

Digital Work Environment, Work Engagement and Public Sector Performance in the Lagos State Internal Revenue Service (LIRS)

Anthony Ayodele Ajala

Department of Industrial Relations and Human Resource Management, Faculty of Management Sciences, Lagos State University, Ojo, Lagos State, Nigeria

DOI: <https://doi.org/10.51584/IJRIAS.2026.11090042>

Received: 13 September 2026; Accepted: 18 September 2026; Published: 07 October 2026

ABSTRACT

As public sector organisations undergo rapid digital transformation, the digital work environment is critical to the performance of their employees and to employee engagement. Although digital technologies are being invested heavily in many public institutions, they still face problems in the employee engagement and service delivery areas. This study explored the relationship between the digital work environment, work engagement and public sector performance in Lagos State Internal Revenue Service (LIRS). In particular, the study examined how the digital work environment impacts work engagement and how work engagement impacts public sector performance. A quantitative cross sectional survey design was used. A structured questionnaire based on validated measurement scales was used to collect data from 356 employees from a population of 3,200 permanent employees. Data were analysed using Structural Equation Modelling (SEM) with the aid of IBM SPSS Statistics Version 29 and AMOS Version 29. The results demonstrated that the digital work environment has significant positive influence on work engagement, and work engagement significantly influences public sector performance. The study found that staff working in supportive digital work environments (with effective digital infrastructure, communication systems, collaborative technologies and technological support are more vigorous, more dedicated and more absorbed, leading to better service quality, operational efficiency, responsiveness and productivity). The study concludes that digital transformation in public sector organisations not only requires investments in technology, but conditions that empower employees. It urges LIRS to embed digital workplace development within an employee-centred human resource approach, such as lifelong digital skills development, supportive leadership, employee recognition and organisations learning initiatives, to achieve the best outcomes in public sector performance.

Keywords: Digital Transformation, Digital Work Environment, Lagos State Internal Revenue Service, Public Sector Performance, Structural Equation Modelling, Work Engagement.

INTRODUCTION

The digital revolution has revolutionised the way organisations work, communicate and provide services. In both developed and developing economies, digital technologies have become part of the organisational processes, allowing the employees to carry out their tasks thanks to inter-connected digital platforms, cloud-based systems, enterprise applications, artificial intelligence and real-time communication tools. As a result, digital work environment has become a strategic organisational resource influencing the employees' work experience, their engagement, their productivity, and their organisational performance (Baptista, et al., 2022; Vial, 2021). The digital work environment is not just a reflection of the availability of digital technologies, but the technological infrastructure, digital communication systems, collaborative platforms, digital support mechanisms and organisational capabilities which empower workers to carry out their work effectively. The impact of digital work environments on employee behaviour and performance in public sector organizations is an important research question as governments around the world are setting out on their digital transformation journeys.

In the modern public sector administration, digitalisation has revolutionised how public sector services are provided to citizens and how governments communicate with citizens. To meet the expectations of citizens,

public organizations are being expected to deliver efficient, transparent, responsive and citizen-centred services using digital technologies. Such aspirations have led to investments in digital infrastructure, electronic records management systems, enterprise resource planning systems, digital communication platforms, and integrated service delivery technologies (Batary-Citta, Nurdin & Muchsin, 2026; Mergel, Ganapati, & Whitford, 2021; United Nations, 2024). But recent research points to the need for employees' ability and willingness to use digital technologies effectively, as well as the ability of digital technologies themselves, to help drive successful digital transformation. As a result, employee work engagement has emerged as an important organisational capacity that can be leveraged to improve public sector performance in the digital workspace (Saks, 2022; Schaufeli, 2021).

Work engagement is a positive and fulfilling work-related psychological state that is experienced when working that involves vigour, dedication and absorption (Schaufeli, 2021). Highly engaged workers are enthusiastic, resilient, committed and focused in carrying out their tasks. They are willing to apply discretionary effort towards the goals of the organisation, adapt to new technology more easily, and are willing to participate in innovation and continuous service improvement (Bakker & Demerouti, 2023). Recent research has shown that digital working environments that enable collaboration, communication, flexibility, and knowledge sharing, help to improve employees' psychological engagement, by lowering operational barriers and enhancing work experiences (Ikiba, Gambo, & Ogedengbe, 2026; Molino et al., 2024). Organizations investing in digital are therefore beginning to understand that technology is not enough without a workforce that is committed to and can leverage digital resources to best effect.

