Education Stakeholders' Experience in the Use of Public Employee's Performance Management Information System (PEPMIS) in Monitoring Teachers' Job Performance in Public Secondary Schools in Dar-es-salaam, Tanzania

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Abstract: This study investigated the education stakeholders' experience in the use of public employee's performance management information system (PEPMIS) in monitoring teachers' job performance in public secondary schools in Dar-es-salaam, Tanzania. A convergent research design under a mixed methods approach was employed. The target population comprised 6,617 teachers, 192 school heads, 5 District Secondary Education Officers (DSEOs), and 5 Municipal Information Technology Officers (MITOs). Using a combination of Creswell and Creswell's (2023) sampling recommendations and the Yamane formula, a sample of 402 participants was drawn, including 377 teachers, 17 school heads, 4 DSEOs, and 4 MITOs, selected through stratified random sampling and total purposive sampling. Data were collected using questionnaires, interviews, and observation guides. Instrument validity was ensured through expert review, while reliability testing of the teachers' questionnaire yielded a Cronbach's Alpha coefficient of 0.765. A pilot test and triangulation further strengthened instrument trustworthiness. Quantitative data were analysed using descriptive statistics, while qualitative data underwent thematic analysis. Ethical protocols, including informed consent, confidentiality, and anonymity, were observed. Findings revealed that PEPMIS enhances efficiency, accountability, and timely reporting in monitoring teachers' job performance. However, challenges such as varying digital literacy, system navigation difficulties, and technical issues limit its full potential. The study concludes that PEPMIS is generally usable for monitoring teachers' job performance in public secondary schools in Dar es Salaam. It is recommended that schools provide regular training and refresher sessions to improve teachers' digital literacy and confidence in using PEPMIS.

Keywords: Experience, Monitoring, Performance, Public, Schools

1. Introduction

Job performance is reflected through efficiency, effectiveness, and quality of employees' work in achieving organizational goals, particularly in education, on teachers' instructional delivery, classroom management, and overall contribution to student learning outcomes (Mohamed & Kulmie, 2023). Effective monitoring of teachers' job performance requires reliable digital tools that can streamline evaluations, provide timely feedback, and improve accountability (Fuente & Fuente, 2022). In developed countries, systems such as the Education Technology

Hub (EdTech Hub) in the United States and the Organisation for Economic Co-operation and Development (OECD) iLibrary in the United Kingdom have enhanced teachers' performance monitoring by providing data-driven insights for decision-making and professional development (Johnson & Goldstein, 2022). Additionally, global initiatives like UNESCO and UNICEF's Learning Data Compact emphasize real-time monitoring to improve teacher accountability and educational outcomes (Fuente & Fuente, 2022). Digital systems address limitations of traditional methods, which are often subjective, inconsistent, and slow in delivering actionable feedback (Johnson & Goldstein, 2022).

In the United States, digital monitoring systems have improved the efficiency of teacher performance tracking, with over 80% of public schools adopting these tools despite challenges such as inadequate training and resistance to change (National Centre for Education Statistics, 2021; Smith & Clark, 2021). In the United Kingdom, 70% of secondary schools have implemented digital systems for monitoring teacher performance, yet inconsistent use and lack of standardized training have limited their effectiveness (Harris et al., 2022; Department for Education, 2022). Studies indicate that professional development and supportive policies are essential to maximize the usability and impact of these systems (Smith & Clark, 2021; Williams & Brown, 2022).

In African countries, including Ghana and Nigeria, limited digital infrastructure, insufficient training, and resistance to new technologies hinder the effective use of Management Information Systems (MIS) for monitoring teacher performance, with public schools facing greater challenges than private schools (Owusu et al., 2022; Eze et al., 2023; Okeke & Nwankwo, 2022). Similarly, in East Africa, countries such as Uganda and Kenya have reported improved transparency and accuracy in monitoring teacher performance through MIS adoption, though challenges with training, internet connectivity, and user perceptions remain (Nabukenya et al., 2022; Mugo & Njeri, 2023). These experiences highlight the critical role of internet access, digital literacy, and institutional support in ensuring effective MIS usability.

In Tanzania, public sector performance management has evolved through reforms such as the Civil Service Reform Programme (CSRP) and the Public Service Reform Programme (PSRP), which laid the foundation for a performance-oriented culture (URT, 2000). The introduction of the Open Performance Review and Appraisal System (OPRAS) in 2004 marked a shift toward structured, systematic, and transparent performance evaluations, replacing the Confidential Performance Appraisal System and providing tools for setting objectives, assessing performance, and promoting accountability (Bana, 2009; PO-PSM, 2009).

Supported by the Public Service Management and Employment Policy (PSMEP) of 1999 and the Public Service Act No. 8 of 2002, OPRAS strengthened standards for accountability and performance in public institutions (PO-PSM, 2013).

In February 2024, Tanzania launched the Public Employees Performance Management Information System (PEPMIS) to digitally monitor employee performance, including teachers, across government sectors (URT, 2024). PEPMIS aims to address limitations of OPRAS by providing real-time performance tracking, data-driven evaluations, and streamlined reporting. However, concerns remain about its usability in public secondary schools, particularly regarding teacher digital literacy, resource availability, and consistent application of the system (Kimaro & Nyagawa, 2022; Mwenda, 2023). These challenges underscore the need to assess the usability of PEPMIS in monitoring teachers' job performance to ensure effective implementation and enhanced educational outcomes in Dar es Salaam, Tanzania.

2. Literature Review

This section explores the teachers' responses on their experiences in the use of public employee's performance management information system (PEPMIS) in monitoring their job performance, emphasizing the impact of ease of use and system navigation.

Nadeem et al. (2021) investigated the role of school management in implementing the Performance Appraisal System (PAS) and its effect on teacher satisfaction in Punjab, Pakistan, through a survey targeting 90 principals and 540 teachers. Their findings highlighted management support as crucial for successful PAS implementation and teacher satisfaction, though the study's quantitative approach limited insights into teachers' personal experiences. This research on PEPMIS aims to bridge this gap by employing a mixed-methods approach to gather qualitative perspectives from teachers and administrators.

Ogochukwu (2022) examined strategies for integrating Management Information Systems (MIS) in secondary schools, focusing on teacher perspectives in the Awka Education Zone, Anambra State, Nigeria. Using a descriptive survey design with data collected from 130 teachers via a validated questionnaire (Cronbach's alpha = 0.88), the study emphasized the role of MIS in streamlining administrative tasks like testing, enrollment, and fee management. While the findings underscored MIS usability, the study's quantitative approach limited insights into teachers' detailed experiences with usability challenges. The upcoming study on PEPMIS addressed this gap using a mixed-methods approach to comprehensively assess its

usability in monitoring teachers' job performance in Dar es Salaam secondary schools.

