Influence of E-Office on Employees' Performance: A Case of National Identification Authority (NIDA) Tanzania

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ABSTRACT

The research aimed to assess the influence of electronic office (e-office) systems on employee performance at the National Identification Authority (NIDA) of Tanzania. The study specifically examined the extent to which e-office is utilized at NIDA to improve the employee's performance as well as analysed the influences brought by e-office Records Management System (RMS), Incentive Management System (IMS), Performance Measurement System (PMS), and Communication Flow and Information Sharing System (CFISS) towards the improvement of NIDA employee's performance. The study employed the theories of the Technological Acceptance Model, Social Exchange Theory and Resource-Based View which indicated that the advantages brought by e-office on the employees' performances are the ones which pushed NIDA management to effectively invest in e-office technology. The study was conducted in Dar es Salaam at the NIDA Ilala Office which is among the public institutions characterized by a high number of office operations. The scholar focused on 103 NIDA Ilala employees across various departments to measure the extent to which e-office improved their performances. The scholar utilised a mixed research design which entailed the blend of explorative and descriptive research approaches to gather both qualitative and quantitative data from 51 respondents through purposive and simple random sampling techniques. Data collection methods included interviews, questionnaires, and documentation. Data were analysed descriptively involving frequency and percentage of opinions brought by the non-administrative employees of NIDA supported narration analysis from the interview results provided by the NIDA administrative employees. Findings indicate that the e-office systems have significantly improved operations at NIDA. The RMS, valued for its document management features, has notably enhanced employee performance. The IMS, with features like real-time feedback and performance analytics, effectively motivates employees to achieve their targets. The PMS, characterized by performance reviews and 360-degree feedback, has substantially boosted employee performance. The CFISS, with its centralized information hub and instant updates, has facilitated the achievement of strategic goals. Despite these benefits, challenges such as data accuracy, user training, and system integration persist, potentially hindering the full effectiveness of the e-office systems. The study concludes that while e-office systems have a positive impact on employee performance, addressing these challenges is crucial for maximizing their benefits. The research recommends implementing training and capacity-building programs, introducing supportive policies and regulations, and allocating sufficient budget for modern facilities to enhance the adoption and effectiveness of e-office systems in public institutions.

Key Words: E-Office, Employees' Performance, Public Institutions

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I. INTRODUCTION

For the past decades the world has experienced a high pace of technological innovations which have brought new ways of managing human resources, these innovations have been very significant to the public sector as many institutions have witnessed improvement in human resource management (Desalegn et al., 2020). Among the recent innovations in human source management and public institutions is the electronic office. The adoption of e-offices started in developed countries in the 1990s following the difficulties brought by the traditional means of office operations management (Satish & Rizwana, 2020). The adoption of e-office revolutionized the daily managerial operations of the institutions and paved the way for the entrance of Information and Communications Technology (ICT) models used in managerial operations such as employees' Performance Management Systems (PMS) and Incentive Management Systems (IMS) (Bashir & Sadiq, 2018)

Following the successful implementation of e-offices in developed countries mostly in Europe and Asia, some African countries made early movements of shifting from traditional models of institution management operation to digital systems of institution management (Ladislas & Mbabazi, 2020).. E-office in the African countries started to be implemented in the late 1990s and gained it pace in the mid-2000s following the development of ICT services in the African continent (Dubnick & Frederickson, 2011). South Africa and the North African Countries specifically Egypt and Morrocco became the early countries to inject e-office systems into public management operations. This period is

regarded as the digital age of Africa as many of the African countries allocated funds for the improvement of ICT services (Chipeta, 2018).

In East Africa Kenya and Rwanda became the first countries to make the early movement in investing in e-office technology after recognizing the strategic importance of using e-office systems in improving governance and simplifying administrative operations. By adopting the e-office solution these countries became in the best position to streamline administrative operations, reducing the bureaucratic procedures as well as improving the accessibility of public services for their communities (Romwald & Mwantimwa, 2020). Uganda and Tanzania made the late adoption in implementing e-office as among the systems used in managing public institution operations while Burundi and South Sudan are still struggling to ensure successful implementation of e-office due to the absence of ICT policies and infrastructures to support e-office operations (Masanja & Lwoga, 2020).

Despite being late in making the move of investing in e-office, Tanzania is among the East African countries which have made significant improvements in ensuring the successful implementation of e-office in managing public institutions' operations. In the early 2000s, Tanzania introduced ICT policies which paved the way for the adoption of e-governance in the public institutions. The countries' commitment to digitizing the public sector service delivery paved the way for the adoption of e-office in the countries, this was catalysed by the country's decision to improve the public sector delivery through the Public Service Reform Programme (PSRP) implemented in two phases. Through the PSRP government institutions were forced to adopt modern systems of simplifying administrative operations and enhancing consumer satisfaction (Kariuki et al., 2019).