The quality of public service has also emerged as a major focus of governments' efforts to enhance institutional performance and citizen satisfaction. In public institutions, expectations go beyond just financial results to include service quality, responsiveness, accountability, efficiency, and value for citizens, as compared to private organisations (Bryson, Crosby, & Bloomberg, 2023). As more and more governments are turning to digital government programs, it is important to recognize the impact of digital work environments on the ability of employees to provide high-quality public service. Modern public management literature suggests that information processing becomes more efficient, citizens' needs are better addressed in timely fashion, collaboration between organisational units is facilitated, and service delivery is enhanced with digitally enabled employees (Mergel et al., 2021; OECD, 2023). However, researchers warn that whilst digital technologies can be beneficial to organisational performance, employee engagement is still a key behavioural mechanism that links digital technologies to an organisation's value (Yunus, Qadri & Hakim, 2026; Bakker & Demerouti, 2023).

The public sector organisations in Nigeria have been pushing for digital transformation and become more efficient in administration, accountability and revenue generation. To modernise public administration, various government agencies have introduced electronic system for document management, online service platforms, integrated financial management system and digital communication technologies. Though these reforms have been implemented, some public institutions still face issues like digital technology adaptation problems among employees, the use of digital systems is not even, employee morale is declining and service delivery inefficiencies still exist (Adeosun & Adegbola, 2023; Nwankwo & Kanu, 2024). The challenges indicate that investments in digital technology may not bring about sustained improvements in public sector performance unless there is employee involvement in the work and the full adoption of digital work practices.

The Lagos State Internal Revenue Service (LIRS) offers a proper background of the study to discuss these relationships as it is one of the most technologically advanced public revenue service agencies in Nigeria. LIRS has embarked on a massive e-tabling of tax and revenue systems, online service provision to tax payers, integrated revenue management systems, digital payment systems and digital workflow process. These innovations have created a new way of doing business for employees, impacting how they interact with taxpayers, how they monitor compliance, how they collect revenue, how they manage data and how they deliver services. At the same time, staff have to be able to meet progressively more ambitious revenue targets, and to operate with high levels of efficiency, transparency and customer service. In such a context,

successful digital transformation will rely as much on the readiness of the people to interact with digital systems and systems to achieve the goals of the organisation in a meaningful way.

While recent research has focused on digital transformation, employee engagement, and the relationship between these factors and organisational performance, there is little work on how they relate and interact in the public sector context, specifically in developing economies. The majority of existing research has been concentrated on the adoption of digital technology in public services, the implementation of e-government, or on employees' engagement in the public sector respectively, with few studies investigating the relationship between the digital work environment and public sector performance via work engagement (Baptista, et al., 2022; Mergel, et al., 2021). In addition, although many government institutions in Nigeria are becoming digital, Nigerian empirical evidence remains limited in this regard so far. This restriction limits theoretical reflection on the behavioural processes that can be said to affect the performance of the public service by means of digital workplaces.

In this context, the present study aims to explore the relationship between the digital work environment, work engagement and public sector performance in Lagos State Internal Revenue Service (LIRS). In particular, the study aims to identify the impact of the digital work environment on employees' work engagement and the effects of work engagement on the performance of public servants. The study also offers empirical proof that can be used to shape and inform a digital workplace strategy, HRM practices, and public sector reforms to improve employee engagement and service delivery in digitally transformed public organizations.

Statement of the Problem

Digitalisation of public sector organisations has changed service provision, information management and citizens access to services. Governments globally have made a significant investment in digital technologies to make processes more efficient, transparent, accountable and quality of service. More than 70 percent of national governments have increased their digital public services in the context of comprehensive government modernization, according to the United Nations E-Government Survey 2024. But, the use of technology is not an automatic guarantee of better organisational performance. Instead, how well staff can adjust to digital working environments and continue to be psychologically involved with their work is key to the success of digital transformation (Yunus et al., 2026; Mergel et al., 2021; Vial, 2021).