Kyambadde and Nsubuga (2023) investigated the use of digital systems to monitor teacher performance in secondary schools in Kampala, Uganda, using a mixed-methods approach targeting 300 administrators, with 80 selected through cluster sampling. Quantitative data were collected via surveys and analyzed with SPSS, while qualitative data from interviews underwent content analysis, offering a comprehensive view of digital systems' role in improving teacher performance monitoring. The study revealed that digital systems enhance monitoring through real-time data access and prompt feedback, but faced challenges such as limited technology access and inadequate training. To address these issues, the current study in Dar es Salaam adopted a convergent mixed-methods approach to evaluate PEPMIS usability, incorporating a more balanced sampling strategy while focusing on teachers' job performance monitoring.

Ndayisenga and Andala (2022) explored the relationship between ICT tools and teacher performance in Rwandan secondary schools, focusing on 159 respondents, including teachers and head teachers from Rulindo District, selected through purposive and random sampling. Using a mixed-methods approach, data were collected via questionnaires, interviews, and observations, and analyzed using descriptive and inferential statistics, revealing that ICT tools significantly improve teaching effectiveness, teacher-student relationships, and overall student performance. To address the study's reliance on self-reported data, the current research adopted a more robust mixed-methods approach in Dar es Salaam to assess PEPMIS usability, incorporating teachers' and administrators' perspectives on its role in monitoring job performance in public secondary schools.

Nkata (2020) examined the implementation of an Education Management Information System (EMIS) to track students' academic progress in secondary schools in Tanzania's Arusha Region, involving 200 participants, including teachers, students, parents, and education officers, selected via stratified random sampling. The study revealed that manual tracking systems negatively impacted parental involvement and teacher productivity, although its structured quantitative approach lacked qualitative insights into user challenges and system adaptability. To address these gaps, the current research adopted a mixed-methods approach in Dar es Salaam to explore PEPMIS usability, gathering detailed feedback from school administrators and teachers on its effectiveness in monitoring teachers' job performance.

Kombo and Mzinga (2022) studied the impact of EMIS on teacher performance in secondary schools in

Morogoro Region, Tanzania, using a descriptive and correlational design with 150 participants, including 120 teachers and 30 heads of schools, selected through stratified random sampling. The study found a positive correlation between EMIS implementation and improved teacher performance but highlighted the need for ongoing training to enhance system usability. To address the study's limitation of focusing solely on quantitative data, the current research in Dar es Salaam used a mixed-methods approach, incorporating qualitative interviews to explore PEPMIS usability, challenges, and benefits in monitoring teachers' job performance.

Generally, the reviewed literature on digital systems for monitoring teachers' job performance reveals conceptual, contextual, and methodological gaps. Conceptually, studies including those by Nadeem et al. (2021), Ogochukwu (2022), Kyambadde and Nsubuga (2023), Ndayisenga and Andala (2022), Nkata (2020), and Kombo and Mzinga (2022) focused on isolated aspects such as system navigation, ease of use, or management support, with little attention to their combined effect on overall usability. Contextually, most research was conducted outside Tanzania in better-resourced regions, limiting applicability to under-resourced public secondary schools. Methodologically, many studies relied solely on quantitative or small-scale mixed-methods approaches, offering limited insights into user experiences and system effectiveness. To address these gaps, the current study adopts a convergent mixed-methods design to comprehensively assess PEPMIS usability in monitoring teachers' job performance in Dar es Salaam, integrating perspectives from both teachers and administrators.

3. Methodology

This study employed a convergent research design under a mixed methods approach, which allowed for the simultaneous collection and analysis of quantitative and qualitative data sets to understand the problem comprehensively. Quantitative and qualitative data sets were gathered concurrently, analysed separately, and compared to identify consistencies or contradictions (Creswell & Creswell, 2023). The study involved 6,819 participants, comprising 6,617 teachers, 192 school heads, 5 District Secondary Education Officers (DSEOs), and 5 Municipal Information Technology Officers. The sample size was determined using a combination of 10% to 30% representation of the target population, as recommended by Creswell and Creswell (2023), along with the Yamane formula introduced by Taro Yamane (1967). A sample of 402 participants, including 377 teachers, 17 school heads, 4 DSEOs, and 4 MITOs, was selected through stratified random sampling and purposive sampling.

Data collection tools included questionnaires for quantitative data, interview guides for in-depth qualitative insights, and an observation guide. Validity

of the instruments was ensured through evaluation by three experts from the Faculty of Education at MWECAU, specializing in Planning and Administration. A pilot test involving 10% of the sample size was conducted in one district. Reliability of the questionnaire was established using Cronbach's Alpha, which yielded a coefficient of 0.765 questionnaire for teachers. The trustworthiness of qualitative data was ensured through triangulation. Quantitative data were analysed using descriptive statistics through SPSS version 27, while qualitative data were subjected to thematic analysis involving familiarization with the data, coding, generating themes, reviewing themes, defining and naming themes, and report writing. Ethical considerations were strictly observed throughout the study; informed consent was obtained from all participants, confidentiality and anonymity were maintained, and the study received approval from relevant educational and research authorities to ensure compliance with institutional and professional ethical standards.

4. Results and Discussion

This study was conducted to establish education stakeholders' experience in the use of public employee's performance management information system (PEPMIS) in monitoring teachers' job performance in public secondary schools in Dar-es-salaam, Tanzania. The study gathered information from teachers, heads of schools, District Information Technology Officers, and District Secondary Education Officers (DSEO). The findings are presented and discussed.

This study specifically sought to investigate the education stakeholders' experience in the use of public employee's performance management information system (PEPMIS) in monitoring teachers' job performance in public secondary schools in Dar-es-salaam, Tanzania. A five-point Likert scale was used for analysis, where 1=Strongly Disagree (SD), 2=Disagree (D), 3=Undecided (U), 4=Agree (A), 5=Strongly Agree (SA), F=frequencies, P=Percentages values were also employed in data presentation. Data were collected using a five-point Likert scale, where 1 = Strongly Disagree (SD), 2 = Disagree (D), 3 = Undecided (U), 4 = Agree (A), and 5 = Strongly Agree (SA). The analysis incorporated frequencies (F) and percentages (P) for clarity in data presentation. In line with Warmbrod (2024), a mean score between 1.00 and 1.89 indicates very low usability; 1.90 to 2.69 reflects low usability; 2.70 to 3.49 shows moderate usability; 3.50 to 4.29 represents high usability; and 4.30 to 5.00 demonstrates very high usability. Furthermore, percentage results were interpreted using Taherdoost's (2019) scale: ≤20% = extremely minority; 21–49% = minority; 50–59% = moderate; 60–69% = majority; 70–89% = very high majority; 90–99% = extremely majority; and 100% = overwhelming majority. A detailed summary of teachers' responses is presented in Table 1.