Through PSRP government institutions started to use digital technology systems in their operations, and programmes such as the Integrated Human Resources and Payroll Management Systems (IHRPM) were introduced for the aim of improving the HR management and the payroll operations of the public sector. Through the introduction of modern systems of managing payroll operations through digital technology, the country became in the best position to eliminate the challenges associated with poor human resource management such as ghost workers (Abdallah, 2023). To effectively support the e-office operations in Tanzania the country introduced the e-Government Act No. 10 of 2019 as well as established the e-Government Authority (e-GA) with the primary responsibility of promoting e-government initiatives among the government authorities and installing the citizen-driven governance approach (Romwald & Mwantimwa, 2020).

In 2015, Tanzania introduced the Electronic Record Management System (ERMS) to automate the government institutions' information and it was administered under the President's Office of Public Service Management and Good Governance (POPSMGG) (Mwakalinga, 2020). ERMS simplified the public institutions' abilities to implement the e-office systems in their daily operations with among of the beneficiaries being the National Identity Authority (NIDA). These advancements underscore the significant impact of e-office initiatives on enhancing public sector employees' performance and fostering more efficient governance practices in Tanzania. By leveraging electronic systems and embracing e-government strategies, Tanzania has taken substantial strides towards modernizing administrative processes, improving service delivery, and promoting transparency and accountability in the public sector (Abdallah, 2023).

1.1 Statement of the Problem

Despite the ongoing weaknesses of traditional systems of managing both the organization and the employee's performance, the majority of public institutions in Tanzania still prefer traditional operations of electronic systems of management. Insufficient information on the influence of e-offices in managing and improving employee performance has been among the causes of the low adoption of e-offices in public institutions. Despite being among of most trustable institutions dealing with monitoring and protecting employee's citizen records electronically, still majority of NIDA operations are still administered through the traditional systems the thing which limits employees' performances.

NIDA plays a crucial role in providing identification services to citizens, businesses, and government agencies in Tanzania, as technology continues to advance, the adoption of e-office systems has become increasingly important in public sector organizations like NIDA (2024). However, despite the ongoing demand to implement e-office systems in every department of NIDA still, some of the top management members hesitate to allocate a budget for the installation of e-office systems in every department. The HR department has been constantly recommending e-office and the primary system of managing and improving employee performance but the top management sees overhauling the traditional system and implementing the new system as equivalent to the misallocation of the institution's financial resources.

Resistance of the management to installing e-offices in every department of the institution is catalyzed by the absence of information on the extent to which e-offices can play a significant role in enhancing employee performance. While previous studies have explored the implementation of e-office systems in various public sector organizations, there is a noticeable gap in understanding their impact on employee performance, particularly within the context of

NIDA. Existing research often focuses on technical aspects of e-office implementation, such as system functionalities and user interfaces, without adequately addressing their influence on employee productivity, efficiency, and job satisfaction. This study aimed to assess the influence of e-office on improving NIDA employees' performance.

1.2 Research Objectives

The main objective of the study was to investigate the influence of e-office on improving NIDA employees' performance. The specific objectives of the study were as follows:

i.   To assess the utilization of the e-office system in controlling employee performance within NIDA.
ii. To investigate the influence of the e-office Records Management System (RMS) towards the improvement of employee performance at NIDA.
iii. To examine the influence of the e-office Incentive Management System (IMC) towards the improvement of employee performance at NIDA.
iv. To determine the influence of the e-office Performance Measurement System (PMS) towards improvement of employee performance at NIDA.
v.   To examine the influence of the e-office Communication Flow and Information Sharing System towards the improvement of employee performance at NIDA.

II. LITERATURE REVIEW

2.1 Theoretical Review

The study was guided by the three theories of the Technological Acceptance Model, Social Exchange Theory and Resource Based View.

2.1.1 Technological Acceptance Model

The technological Acceptance Model (TAM) is among the prior technological theories that draft how innovation can be accepted in the community and injected into the daily economic activities of the community. The theory was developed by Davis (1989) indicating the extent to which individuals' perceptions towards the usage, risks and benefits of the technology can guarantee the acceptance of the technology or vice versa. TAM insists that for the technology to be accepted in the community, factors such as security guarantee of the technology (Perceived Security) benefits of the technology (Perceived Usefulness), technology expenses (Perceived Cost of Use) and simplicity of technology to be used in the daily operations (Perceived Ease of Use). According to the theory, the extent to which e-office helps in improving the employees' performance at NIDA depends on the extent to which the NIDA employees perceive the usefulness of e-office in simplifying the daily operations of the institution.

2.1.2 Social Exchange Theory

The Social Exchange Theory (SET) is among the theories in social studies developed by George Homans in 1948, the theory indicates that the interactions between the individuals and the institutions governing the individuals are governed by the principle of reciprocity built on the notation of what you give is what you get, mutual benefits between the sides of individual and institution leads to increased commitment and performance (Cheney, 2021). According to the theory, employees will be in the best position to use e-office only if they are assured of the advantages which the technology will bring to their daily operations (Cheney, 2021). The more efficient e-office systems support the employees' tasks, the more likely NIDA employees are to engage in e-office in their daily operations and eventually improve their performances. Through the adoption of Social Exchange Theory, this paper indicates that e-office systems influence employees' performance through the lens of perceived benefits, fairness, and power dynamics.

