

Awareness and perceptions of public service employees on the performance of the human capital management information system in Dodoma and Ruvuma regions, Tanzania

Kawonga Subira^{1*}
Muhanga Mikidadi²
Salanga Raymond³

^{1*}subirakawonga@gmail.com

²mikidado@sua.ac.tz

³salanga2@sua.ac.tz

^{1,2,3}Sokoine University of Agriculture, Tanzania

Recommended Citation: Subira, K., Mikidadi, M., & Raymond, S. (2026). *Awareness and perceptions of public service employees on the performance of the human capital management information system in Dodoma and Ruvuma regions, Tanzania*. *African Quarterly Social Science Review*, 3(3), 139–150. <https://doi.org/10.51867/AQSSR.3.3.12>

ABSTRACT

Management information system plays an important role in improving employees' performance towards the achievement of the planned performance goals in the Public Service. This study investigated public service employees' awareness and perceptions regarding the performance of the new Human Capital Management Information System, commonly known as the Public Employee Performance Management Information System (PEPMIS), within local government authorities in Dodoma and Ruvuma regions, Tanzania, against the backdrop of increasing digital transformation in human capital management. Recognising that successful implementation of information systems in the public sector depends not only on technical deployment but also on user engagement, confidence, and perceived system utility, the study adopted a quantitative, cross-sectional descriptive design. A total of 395 participants were selected through stratified proportional random sampling, and data were collected using structured questionnaires. The analysis was conducted using IBM SPSS Version 26, and descriptive statistics were used to examine key dimensions, including training adequacy, feedback mechanisms, system usability, and confidence in use. The findings revealed that the awareness and perception of public service employees are affected by deficiencies in employee training, weak feedback structures, moderate dissatisfaction with system features, and infrastructural barriers such as limited internet access and off-site system inaccessibility. While the system was acknowledged for improving performance tracking and supervisor interaction, concerns remained about usability, user involvement in system design, and the reliability of data security. The study concluded that PEPMIS remains constrained by both technical and institutional limitations that undermine perceived usefulness and ease of use, core constructs of the Technology Acceptance Model (TAM). It recommends to the central government, MDAs and LGAs to institutionalise continuous and inclusive training programs, embedding structured feedback mechanisms, enhancing system usability through user-centred design, strengthening digital trust through transparent data governance, and addressing infrastructure constraints to support broader accessibility and adoption. These interventions are essential to ensuring that PEPMIS delivers its intended outcomes of enhancing employee performance and transparency in the public sector.

Keywords: Awareness, Dodoma, Perception, Ruvuma, Tanzania Human Capital Management Information System (HCMIS)

I. INTRODUCTION

Implementation of Human Capital Management Information Systems (HCMIS) in the public sector is increasingly recognised as a critical factor for enhancing organisational efficiency, transparency, and employee performance (Vărzaru, 2022; Cinar et al., 2022). Public service organisations, characterized by complex bureaucratic structures and diverse stakeholder demands, face unique challenges in adopting digital systems designed to manage human resources effectively (Moynihan & Pandey, 2019). Despite widespread investment in such technologies, empirical evidence suggests that the benefits of HCMIS remain under-realised due to gaps in employee awareness, engagement, and perceptions regarding system utility (Dwivedi et al., 2021).

Awareness and perceptions among public service employees are pivotal determinants of HCMIS success, influencing not only system acceptance but also the extent to which users leverage its functionalities to optimize performance management (Venkatesh et al., 2016). The Technology Acceptance Model (TAM) and its derivatives have consistently highlighted that perceived usefulness and ease of use leads into actual system use (Naidoo, 2023). However, the public sector context introduces additional variables such as organizational culture, policy environment, and training adequacy that modulate these relationships (Janssen & van der Voort, 2020).

Studies underscore the importance of addressing employee perceptions to mitigate resistance and foster proactive engagement with HCMIS. For example, Ikwuanusi et al. (2024) found that digital transformation initiatives supported by scalable software solutions improve organizational productivity, strengthen accountability, and enhance employee effectiveness in public sector institutions. Moreover, participation in system development and feedback loops have been shown to increase employee ownership, thereby enhancing sustained usage and system performance. The engagement of employees during the digital transformation journey ensures that they accept new technology, increase their level of satisfaction and commitment to change, thus ensuring the success of digital transformation initiatives (Vial, 2019). Conversely, inadequate training, unclear feedback channels, and limited managerial support contribute to low user confidence, which negatively impacts overall system effectiveness.

The research contributes to the literature by providing empirical evidence from a public service context, applying a socio-technical perspective that integrates human and organizational factors alongside technological attributes (Bertot *et al.*, 2010). The findings are expected to guide managers, system developers, and policymakers in designing more user-centred and effective HCMIS implementations. The study examined employees' experiences with the PEPMIS system, focusing on three key areas: training and support, participation and feedback, and confidence and competence. The descriptive statistics reflect varying levels of satisfaction and perceived effectiveness across these themes. Responses were measured on a five-point Likert scale, and results are interpreted based on the mean values and distribution of responses.

1.1 Statement of the Problem

The Government of Tanzania has made substantial efforts in enhancing the digitalization of public service delivery through the deployment of the Public Employee Performance Management Information System (PEPMIS), with the assumption that the system would enhance the management of employee performance, accountability, transparency, and efficiency of operations within Ministries, Departments, Agencies (MDAs), and Local Government Authorities (LGAs). Nevertheless, evidence from developing countries indicates that the effective implementation of Human Capital Management Information Systems is not dependent only on technological infrastructure but also on the awareness, perceptions, adoption, and willingness to adopt such information systems by employees (Debo, 2026); Dwivedi et al., 2021).