Table 1: Teachers' responses on their experiences in the use of public employee's performance management information system (PEPMIS) in monitoring teachers' job performance in public secondary schools in Dar-es-salaam, Tanzania (n=247).

Statement		SD		D		N		A		SA		Mean
		f	%	f	%	f	%	f	%	f	%	
i.	It is easy for me to log in and access PEPMIS	10	2.7	32	8.5	174	46.3	122	32.4	38	10.1	3.39
ii.	The layout of PEPMIS is user-friendly to me	15	4.0	27	7.2	139	37.1	135	36.0	59	15.7	3.52
iii.	I can complete tasks on PEPMIS without needing help	14	3.8	28	7.5	150	40.2	123	33.0	58	15.5	3.49
iv.	PEPMIS allows me to submit my performance data quickly	12	3.2	29	7.7	120	31.9	149	39.6	66	17.6	3.61
v.	The system responds promptly when I use it	13	3.5	30	8.0	112	29.8	129	34.3	92	24.5	3.68
vi.	I find it easy to navigate different sections of PEPMIS	15	4.0	35	9.3	181	48.3	95	25.3	49	13.1	3.34

vii.	PEPMIS helps me accomplish my job tasks efficiently	12	3.2	35	9.4	120	32.3	155	41.8	49	13.2	3.52
viii.	It takes me a short time to figure out how to use PEPMIS	9	2.4	36	9.6	130	34.7	133	35.5	67	17.9	3.57
ix.	I rarely experience errors or interruptions when using PEPMIS	12	3.2	26	6.9	113	30.1	151	40.3	73	19.5	3.66
x.	Overall, PEPMIS is a convenient tool for reporting my performance	19	5.1	15	4.0	141	37.7	116	31.0	83	22.2	3.61
	Grand Mean											3.53

Source: Field Data (2025) 1=Strongly Disagree (SD), 2=Disagree (D), 3=Undecided (U), 4=Agree (A), 5=Strongly Agree (SA), F=frequencies, P=Percentages

Data in Table 1 shows that a minority (42.5%) of teachers agreed and strongly agreed that it is easy for them to log in and access PEPMIS. Conversely, an extremely minority proportion (10.1%) of teachers expressed disagreement or strong disagreement with this statement. Additionally, a majority proportion (46.3%) remained undecided. The mean score was 3.39, representing moderate usability, reflecting teachers find logging in and accessing the system manageable but with some difficulties. This suggests that while a considerable number of teachers find the system accessible, the large proportion of undecided responses points to possible inconsistencies in user experiences or varying levels of familiarity with the system. During a face-to-face interview with the Head of School 5, the respondent explained:

> Logging into PEPMIS is generally straightforward when the system is working smoothly, and I can access the information I need without much trouble. However, there are days when the portal is slow or fails to load altogether. This can be frustrating, especially when I am trying to meet reporting deadlines. I feel that if the internet connection and system maintenance were more reliable, the process would be much easier (HoS5 Personal communication, 2 May 2025).

The Head of School 8 expressed a related but slightly different view:

> I wouldn't say logging into PEPMIS is always easy for me. Sometimes I forget my password, or the login page takes a long time to respond, and this delays my work. On the positive side, when it works, it's very helpful and saves me from having to submit documents physically. I just think there should be more technical support for users, especially for those of us who are not very confident with computers

(HoS8 Personal communication, 08 July 2025).

The responses from the two heads of school reveal that while PEPMIS can be a useful and time-saving tool, both users experience occasional challenges that affect accessibility. HoS5 pointed out the role of system reliability and internet connectivity in making the login process smooth, whereas HoS8 highlighted user-related issues such as forgotten passwords and the need for technical assistance. Both perspectives suggest that improving both the system's stability and user support could enhance the ease of logging in and accessing PEPMIS. The findings of the study are congruent with those of Ogochukwu (2022), who reported that teachers generally found MIS platforms easy to use for administrative tasks, whereas in the current study, a considerable proportion of teachers experienced difficulties logging into PEPMIS and required additional support. The findings also resonate with Davis's Technology Acceptance Model (TAM) (1989), which emphasizes that users are more likely to adopt technology when it is easy to use. Teachers' ability to log in without difficulty reflects deliberate system design that reduces operational stress and frustration. This ease of access enhances engagement with PEPMIS, strengthens accountability, and supports effective monitoring of teacher performance, in line with TAM's focus on perceived ease of use.

Data in Table 1 shows that a moderate (51.7%) of teachers agreed and strongly agreed that the layout of PEPMIS is user-friendly. Conversely, an extremely minority proportion (11.2%) of teachers expressed disagreement or strong disagreement with this statement. Furthermore, the minority proportion (37.1%) remained undecided. The mean score was 3.52, representing high usability, implies teachers find the system's layout generally easy to navigate and user-friendly. This suggests that the arrangement and presentation of features within PEPMIS are generally

viewed as clear, logically structured, and supportive of smooth navigation, thereby facilitating task completion. The considerable proportion of undecided responses highlights varied experiences among users, reflecting differences in familiarity, frequency of use, or prior exposure to similar digital platforms. During a face-to-face interview with the District Information and Technology Officer 2, the respondent remarked:

> The overall layout of PEPMIS is fairly simple to navigate, especially for teachers who are familiar with digital platforms. The menus are well-labeled, and most features are easy to locate. However, I have observed that some teachers, particularly those with limited computer skills, find certain icons or sections confusing. If there were more visual guides or step-by-step prompts, it would be even more user-friendly (MITO2 Personal communication, 14 July 2025).

The District School Education Officer 3 offered a related observation:

> From my experience, teachers generally appreciate the layout because it is not overloaded with unnecessary information, and the important features are visible on the main page. Still, there are instances where teachers struggle to locate specific forms or reports, especially when updates change the arrangement. This creates frustration, and sometimes they have to call me for assistance. A more consistent interface, with minimal changes in layout, would make it more comfortable for them to use (DSEO3 Personal communication, 11 July 2025).