2.1.3 Resource-Based View

The Resource-Based View (RBV) is the theoretical business management model which insists that for the organization to be in the best position to win the competitive advantages it must own resources which are unique and hard to find in the market, the firms' completive advantages and performance are determined by the strategic capabilities and resources the organization is owning (Barney et al., 2001). RBV suggests that the effectiveness of the organization in reaching its strategic objective does not only rely on the availability of the required resources but also on the extent to which the organization aligns its strategic resources with the organization's objectives and operations (Wernerfelt & Barney, 1984). According to the Resource-Based View (RBV) theory, the e-office is among the unique resources which the organization must possess for the aim of improving the organization's performance along with the organization's employees. The theory indicates that to effectively improve the institution's performance, NIDA management must

develop a strategic alignment of e-office systems and the institution's labour power as the internal resources which can guarantee the institution's performance.

2.2 Empirical Review

Several previous scholars have discussed the extent to which technological innovations specifically e-office play a significant role in enhancing the employee's performance in an institution. According to the study made by Mwakalinga (2020) on the influence of e-governance in enhancing public service delivery in Tanzanian public institutions, it was discovered that e-governance plays a significant role in reaching a wider number of customers. E-governance not only guarantees the reach of a wider number of customers but also enables the institution to track the performance of the service providers and the customer's satisfaction rate (Mwakalinga, 2020). On the other hand, the study by Bashir and Sadiq (2018) on the impact of e-office adoption on organization performance in Nigerian Government Agencies revealed that there is a significant correlation between e-office utilization and improved performance metrics. The study revealed that e-office has enabled government agencies to improve the level of productivity, consumer satisfaction and employee commitment through a quality working environment (Bashir & Sadiq, 2018)

On the other the advantages brought by the technological innovations of e-office were highlighted by the study of Kumar and Jain (2019) on the role of e-governance in improving public service delivery in Indian municipalities found that there is a significant correlation between the adoption of e-governance and the improvement of service delivery among the Indian municipalities. The study indicated that e-governance has increased transparency during the service delivery process as well as lowered delivery costs of public services (Kumar & Jain, 2019). On the other hand, the study by Kariuki et al. (2019) on the impact of e-office implementation on the organisational performance of the Tanzania Government Institutions revealed a positive correlation between e-office adoption and improved organizational performance metrics, such as increased productivity and streamlined workflows. The study further indicated that despite the significance brought by e-offices in public institutions challenges such as resistance to change and inadequate infrastructure limit the effectiveness of e-offices in public institutions (Kariuki, et al., 2019)

2.2.1 E-Office System in Control of Employee Performance within NIDA.

Previous scholars have effectively addressed the influence of the e-office system in controlling the employee's performance, Abdallah (2023) conducted the effectiveness of the e-office system on the performance of public institutions in Tanzania using the case of President's Office Public Service Management and Good Governance. The scholar revealed that the e-office system increases efficiency in service delivery, facilitates serving many customers at once, saves time, is a quick way to give feedback, and cost reduction by minimizing errors and paper and pen usage (Abdallah, 2023). Wang and Kuo (2021) pointed out that using an e-office system also speeds up service delivery to customers. It allows the organisation to serve customers, attend to more files or documents, and accurately track everything (Wang & Kuo, 2021). The study by Thompson and McGill (2017) pointed out that using the e-office system in the registry office and other offices responsible for file and document management facilitates 17 serving of many customers at once (Thompson & McGill, 2017). According the Menard and Bott (2017) on the impact of e-office in enhancing the performance of firms' performance in the USA highlighted that in America e-office systems play a significant role in eliminating physical barriers limiting the firms' operations (Menard & Bott, 2017).

2.2.2 Influence of the E-Office Records Management System (RMS) Towards Improvement of Employee Performance

Several previous scholars have indicated that Record Management Systems (RMSs) play a significant role in enhancing employees' performance Besley and Ghatak (2005) found out that institutions which have effectively invested in RMSs experience an increase in employees' productivity due to the automated systems of information flow and improvement of data retrieval in real-time. The implementation of RMSs in public sector institutions has led to a significant improvement in employee efficiency and a reduction of human errors they're by improving the level of job satisfaction. RMSs contribute to better compliance with legal as well as regulatory compliance, RMSs play a significant role in reducing the risks which are associated with data mismanagement. Compliance brought by RMSs not only ensures the smooth operations of organizational processes but also alleviates the burden on employees, allowing them to concentrate on more strategic and value-added tasks (Dubnick & Frederickson, 2011)

