



STAFF COMPETENCE AND E-PROCUREMENT PERFORMANCE: TANZANIA REVENUE AUTHORITY PERSPECTIVE

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Abstract:

This study assessed the factors influencing performance of e-procurement in Tanzania, with reference to Tanzania Revenue Authority. The specific objectives of the study were to find out the influence of staff competence, technological resources and financial resources on e-procurement performance. Simple random and purposive sampling approaches were employed to get 87 respondents that made up the sample size. Respondents' information was obtained for the study using interviews and questionnaires. Regression and descriptive analysis were used to analyze the quantitative data while content analysis used to analyze the qualitative data in examining influence of staff competence on the performance of e-procurement. The findings showed that e-procurement is used effectively as most staff members are competent. This is attributed to staff competency, training programs given to them, and the availability of seminars. The study also revealed that staff competence has significant effect on the procurement performance. The paper recommends that TRA should keep offering staff training to improve their knowledge and expertise in order to improve procurement effectiveness. In addition, the paper recommends TRA should continue investing funds to buy cutting-edge technology resources including laptops and software.

Keywords:

Electronic Procurement, Information and Communication Technology, Performance, Networking

1. Introduction

The integration of Information and Communication Technology (ICT) into organizational processes has been recognized as a pivotal advancement in modernizing traditional work systems. Among these innovations, electronic procurement (e-procurement) has emerged as a transformative tool for automating the acquisition of goods, services, and labor. This shift towards e-procurement has been associated with numerous benefits, including reduced administrative costs, enhanced operational efficiency, and streamlined spending (Innocent, 2021). However, the successful implementation of e-procurement systems is contingent upon various factors, such as human expertise, data security, legal and regulatory frameworks, technological infrastructures, and adequate funding (Rotchanakitumnuai, 2020).

The adoption of e-procurement in the public sector is driven by the need to enhance accountability and transparency across various regions. Countries such as Indonesia, India, and the United States have set important precedents, with Indonesia introducing e-procurement in 2008 and India launching the Central Public Procurement Portal in 2012 (Wilayah, 2020). In Africa, this trend is gaining traction, with nations like Rwanda demonstrating significant cost reductions through these systems (Harelimana, 2020). However, despite these successes, challenges persist, as seen in Kenya, where corruption and inefficiencies continue to mar the implementation of e-procurement systems (Obura, 2018; Musau, 2020).

In Tanzania, the Tanzania National Electronic Procurement System (TANePS) was developed to standardize and streamline procurement processes within public entities. However, despite these efforts, the practical implementation of e-procurement systems, particularly within the Tanzania Revenue Authority (TRA), faces several challenges. These include inadequate funding, insufficient staff competence, and limited technological infrastructure (Maagi, 2020).

This study aims to explore these factors, focusing on the influence of staff competence on the performance of e-procurement at TRA. By addressing these issues, the study seeks to provide insights into improving e-procurement practices, thereby enhancing efficiency and transparency in procurement processes at TRA.

2. Literature Review

2.1 Theoretical Literature

2.1.1 Resource-Based View (RBV)

The Resource-Based View (RBV) theory, introduced by Barney in 1991, provides a robust framework for understanding the role of internal resources and capabilities in achieving competitive advantage. This theory is particularly relevant to the study titled "The Influence of Staff Competence on the Performance of E-Procurement: A Case of Tanzania Revenue Authority," as it emphasizes the importance of both tangible and intangible resources in enhancing organizational performance. In the context of e-procurement, the RBV highlights the significance of staff competence as a critical intangible resource. Competent staff members possess the necessary skills, knowledge, and experience to navigate the complexities of e-procurement systems. They can efficiently manage supplier relationships, analyze procurement data, negotiate favorable terms, and identify opportunities for cost savings. This directly aligns with the study's focus on how the competence of the workforce at the Tanzania Revenue Authority (TRA) impacts the effectiveness and efficiency of its e-procurement system.

Moreover, the RBV theory underscores the importance of financial and technological resources, which are categorized as tangible assets. For TRA, having adequate financial resources enables investment in advanced e-procurement technologies, such as electronic catalog systems, e-sourcing tools, and e-invoice processing systems. These technologies can streamline procurement processes, reduce transaction costs, and enhance data accuracy. The availability of these resources and the competence of staff in utilizing them are crucial for optimizing e-procurement performance, as highlighted by the RBV framework.