In Nigeria, digital transformation is a key part of the reforms in the public sector with the goal of enhancing governance and service delivery. To increase the operational efficiency, government institutions have increasingly been implementing electronic workflow systems, enterprise information systems, platforms for digital communication and online service portals. Despite the rate of advancement of digital government initiatives reported by the National Information Technology Development Agency (NITDA) and the United Nations E-Government Survey (2024), many public organisations are still facing challenges such as inadequate responsiveness of staff, inconsistent usage of digital technologies, slow service delivery and operational inefficiencies (Kim, et al., 2024; Adeosun & Adegbola, 2023; Nwankwo & Kanu, 2024). The challenges suggest that while the digital improvement has not always led to the better behavior of employees or to organizational performance.

The Lagos State Internal Revenue Service (LIRS) is a good example of digital transformation in Nigeria with the implementation of electronic tax administration, online taxpayer registration, digital payment platforms and integrated revenue management systems. The efforts helped the Lagos State Government to generate more than ₦1 trillion in Internally Generated Revenue in 2024 (Lagos State Government, 2025). However, as revenue goals have risen, employees have had to work more, rely more on digital technologies, and have higher expectations for efficiency and service quality.

Although there has been a significant amount of research on digital transformation, work engagement and organisational performance, there are still significant gaps. The existing research has mostly taken a technological view or an information system approach to digital technologies with little attention to their behavioural aspects (Zhan & Xie, 2025; Vial, 2021). Likewise, the impact of the mediating mechanisms of

work engagement between digital work environment and public sector performance is poorly documented, especially in public revenue agencies in developing countries. There are also limited studies that are specific to LIRS. The gaps in concepts and context presented above, therefore, necessitate the present study which examines the relationship between the digital work environment, work engagement and public sector performance of the Lagos State Internal Revenue Service.

Objectives of the Study

The primary objective of this study is to examine the relationship between the digital work environment, work engagement, and public sector performance in the Lagos State Internal Revenue Service (LIRS). Specifically, the study seeks to:

- examine the effect of the digital work environment on work engagement in the Lagos State Internal Revenue Service (LIRS).
- investigate the effect of work engagement on public sector performance in the Lagos State Internal Revenue Service (LIRS).

Research Questions

The following research questions were raised to guide the study:

- To what extent does the digital work environment influence work engagement in the Lagos State Internal Revenue Service (LIRS)?
- To what extent does work engagement influence public sector performance in the Lagos State Internal Revenue Service (LIRS)?

Research Hypotheses

Based on the research objectives and research questions, the following hypotheses were formulated and tested at the 0.05 level of significance:

Hypothesis One

H₁: The digital work environment has a significant positive effect on work engagement in the Lagos State Internal Revenue Service (LIRS).

Hypothesis Two

H₂: Work engagement has a significant positive effect on public sector performance in the Lagos State Internal Revenue Service (LIRS).

LITERATURE REVIEW

This section of the paper reviews relevant literature on the digital work environment, work engagement, and public sector performance. It examines key concepts, theoretical and empirical studies, and the relationships among the study variables. The review identifies existing knowledge and research gaps, particularly the limited evidence on these variables within the Lagos State Internal Revenue Service (LIRS), thereby justifying the present study.

Conceptual Review

The Concept of Digital Work Environment

As a result of the increasing use of digital technologies in the work environment, the concept of the digital work environment has increasingly become a dominant theme in organisational and public administration

literature. It is a technology-infused work environment in which employees use various digital technologies, such as digital infrastructure, electronic communications, collaborative tools, cloud computing, enterprise applications, artificial intelligence, and more to effectively complete organizational work (Kim, et al., 2024; Mergel, Ganapati, & Whitford, 2021). Digital work environments use information and communication technologies to increase efficiency, collaboration, flexibility and organisational responsiveness, rather than being predominantly physical, as in traditional workplaces.

The digital workplace is a more than technology construct for today's scholars. This also covers employees' experiences of digital technology, organisational support, digital communication, accessibility of digital technologies, collaboration, cyber security, and digital competencies (Zhan & Xie, 2025). This makes its effectiveness as much about the ability and willingness of employees to use digital tools to meet organisational goals as it lies with technological investments.