2.2.3 Influence of E-Office Incentive Management System (IMS) Towards Improvement of Employee Performance at NIDA

Incentive Management Systems (IMSs) when integrated into the institutions' operations play a significant role in enhancing the employees' performance and satisfaction, IMS uses digital electronic technology to align employees' rewards and recognition with the organization's objectives (Besley & Ghatak, 2005)In the public institutions, IMS plays the significant role in enhancing the employees' performance as the implementation of IMS has been an instrumental tool of motivating employees to achieve higher performance through the transparent as well as efficient platform for managing incentives such as bonuses, performance-based rewards as well as recognition programmes (Ilankunda & Burigi, 2019)When an organization use IMS becomes in the best position of tracking the daily employee contribution in the organization achievement as the system enables real-time tracking of employee achievements and contributions, which ensures that rewards are distributed fairly and promptly. Transparency in managing employees' performance stimulates the culture of accountability and commitment in the organization (Kavishe, 2019)

2.2.4 Influence of the E-Office Performance Measurement System (PMS) Towards Improvement of Employee Performance at NIDA

The integration of electronic PMS within the institution plays a significant role in enhancing both the employees' and organizations' performance, PMS is having a profound impact on the improvement of employees' ability to effectively put the best performance in their daily operations (Medori & Steeple, 2019). PMS provides a significant foundation and systematic approach for the evaluation of employee performance as well as crucial alignment between individual performance, individual objectives and organizational goals to achieve goal congruence. Through Goal Congruence (GC) the organization becomes in the best position to foster a workaholic culture, organisational justice as well as continuous improvement among the employees in the organization (Schreuder & Batistič, 2019). The PMS facilitates the real-time measurement, monitoring and evaluation of employees' activities and outputs in their job responsibilities, immediate feedback brought by the digital PMS puts employees in the best position to make quick adjustments to performance and career growth (Dubnick & Frederickson, 2011).

2.2.5 Influence of the E-Office Communication Flow and Information Sharing System Towards the Improvement of employee performance at NIDA.

Several previous scholars have highlighted the contribution of having a quality communication flow and information-sharing system on the performance of employees, communication systems play a significant role in facilitating the timely exchange of critical information in the institution as well as ensuring that both the administrative and the non-administrative employees are well informed and they can effectively collaborate in the development of the organization (Cheney, 2021). Institutions with well-organized and designed communication channels experience a 30% increase in employees' performance and productivity due to the reduced likelihood of misunderstandings and errors (Enaifoghe & Ndebele, 2023). The streamlined communications and information flows in the institution foster a collaborative working environment which is the key ingredient in successful institution performance. Through having an improved communication system which promotes transparency and accessibility of information, the organization becomes in the best position to enhance overall employee engagement and job satisfaction and eventually improve the overall organizational success (Kibwani et al., 2021).

2.2.6 Usage of E-Office on a Global and Domestic Perspective

Adoption of e-offices is among the modern mechanisms of running the office operations through the use of ICT facilities, despite being used worldwide the usage of e-office systems varies from country to country. Previous scholars have indicated that there is a high use of e-office systems in developed countries compared to developed countries due to different factors such as a high budget to run the e-office operations and the availability of quality internet infrastructure (Bashir & Sadiq, 2018). Chipeta (2018) insisted that the adoption of e-office systems in developed countries is not only for government corporations but also for companies operating in the private sector. The increased use of the e-office system in these developed countries is attributed to the availability of technological infrastructure that these countries have invested in, a high digital literacy rate, supportive policies, and guidelines that promote the adoption of technologies (Desalegn et al., 2020).

On the other developing countries despite facing several obstructions, have also put different initiatives for the aim of becoming in the best position to effectively utilise the e-office technology. Tanzania is among the African Countries which have laid down the foundations for the smooth adoption of e-office in the country despite being outpaced by countries such as Kenya, South Africa, Mauritius, and Seychelles. The government of Tanzania has made numerous initiatives to ensure the implementation of e-government. Among the initiatives taken is that the government

has data centres that host and operationalise various e-government systems. For the aim of enhancing the adoption of e-office in Tanzania, the government has built the national optic fibre backbone to network all ministries, departments, agencies, and regional administration for reliable internet connection, established Information Communication Technology Units in all public offices, and successfully revamped the government portal (Ismail & Zin, 2019).

III. METHODOLOGY

3.1 Research Approach and Design

The study employed a mixed research design, which combines qualitative and quantitative methods. Through the mixed approach, the scholar became on the best position of using the both explorative research approach and the descriptive research approach.   Blending these two approaches enabled an enhanced and understanding of the relationship between e-office systems and employee performance at NIDA. In this paper, the case study research design was applied by conducting a thorough examination of NIDA to recognize the influence of e-office systems on employee performance. The combination of using the explorative and descriptive research approaches with the case study research design the scholar became in the best position of obtaining and analyzing crucial information concerning the influence of e-office in improving the employees' performance at NIDA.

3.2 Study Area and Target Population

The study was conducted in Dar es Salaam specifically Ilala City Council, Ilala City Council (ICC) is among the five districts found in Dar es Salaam which has been promoted to the city level due to the high number of citizens, revenues and economic activities. As the primary location of NIDA operations, the NIDA Ilala Office holds a pivotal position in serving citizens' needs, necessitating efficient and effective service delivery. The population of NIDA employees at Ilala is 103, with a workforce of only 103 employees at the NIDA Ilala Office, the disparity between staff numbers and the high demand for services from citizens is evident. This situation underscores the urgent need to implement e-office systems to optimize employee performance in service delivery.