Information from MITO2 and DSEO3 suggests that while PEPMIS has a generally straightforward and well-labeled layout, there are still areas where user-friendliness could be improved for teachers. MITO2 emphasized that digital literacy levels among teachers influence how easily they navigate the system, pointing to the need for clearer visual guidance. DSEO3 acknowledged that the uncluttered design is appreciated but highlighted that changes in layout can disrupt familiarity. Both perspectives indicate that consistency in design and provision of user support would further enhance the platform's accessibility for teachers. The findings of the study are in line with those by Ndayisenga and Andala (2022), who found that ICT tools with clear interfaces and well-structured features enhance teachers' effectiveness and ease of use, although user familiarity and digital literacy influence the overall experience. The findings also align with Davis's Technology Acceptance Model (TAM) (1989), which highlights that intuitive and well-organized interfaces improve perceived ease of use. A user-friendly layout of menus and features represents a structured adaptation to minimize navigational challenges, supporting smooth interaction with PEPMIS. This approach ensures that teachers can perform performance-monitoring tasks efficiently, consistent with TAM's emphasis on system design that reduces cognitive effort and promotes adoption.

Data in Table 1 shows that a minority (48.5%) of teachers agreed and strongly agreed that they can complete tasks on PEPMIS without needing help. Contrariwise, an extremely minority proportion (11.3%) of teachers expressed disagreement or strong disagreement with this statement. Additionally, a minority proportion (40.2%) remained undecided. The mean score was 3.49, representing moderate usability, reflecting teachers find completing tasks independently on PEPMIS somewhat manageable but still face difficulties. This suggests that teachers do not yet feel sufficiently confident to operate PEPMIS independently, as less than half agreed they could complete tasks without help. The substantial proportion of undecided responses highlights uncertainty and hesitation in system use, which stems from limited digital skills, inadequate training, or a lack of prior experience with similar technologies. The researcher, during a face-to-face interview with Head of School 1 (HoS1), had this to share:

> With the experience I've gained over time, I can complete most of my tasks on PEPMIS without having to call for assistance. Things like uploading, teachers' data or generating attendance reports are straightforward for me. However, I have noticed that the majority of teachers are not as confident. Whenever there is a system update or a new function appears, many of them struggle and often turn to colleagues for help. In my view, if refresher training were provided after each update, it would enable more teachers to build the confidence needed to work independently (HoS1 Personal communication, 05 May 2025).

Head of School 7 (HoS7) had this to say:

> For me, the experience is mixed. I can manage the basic PEPMIS tasks independently, such as marking attendance or checking performance summaries. However, when it comes to more technical functions, I often need assistance, especially if something unexpected happens on the screen. The difficulty is that help is not always immediately available, which slows down my work. On the positive side, once I am shown how to perform a task and get the chance to practice it, I become more confident. I believe more practical, hands-on training sessions would greatly help us close this gap (HoS7 Personal communication, 15 May 2025).

The views of the heads of schools reveals that while some teachers gain confidence in handling basic

PEPMIS tasks independently, the majority continue to face difficulties, especially when updates or technical functions are involved. HoS1 noted that although experience allows a few to manage routine activities such as uploading teacher data or generating reports, many teachers remain dependent on colleagues whenever new features appear. Similarly, HoS7 acknowledged being able to handle simple tasks but highlighted that technical challenges and the lack of immediate support often slow down work. Both accounts underline that confidence in system use is uneven and that practical, hands-on refresher training after updates would be essential in enabling a wider group of teachers to operate PEPMIS independently. The findings of this study align with those of Kombo and Mzinga (2022), who observed that while some teachers were able to perform basic administrative tasks on Management Information Systems independently, the majority struggled with more complex functions or system updates.

During the observation in School M, which had sufficient computers, it was evident that teachers' ability to use them remained limited, and ICT challenges continued to affect the system's use. Despite the availability of resources, proficiency in handling PEPMIS was uneven, highlighting the need for targeted support and training. Figure 1 illustrates this situation clearly.
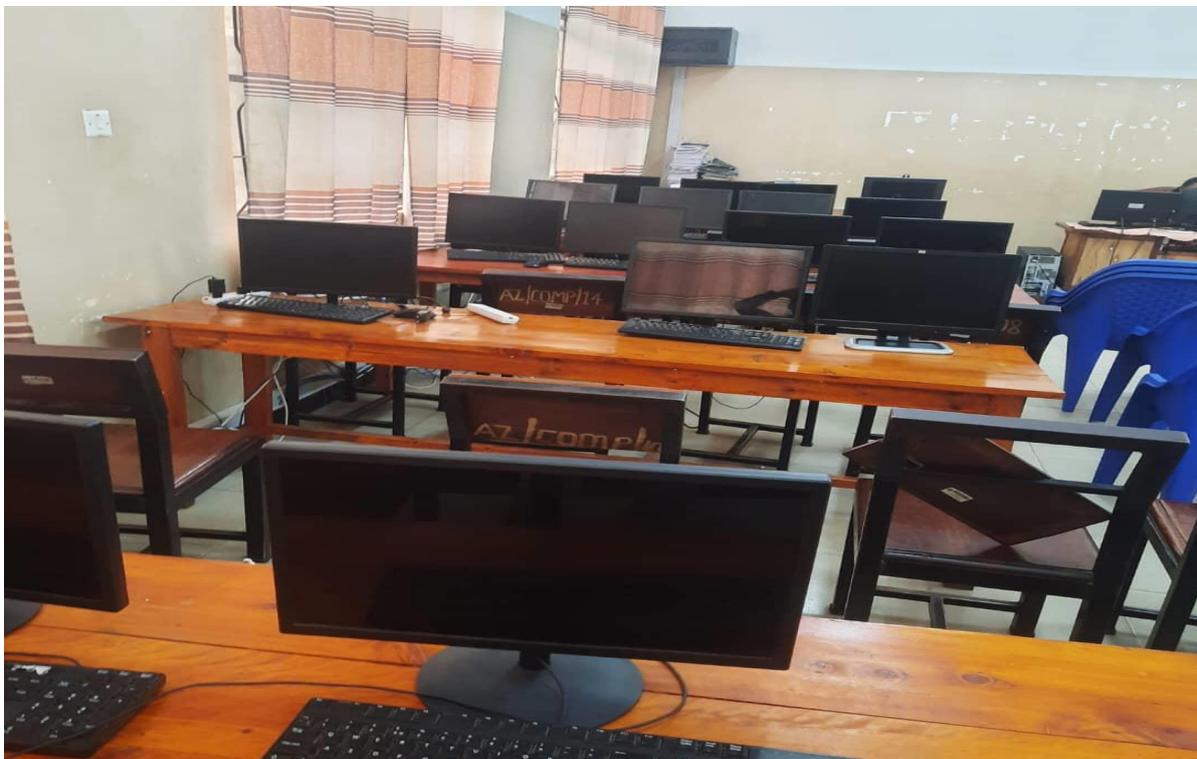
Figure 1: Computer Laboratory in School M Showing Available Workstations for PEPMIS Usage despite Teachers' Limited Proficiency