Previous researches have analysed the adoption, digitalization process, and implementation of information systems in public sector organizations; however, research findings related to awareness and perceptions of employees about PEPMIS in Tanzania are scarce. Past researches have focused primarily on the technical capacities and organizational benefits without much focus on user-related issues like awareness, confidence, participation, satisfaction, and perception about the usefulness of the information system. Such gaps hinder policymakers and administrators of the system from formulating strategies that would promote the adoption and usability of the system. Therefore, this study examined public service employees' awareness and perceptions regarding the performance of PEPMIS in Dodoma and Ruvuma Regions to generate evidence that can inform policy and strengthen digital human capital management in Tanzania.

1.2. Research Objectives

- i. To investigate public service employees' awareness regarding the performance of the newly implemented HCMIS, focusing on factors such as training adequacy, feedback mechanisms, and user confidence
- ii. To investigate public service employees' perceptions regarding the performance of the newly implemented HCMIS, focusing on factors such as training adequacy, feedback mechanisms, and user confidence.

II. LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 Technology Acceptance Model (TAM)

This study is guided by the Technology Acceptance Model (TAM) developed by Davis (1989). TAM explains how users come to accept and use a technology based on two key determinants: perceived usefulness and perceived ease of use. Perceived usefulness refers to the degree to which an individual believes that using a system will enhance job performance, while perceived ease of use refers to the degree to which a system is perceived as free from effort. The model suggests that users are more likely to accept and utilize a system when they perceive it as useful and easy to use. Subsequent studies have extended TAM by demonstrating that user awareness, training, confidence, feedback mechanisms, and organizational support influence perceptions of usefulness and ease of use, thereby affecting technology adoption and continued use (Venkatesh & Bala, 2008). In the context of the PEPMIS, employees' awareness and perceptions are expected to influence how they interact with the system and how they evaluate its performance.



Therefore, TAM provides a suitable theoretical lens for examining employees' awareness and perceptions regarding the performance of PEPMIS within local government authorities in Tanzania.

2.2 Empirical Review

2.2.1 Awareness of Public Service Employees on the Performance of PEPMIS

Awareness of an information system is important for its effective utilization and achievement of intended organizational objectives. Employees who possess adequate knowledge and understanding of a system are more likely to use it effectively and appreciate its benefits. In Tanzania, Silidion and Rutenge (2024) found that a majority of public employees demonstrated adequate knowledge and skills regarding the use of PEPMIS for performance management, suggesting a reasonable level of awareness among system users. Training has been identified as one of the most important factors influencing employee awareness of information systems. Organizational changes often introduce new ways of performing tasks and responsibilities, creating a need for continuous training and capacity building (Al-Alawi et al., 2019). Studies have shown that awareness of the purpose, benefits, and functionalities of an innovation facilitates its acceptance and implementation among potential users (Reyes Veras et al., 2022). Similarly, Damayanti et al. (2020) argue that training programmes should address system quality and functionality because such knowledge influences users' decisions to accept and use new technologies. Furthermore, employee-centred training enhances awareness of system benefits, security requirements, and effective utilization practices (Nel & Drevin, 2019).

2.2.2 Perceptions of Public Service Employees on the Performance of PEPMIS

Employees' perceptions of an information system influence its acceptance, utilization, and overall effectiveness. Positive perceptions are often associated with satisfaction, trust, ease of use, and the ability of a system to support job performance. The implementation of PEPMIS in Tanzania was intended to improve performance management, transparency, feedback mechanisms, and efficiency in public service delivery. Research indicates that employees are more satisfied with information systems that are useful, easy to use, and aligned with their work requirements (Chibuzor et al., 2021; Liao et al., 2020). Similarly, positive perceptions regarding system usability contribute to successful implementation and continued use of information technologies (Presbitero et al., 2022). Organizational commitment and management support also influence employees' perceptions and willingness to continue using information systems to achieve individual and organizational objectives (Mehrkish & Grant, 2023; Olfat et al., 2019). Studies further suggest that employee involvement during system implementation, adequate user education, and effective communication regarding system benefits enhance acceptance and satisfaction (Alhasan et al., 2022; Almajali et al., 2023). In addition, privacy and security of information are important determinants of trust and successful adoption of information systems (Koohang et al., 2020). These factors collectively shape employees' perceptions regarding the performance and usefulness of systems such as PEPMIS.

2.3 Research Gap

Despite the extensive application of the TAM in technology adoption studies, limited evidence exists on public service employees' awareness and perceptions of the PEPMIS within Tanzanian local government authorities. Existing studies have largely focused on technology adoption, user satisfaction, and organizational outcomes, with less attention given to employees' awareness of system performance and their perceptions regarding training, feedback mechanisms, confidence, usability, trust, and accessibility. Furthermore, empirical evidence on PEPMIS remains limited despite its increasing use in public-sector performance management. This study therefore addresses this gap by examining public service employees' awareness and perceptions regarding the performance of PEPMIS in selected local government authorities in Dodoma and Ruvuma regions of Tanzania.

III. METHODOLOGY

3.1 Study Design

This study employed a quantitative research approach to descriptively examine public service employees' awareness and perceptions of the performance of the Human Capital Management Information System (HCMIS). A cross-sectional survey design was utilised, capturing data at a single point in time to efficiently provide a snapshot of employee attitudes without experimental manipulation. This design allowed for the straightforward collection of data suitable for descriptive statistical analysis.

3.2 Study Area

Data were gathered from public-sector employees actively using HCMIS in municipal and district councils located in Dodoma and Ruvuma regions, representing both urban and rural administrative contexts. This geographic

diversity enhanced the representativeness of the sample across varying institutional capacities and digital infrastructure environments. The study population included all HCMIS-active employees within the selected councils.

3.3 Sampling Procedure

A sample size of 395 participants was determined using Yamane's formula, ensuring representativeness and adequate precision for descriptive statistics. As shown in Table 1, Stratified proportional random sampling was applied, with councils treated as strata and participants selected from staff registers proportional to each council's total staff. Random selection within strata helped ensure balanced representation from both urban and rural users of the system.