3.3 Sample Size and Sampling Technique

The study employed a sample size of 51 respondents from the population of 103 NIDA employees who were working from different NIDA Ilala Departments including both the administrative and the non-administrative employees. To improve the validity and reliability of the study, the researcher applied both purposive or judgemental sampling techniques and simple random sampling. In this study, purposive sampling was used to obtain five administrative employees who work as the top officials of different departments within NIDA. The sampling techniques of simple random sampling were applied in the study for the aim of obtaining non-administrative NIDA Ilala Officials from various departments within NIDA. Through the combination of the administrative and the non-administrative employees in the study, the scholar became in the best position to avoid research bias and to obtain opinions from both the policymakers and implementers.

3.4 Data Collection Instruments

In the process of obtaining accurate information from the field, the researcher applied both primary and secondary data collection methodologies. The researcher employed a questionnaire as the data primary tool for collecting data from the non-administrative employees regarding the need to use e-office in daily operations, the extent to which NIDA has been using e-office in the daily operation and how e-office can be a great tool for improving employs performance. The research used interviews to obtain qualitative information from the NIDA administrative officers regarding the influence of e-office on employee performance. For this study, documentation was employed as a data collection method to supplement information gathered through questionnaires and interviews. Specifically, the researcher analyzed relevant documents such as e-office usage reports.

IV. FINDINGS & DISCUSSIONS

4.1 Utilization of the E-Office System in Overseeing Employee Performance within NIDA

This section presents and analyses the findings obtained from the field regarding the utilization of the e-office system in overseeing employees' performance with NIDA. The section indicates the extent to which the e-office is used in the daily institution's operations, its unique features as well as the challenges.

Table 1
Utilization Level of the E-Office System in Overseeing Employee Performance within NIDA

	Variable	Frequency	Percent
Valid	Very low	3	6.5
	Low	6	13.0
	Moderate	15	32.6
	High	16	34.8
	Very high	6	13.0
Total		**46**	**100.0**

Table 1 indicates that the majority of the respondents who participated in the study equivalent to 16 (34.8%) of the total number of respondents who participated in the study believe that e-office is highly adopted at the institution, 6 (13.0%) mentioned very high while 15 (32.6%) mentioned moderate. On the other hand, 6 (13.0%) of the total number of respondents mentioned that e-office has been adopted at a low level while the remaining 3 (6.5%) mentioned it very low. According to the findings obtained from the field it is widely clear that NIDA management has been allocating sufficient funds and policies to support the utilization of e-office within the institution's operations as cemented by the NIDA Financial Management Officer who mentioned that:

> *"NIDA management has consistently prioritized the adoption of e-office systems, this is done by allocating sufficient funds and establishing comprehensive policies in the institution to facilitate its integration into our daily operations and improve connection with the stakeholders."* (Interview 1, 2024)

These findings suggest that the institution has made notable progress in implementing e-office systems, supported by adequate funding and policy initiatives from NIDA management. This conclusion aligns with statements from a NIDA ICT officer, who highlighted the institution's commitment to enhancing e-office utilization through strategic investments and supportive policies. Findings from the field indicate that the management of NIDA has made significant improvements in its operation through the adoption of e-office, according to the respondents' opinions every department of the organization is linked with the e-office to simply the organization operations. The findings from the field correlate with the thoughts of Chipeta (2018) who insisted that the success of the institutions depends on the extent to which the internal and external operations of an institution are linked through an ICT system.

According to the findings obtained from the field, the NIDA's e-office is connected with the special elements of increased innovation and creativity, enhanced competitiveness, and increased productivity and efficiency. The results from the field indicate clearly that the e-office is playing a crucial role in improving the employee's performance and organization operations. Abdallah (2023) highlights that digital office systems significantly enhance workplace efficiency by streamlining processes and facilitating better communication. On the other hand, the study by Bashir and Sadiq (2018) found that for the aim of enhancing the institution's ability to link internal operations, it is vital to invest in digital technology which facilitates internal operations.

4.2 The Influence of the E-Office Record Management System Towards Improvement of Employees' Performance at NIDA

E-office has a well-designed function of record management which is designed for the aim of improving both the employees and the organization's performance. This system streamlines the process of storing, organizing, and accessing documents, ensuring that important information is easily retrievable and secure.