Research over the last few years has shown that positive employee attitudes and behaviours is linked to a well-designed digital working environment. Organizations that offer dependable digital infrastructure, easily accessible information systems, dependable technical support, and socially collaborative platforms can foster positive conditions that boost employee motivation, knowledge exchange, productivity, and decision-making (Molino et al., 2024). In public sector, digital technologies have been embedded in administrative reforms that seek to enhance the service delivery, its transparency, accountability and the satisfaction of citizens by increasingly implementing electronic records management, online service delivery, digital payment systems and integrated information platforms (Lehmann, & Beckmann, 2024).

While all these advantages exist, digital transformation alone does not guarantee better performance of the organisation. In a poorly designed or poorly supported digital system, employees can suffer from technology stress, digital overload, resistance to change and adaptation problems (Naqshbandi, et al., 2024). The digital working environment in Lagos State Internal Revenue Service (LIRS) includes: E-Tax Administration, Taxpayer Registration, Digital Payment Platforms, Integrated Revenue Management Systems, Electronic Document Processing and Internal Digital Communication. It is therefore assumed that employees' perceptions of the accessibility, reliability and effectiveness of these technologies would affect their work engagement and public sector performance.

The Concept of Work Engagement

The concept of work engagement is one of the most studied concepts in organisational behaviour/human resource management because of its role in employee wellbeing and organisational effectiveness. It comes out of the positive psychology movement and concentrates on the strengths, motivation, and optimal functioning of employees instead of their dysfunctions. Schaufeli, Salanova, González-Romá and Bakker (2002) describe work engagement as being "vigorous, dedicated, and absorbed in work, a positive and fulfilling work-related state of mind. Work engagement is a motivational state that is more enduring and is defined as the psychological commitment to one's work (Schaufeli, 2021).

Work engagement is a construct that is distinct from other constructs like organisational commitment and job satisfaction. Organisational commitment focuses on the relationship between the employee and the organisation, whereas work satisfaction refers to the assessment of working conditions, but work engagement is a measure of the physical, emotional and mental investment of the employee in their work (Saks, 2022). Therefore, it is considered as a strong predictor of employee effectiveness and organisational performance (Bakker & Albrecht, 2022). There are three dimensions to the concept: vigour, dedication, and absorption. Vigour is a measure of employees' energy, resilience, persistence and willingness to expend effort in their work. Dedication is the feeling of meaning, enthusiasm, inspiration, pride and commitment to work (Schaufeli, 2021), and absorption is the state of concentrating fully on work and deep engagement with work-related processes (Schaufeli, 2021). These dimensions together are called the overall motivational state of the employees.

Studies suggest that leadership, organisational support, meaningful work, career development, recognition, autonomy, organisational culture and, more recently, the nature of work in the digital world all impact on

work engagement (Naqshbandi, et al., 2024; Knight, Patterson, & Dawson, 2024). Effective digital tools and technologies that improve communication, collaboration, and the completion of tasks can lead to stronger employee engagement, while poorly-designed systems, lack of technological support, and digital overload can have a negative impact on employee engagement (Lestari & Hadijah, 2025).

The internal revenue service (Lagos State internal revenue service, LIRS) is a highly digitally oriented and performance-based workplace for employees. An expectation is therefore high levels of vigour, dedication and absorption to facilitate the efficient use of digital technologies, delivery of taxpayer sector and performance of public services (Kim, 2022).

The Concept of Public Sector Performance

Public sector performance is an important issue in the modern public administration as governments strive to arrive at efficiency, accountability, responsiveness, and satisfaction of the citizens. The focus is on how public services perform as opposed to the private sector, where focus is primarily on profitability and market share, and on the extent to which public institutions achieve policy objectives, deliver quality services, utilises public resources efficiently and creates public value (Bryson, Crosby, & Bloomberg, 2023; Cepiku & Mastrodascio, 2021). Hence, it is considered a multi-dimensional construct which is a combination of operational efficiencies and wider social impacts.

In the modern era, scholars debate that the output of public service work is not just about administrative efficiency, but also on service quality, timeliness, transparency, accountability, responsiveness, innovation, and citizen trust. Effective public organisations utilise public resources to deliver valuable outcomes through effective management, innovation and organisational learning (Andrews, Boyne & Walker, 2022). Likewise, Van Dooren, Bouckaert and Halligan (2024) argue that performance measurement should be based on a range of dimensions since public organisations have a variety of social and developmental goals.