3.4 Sample size

The target population was 30619 public-sector employees in Ruvuma and Dodoma. A sample of 395 participants was determined using Yamane's formula, as shown below;

$$n_o = \frac{N}{1 + Ne^2}$$

$$n_o = \frac{30619}{1 + 30619 * (0.05)^2}$$

$$n_o = 394.8418711$$

$$n_o \cong 395$$

Where;

n_o - represent sample size

N - Entire population

e - Sampling error preferred to be 5%

The distribution of 395 employees in the specific council is shown in Table 1 below;

Table 1

Distribution of Sample Size in Districts

Vote	Organization name	Employees Total (Size ho)	Stratified Sample size
72C5	Bahi District Council	1711	22
72C6	Chamwino District Council	2816	36
72C7	Chemba District Council	1729	23
7205	Dodoma City Council	4815	62
72C3	Kondoa District Council	1593	21
72C8	Kondoa Town Council	857	11
72C4	Kongwa District Council	2490	32
82N1	Songea District Council	1680	22
8219	Songea Municipal Council	2609	34
82N2	Tunduru District Council	2413	31
82N3	Mbinga District Council	2321	30
82N7	Mbinga Town Council	1464	19
82N4	Namtumbo District Council	1915	25
82N5	Nyasa District Council	1520	20
82N6	Madaba District Council	686	9
Total		30619	395

3.5 Data Collection Methods

Data collection was conducted face-to-face using structured questionnaires. The instrument comprised items assessing dimensions of employee awareness and perceptions related to HCMIS performance, such as training adequacy, feedback mechanisms, usability, and user confidence. Responses were primarily categorical or ordinal, allowing for clear and consistent data aggregation.

3.6 Data Analysis

Data were analysed using IBM SPSS Version 26. Key measures included frequencies and percentages to summarise response distributions, while means and standard deviations described central tendencies and variability of Likert-scale items assessing perceptions.

3.7 Ethical Clearance

Ethical approval was secured from an institutional review board before data collection. Participation was voluntary, with informed consent obtained from all respondents. Data were anonymised, securely stored, and used exclusively for research purposes, ensuring confidentiality and adherence to ethical standards.

IV. FINDINGS & DISCUSSION

4.1 Demographic Characteristics of Respondents

Table 2 depicts the demographic information of respondents. The study involved 395 respondents, of whom 53.7% were male and 46.3% were female, indicating relatively balanced gender representation. Most respondents were married (61.0%), while 33.7% were single. Regarding education level, the majority possessed diploma qualifications (63.8%), followed by certificate holders (26.6%), while only a small proportion had degree (9.4%) and postgraduate qualifications (0.3%). Almost all respondents were permanent employees (99.0%), suggesting that the findings reflect the views of employees with substantial experience in public service operations. Notably, 77.5% of respondents reported having attended PEPMIS training, while 22.5% had never received training. Despite this relatively high proportion of trained employees, the findings revealed concerns regarding training adequacy, confidence, and awareness of some PEPMIS functionalities. This suggests that attendance alone may not guarantee sufficient knowledge and competence, particularly if training is irregular or does not adequately cover system functionalities. The predominance of diploma and certificate holders may also help explain the moderate levels of confidence and challenges related to system usability reported in the study. Employees with limited exposure to advanced information technology applications may require more continuous support and refresher training to effectively utilize PEPMIS. Furthermore, the large proportion of permanent employees provides credibility to the findings, as these respondents are likely to have accumulated sufficient experience with the system to assess its performance, strengths, and challenges. Overall, the demographic profile indicates that the findings represent a workforce with substantial experience in public service, but one that may still require continuous capacity building and institutional support to maximize the benefits of PEPMIS.

Table 2

Social Demographic Characteristics

Variable	Category	Frequency	Percentage (%)
Sex	Male	212	53.7
	Female	183	46.3
Marital Status	Single	133	33.7
	Married	241	61.0
	Divorced	3	0.8
	Widowed	9	2.3
	Separated	4	1.0
	Other	5	1.3
Education Level	Certificate	105	26.6
	Diploma	252	63.8
	Degree	37	9.4
	Postgraduate	1	0.3
Employment Status	Employed	391	99.0
	Contract	4	1.1
Attended Training on PEPMIS	Yes	306	77.5
	No	89	22.5

4.2 Awareness of Public Service Employees on the Performance of the New HCMIS

Training and support: The findings as shown in Table 3 indicate that training on PEPMIS was viewed by many employees as inadequate. Statements such as "In every financial year, trainings are conducted on PEPMIS" and "When ESS was introduced, all employees attended a training" yielded low mean scores (2.11 and 2.41, respectively). These results were further supported by a high frequency of disagreement and strong disagreement responses. Notably, 43.5% strongly disagreed that annual trainings are conducted, suggesting a perceived lack of structured capacity-building initiatives.

Similarly, the item "I did not receive training during the implementation stage of PEPMIS" received a mean of 2.42, reinforcing the sense that training efforts were limited or inconsistently delivered. Although one item, "I received the training during the introduction of PEPMIS" showed a slightly higher mean (2.90), it still fell below the neutral midpoint, indicating general dissatisfaction. There were relatively high standard deviations across these items suggest diverse experiences among employees, potentially due to differences in department, role, or location.

Participation and feedback: Responses related to participation and feedback in Table 3 reflect somewhat more balanced perceptions. The item "I receive frequent feedback from my supervisor on my performance by using PEPMIS" had a mean score close to the neutral point (2.98), while "The feedback mechanisms or channels established for providing opinions or suggestions regarding PEPMIS are not clear" had a mean above neutral (3.10). These results suggest some employees perceive feedback structures to be ambiguous or insufficient, but the responses were not overwhelmingly negative.