Table 2
Effectiveness of E-office RMS Towards Improvement of Employee Performance at NIDA

Variable	Very low	Low	Moderate	High	Very high
The extent to which e-office RMS improves the employee's performance at NIDA	4.3%	10.9%	15.2%	47.8%	21.7%
The extent e-office RMS improves efficiency in managing records	8.7%	10.9%	23.9%	34.8%	21.7%
E-office RMS in facilitating collaboration and communication among team members	6.5%	8.7%	21.7%	47.8%	15.2%
E-office RMS in ensuring the accuracy, integrity, and security of records and information at NIDA.	6.5%	13.0%	17.4%	47.8%	15.2%
E-office RMS in supporting compliance with records management policies, regulations and standards at NIDA	13.0%	17.4%	26.1%	30.4%	13.0%

Table 2 reveals that a significant portion of respondents, 22 out of 46 (47.8%), use the e-office RMS frequently for managing and accessing records at NIDA. Additionally, 10 respondents (21.7%) report very high usage, while 7 (15.2%) use it moderately. According to Table 2, 16 respondents (34.8%) believe that the e-office RMS has significantly improved their efficiency and productivity in managing records and information. Meanwhile, 10 respondents (21.7%) rate this improvement as very high, and 11 (23.9%) as moderate. Table 2 shows that 22 respondents (47.8%) find the e-office RMS highly effective in facilitating collaboration and communication among team members, with 7 (15.2%) rating it as very highly effective. 22 respondents (47.8%) believe that the e-office RMS ensures the accuracy, integrity, and security of records and information at NIDA to a high extent, with 7 (15.2%) rating this assurance as very high.

Results have indicated that e-office RMS has been playing a crucial role in making sure that employees' performance is significantly improving, results indicate that the majority of the respondents who participated in the study value the e-office RMS as very effective in managing and accessing records. The results from the field align with the arguments raised by several previous scholars, including Mugambi and Omwansa, (2017) who posit that effective information systems through the modern digital systems of managing institutional operations improve decision-making and institution performance. On the other hand, the study made by Desalegn et al. (2020) found that modern digital technologies managing employees and institutional records facilitate collaboration and communication among administrative and non-administrative employees. The study has found that the majority of the respondents who participated in the survey support the effectiveness of e-office in improving workplace dynamics. The findings are supported by the study of Kariuki et al. (2019) who indicated the need to have a digital system for managing employee records in an institution and a reliable information system for maintaining data integrity.

4.3 E-office Incentive Management System Towards Improvement of Employee Performance at NIDA

The incentive Management System (IMS) of an organization plays a significant role in enhancing performance as well as ensuring a higher level of employee satisfaction in the organization.

Table 3

Effectiveness of the E-Office IMS in Improving the Performance of Employees at NIDA

Variable	Very low	Low	Moderate	High	Very high
Frequently using the E-office IMS to track incentives at NIDA	6.5%	13.0%	15.2%	50.0%	15.2%
Effectiveness of the e-office IMS in motivating employees to achieve performance targets and goals.	8.7%	15.2%	21.7%	39.1%	15.2%
Transparency and clarity regarding performance targets, criteria, and rewards	8.7%	13.0%	26.1%	34.8%	17.4%
How accurately does the e-office IMS track and measure employees' performance metrics and achievements	8.7%	13.0%	21.7%	41.3%	15.2%
Fairness and equity of the performance incentives provided through the e-office IMS	6.5%	13.0%	28.3%	41.3%	10.9%

Table 3 shows that 23 respondents (50.0%) frequently use the e-office IMS to track performance incentives, indicating a high level of engagement while 7 respondents (15.2%) reported very high usage. Table 3 indicates that 18 respondents (39.1%) find the e-office IMD highly effective in motivating them to achieve performance targets and goals, additionally, 7 respondents (15.2%) believe it is very effective. Table 3 reveals that 16 respondents (34.8%) rate the transparency and clarity of performance targets and rewards as high, while 8 respondents (17.4%) rate it as very high. Table 3 shows that 19 respondents (41.3%) believe the e-office IMS tracks and measures performance metrics accurately, with 7 respondents (15.2%) rating it very high in accuracy. Table 3 indicates that 19 respondents (41.3%) view the performance incentives provided through the e-office IMS as fair and equitable. 5 (10.9%) rate the fairness very high, while 13 (28.3%) see it as moderate.

The findings obtained from the field indicate that the adoption of e-office IMS has been very influential in employee performance at NIDA due to the specific features of e-office IMS. According to the findings, the most significant features include real-time feedback mechanisms, incentive structure management, goal setting and alignment, performance analytics and reporting and performance metrics and tracking. These features are instrumental in improving performance by providing employees with timely feedback, clearly defined goals, and a transparent incentive structure. Results from the field correlate with the previous scholars' arguments including Chipeta (2018) who emphasize the importance of goal setting and feedback in enhancing employee performance. On the other, the study by

Kavishe (2019) insisted that for the aim of improving the organization's performance the institution needs to have a fair incentive management system which is linked with the modern ICT facilities to link the employees' efforts and rewards to achieve goal congruence.

Results from the field have indicated that e-office IMS plays a significant role in motivating employees to put in the best performance since they are aware that their efforts are recognized by the management. Kulatunga et al. (2017) insisted that employees are more likely to put in the best performance in the institution after realizing that their efforts are valued and they are rewarded based on the efforts they invest in the institution's development. The positive feedback aligns with the motivational theories proposed by Satish and Rizwana (2020) which highlight the importance of recognition and reward in enhancing employee motivation and performance. IMS plays a significant role in enhancing the employees' performance as the implementation of IMS has been an instrumental tool of motivating employees to achieve higher performance through a transparent as well as efficient platform for managing incentives such as bonuses, performance-based rewards as well as recognition programmes (Ilankunda & Burigi, 2019)

4.4 Influence of the E-office Performance Management System (PMS) Towards Improvement of Employee Performance at NIDA

Among of the significances brought by the technological revolutions at NIDA is the e-office PMS, this system has revolutionized how performance is tracked, measured, and rewarded within the institution.