Figure 1 indicates that in School M, although the computer laboratory has sufficient workstations for PEPMIS usage and other academic issues, teachers' ability to operate the computers remains limited. The figure clearly shows that while some teachers can handle basic tasks independently, the majority face difficulties with technical functions and system updates. This condition reveals that despite the availability of resources, practical proficiency in using PEPMIS is uneven, and many teachers continue to rely on colleagues for assistance when complex tasks arise.

Data in Table 1 shows that a moderate (57.2%) of teachers agreed and strongly agreed that PEPMIS allows them to submit their performance data quickly. On the other hand, an extremely minority proportion (10.9%) of teachers expressed disagreement or strong disagreement with this statement. Additionally, a minority proportion (31.9%) remained Undecided. The mean score was 3.61, representing high usability, implies teachers generally find PEPMIS efficient for submitting performance data quickly. This suggests that PEPMIS is largely perceived as efficient in handling data entry and transmission processes, enabling timely

reporting of job performance. The notable proportion of undecided responses reflects varied user experiences, influenced by differences in network stability, device accessibility, or familiarity with the platform's submission functions. The researcher, during a face-to-face interview with Head of School 6 (HoS6), had this to share:

> One of the things I appreciate about PEPMIS is how it has reduced the time I spend on submitting performance data. In the past, I had to prepare physical reports, send them by hand, and wait for confirmation. Now, I can upload everything directly from my office. That said, the speed really depends on the internet connection; on some days, it's so slow that what could take fifteen minutes ends up taking an hour. If connectivity issues were addressed, the process would be even more efficient (HoS6 Personal communication, 14 May 2025).

Head of School 10 (HoS10) had this to say:

> For me, PEPMIS does make performance data submission quicker compared to the old manual method. I just fill in the required fields, upload the documents, and it's done. The challenge comes when the system freezes or logs me out unexpectedly, which means I have to start all over again, which can be frustrating, especially during busy periods like the end of the term. Still, when everything works smoothly, I can complete the task in record time, and that's a big improvement for us (HoS10 Personal communication, 10 July 2025).

Information from heads of schools shows that PEPMIS has significantly improved the speed of performance data submission by eliminating manual processes. HoS6 emphasized the convenience of uploading data directly but noted that unreliable internet can slow things down. HoS10 also recognized the time saved but highlighted the occasional disruptions caused by system glitches. Both responses point to the fact that while PEPMIS is a faster option, its efficiency depends on stable technical and network conditions. The findings of the study are congruent with those of Chatto (2025), who reported that the implementation of an online reporting system in a school in Davao City, Philippines, significantly enhanced the timeliness and efficiency of quarterly report submissions by teachers. The study highlighted that the system streamlined the reporting process, enabling teachers to submit their performance data more promptly. The findings also reflect Davis's Technology Acceptance Model (TAM) (1989), which posits that perceived usefulness motivates consistent technology use. The ability to submit performance data quickly demonstrates an operational enhancement that reduces administrative workload. This feature represents a rational adaptation that streamlines workflow and reinforces teachers' engagement, supporting TAM's principle that usefulness encourages sustained adoption of technology.

Data in Table 1 shows that a moderate (58.8%) of teachers agreed and strongly agreed that the system responds promptly when they use it. On the contrary, an extremely minority proportion (11.5%) of teachers expressed disagreement or strong disagreement with this statement. Additionally, a minority proportion (29.8%) remained undecided. The mean score was 3.68, representing high usability, reflecting teachers generally find PEPMIS responsive and efficient in processing commands. This indicates that teachers generally perceive the system as efficient in processing commands, contributing to smooth performance monitoring. The proportion of disagreeing and undecided responses reflects varied experiences among teachers, including differences in interaction frequency, task complexity, or familiarity with the system's operational functions. During a face-to-face interview, DSEO 3 reflected:

> In most cases, PEPMIS responds quickly when I log in and work on it. Tasks like reviewing school performance reports or updating teacher records are processed without much delay, which helps me meet reporting deadlines. However, there are times, especially when several schools submit data at once, when the system becomes noticeably slower. This is particularly challenging when we have to compile urgent district-wide reports. I think the overall responsiveness is good, but it's not consistent across all times of the month (DSEO 3 Personal communication, 15 July 2025).

MITO 4 shared this perspective:

> From the technical side, the system generally performs well, and I can say that most of the time, commands are executed almost instantly. That said, I've also observed that performance issues arise when there are connectivity challenges in certain areas or when the server is under heavy load. During those moments, uploading large datasets or retrieving archived records can take longer than expected. So while the platform's design supports quick responses, external factors like network stability and simultaneous user activity sometimes affect the experience (MITO 4 Personal communication, 15 July 2025).

The responses indicate that PEPMIS is generally perceived as responsive, facilitating the timely processing of administrative and performance monitoring tasks. DSEO 3 emphasized its usefulness in meeting deadlines but acknowledged periods of slowdown during peak activity. MITO 4 supported this

observation from a technical standpoint, pointing out that network conditions and server demand can influence system speed. Together, their views suggest that while PEPMIS is designed for prompt performance, both user load and infrastructure conditions can affect its consistency. The findings align with those by Kalankesh (2020), who identified system responsiveness as a critical factor influencing user satisfaction with information systems, emphasizing the importance of prompt system responses in enhancing user experience.

