Contract Manager	20	20%
Compliance Officer	10	10%
Administrative/Support Staff	25	25%
IT/System Support	15	15%

Table 4 shows the occupational distribution, revealing that procurement-related roles (procurement officers, contract managers, and compliance officers) form a combined 60% of the respondent base; hence, this validates the sampling strategy that prioritized individuals with direct interaction with NeST. Therefore, the inclusion of IT and administrative staff (40%) provides supporting perspectives, particularly on technical and operational usability of the system across departments.

Table 5: Current Positions in Local Government

Position Held	Frequency (n)	Percentage (%)
Junior Staff	32	32%
Mid-Level Officer	46	46%
Senior Manager	22	22%

Table 5 shows that mid-level officers dominate the sample at 46%, followed by junior staff and senior managers; hence, this distribution reflects the organizational hierarchy of local government institutions, where mid-level staff are often responsible for executing procurement tasks and operating systems like NeST. Therefore, the inclusion of senior management enriches the data with policy-level insights, while junior staff contributions reflect the experience of day-to-day users of the system.

Table 6: Experience and Familiarity with NeST

Category	Frequency (n)	Percentage (%)
Years of Experience Using NeST		
Less than 1 year	20	20%
1–3 years	58	58%
Over 3 years	22	22%
Familiarity Level with NeST		
Basic	17	17%
Intermediate	50	50%

Advanced	33	33%
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Table 6 shows that the majority of respondents (80%) have more than one year of experience using NeST, with over 83% reporting intermediate or advanced familiarity, and these findings confirm that the study participants are sufficiently exposed to the system, offering reliable feedback on its functionality, usability, and challenges. The mix of experience levels also allows the study to assess how system maturity and user competence affect electronic contract management outcomes.

4.3. Descriptive Analysis

This section presents the descriptive analysis of the quantitative data collected through structured questionnaires administered to 100 respondents from Kinondoni Municipal Council, and the descriptive analysis was conducted using frequencies, percentages, and tabulations to summarize responses related to the key research objectives, and these objectives include evaluating the functionality of NeST, assessing its user-friendliness, and examining its impact on compliance and contract outcomes within local government authority.

4.3.1. Processing Time of National e-procurement of Tanzania (NeST)

Respondents were asked to rate the processing time of the NeST system to determine how efficient it is for handling electronic procurement transactions. The options ranged from 'Very slow' to 'Slow' to 'Moderate' to 'Fast' to 'Very fast'. This question sought to measure users' perceptions of the system's speed in executing tasks like contract creation, approval routing, and reporting

Table 7: Processing Time of NeST

Response Option	Frequency (%)
Very fast	11%
Fast	41%
Moderate	34%
Slow	9%
Very slow	5%

Table 7 shows that 75% of respondents rated NeST's processing time as either moderate or fast, with only 14% perceiving it as slow or very slow. This implies that NeST is largely functional in supporting timely electronic contract processing in local government settings. Fast or moderate processing is crucial for maintaining procurement timelines and reducing administrative backlogs, which, in turn, promotes efficiency and cost-effectiveness. The relatively small portion of users experiencing slow responses indicates potential isolated technical or infrastructural weaknesses that may need targeted interventions such as system upgrades or user-end training to maximise throughput. This finding contradicts the finding of MAPS initiatives (2025), which show that many procuring entities failed to complete the procurement transaction to meet the required time set by the PPRA due to the speed of the system itself, as sometimes the system takes a long period of time to roll out.

4.3.2. System Downtime Experience of National e-procurement of Tanzania (NeST)

Also, researchers aimed to assess the system's reliability by asking how frequently users encounter downtime during NeST operations; hence, respondents had options that included never, rarely, sometimes, often, and always. As a result, understanding the frequency of downtime offers information about the technical stability of the platform and its impact on workflow continuity.

Table 8: System Downtime Experience

Response Option	Frequency (%)
Never	10%
Rarely	30%
Sometimes	39%

Often	15%
Always	6%

Table 8 reveals that 79% of respondents experience downtime either rarely or sometimes, while 21% report frequent issues. This implies that although NeST demonstrates a reasonable level of reliability, occasional service interruptions may still hinder continuity in contract execution. Downtime, particularly when it occurs during critical contract approval or compliance stages, may disrupt procurement cycles and erode user confidence in digital systems. Such an outcome calls for improved system maintenance, server stability, and possibly cloud migration strategies to ensure seamless access and uninterrupted operation. The finding concurs with those of PPRA (2024) and MAPS (2025), which revealed that the NeST faces the challenges of system downtime. The same has been revealed by Kazeem et al. (2023) and Musa et al. (2024), who studied the adoption of electronic procurement in Nigeria and found the system is affected by the challenge of connectivity and system downtime.

4.3.3 Error Rate in Contract Processing

Respondents were asked to evaluate the error rate experienced during electronic contract processing within the NeST system. Options included Very High, High, Moderate, Low, and Very Low. This question helps in assessing the accuracy and dependability of the system in reducing human- and system-generated errors during contract execution.