Table 4
Effectiveness of the E-Office PMS in Improving the Performance of Employees at NIDA

Variable	Very low	Low	Moderate	High	Very high
Frequency of e-office PMS usage for tracking performance incentives at NIDA.	17.4%	19.6%	23.9%	21.7%	17.4%
Effectiveness of the e-office PMS in motivating you to achieve performance targets and goals.	6.5%	17.4%	23.9%	43.5%	8.7%
Transparency and clarity regarding performance targets, criteria, and rewards	8.7%	19.6%	39.1%	21.7%	10.9%
How accurately does the e-office PMS track and measure your performance metrics and achievements	8.7%	17.4%	23.9%	34.8%	15.2%
Fairness of the performance incentives provided through the e-office PMS	8.7%	28.3%	41.3%	13.0%	8.7%

Table 4 indicates the frequency of e-office PMS usage for tracking performance incentives at NIDA. The majority of respondents, 11 (23.9%), use it at a moderate level. High usage is reported by 10 (21.7%), while very high usage is noted by 8 (17.4%). Table 4 shows the effectiveness of the e-office PMS in motivating employees to achieve performance targets and goals. The majority, 20 (43.5%), find it highly effective, demonstrating the system's substantial impact on driving employee performance. Table 4 reflects transparency and clarity regarding performance targets and rewards. The largest group, 18 (39.1%), rate it as moderate. High transparency and clarity are noted by 10 (21.7%), and very high by 5 (10.9%). Table 4 assesses the accuracy of the e-office PMS in tracking performance metrics and achievements. The highest response, 16 (34.8%), indicates high accuracy. Moderate accuracy is noted by 11 (23.9%), and very high accuracy by 7 (15.2%). Table 4 examines the fairness and equity of performance incentives provided through the e-office PMS. The majority, 19 (41.3%), find it moderate. Low fairness is reported by 13 (28.3%), and high fairness by 6 (13.0%).

Results from the field have indicated that there is a direct correlation between the e-office PMS and the improvement of the employees' performance. According to the findings obtained from the field e-office, PMS has features such as performance reviews and evaluations, 360-degree feedback, and goal setting and alignment which play a significant role in enhancing the employees' performance. These findings correlate with previous investigations made on the efficiency of digital PMS on improving employee performance highlighting the importance of these elements in effective performance management systems. For instance, Dubnick and Frederickson (2011) insisted that PMS facilitates the real-time measurement, monitoring and evaluation of employees' activities and outputs in their job responsibilities, immediate feedback brought by the digital PMS puts employees in the best position to make quick adjustments to the performance and career growth (Dubnick & Frederickson, 2011).

According to the findings obtained from the field it has been discovered that e-office PMS plays a significant role in enabling the employees to determine their strengths and weaknesses and establishes the areas of improvement the employees need to focus on to become beneficial in an institution. Medori and Steeple (2019) support this finding

by cementing that PMS provides a significant foundation and systematic approach for the evaluation of employee performance as well as crucial alignment between individual performance, individual objectives and organizational goals to achieve goal congruence. The findings suggest that a significant majority of respondents use the e-office IMC frequently to track their performance incentives, indicating high engagement with the system. The study has further found that the system has been highly effective in motivating them to achieve performance targets and goals. According to Armstrong (2009), effective performance management systems not only track performance but also motivate employees by aligning individual goals with organizational objectives. The system's design, which includes real-time feedback, goal setting, and comprehensive performance analytics, plays a crucial role in enhancing employee productivity and organizational efficiency (Satish & Rizwana, 2020)

4.5 Influence of the E-office Communication Flow and Information Sharing System (CFISS) Towards Improvement of Employee Performance at NIDA

The adoption of the e-office has put management in the best position to improve communication flow and information sharing through the e-office (CFISS). The findings reveal that key features such as a centralized information hub, announcements and updates, feedback and performance reviews, instant messaging, and employee engagement tools significantly enhance communication and collaboration. communication systems play a significant role in facilitating the timely exchange of critical information in the institution as well as ensuring that both the administrative and the non-administrative employees are well-informed and can effectively collaborate in the organization's development (Cheney, 2021).