Data in Table 1 shows that a minority (38.4%) of teachers agreed and strongly agreed that they find it easy to navigate different sections of PEPMIS. In contrast, an extremely minority proportion (13.1%) of teachers expressed disagreement or strong disagreement with this statement. Additionally, a moderate proportion (48.3%) remained undecided. The mean score was 3.34, representing moderate usability, reflecting teachers find navigating different sections of PEPMIS somewhat manageable but still encounter difficulties. This demonstrates that while some teachers experience smooth and intuitive navigation across various sections, a substantial number remain uncertain, reflecting diverse experiences and levels of engagement with the platform. The variation in responses also suggests that teachers interact with different modules at varying frequencies, which influences their perceptions of how straightforward the system is to use. In a face-to-face interview, Head of School 4 explained:

> Navigating through PEPMIS is generally straightforward for me. The menus are clear, and once you know where each function is, moving from one section to another doesn't take long. This is especially helpful when I need to track teacher performance records or generate reports quickly. However, I have noticed that for new users, or when I have to access rarely used modules, it takes a bit more time to locate the right section. This can slow down work, especially if you're not using the system every day (HoS 4 Personal communication, 09 May 2025).

Head of School 9 offered a related observation:

> For the most part, I can say the system is organized in a way that makes sense. Once you are familiar with the layout, it becomes easy to navigate. But there are instances when certain sections feel less intuitive, like when you need to cross-check data between modules. In such cases, I find myself clicking back and forth before getting to the right place. It's not a major obstacle, but it does mean that sometimes tasks take longer than they should (HoS 9 Personal communication, 16 July 2025).

The reflections from heads of schools suggest that PEPMIS navigation is largely clear and manageable for experienced users, enabling efficient access to performance records and reports. HoS 4 emphasized the ease of moving between sections once familiar with the layout, while acknowledging challenges for less frequent users. HoS 9 echoed this, recognizing the logical structure of the system but noting that some tasks require extra steps, particularly when working across different modules. Together, their insights indicate that while the platform's navigation is generally user-friendly, varying levels of familiarity and the complexity of certain tasks can influence the overall ease of use. The findings of the study are in contrast with those by Nadeem et al. (2021), who emphasized that usability and system navigation were largely supported by management and streamlined tasks, suggesting smoother user experiences. This indicates that while PEPMIS navigation is moderately clear for some users, a substantial number of teachers remain undecided or find it challenging, reflecting varying digital literacy levels and familiarity with the system.

Data in Table 1 shows that a moderate (55.0%) of teachers agreed and strongly agreed that PEPMIS helps them accomplish their job tasks efficiently. Conversely, an extremely minority proportion (12.6%) of teachers expressed disagreement or strong disagreement with this statement. Additionally, a minority proportion (32.3%) remained undecided. The mean score was 3.52, implies usability, suggesting that teachers generally find PEPMIS effective in supporting task completion, although some challenges remain. This demonstrates that while many teachers find PEPMIS effective in facilitating their job responsibilities, a substantial number remain uncertain, reflecting varied experiences and levels of engagement with the platform. The variation in responses also indicates that teachers use different features and modules with differing frequencies, which shapes their perceptions of the system's overall efficiency. In a face-to-face interview, Municipal IT Officer 1 remarked:

> From my experience, PEPMIS really streamlines a lot of my work. Uploading and verifying school data is much faster than using paper-based systems, and the automated summaries save me a great deal of time. This means I can focus more on checking the accuracy of submissions rather than spending hours compiling figures manually. That said, efficiency drops when there are server slowdowns or when certain modules take longer to load. In such cases, I still end up resorting to offline work before updating the system later (MITO 1 Personal communication, 18 July 2025).

Municipal IT Officers 3 reflected:

> I agree that PEPMIS has improved the way we handle district-level reports. Instead of waiting for schools to send in spreadsheets, I can

access their submissions directly and consolidate them in minutes. This has made monthly reporting much smoother. However, there are times when I have to redo entries because of data format mismatches or missing fields. It's not frequent, but when it happens, it adds extra steps to my work and delays completion (MITO 3 Personal communication, 17 July 2025).

The insights indicate that PEPMIS plays a significant role in enhancing efficiency for Municipal IT Officers, particularly by reducing manual data handling and accelerating reporting processes. MITO 1 emphasized the time savings in data processing, while also noting occasional performance issues that necessitate offline work. MITO 3 highlighted the speed and convenience of direct access to school submissions, but pointed out that data inconsistencies can create additional workload. Together, their perspectives show that while the system is a valuable tool for accomplishing tasks quickly, its full efficiency depends on consistent performance and accurate data input. The findings of the study are congruent with those of Kyambadde and Nsubuga (2023), who found that digital systems enhance task efficiency by providing real-time data access and streamlining administrative processes. This indicates that PEPMIS supports teachers and district officers in completing their job responsibilities more efficiently, though occasional system slowdowns or data issues may temporarily affect performance.

Data in Table 1 shows that a moderate (53.4%) of teachers agreed and strongly agreed that it takes them a short time to figure out how to use PEPMIS. Conversely, an extremely minority proportion (12.0%) of teachers expressed disagreement or strong disagreement with this statement. Additionally, a minority proportion (34.7%) remained undecided. The mean score was 3.57, representing high usability, reflecting teachers generally find PEPMIS easy to learn and operate, although some challenges remain. This demonstrates that while many teachers quickly grasp how to use PEPMIS, a substantial number remain uncertain, reflecting differences in familiarity, experience with similar platforms, and individual learning speeds. The variation in responses highlights that teachers interact with system features at different frequencies, which influences their perceptions of ease in learning and operating the platform. In a personal interview, Head of School 5 commented:

> When I first started using PEPMIS, I found most of the functions easy to understand. The menus are clear, and the layout makes it straightforward to locate what I need. Within a short time, I was able to submit attendance and performance data without asking for much help. However, there are certain specialized sections, like generating comparative analysis

reports that take me longer to grasp. If I don't use them often, I end up needing quick refresher each time (HoS5 Personal communication, 12 May 2025).

Head of School 6 expressed:

> For me, figuring out how to use PEPMIS was partly easy and partly challenging. The basic features, like logging in and entering student details, were simple from the start. But when it came to setting parameters for different performance indicators, it wasn't as intuitive. I had to go through the training materials more than once, and even now, I sometimes need to check with colleagues if I'm unsure about a process. Still, compared to the older systems we used, PEPMIS feels more organized once you get used to it (HoS6 Personal communication, 14 May 2025).