Moreover, the statement "I am responsible for finding the feedback mechanism in addressing concerns related to the PEPMIS" recorded the highest mean in the dataset (3.27). This may indicate a belief that the onus of seeking or navigating feedback tools rests on the individual rather than being facilitated by the organisation. While this reflects a degree of agency, it may also point to gaps in formal communication or system design.

Confidence and competence: Responses related to confidence using PEPMIS revealed a moderate level of concern. As shown in Table 3, the item "I do not feel confident using PEPMIS for my daily tasks and responsibilities" had a mean of 2.52, with a combined 53.2% of respondents disagreeing or strongly disagreeing with it, suggesting a significant portion of the workforce lacked comfort with the system. Although the statement "I have enough experience using the PEPMIS" yielded a slightly more favourable mean (2.93), this still reflected only modest confidence among users. Taken together, the data suggest that while a proportion of staff had gained experience, a lack of structured training and clarity around feedback might be limiting broader user confidence and engagement.

Table 3

Awareness of Public Service Employees on the Performance of the New HCMIS

Group	Variable	SA (5)	A (4)	N (3)	D (2)	SD (1)	Mean	Std. Dev
Training & Support	My organization invests time and money to keep employees updated with PEPMIS application	54 (12.9%)	76 (18.2%)	65 (15.5%)	92 (22.0%)	108 (25.9%)	2.69	1.404
	When PEPMIS was introduced, all employees attended a training	24 (5.7%)	76 (18.2%)	70 (16.7%)	93 (22.3%)	132 (31.6%)	2.41	1.290
	I received the training during the introduction of PEPMIS	57 (13.6%)	118 (28.2%)	40 (9.6%)	88 (21.1%)	92 (22.0%)	2.90	1.423
	I did not receive training during the implementation stage of PEPMIS	37 (8.9%)	49 (11.7%)	58 (14.0%)	148 (35.6%)	103 (24.8%)	2.42	1.256
	In every financial year trainings are conducted on PEPMIS	22 (5.3%)	39 (9.4%)	73 (17.6%)	89 (21.5%)	172 (41.5%)	2.11	1.228
	I have enough experience using the PEPMIS	58 (14.0%)	82 (19.7%)	97 (23.3%)	92 (22.1%)	66 (15.9%)	2.93	1.302
Participation & Feedback	I do not have an opportunity to provide suggestion for the improvement of PEPMIS system to my supervisor	30 (7.2%)	87 (20.9%)	82 (19.7%)	116 (27.9%)	79 (19.0%)	2.73	1.601
	I receive frequent feedback from my supervisor on my performance by using PEPMIS	46 (11.0%)	102 (24.3%)	109 (26.0%)	74 (17.6%)	64 (15.2%)	2.98	1.250
	The feedback mechanisms or channels established for providing opinions or suggestions regarding PEPMIS is not clear	65 (15.5%)	83 (19.8%)	122 (29.1%)	77 (18.3%)	48 (11.5%)	3.10	1.242
	I am responsible to find the feedback mechanism in addressing concerns related to the PEPMIS	44 (10.5%)	162 (38.7%)	92 (22.0%)	52 (12.4%)	45 (10.7%)	3.27	1.171
Confidence & Competence	I do not feel confident using PEPMIS for my daily tasks and responsibilities	24 (5.7%)	87 (20.9%)	74 (17.8%)	95 (22.8%)	115 (27.6%)	2.52	1.281

4.3 Perceptions of Public Service Employees on the Performance of the New HCMIS

Satisfaction: Respondents as displayed in Table 4 demonstrated moderate dissatisfaction with the features and functionalities of PEPMIS. Mean scores such as for the item "I am not satisfied with the features and functionalities provided by PEPMIS" ($M = 2.83$, $SD = 1.13$) and "PEPMIS does not meet my performance needs and expectations" ($M = 2.53$, $SD = 1.25$) suggest that users perceive the system as partially inadequate in fulfilling their operational requirements. These perceptions indicate that PEPMIS offered limited simplification of users' work processes.

Impact on Work Performance: The implementation of PEPMIS was generally perceived to have a positive impact on work performance ($M = 3.40$, $SD = 1.20$). This reflects user recognition of the system's contributions to improving task efficiency and output. However, the extent to which PEPMIS mirrored actual workplace conditions was less favourable ($M = 2.77$, $SD = 1.18$), indicating potential misalignment between system design and real-world work environments.

Ease of Use: Ease of use was identified as a challenge, with moderate difficulty reported in operating PEPMIS ($M = 2.78$, $SD = 1.26$). Moreover, respondents displayed limited familiarity with all system functions ($M = 2.63$, $SD = 1.14$), highlighting possible deficiencies in user training and system intuitiveness. These factors might inhibit effective adoption and limit overall system utility.

Trust, Interaction, Privacy, and Security: PEPMIS was found to foster trust and enhance interaction between users and supervisors ($M = 3.22$, $SD = 1.13$), and users generally agreed that their privacy was protected ($M = 3.29$, $SD = 1.34$). However, confidence in data accuracy ($M = 2.51$, $SD = 1.21$) and security measures ($M = 2.79$, $SD = 1.25$) was comparatively low. This suggests ongoing concerns regarding the reliability and protection of sensitive information within the system.

Involvement and Understanding of the System: The data revealed perceptions of insufficient involvement during PEPMIS introduction ($M = 3.03$, $SD = 2.93$), which might negatively affect acceptance and user ownership. Furthermore, uncertainty about organizational responsibility for system maintenance ($M = 2.83$, $SD = 1.91$) pointed to potential governance and support deficiencies that could impede sustained system operation.

System Reliability and Accessibility: System reliability was constrained by infrastructural challenges, particularly inconsistent internet access ($M = 3.44$, $SD = 1.25$), which is critical for system functionality. Additionally, the capacity to use PEPMIS outside the formal work setting was limited ($M = 2.72$, $SD = 1.28$), further restricting access. Low awareness of PEPMIS advantages ($M = 2.28$, $SD = 1.22$) might have undermined motivation to use the system fully.