Table 5
Effectiveness of E-office CFISS towards the Improvement of Employee Performance at NIDA

Variable	Very low	Low	Moderate	High	Very high
Effectiveness of e-office system in facilitating the flow of information across different departments	6.5%	17.4%	21.7%	37.0%	17.4%
Ease of accessing relevant information through the e-office system for carrying out your daily tasks	6.5%	17.4%	21.7%	39.1%	15.2%
Timeliness of information delivery and dissemination through the e-office system.	8.7%	17.4%	26.1%	32.6%	15.2%
Accuracy and reliability of information accessed or received through the e-office system.	6.5%	17.4%	26.1%	39.1%	10.9%
E-office system contribution to collaboration and communication among employees in sharing information and insights	8.7%	17.4%	23.9%	37.0%	13.0%

Table 5 indicates that the majority of the respondents who participated in the study equivalent to 17 (37.0%) mentioned that e-office CFISS is highly effective in facilitating the flow of information across different departments and 8 (17.4%) mentioned very high. Table 5 indicates that the majority of the respondents who participated in the study 18 (39.1%) rated the ease of accessing relevant information through e-office CFISS for carrying out your daily tasks highly and 7 (15.2%) rated it very high. Table 5 indicates that the majority of the respondents who participated in the study equivalent to 15 (32.6%) rated the timeliness of information delivery and dissemination through the e-office CFISS system highly and 7 (15.2%) rated it very high. Table 5 indicates that the majority of the respondents who participated in the study equivalent to 18 (39.0%) mentioned that e-office CFISS is highly effective in facilitating accuracy and reliability of information and 5 (10.9%) mentioned very high. Table 5 indicates that the majority of the respondents who participated in the study equivalent to 17 (37.0%) mentioned that e-office CFISS is highly effective in enhancing collaboration and communication among employees in sharing information and insights, 6 (13.0%) mentioned very high.

According to the findings obtained from the field e-office Communication Flow and Information Sharing System (CFISS), the NIDA employees have been in the best position to achieve the strategic targets of institutions. According to the findings obtained from the field e-office CFISS is linked with digital technology features which can enable the institution to facilitate a quality flow of information which directly establishes a good rapport in the institution. According to the study made by Enaifoghe and Ndebele (2023) Institutions with well-organized and designed communication channels experience a 30% increase in employees' performance and productivity due to the reduced likelihood of misunderstandings and errors.

On the other hand, the study has found that the accessibility of information through the e-office technology is very smooth and information can be retrieved in real time eventually improving the performance of NIDA as an institution. These findings correlate with the argument raised by Bashir and Sadiq (2018) who insisted that to achieve the competitive advantage of an institution, there must be a proper flow of information in the real-time model through digital technology. The streamlined communications and information flows in the institution foster a collaborative working environment which is the key ingredient in the successful institution performance. Through having improved communication systems which promote transparency and accessibility of information, the organization becomes in the best position to enhance overall employee engagement and job satisfaction and eventually improve the overall organizational success (Kibwani et al., 2021).

4.6 Public Sector Employees' Performance

According to the findings obtained from the field, the performance of the employees at NIDA improved significantly following the adoption of e-office in an institution. The study has found that there is a direct significant correlation between the adoption of e-office in the institution and the improvement of employees' performance as indicated in the ANOVA Analysis.

Table 6
ANOVA (Relationship between e-office systems and employees' performance)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.24	1	82.27	20.36	.000[b]
	Residual	50.7	73	0.62		
	Total	65.04	74			

a. Dependent Variable: NIDA employees' performance
b. Predictors: (Constant), Record Management System (RMS) Incentive Management System (IMC), Performance Measurement System (PMS) and Communication Flow and Information Sharing System

The analysis in Table 6 indicates that the significance of F statistics is 0.00 which is less than 0.05. This implies that there is a significant relationship between e-office systems and employee Performance. The low significance level suggests that e-office systems of Record Management System (RMS) Incentive Management System (IMC), Performance Measurement System (PMS) and Communication Flow and Information Sharing System collectively play a crucial role in shaping the efficiency, effectiveness, and overall success of the performance among the employees as NIDA. The findings from the field correlate with the arguments raised by Fosso Wamba and Kamdjoug (2019) who insisted that the computerized systems used in task operations enable the labour to reach high performance through accomplishing tasks within the required amount of time and with less supervision.

V. CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusions

The study findings and review of the previous empirical and theoretical arguments by the previous scholars demonstrate that the adoption of e-office systems at NIDA has significantly enhanced employee performance and enabled employees to effectively put positive commitment to their daily responsibilities across various departments. Through the digital operations supported by e-offices such as RMS, IMS, PMS, and CFISS, NIDA employees have been best position to achieve the institution's strategic targets, these variables have significantly played a crucial role in improving efficiency, transparency, and motivation among employees and bridging the gap between the administrative and the non-administrative employees of an institutions. The study has indicated that despite the challenges facing e-offices and limiting their accuracy such as data accuracy, user training, and integration with existing systems, the overall impact of e-offices on the performance of NIDA employees is positive.

5.2 Recommendations

The study has found that despite the significant number of advantages brought by e-office on the performance of NIDA employees, still there are several areas which need to be improved to enhance the institution's ability to gain positive performance from the employees. The study recommends that NIDA management effectively invest in technical training and capacity-building programmes to inject employees with the skills required to run the e-office digital systems. The study also recommends NIDA administration allocate a sufficient budget for instilling modern and capable

ICT facilities and infrastructures which will enable the institution to effectively implement the e-office technology by 100%.

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