The speed of public administration's shift to the digital era has also had a profound impact on public service. As governments have become more aware of the benefits of digital technologies for administrative processes, coordination, evidence-based decision making, and citizen-centred service delivery, they have prioritized their investments in these technologies (United Nations, 2024; OECD, 2023). But investing in technology isn't enough to ensure better performance. Instead, service delivery will require staff to use digital technologies, communicate well and meet citizens' needs (Mergel, Ganapati & Whitford, 2021; Wiyono, et al., 2025). Other factors that also affect service quality and organisational effectiveness include employee-related factors, which are related to the motivation, organisational commitment and work engagement of the employees (Aboramadan, Albashiti, Alharazin, & Zaidoune, 2022; Kim & Park, 2023).

Public sector performance under the Lagos State Internal Revenue Service (LIRS) is the capacity of the employees to use digital technology and the organisational resources to provide quality service to the taxpayers, respond quickly to stakeholder needs and meet the objectives of the organisation. In this research, it is evaluated in terms of service quality, service efficiency, responsiveness and productivity, which are the terms adopted by the recent literature of public administration working on the advancement of public sector delivery through technology and citizen-centred services (OECD, 2024).

Digital Work Environment and Work Engagement

Given that organisations are increasingly turning to digital technologies to improve employee productivity and organisational performance, the relationship between the digital work environment and work engagement has been a growing issue of interest. In the modern world, companies spend money on enterprise information systems, cloud computing, collaboration tools and digital communication, all hoping to enhance the work experience of their employees. Yet, the effectiveness of the digital transformation goes beyond investments in technology, as it also involves how employees experience and use the digital workplace (Vial, 2021; Baptista et al., 2022).

A supportive digital work environment theoretically increases work engagement by making technological resources available to help with communication, collaboration, information sharing and flexibility. The Job Demands-Resources (JD-R) Theory suggests that organisational resources boost motivation by minimizing work demands and fostering job learning, autonomy, and professional achievement (Bakker & Demerouti, 2023). As a result, a dependable digital infrastructure, intuitive systems, technical support, and great communication platforms increase the vigour, dedication, and absorption of employees, improving engagement (Schaufeli, 2021; Saks, 2022).

Research also indicates that digital technologies enhance employee empowerment through their ability to communicate in real-time, make decisions together, and have constant access to organizational information (Baptista et al., 2022). Organisations with developed digital environments, therefore, have higher levels of employee engagement, as digital technologies positively impact perceptions of organisational support, autonomy and competence (Ribeiro, Duarte, Filipe, & Torres de Oliveira, 2023).

However, digital workplaces can equally pose issues like digital overload, technology-related stress, cybersecurity threats, and confusing work-life balance boundaries that can hinder employee engagement if not properly addressed (Molino, Ghislieri, Cortese, & Colombo, 2024; Tarafdar, Cooper, & Stich, 2022). Supportive digital work environments enhance collaboration, employee self-confidence and engagement in public sector organisations in the process of digital transformation (Mergel, Ganapati, & Whitford, 2021; OECD, 2023; Aboramadan et al., 2022; Kim & Park, 2023). Lagos State Internal Revenue Service (LIRS) is a highly digital world with electronic tax administration, integrated revenue management systems, digital payment platforms and electronic document management. The employees' perceptions of these technologies as reliable, accessible and supportive should therefore increase their vigour, dedication and absorption and result in an increase of their work engagement.

Work Engagement and Public Sector Performance

The concept of work engagement has been broadly embraced in the public service literature as a relevant public service behavior in the context of public service reform and digitalization. In the contemporary public administration literature, the role of investments in information and communication technology (ICT) is complemented by the willingness of public servants to invest physical, cognitive, and emotional energy into realizing organizational goals (Bakker & Demerouti, 2023; Schaufeli, 2021). Thus, work engagement is an important tool that has been introduced into the arena of improving service quality, operational efficiency and citizen satisfaction in organisations.

Work engagement is a process that boosts the performance of public servants by making them more motivated, committed, resilient and willing to use their discretionary effort. High levels of vigour, dedication and absorption allow the employee to perform their role more enthusiastically, persistently and with concentration, empowering them to proactively tackle organisational challenges and deliver better service quality, efficiency, responsiveness, and productivity (Saks, 2022; Bakker & Albrecht, 2022).