Table 4

Perceptions of Public Service Employees on the Performance of the New HCMIS

Theme	Item	SA (5)	A (4)	N (3)	D (2)	SD (1)	Mean	Std. Dev.
Satisfaction	I am not satisfied with the features and functionalities provided by PEPMIS	33 (8.4%)	80 (20.3%)	113 (28.6%)	126 (31.9%)	43 (10.9%)	2.83	1.13
	PEPMIS does not meet my performance needs and expectations	30 (7.6%)	64 (16.2%)	94 (23.8%)	103 (26.1%)	104 (26.3%)	2.53	1.25
	PEPMIS does not simplify my work performance	47 (11.9%)	75 (19.0%)	94 (23.8%)	117 (29.6%)	62 (15.7%)	2.82	1.25
	PEPMIS is not useful in performing all of my activities	41 (10.4%)	116 (29.4%)	54 (13.7%)	78 (19.7%)	106 (26.8%)	2.77	1.39
Impact on Work	The implementation of the PEPMIS has positive impact on my performance	78 (19.7%)	129 (32.7%)	88 (22.3%)	72 (18.2%)	28 (7.1%)	3.40	1.20
	PEPMIS does not lead to the improvement of my work performance	37 (9.4%)	108 (27.3%)	128 (32.4%)	82 (20.8%)	40 (10.1%)	3.05	1.12
	PEPMIS reflects my real working environment	36 (9.1%)	67 (17.0%)	127 (32.2%)	99 (25.1%)	66 (16.7%)	2.77	1.18
Ease of Use	Using PEPMIS is not easy to me	31 (7.8%)	100 (25.3%)	100 (25.3%)	78 (19.7%)	86 (21.8%)	2.78	1.26
	I know all the functions found in the PEPMIS	32 (8.1%)	53 (13.4%)	105 (26.6%)	146 (37.0%)	59 (14.9%)	2.63	1.14
Trust, Interaction, Privacy & Security	PEPMIS has increased trust and interaction between I and my supervisor	47 (11.9%)	136 (34.4%)	96 (24.3%)	88 (22.3%)	28 (7.1%)	3.22	1.13
	PEPMIS ensures Privacy of my information	95 (24.1%)	107 (27.1%)	48 (12.2%)	108 (27.3%)	37 (9.4%)	3.29	1.34
	PEPMIS does not provide security of my information	32 (8.1%)	93 (23.5%)	117 (29.6%)	67 (17.0%)	86 (21.8%)	2.79	1.25

	I am not confident that PEPMIS accurately reflects my real working environment	39 (9.9%)	100 (25.3%)	138 (34.9%)	81 (20.5%)	37 (9.4%)	3.06	1.11
	The information processed in the PEPMIS are not accurate	28 (7.1%)	55 (13.9%)	108 (27.3%)	103 (26.1%)	101 (25.6%)	2.51	1.21
Involvement & understanding	I have not been involved in the course of PEPMIS introduction	46 (11.6%)	89 (22.5%)	65 (16.5%)	123 (31.1%)	69 (17.5%)	3.03	2.93
	My organization is responsible for the maintenance and management of PEPMIS	35 (8.9%)	72 (18.2%)	91 (23.0%)	151 (38.2%)	45 (11.4%)	2.83	1.91
System Reliability & Accessibility	There is unreliable internet access to use PEPMIS	79 (20.0%)	159 (40.3%)	51 (12.9%)	69 (17.5%)	37 (9.4%)	3.44	1.25
	I can use PEPMIS outside my working environment	36 (9.1%)	89 (22.5%)	84 (21.3%)	100 (25.3%)	86 (21.8%)	2.72	1.28
	I don't know the advantages obtained when using PEPMIS	21 (5.3%)	47 (11.9%)	95 (24.1%)	90 (22.8%)	142 (35.9%)	2.28	1.22
Decision-Making & Usefulness	Using PEPMIS is part of my decision	29 (7.3%)	74 (18.7%)	138 (34.9%)	110 (27.8%)	44 (11.1%)	2.83	1.09

4.4 Discussion

4.4.1 Awareness of Public Service Employees on the Performance of the New HCMIS

The descriptive analysis revealed notable deficiencies in training, feedback, and confidence among public-sector employees using PEPMIS. Historical literature has consistently emphasised that robust training programmes are key to the successful implementation of organisational technologies. In line with these findings, the low mean scores for "annual PEPMIS training" ($M = 2.11$) and "training at ESS introduction" ($M = 2.41$), alongside a 43.5% strong disagreement rate, underscore a systemic lack of institutional learning mechanisms. Such gaps are consistent with evidence suggesting that insufficient training erodes perceived usefulness and user satisfaction.

Perceptions of feedback and participatory involvement showed somewhat more balanced but still suboptimal patterns. Specifically, the near-neutral mean for "frequent supervisor feedback" ($M = 2.98$) and slightly positive mean for "unclear feedback mechanisms" ($M = 3.10$) suggest weak clarity and structure in communication channels. This points to a potential disconnect between organisational communication strategies and user expectations, reinforcing the argument that feedback mechanisms should be embedded systematically in information systems (Lee & Choi, 2021).

The highest mean observed, 3.27 for "I am responsible for finding the feedback mechanism" highlights a central theme in public-sector contexts: the burden of system navigation often falls on the end user. While this may foster individual autonomy, it also signals a lack of organisational support and structured facilitation, a dynamic explored in studies on employee agency and technology barriers (Jafri et al., 2025). Concerns about user confidence remained central. With 53.2% of respondents indicating low confidence in using PEPMIS ($M = 2.52$) and only modest agreement on having sufficient experience ($M = 2.93$), the data reflect a workforce lacking the assurance to effectively leverage the system for routine duties. Emerging digital literacy research highlights how such self-efficacy issues could weaken system adoption and long-term integration (Satispi et al., 2023; Ulfert-Blank & Schmidt, 2022).