The responses from heads of schools suggest that while the fundamental operations of PEPMIS are relatively quick to learn, some advanced functions require additional time and repeated exposure before they become second nature. HoS5 appreciated the platform's clear structure but noted the need for refreshers when using less frequent features. Similarly, HoS6 recognized the simplicity of basic tasks yet pointed out that more complex operations, particularly those involving detailed performance indicators, demanded extra effort to master. Collectively, their views reflect that the system's learning curve is gentle for everyday use but steeper for specialized tasks. The findings of the study are incongruent with those by Komba (2024), who found that teachers faced challenges in learning to use PEPMIS due to insufficient training, technical functionality issues, and unreliable network connectivity. While the current study shows that a majority of teachers find PEPMIS relatively easy to learn, Komba's findings indicate that these factors hinder some users' ability to operate the system efficiently, particularly for those with limited digital skills or inconsistent access to support.

Data in Table 1 shows that a moderate (59.8%) of teachers agreed and strongly agreed that they rarely experience errors or interruptions when using PEPMIS. Conversely, an extremely minority proportion (10.1%) of teachers expressed disagreement or strong disagreement with this statement. Additionally, a minority proportion (30.1%) remained undecided. The mean score was 3.66, representing high usability, reflecting teachers generally perceive PEPMIS as reliable, with smooth operation and minimal technical issues. This demonstrates that while most teachers experience smooth operation with minimal technical issues, a notable portion remains uncertain, reflecting variation in network conditions, device performance, or user familiarity with the system's processes. The differences in responses indicate that reliability perceptions are shaped by individual usage contexts and

experiences. While engaging in an in-person discussion, HOS 3 reflected on the matter, explaining that:

> PEPMIS generally runs smoothly and allows timely access to essential school data. She appreciated that recent system updates had reduced some of the earlier glitches, which once caused delays in preparing reports. However, she cautioned that internet instability in certain periods still leads to occasional interruptions, especially when multiple users log in simultaneously. According to her, these disruptions, though less frequent now, require quick technical support to avoid piling administrative work (HOS 3, personal communication, 7 May 2025).

In another conversation, HOS 4 shared his perspective, noting that

> I am mostly satisfied with PEPMIS performance because it rarely produces data errors. He mentioned that automated backups and regular maintenance checks by the district ICT officer have helped ensure the system's reliability. Nonetheless, he pointed out that during power outages or when the system undergoes unscheduled maintenance, operations halt abruptly. Such instances, though infrequent, can be frustrating when urgent records are needed for decision-making (HOS 4, personal communication, 8 May 2025).

The information from HOS 3 and HOS 4 suggests that while PEPMIS has improved in reliability over time, occasional errors and interruptions remain. Both acknowledge that regular updates, technical support, and system maintenance enhance their efficiency. However, they also highlight that factors such as unstable internet, power outages, and unexpected downtime can still affect smooth usage. This indicates the need for continuous infrastructure support alongside technical improvements to sustain optimal system performance. The findings of the study are incongruent with those of Nkata (2020), who reported that frequent technical errors, system interruptions, and unreliable network connectivity significantly disrupted users' ability to efficiently operate digital education management systems. While the current study shows that most teachers rarely experience errors or interruptions when using PEPMIS, Nkata's findings indicate that such reliability issues can considerably hinder system usability, especially in contexts with inconsistent infrastructure and limited technical support.

Data in Table 1 shows that a moderate (53.2%) of teachers agreed and strongly agreed that PEPMIS is a convenient tool for reporting their performance. Conversely, an extremely minority proportion (9.1%) of teachers expressed disagreement or strong disagreement with this statement. Additionally, a minority proportion

(37.7%) remained undecided. The mean score was 3.61, representing high usability, reflecting teachers generally find PEPMIS convenient for performance reporting, although some challenges remain. This demonstrates that while many teachers view PEPMIS as a practical tool for performance reporting, a significant portion remains uncertain, reflecting differing experiences and levels of engagement with the platform. The variation in responses also suggests that convenience perceptions are influenced by factors such as familiarity with the system, task complexity, and the frequency of using various system functions. While sharing his experience during an in-person discussion, Head Teacher 9 reflected that,

> PEPMIS offers an easier way to compile and submit performance reports compared to the manual system they used before. He explained that the platform saves time, reduces paperwork, and provides a clear structure for inputting required data. However, he also admitted that unstable internet connectivity in their area often delays submission, forcing him to complete reports late at night when the network is stronger. He added that some older staff members struggle to navigate the system without extra guidance, which slows the reporting process (HT9 Personal communication, 08 May 2025).

In another conversation, Head Teacher 10 pointed out that:

> PEPMIS is useful because it stores past performance data, making it easier to track progress over time and prepare for inspections. He said the automated calculations reduce human error, which boosts confidence in the accuracy of reports. On the downside, he observed that when the system freezes or experiences technical faults, it can be frustrating because there is little local IT support to address the problem quickly. He felt that while the tool is convenient, it still requires continuous training for users to fully benefit from its features (HT10 Personal communication, 13 May 2025).

The reflections from both head teachers suggest that PEPMIS is largely viewed as a time saving and well-structured tool for reporting performance, offering advantages such as reduced paperwork, accurate records, and easier progress tracking. Nonetheless, both responses highlight that technical barriers such as poor internet connectivity, occasional system failures, and limited user competence reduce its convenience in practice. This implies that while the platform is beneficial, its effectiveness depends on improved infrastructure, prompt technical support, and ongoing user training. The findings of the study are incongruent with those of Ogochukwu (2022), who reported that the usability and convenience of Management Information

Systems (MIS) were frequently hindered by system glitches, inadequate technical support, and users' limited digital skills. While the current study shows that teachers generally find PEPMIS convenient for reporting performance, Ogochukwu's findings indicate that practical challenges in system functionality and support can substantially reduce users' perceived convenience, highlighting the importance of robust infrastructure and continuous training for effective adoption.

Generally, the grand mean score across all items was 3.53, representing high usability, indicate that education stakeholders' experience in the use of public employee's performance management information system (PEPMIS) perceive it as usable in monitoring teachers' job performance in public secondary schools in Dar-es-salaam, Teachers reported that the system supports the timely submission of performance data, reduces paperwork, and improves efficiency in reporting through centralized digital records. Head teachers and district officers confirmed that PEPMIS enhances accountability and facilitates quicker access to performance reports, reinforcing its value as a monitoring tool. However, teachers expressed uncertainty regarding ease of navigation, login accessibility, and completing tasks independently, pointing to variations in digital literacy and familiarity with system updates. Technical challenges such as unstable internet connectivity, occasional system slowdowns, and limited technical support further constrained uniform usability. This discrepancy indicates that while PEPMIS is widely regarded as beneficial, its practical usability varies across users and schools. Similar observations were made by Kombo and Mzinga (2022) and Kalankesh (2020), who noted that digital monitoring systems improve efficiency but remain vulnerable to infrastructural and user-related barriers.