Table 9: Error Rate in Contract Processing

Response Option	Frequency (%)
Very low	17%
Low	36%
Moderate	29%
High	12%
Very high	6%

The findings in Table 9 indicate that 82% of respondents rated the error rate in NeST's contract management features as very low, low, or moderate. This demonstrates that NeST effectively minimizes human and system-generated errors, improving the accuracy of contract documentation, reducing compliance risks, and enabling better audit trails. Low error rates are critical in public procurement as they reduce the chances of disputes, misallocated funds, and breaches of procurement regulations, thereby fostering public trust and administrative integrity. This finding was supported by that of Afolabi et al. (2020), who studied digitizing grey areas in the Nigerian public procurement system using e-procurement technologies. The same finding also was revealed by Chawala and Maagi (2025), who studied the effect of e-procurement risk mitigation strategies on the prevention of corruption in public procurement in Tanzania and argued that effective adoption of an e-procurement system minimizes the human errors and unethical practices like corruption in the procurement process.

4.3.4. Scope of Automation of National e-procurement of Tanzania (NeST)

This question asked respondents whether they believe NeST fully automates the contract management process from initiation and approval to monitoring and closure. The options provided were 'Yes, fully', 'Partially', and 'No'. The goal was to understand the system's capacity for a complete digital transformation of contract workflows.

Table 10: Scope of Automation

Response Option	Frequency (%)
Yes, fully	32%
Partially	56%
No	12%

From Table 10, only 32% of respondents indicated that NeST fully automates the contract management process, while 56% reported partial automation and 12% said there was no automation. This implies that while NeST provides a basic digital structure, it has yet to fully realized the potential of end-to-end automation. Partial automation may limit the benefits of digital procurement, such as real-time updates, seamless approval workflows, and automated alerts for milestones or deadlines. For local governments to harness the full value of e-procurement, NeST's automation scope must be expanded to include contract generation, performance monitoring, and compliance tracking. This finding supports that of MAPS (2025), which revealed that national e-procurement platforms were incomplete; some of the modules that needed to be integrated into the system were not yet fully integrated, like the e-payment system. However, this finding contradicts the finding of Darnall (2022), who studied the e-procurement system in Korea and found that the e-procurement system is fully integrated with other related procurement and contract management systems.

4.4. Qualitative findings

The interview findings reveal that NeST has significantly enhanced contract management operations across local government authority. Respondents frequently noted that the system introduces structure and reliability into an area previously plagued by inefficiencies, one procurement officer observed.

“NeST has brought order and accountability to the way contracts are processed. Before, we were always chasing papers and signatures. Now, everything is traceable.” Procurement Officer 1.

This statement highlights how the digitisation of processes has streamlined the contract lifecycle, ensuring transparency and timely access to information. Key features most valued by users included real-time tracking of contract status and automated approvals.

A contract manager stated,

“The tracking functionality assists us monitor contract milestones without physically going through files.” Contract Manager 1.

The statement indicates that functionality is not only about speed but also about information accessibility and monitoring components that directly impact operational oversight. Such features help managers to mitigate risks and meet timelines. However, some users reported technical challenges that affected NeST's overall performance.

“Sometimes it freezes when uploading documents, and that delays submissions.” Procurement Officer 2.

The report was shared by one system user, illustrating that technical issues still disrupt optimal usage. While not widespread, these incidents suggest areas for system improvement, especially concerning speed and responsiveness during peak usage hours. Downtime, though occasional, can impact contract delivery timelines.

One experienced official concluded,

“It's not perfect, but it's far better than relying on costly copies and physical approvals.” Procurement Officer 3.

In general, despite some operational drawbacks, most interviewees considered NeST a functional improvement over manual systems; hence, the qualitative analysis supports the quantitative data, where over 75% of respondents rated NeST's processing speed as moderate or fast. Thus, from a functional standpoint, NeST is considered a beneficial and evolving tool for electronic contract management.

5. Conclusion

The study revealed that NeST is largely functional in supporting electronic procurement contract management within local government authority, and a significant portion of respondents rated the system's processing speed as moderate to fast and reported low to moderate error rates, indicating operational efficiency and reliability, but system downtime and limited automation were highlighted as key constraints, and while the system performs essential contract tasks such as tracking, documentation, and approvals, only 32% of respondents reported full automation. Overall, these findings suggest that NeST has established a solid foundation for digitizing procurement functions; however, additional investment is necessary to improve technical stability, increase uptime, and expand full-cycle automation to maximize its functionality and effectiveness.

5.1 Recommendations

The government should priorities upgrading NeST to enable full automation across all stages of procurement contract management. This includes integrating features such as automated contract generation, milestone alerts, full

integration of all procurement systems; and real-time performance monitoring to reduce manual intervention and delays. Furthermore, the government should ensure that all procuring entities have reliable internet connectivity as well as improve the speed of the system, especially in peak hours. The study recommends conducting further research on this topic in remote areas, where challenges related to internet access are more prevalent than in the study area, as this is one of the limitations identified in the current study.

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