4.4.2 Perceptions of Public Service Employees on the Performance of the New HCMIS

The findings about the perception of Public Service employees on the performance of PEPMIS demonstrated that while the system had been broadly adopted, challenges remained regarding user experience, trust in system functions, and the alignment of PEPMIS with daily work expectations. These results can be meaningfully interpreted through the lens of the Technology Acceptance Model (TAM), which posits that perceived usefulness and perceived ease of use shape attitudes toward technology adoption and continued system use (Davis, 1989; Venkatesh and Davis, 2000).

Users reported moderate dissatisfaction with system functionalities, particularly in terms of PEPMIS meeting performance expectations. This suggests that perceived usefulness, a core construct in TAM, was not consistently realised among users. In line with prior research, systems that are not perceived as contributing to user performance are likely to be resisted or underutilised despite their formal implementation (Satispi et al., 2023). The relatively low mean scores on system satisfaction reflect a limited belief in the capacity of PEPMIS to streamline tasks or provide value in day-to-day operations. The system was seen to have a modest positive influence on performance, which reinforces the idea that even imperfect systems can support task efficiency when structured data and workflow tools are embedded. These results align with the broader TAM literature, which acknowledges that perceived usefulness can sometimes

outweigh negative perceptions of ease of use, especially in contexts where adoption is institutionally mandated (Kimanthi, 2015).

Concerns related to ease of use were prominent. Participants reported challenges in navigating the system and in their understanding of its full functionality. These points to limitations in the system's usability, the second core TAM factor. Numerous studies have highlighted that poor system interfaces, combined with inadequate training, reduce perceived ease of use and hinder effective engagement. These barriers are particularly pronounced in public sector environments with limited digital readiness and uneven access to capacity-building initiatives.

Trust and system credibility emerged as mixed themes; while most users agreed that PEPMIS preserved privacy and improved communication with supervisors, they expressed concern about data accuracy and security. In the context of TAM, trust is a critical influence on user attitudes, shaping both perceived usefulness and the intention to use a system (Venkatesh and Bala, 2008). Where trust in system integrity is weak, even functionally sound technologies may fail to gain user confidence. Another key issue raised was the lack of user involvement in system rollout and limited clarity on institutional responsibility for system maintenance. From a TAM perspective, low user participation in design and implementation phases negatively affects system acceptance by undermining ownership and accountability (Dwi, 2025). The perceived absence of feedback mechanisms further weakened perceptions of system responsiveness and organisational support.

Finally, infrastructural barriers, particularly inconsistent internet connectivity and limited access outside formal offices, were cited as constraints to system reliability and adoption. These contextual factors, while external to TAM's core constructs, serve as critical moderators that shape perceptions and actual usage in government settings (Tajuddin *et al.*, 2020). Awareness of PEPMIS benefits was also limited, highlighting gaps in organisational communication that reduce both perceived usefulness and motivation to engage with the system.

V. CONCLUSION & RECOMMENDATIONS

5.1 Conclusions

This study examined the awareness and perceptions of public service employees regarding the performance of the newly implemented Human Capital Management Information System (PEPMIS) in the Tanzanian public sector. The results underscore critical challenges in the adoption of the system, user confidence, and alignment with institutional support mechanisms. Despite broad system implementation, findings revealed persistent deficiencies in training, feedback mechanisms, and user engagement, all of which significantly constrained the system's perceived usefulness and ease of use, which are core tenets of the Technology Acceptance Model (TAM). Notably, low mean scores for training indicators (e.g., $M = 2.11$ for annual training) and a 53.2% low-confidence rate signal that the workforce remains ill-prepared to fully utilize the system. These results align with recent literature highlighting the critical role of continuous training and digital literacy in enhancing technological uptake in the public sector.

Feedback-related findings suggest inadequate communication structures, where neutral to slightly positive mean scores reflected weak institutional strategies for supervisory engagement and systemic feedback. The burden of navigating system mechanisms appears to fall disproportionately on individual users, a dynamic which fosters autonomy but risks alienating less digitally literate employees. Such gaps diminish organizational trust and obstruct the formation of a participatory digital culture, particularly when user involvement in system design and rollout is lacking.

Furthermore, system usability and satisfaction remain mixed. While some employees acknowledged moderate performance benefits, low satisfaction scores and ongoing difficulties with system navigation reflect broader concerns about PEPMIS's interface design and operational process. These findings are consistent with recent critiques that emphasize the importance of intuitive design and context-specific customization in public digital platforms. Trust in system integrity also surfaced as a double-edged theme. Respondents generally endorsed data privacy but questioned accuracy and security. These concerns reinforce the importance of transparent data governance and real-time support, especially in government settings where information irregularity and infrastructural unreliability are common. Finally, external factors such as unstable internet connectivity and poor access to digital tools outside official settings continue to hinder adoption. These infrastructural limitations, although peripheral to TAM's original scope, must be incorporated into future frameworks assessing ICT integration in public service contexts.

5.2 Recommendations

Based on the findings and conclusions drawn from this study, a number of actionable recommendations are proposed to improve the implementation, usability, and overall effectiveness of the Public Employees Performance Management Information System (PEPMIS) within the Tanzanian public sector. These recommendations are aligned with the empirical evidence presented and are theoretically anchored in the Technology Acceptance Model (TAM), as well as broader frameworks of digital governance and public sector innovation. The study revealed significant deficiencies in system-related training, particularly at the introduction phase and throughout continued system use.

These findings underscore the need for the Central Government, MDAs and LGAs to institutionalize structured, continuous training programs that cater to varying user roles and digital competencies.