The RBV theory relates to the study by emphasizing that the competence of TRA's staff, along with adequate financial and technological resources, is vital for achieving a competitive advantage in e-procurement. By leveraging these resources, TRA can enhance its e-procurement capabilities, reduce costs, and improve overall efficiency. The study aims to explore these aspects, focusing on how staff competence influences the performance of e-procurement at TRA, in line with the principles of the Resource-Based View.

2.2 Empirical Literature

Fanuel (2019), explored the factors influencing the implementation of electronic procurement within government agencies, focusing on the Occupational Safety and Health Authority (OSHA). The study identified workforce competencies as a critical factor affecting the success of e-procurement systems. It found that the availability of competent staff, who are well-versed in both the regulatory environment and technological infrastructure, plays a pivotal role in the smooth adoption and operation of e-procurement. The research highlighted the necessity of training and development programs to enhance staff skills, which directly impacts the efficiency and effectiveness of e-procurement processes. This study aligns well with the current research's focus on staff competence as a determinant of e-procurement performance at Tanzania Revenue Authority (TRA), emphasizing the need for a skilled workforce to optimize e-procurement systems.

Kademaunga and Phiri (2019) applied the Technology Acceptance Model (TAM) to investigate the adoption of e-procurement within the Zambia Public Procurement Authority (ZPPA). The research revealed that staff perceptions of ease of use and usefulness are significant predictors of e-procurement adoption. The study underscored that government personnel with higher competence levels are more likely to perceive the e-procurement system as useful and easy to use, thereby facilitating its adoption. This empirical evidence is pertinent to the current research as it highlights the importance of staff competence in influencing the performance and acceptance of e-procurement systems. The findings suggest that training and skill development initiatives can enhance the perceived ease of use and usefulness of e-procurement systems, leading to better performance outcomes.

Jackson (2019) evaluated the adoption of e-procurement by public officials at Mwanza Urban Water Supply and Sanitation Authority (MWAUWASA). The research utilized a case study approach, gathering data through observation and interviews from various departments, including procurement management and Information Technology. The study found that managerial support and training are crucial for the successful implementation of

e-procurement systems. The findings highlighted that providing employees with adequate training and ongoing support from management could significantly enhance the utilization of e-procurement tools. This study is relevant to the current research as it emphasizes the role of staff competence, particularly in terms of training and managerial support, in improving e-procurement performance.

Maagi (2020) examined the perceived impact of e-procurement practices on the operational efficiency of Tanzania's governmental procurement management units, with a particular focus on the Tanzania Revenue Authority. The study employed both descriptive and inferential statistics to analyze the data, finding that e-procurement practices significantly reduce procurement costs, improve procurement timelines, and enhance customer satisfaction. The study also found that staff competence, particularly in using e-procurement systems, is crucial for achieving these benefits. The emphasis on training and the development of technical skills is consistent with the current research's focus on staff competence as a key factor influencing e-procurement performance.

3. Material and Methods

To examine the influence of staff competence on the performance of e-procurement, the paper employed mixed research design incorporating both qualitative and quantitative approaches for data collection and analysis. In addition, the paper used both questionnaires and in-depth interviews to gather firsthand information, complemented by a review of existing documents. The study's location, TRA-Head Quarters, was selected for its relevance in evaluating the efficiency of e-procurement, given factors such as data accessibility and procurement volume. The study's population comprised 300 employees, with a sample size of 87 determined using Slovin's formula, ensuring a 95% confidence level and a 5% margin of error. The sampling techniques included both purposive and simple random sampling, allowing for a representative sample of the relevant departments and key informants.

The reliability and validity of the data were ensured through a pilot study, expert reviews, and consistent testing of the research instruments. Data analysis was conducted using quantitative and qualitative methods. Under quantitative approaches, the paper used descriptive and multiple linear regression analysis to understand the influence of staff competence, on e-procurement performance, applying technological resources, and financial resources as control variables. Ethical considerations were thoroughly addressed, ensuring voluntary participation, informed consent, and the confidentiality of respondent information throughout the research process.