5. Conclusion and Recommendations

The study revealed that PEPMIS is a useful tool for monitoring teachers' job performance in public secondary schools in Dar es Salaam. It enhances timely submission of performance data, streamlines reporting, and minimizes paperwork through centralized records. However, challenges such as varying levels of digital literacy, limited familiarity with system updates, slow connectivity, and occasional technical failures affect consistent usability across schools.

To address these challenges, regular training and refresher sessions should be organized to strengthen teachers' digital skills, build confidence in using the system, and provide practical guidance on troubleshooting common issues. Emphasis should be placed on effective use of PEPMIS for planning, monitoring, and reporting. Ongoing professional development in this area will enable teachers to

integrate technology more effectively into their administrative and instructional responsibilities, thereby improving education management and performance monitoring.

References

Bana, B. (2009). *Performance management in the public service in Tanzania*. Dar es Salaam: President's Office – Public Service Management.

Chatto, J. (2025). Enhancing efficiency of online reporting systems in Davao City schools. *Philippine Journal of Educational Technology, 12*(2), 44–59.

Chiwamba, A., Mushi, R., & Lema, J. (2022). Challenges of teacher performance monitoring in Tanzania. *Journal of Education and Development, 8*(1), 77–89.

Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.).CA: Sage.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319–340.

Department for Education. (2022). *Digital monitoring systems in UK schools: Implementation and challenges*, DFE

Eze, C., Obi, F., & Nwachukwu, V. (2023). Barriers to effective MIS adoption in Nigerian secondary schools. *African Journal of Educational Management, 14*(3), 55–72.

Fuente, J., & Fuente, M. (2022). *Digital tools for teacher performance monitoring*. International Journal of Education and Technology, 11(4), 101–118.

Harris, A., Brown, T., & Lewis, J. (2022). Evaluating digital systems in UK secondary schools. *British Journal of Educational Administration, 30*(2), 145–160.

Johnson, P., & Goldstein, R. (2022). Data-driven insights for professional teacher development. *Journal of Comparative Education, 15*(3), 199–214.

Kalankesh, L. (2020). System responsiveness and user satisfaction in information systems. *International Journal of Information Science, 28*(1), 33–42.

Kimaro, H., & Nyagawa, S. (2022*).* Adoption challenges of PEPMIS in Tanzanian schools. *Tanzania Journal of Education Policy,* 6(2), 88–97.

Kombo, A., & Mzinga, R. (2022). The impact of EMIS on teacher performance in Morogoro secondary schools. *Tanzanian Journal of Educational Research*, 9(1), 44–60.

Komba, W., & Nkuba, E. (2023). Performance appraisal and accountability in Tanzanian schools. *African Journal of Educational Policy,* 5(1), 23–39.

Komba, W. (2024). *Teachers' digital literacy and usability of PEPMIS in Tanzania*. Dar es Salaam: University of Dar es Salaam Press.

Kyambadde, S., & Nsubuga, H. (2023). Digital systems and teacher performance monitoring in Uganda. *East African Journal of Education and Technology*, 3(2), 77–93.

Mohamed, A., & Kulmie, S. (2023). Job performance and employee effectiveness in education. *International Journal of Management in Education,* 14(3), 55–69.

Mugo, J., & Njeri, L. (2023). MIS adoption and transparency in Kenyan schools. *Kenya Journal of Educational Administration*, 7(1), 41–56.

Mushi, D., & Mollel, G. (2023). Teacher performance management in Tanzania: A policy review. *Journal of African Education Systems,* 12(2), 66–80.

Mwenda, P. (2023). Implementation of PEPMIS in Tanzanian public schools: Opportunities and challenges. *Tanzania Educational Review,* 18(1), 88–104.

Nabukenya, C., Namubiru, J., & Ssali, P. (2022). ICT adoption and teacher accountability in Uganda. *Journal of ICT in Education*, 10(4), 120–134.

Nadeem, S., Rehman, A., & Malik, K. (2021). Role of school management in implementing PAS in Punjab, Pakistan. *Asian Journal of Educational Leadership,* 9(3), 211–225.

National Center for Education Statistics (NCES). (2021). *Use of digital monitoring systems in U.S. public schools*. Washington, DC: NCES.

Ndayisenga, P., & Andala, B. (2022). ICT tools and teacher performance in Rwanda. *Rwandan Journal of Educational Management*, 6(2), 33–49.

Nkata, A. (2020). Implementation of EMIS to track student progress in Arusha secondary schools. *Tanzania Journal of Education and ICT,* 5(1), 71–84.

Ogochukwu, E. (2022). Integration of MIS in Nigerian secondary schools: Teacher perspectives. Nigerian Journal of Educational Planning, 18(1), 55–70.

Okeke, J., & Nwankwo, P. (2022). Public versus private school adoption of MIS in Nigeria. *West African Journal of Education*, 11(2), 99–113.

Owusu, K., Asare, M., & Boateng, S. (2022). Challenges of MIS adoption in Ghanaian secondary schools. *Ghana Journal of Education Policy,* 8(2), 115–131.

PO-PSM. (2009). *Public Service Reform Programme implementation report*. Dar es Salaam: President's Office – Public Service Management.

PO-PSM. (2013). *Public Service Management and Employment Policy*. Dar es Salaam: President's Office – Public Service Management.

Smith, L., & Clark, J. (2021). Professional development and digital monitoring in U.S. schools. *Journal of Teacher Policy,* 17(2), 77–93.

Taherdoost, H. (2019). What is the best response scale for survey and questionnaire design? *Journal of Applied Research in Higher Education, 9*(3), 1–19.

URT (United Republic of Tanzania). (2000). *Civil Service Reform Programme (CSRP)*. Dar es Salaam: Government Printer.

URT (United Republic of Tanzania). (2024). *Public Employees Performance Management Information System (PEPMIS) official launch report*. Dar es Salaam: Government Printer.

Warsono, H., Nugroho, S., & Putra, D. (2023). Technology Acceptance Model: Application in education systems. *International Journal of ICT in Education*, 9(2), 33–47.

Williams, T., & Brown, E. (2022). Teacher professional development and monitoring systems. *International Journal of Education Policy,* 13(1), 55–72.

Warmbrod, J. R. (2024). Interpretation of survey data in education research. *Journal of Educational Measurement,* 61(1), 1–20.

Yamane, T. (1967). *Statistics: An introductory analysis* (2nd ed.). New York: Harper & Row.