Rather than one-time induction sessions, training should be implemented as a cyclical process with embedded mechanisms for refresher modules, peer support, and access to on-demand tutorials. Digital learning platforms that facilitate self-paced and interactive modules may be especially useful in supporting this goal. Training should also be designed to account for user diversity across departments, regions, and professional roles. The ambiguous and underutilized feedback structures observed in this study highlight a critical need for more transparent and participatory communication channels. A user-centric feedback infrastructure should be embedded directly within the PEPMIS platform, allowing employees to submit queries, report issues, and offer suggestions in a structured and trackable format.

Incorporating regular feedback loops such as quarterly user satisfaction surveys, participatory system reviews, and department-level digital forums could foster a culture of co-creation and accountability. Moreover, feedback integration should be institutionalized within the system governance process to ensure that user insights translate into tangible improvement. System usability emerged as a core concern, with users reporting difficulties in navigation and unclear functionalities. These issues suggest a need for a comprehensive usability review and redesign, guided by principles of human-centred design. Cognitive walkthroughs, focus groups, and interface testing should be conducted to identify specific usability bottlenecks. Simplifying user interfaces, streamlining task flows, and enabling dashboard customization can significantly enhance system efficiency and satisfaction. Such approaches have been shown to increase perceived ease of use and system adoption in public sector contexts.

Concerns around data accuracy, system reliability, and institutional accountability reflect broader issues of digital trust and governance. As trust significantly influences user adoption it is recommended that the system's data governance framework be revised and made more visible to users. This includes clearly articulating policies on data privacy, system maintenance, auditing protocols, and the responsibilities of system administrators at national and departmental levels. Establishing a centralized helpdesk and designating departmental digital focal points could further enhance institutional transparency and technical support. The study revealed that infrastructural limitations, particularly unstable internet access and restricted off-site system availability, constituted significant barriers to effective system usage. Addressing these limitations requires investment in digital infrastructure and connectivity solutions, particularly in underserved and rural regions. Additionally, PEPMIS should be enhanced to support offline data entry and mobile compatibility, enabling users to interact with the system beyond the confines of formal office settings. These adaptations would not only improve system reliability but also promote more inclusive access.

Declaration of Interest

The authors declare that they do not have any known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Funding Declaration

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

REFERENCES

- Abdullah, F. S., Sidhu, P., & Jalil, M. S. (2024). Awareness and readiness of Malaysian Generation Z students towards the Fourth Industrial Revolution (IR4.0). *Semarak International Journal of STEM Education*, 1(1), 20–27.
- Al-Alawi, A. I., Abdulmohsen, M., Al-Malki, F. M., & Mehrotra, A. (2019). Investigating the barriers to change management in public sector educational institutions. *International Journal of Educational Management*, 33(1), 112–148. <https://doi.org/10.1108/IJEM-03-2018-0115>
- Alhasan, A., Audah, L., Ibrahim, I., Al-Sharaa, A., Al-Ogaili, A. S., & Mohammed, J. M. (2022). A case-study to examine doctors' intentions to use IoT healthcare devices in Iraq during COVID-19 pandemic. *International Journal of Pervasive Computing and Communications*, 18(5), 527–547. <https://doi.org/10.1108/IJPCC-10-2020-0175>
- Almajali, D. A., Majali, T., Masa'deh, R., Al-Bashayreh, M., & Altamimi, A. (2023). Antecedents of acceptance model for e-procurement in Jordanian public shareholding firms. *Journal of Consumer Marketing*, 40(5), 567–578. <https://doi.org/10.1108/JCM-12-2021-5075>
- Bertot, J. C., Jaeger, P. T., & Grimes, J. M. (2010). Using ICTs to create a culture of transparency: E-government and social media as openness and anti-corruption tools for societies. *Government Information Quarterly*, 27(3), 264–271. <https://doi.org/10.1016/j.giq.2010.03.001>