4. Findings

4.1 Descriptive Analysis

Staff competency in this paper has been measured using five elements that include training programs, skilled staff, staff attitudes, professional ethics, and staff technical skills. These items have been measured using the 5-points Likert scale. Table 1 presents the descriptive statistics for the staff competency.

Table 1: Descriptive Statistics for Staff Competence

Staff competency elements		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Training programs	Frequency	3	3	9	29	43
	Percent	3.40%	3.40%	10.30%	33.30%	49.40%
Skilled staff	Frequency	0	3	3	34	47
	Percent	0.00%	3.40%	3.40%	39.10%	54.00%
Staff Attitudes	Frequency	3	3	3	46	32
	Percent	3.40%	3.40%	3.40%	52.90%	36.80%
Professional ethics	Frequency	3	0	3	42	39
	Percent	3.40%	0.00%	3.40%	48.30%	44.80%

Staff technical skills	Frequency	0	0	9	32	46
	Percent	0.00%	0.00%	10.30%	36.80%	52.90%

Source: Field Data, 2023

The findings revealed that approximately 82 percent of the respondents agreed that organization has training programs that facilitate the effective use of e-procurement. Further findings revealed that approximately 83 percent of the respondents have reported that the organization has skilled staff with the required knowledge who are capable of ensuring the effective use of e-procurement. It is also noted that approximately 90 percent of the respondents have agreed that the organization has staff with attitudes and creativity that facilitate the effective use of e-procurement.

Findings show that approximately 93 percent of the respondents have reported that that professional ethics is well adhered to in this organization to achieve organizational goals at large. This indicates that the adherence of professional ethics enhances the effective use of the e-procurement system. Furthermore, it is noted that approximately 90 percent of the respondents have agreed that agreed that staff have technical skills and knowledge of ICT for effective use of e-procurement.

4.2 Correlation

The paper also employed Pearson correlation to examine the existing association procurement performance and staff competence in Tanzania. table 2 presents the findings on the correlation between procurement performance and staff competence.

Table 2: Correlation between Procurement Performance and Staff Competence

		Procurement performance	Staff competence
Procurement performance	Pearson Correlation	1	0.930**
	Sig. (2-tailed)		0.000
	N	87	87
Staff competence	Pearson Correlation	0.930**	1
	Sig. (2-tailed)	0.000	
	N	87	87

The findings show that there is a positive and significant relationship between procurement performance and staff competence as portrayed by the significant p-value (0.000) and with a Pearson correlation coefficient of 0.930. The significant association between the competency of personnel and the success of procurement has several crucial consequences for enterprises. Firstly, it emphasizes the importance of allocating resources towards staff training and development in order to improve their expertise and understanding of procurement procedures. Organizations have to give priority to professional development programs, workshops, and ongoing education to ensure that staff members are adequately prepared to manage procurement activities with efficiency. Furthermore, this discovery implies that firms may improve their procurement results by introducing performance management systems that evaluate and improve the skills and abilities of their workforce.

4.3 The Influence of Staff Competence on E-procurement Performance

The study employed multivariate regression to examine the influence of staff competence on e-procurement performance in Tanzania. The dependent variable is e-procurement while the independent variable is staff competence. The control variables include technological resources and financial resources. Table 3 presents the findings of the multivariate regression on the effect of staff competence and procurement performance.

Table 3: Effect of Staff Competence on the Procurement Performance

	Unstandardized		Standardized	Sig.	Collinearity	
	Coefficients		Coefficients		Statistics	
	B	Std. Error	Beta		Tolerance	VIF
(Constant)	-	0.509		.917		
	0.153					
Staff competence	0.229	0.066	.230	0.001	.806	1.241
Technological resources	0.181	0.080	.135	0.025	.998	1.002
Financial resources	0.585	0.066	.583	0.000	.806	1.240

The findings reveal that an increase in staff competence by 1 percent results into increase in the procurement performance in TRA by 23 percent. This strong relationship between staff competence and procurement performance highlights the crucial significance of allocating resources towards staff training and capacity-building programs in order to improve the expertise and understanding of procurement people.