- Chibuzor, M., Arikpo, I., Aquaisua, E., Esu, E., Okoroafor, S. C., Omar, S., Effa, E., Oyo-Ita, A., & Meremikwu, M. (2021). Implementation of health workforce information systems: A review of eight sub-Saharan country experiences. *Journal of Public Health*, 43(Suppl 1), i27–i40. <https://doi.org/10.1093/pubmed/fdaa263>
- Cinar, E., Simms, C., Trott, P., & Demircioglu, M. A. (2022). Public sector innovation in context: A comparative study of innovation types. *Public Management Review*, 26(1), 1–29. <https://doi.org/10.1080/14719037.2022.2080860>
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340.
- Debo, D. (2026, June 2). Digital transformation of public services in developing countries. <https://doi.org/10.13140/RG.2.2.31820.78728>
- Dwi, I. (2025). Digital transformation in public governance: A narrative review of information systems for strategic communication. *Sinergi International Journal of Communication Sciences*, 3(3), 167–179. <https://doi.org/10.61194/ijcs.v3i3.866>
- Dwivedi, Y. K., Rana, N. P., Jeyaraj, A., Clement, M., & Williams, M. D. (2021). Re-examining the Unified Theory of Acceptance and Use of Technology (UTAUT): Towards a revised theoretical model. *Information Systems Frontiers*, 23(3), 763–782. <https://doi.org/10.1007/s10796-020-10045-y>
- Gajdzik, B., & Wolniak, R. (2022). Smart production workers in terms of creativity and innovation: The implication for open innovation. *Journal of Open Innovations: Technology, Market and Complexity*, 8(1), 1–68.
- Ikwuanusi, U. F., Onunka, O., Owoade, S. J., & Uzoka, A. (2024). Digital transformation in public sector services: Enhancing productivity and accountability through scalable software solutions. *International Journal of Applied Research in Social Sciences*, 6(11), 2744–2774. <https://doi.org/10.51594/ijarss.v6i11.1724>
- Jafri, M. A. R., Osman, Z., & Mohd Nadzri, N. R. (2025). Enhancing employee performance in the public sector: The interplay of public service motivation, leadership style, organizational commitment, and satisfaction. *International Journal of Business, Marketing and Communication*, 5(40), 11–23.
- Janssen, M., & van der Voort, H. (2020). Agile and adaptive governance in crisis response: Lessons from the COVID-19 pandemic. *International Journal of Information Management*, 55, 102180. <https://doi.org/10.1016/j.ijinfomgt.2020.102180>
- Kimanthi, J. M. (2015). User satisfaction in information systems in public sector. Kenyatta University, Nairobi.
- Koohang, A., Anderson, J., Nord, J. H., & Paliszkievicz, J. (2020). Building an awareness-centered information security policy compliance model. *Industrial Management and Data Systems*, 120(1), 231–247. <https://doi.org/10.1108/IMDS-07-2019-0412>
- Lee, C., Mehler, B., Reimer, B., & Coughlin, J. F. (2015). User perceptions toward in-vehicle technologies: Relationships to age, health, preconceptions, and hands-on experience. *International Journal of Human-Computer Interaction*, 31(10), 667–681.
- Liao, H., Liu, S., & Chen, L. (2020). The implementation of human resource management information system. *Management Studies*, 8(2), 116–120. <https://doi.org/10.17265/2328-2185/2020.02.003>
- Mehrkish, N. I., & Grant, S. B. (2023). The role of senior managers' positive self-image in supporting MIS implementation. *VINE Journal of Information and Knowledge Management Systems*, 53(4), 849–871. <https://doi.org/10.1108/VJKMS-01-2021-0017>
- Meske, C., Junglas, I., & Stieglitz, S. (2019). Explaining the emergence of hedonic motivations in enterprise social networks and their impact on sustainable user engagement: A four-drive perspective. *Journal of Enterprise Information Management*, 32, 436–456. <https://doi.org/10.1108/JEIM-08-2018-0177>
- Moynihan, D. P., & Pandey, S. K. (2019). The American public workforce: An underutilized resource. *Journal of Public Administration Research and Theory*, 29(3), 432–446. <https://doi.org/10.1093/jopart/muy070>
- Naidoo, D. T. (2023). Integrating TAM and IS success model: Exploring the role of blockchain and AI in predicting learner engagement and performance in e-learning. *Frontiers in Computer Science*, 5, Article 1227749. <https://doi.org/10.3389/fcomp.2023.1227749>
- Nel, F., & Drevin, L. (2019). Key elements of an information security culture in organisations. *Information and Computer Security*, 27(2), 146–164. <https://doi.org/10.1108/ICS-12-2016-0095>
- Polyviou, A., Pouloudi, N., & Venters, W. (2023). Cloud computing adoption decision-making process: A sensemaking analysis. *Information Technology and People*, 37(6), 2153–2182. <https://doi.org/10.1108/ITP-02-2022-0139>
- Presbitero, A., Teng-Calleja, M., & Farndale, E. (2022). Employee perceptions of HRM system strength: Examining outcome and boundary conditions among HR and non-HR employees. *Personnel Review*, 51(9), 2142–2161. <https://doi.org/10.1108/PR-12-2020-0878>
- Reyes Veras, P., Renukappa, S., & Suresh, S. (2022). Awareness of Big Data concept in the Dominican Republic construction industry: An empirical study. *Construction Innovation*, 22(3), 465–486. <https://doi.org/10.1108/CI-05-2021-0090>



- Satispi, E., Rajiani, I., Murod, M., & Andriansyah, A. (2023). Human resources information system (HRIS) to enhance civil servants' innovation outcomes: Compulsory or complimentary? *Administrative Sciences*, 13(2), 32. <https://doi.org/10.3390/admsci13020032>
- Silidion, B. D., & Rutenge, M. M. (2024). Exploring employees' perception of the effectiveness of public employees' performance management information system: A case of the judiciary of Tanzania. *African Journal of Empirical Research*, 5(4), 1188–1196. <https://doi.org/10.51867/ajernet.5.4.97>
- Tajuddin, M., Harun, A., & Salam, M. A. (2020). User satisfaction and performance in HRMIS. *Asia Pacific Journal of Business Administration*, 12(4), 451–469.
- Ulfert-Blank, A.-S., & Schmidt, I. (2022). Assessing digital self-efficacy: Review and scale development [Review of Assessing digital self-efficacy: Review and scale development]. *Computers & Education*, 191, 104626. <https://doi.org/10.1016/j.compedu.2022.104626>
- Vărzaru, A. A. (2022). Assessing digital transformation acceptance in public organizations' marketing. *Sustainability*, 15(1), 265. <https://doi.org/10.3390/su15010265>
- Venkatesh, V., & Bala, H. (2008). Technology acceptance model 3 and a research agenda on interventions. *Decision Sciences*, 39(2), 273–315.
- Venkatesh, V., & Davis, F. D. (2000). Theoretical extension of the technology acceptance model. *Management Science*, 46(2), 186–204.
- Venkatesh, V., Thong, J. Y. L., & Xu, X. (2016). Unified theory of acceptance and use of technology: A synthesis and the road ahead. *Journal of the Association for Information Systems*, 17(5), 328–376. <https://doi.org/10.17705/1jais.00428>
- Vial, G. (2019). Understanding digital transformation: A review and a research agenda. *The Journal of Strategic Information Systems*, 28(2), 118–144. <https://doi.org/10.1016/j.jsis.2019.01.003>
- Widodo, Y. B., & Akbar, K. F. (2024). Effectiveness of technology use in Indonesian high schools: Student engagement, school capacity, teacher performance. *International Journal of Business, Law, and Education*, 5(1), 615–627.
- Zyzak, B., Sienkiewicz-Małyjurek, K., & Jensen, M. R. (2024). Public value management in digital transformation: A scoping review. *International Journal of Public Sector Management*, 37(7), 845–863.