The findings also reveal that an increase in the technological resources by 1 percent results into increase in the procurement performance in TRA by 13.5 percent. The strong correlation between investing in cutting-edge tools and systems, such as e-procurement platforms, data analytics, and automated workflows, and improving procurement processes, operational efficiency, and mistake reduction is evident. Through the utilization of technology, TRA may optimize transparency, expedite decision-making, and boost communication among stakeholders, eventually resulting in improved procurement results.

An increase in the financial resources by 1 percent results into increase in the procurement performance in TRA by 58.3 percent. This strong correlation indicates that having an adequate amount of financial resources is a crucial factor in achieving high levels of efficiency and effectiveness in procurement.

4.4 Qualitative Analysis

In addition, respondents who were key informants were asked concerning staff competence in the successful implementation of e-procurement. Findings derived from interview revealed that all respondents who were interviewed had similar views: -

“It is very important to have competent staff in the usage of the system as it will minimize errors (that can have legal and financial implications) and improve efficiency in the processing of transactions. This will also minimize hurdles that may delay the procurement process” (Interview, 20th August, 2023).

Findings from the qualitative analysis revealed that competence among staff will results into increase in procurement performance, through minimizing errors and increasing efficiency.

5. Discussion of Findings

The study's findings highlight the critical role of staff competence in enhancing e-procurement performance at Tanzania Revenue Authority (TRA). The high mean scores across various competence factors, such as Training Programs (4.22), Skilled Staff (4.44), and Staff Technical Skills (4.43), underscore the significance of these elements in driving efficient and effective e-procurement processes. These results align with the literature, which emphasizes that competent staff equipped with relevant skills and training are pivotal to the successful implementation and operation of e-procurement systems (Gunasekaran et al., 2019; Prajogo & Olhager, 2019). The consistency in responses, as indicated by the low standard deviations, suggests a shared recognition among respondents of the importance of competence in this area.

Moreover, the negative skewness observed in the data, particularly for variables like Staff Attitudes and Professional Ethics, indicates a general agreement towards the positive end of the scale. This suggests that most respondents believe that the TRA's staff possess the necessary attitudes and adhere to professional ethics conducive to supporting e-procurement activities. The emphasis on professional ethics is particularly crucial, as it ensures transparency, accountability, and trust in procurement processes (Walker & Brammer, 2020). The high kurtosis observed for Professional Ethics indicates that responses were not only concentrated around a high mean but also had less variability, reflecting a strong consensus on the importance of ethical standards.

These findings are consistent with current studies that highlight the role of human factors in the success of e-procurement systems. According to Ngugi and Mugo (2021), well-trained and ethically grounded staff are more likely to embrace and effectively use e-procurement technologies, leading to improved procurement outcomes. Additionally, the study by Mohd Noor et al. (2020) supports the notion that staff competence directly correlates with the efficiency and transparency of procurement processes, which are essential for achieving organizational goals. Thus, the results of this study reinforce the need for continuous investment in training and development programs, as well as the promotion of a strong ethical culture within the TRA to optimize e-procurement performance.

6. Conclusion and Recommendations

6.1 Conclusion

The study underscores the pivotal role of staff competence in enhancing e-procurement performance at Tanzania Revenue Authority (TRA). The findings reveal that high levels of training, skills, positive attitudes, professional ethics, and technical proficiency among staff significantly contribute to the successful implementation and operation of e-procurement systems. This alignment with current literature highlights the necessity of continuous investment in staff development and the cultivation of a strong ethical culture within the organization. By fostering a competent and ethically grounded workforce, TRA can ensure more efficient, transparent, and effective procurement processes, ultimately supporting the organization's strategic objectives and service delivery.

6.2 Recommendations

To enhance e-procurement performance at Tanzania Revenue Authority (TRA), it is recommended that the organization prioritize continuous staff development through targeted training programs that address both technical and soft skills. This should be coupled with initiatives to cultivate a strong ethical culture, ensuring adherence to professional standards and transparency in procurement processes. Implementing regular assessments and updates to training content, alongside establishing clear ethical guidelines and support systems, will equip staff with the necessary competencies and attitudes to effectively manage e-procurement systems. Such measures will contribute to more efficient, transparent, and effective procurement processes, aligning with TRA's strategic objectives and improving overall service delivery.

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