Empirical research on the relationship between work engagement and organisational performance has been found to be positive. Knight, Patterson, and Dawson (2024) discovered that highly engaged workers have better job performance, organisational commitment, innovation, and service quality. Likewise, Aboramadan (2022) found that work engagement has a significant impact on the effectiveness of the organization in the Public sector. In the public administration context, high levels of PSM, responsiveness to citizens' needs, and organizational commitment are observed in engaged employees (Kim & Park, 2023; Alfes, Shantz, & Bailey, 2023).

But, work engagement can't always result in better outcomes for the public service. To convert engagement into performance, a number of other factors are required, such as effective leadership, organisational support, technological infrastructure, meaningful work, organisational justice, learning opportunities, and employee well-being (Guest, 2022; Montani & Staglianò, 2022; Bakker & Demerouti, 2023). In the Lagos State Internal Revenue Service (LIRS), staff are engaged in a tech-driven environment, using electronic tax management, digital payment systems, and integrated information systems. This suggests that employees

who are high in vigour, dedication and absorption should deliver higher levels of taxpayer service efficiency, adjust quickly to digital working methods, boost productivity and perform better as a Public Service (Ribeiro, Duarte, Filipe, & Torres de Oliveira, 2023).

Digital Work Environment, Work Engagement and Public Sector Performance

Public sector organisations are becoming more and more digital, changing the nature of the relationship between technology, staff and organisational performance. Modern public administration literature states that the performance of an organisation is not only dependent on the investment made in technology, but also on the psychological involvement of the employees in the work performed (Vial, 2021; Mergel, Ganapati, & Whitford, 2021). Thus, the digital work environment has been recognised by scholars as a strategic resource for the organisation that contributes positively to work engagement and consequently to the public sector performance.

These resources and tools include digital information systems, cloud computing, enterprise applications, digital communication platforms and collaborative technologies that enhance the efficiency of work processes, sharing of knowledge, and organisational collaboration in the digital world (Baptista et al., 2022). The Job Demands-Resources (JD-R) Theory also states that these organisational resources can be motivational, because they lower work demands and increase opportunities for learning, autonomy and competence (Bakker & Demerouti, 2023). Therefore, those working in environments where the use of digital technology is supportive are more likely to exhibit high levels of vigour, dedication and absorption.

Based on empirical evidence, it can be concluded that the mechanism by which digital work environment affect organizational performance is through work engagement. Digital technologies boost the performance when employees are willing to use them and they can do it well in their work (Ribeiro et al., 2023). Similarly, supportive digital workplaces enhance both communications and collaboration and facilitate flexibility, which contributes to positive psychological health and boosts employee engagement (Molino et al., 2024). Yet, if not well managed, digital systems can lead to technostress, digital overload and boundary blurring between work and life, which can reduce engagement (Califf & Brooks, 2024; Tarafdar, Cooper & Stich, 2022).

In public sector organisations, it is important for employees to be able to use digital technologies to enhance service quality, efficiency, innovation, and organisational effectiveness (Kim & Park, 2023; Aboramadan, 2022). The Lagos State Internal Revenue Service (LIRS) is dependent on digital technologies for the administration of taxes, collection of revenue, taxpayer registration, and electronic communications. Therefore, this study suggests that a supportive digital work environment will positively influence employees' work engagement, which will in turn amplify their public sector performance in LIRS.

Theoretical Review

Job Demands-Resources (JD-R) Theory

The Job Demands-Resources (JD-R) Theory, proposed by Demerouti, Bakker, Nachreiner and Schaufeli (2001), provides an explanation of how the features of the work environment impact employee motivation, well-being and organisational outcomes. The theory suggests that all occupations consist of job demands and job resources, which influence the employees' psychological response and job performance (Bakker & Demerouti, 2023). Job demands encompass physical, psychological, social or organisational requirements of work, including workload, time pressure, emotional demands, role ambiguity and technological complexity, which can cause stress and burnout when the organizational resources are insufficient (Demerouti et al., 2001). On the other hand, job resources allow employees to increase their job success, decrease their job demands and support their growth, which helps to enhance their work engagement (Bakker & Demerouti, 2023).

According to the JD-R Theory, there are two processes: the health impairment process which is linked to a decrease in performance when demands are high, and the motivational process which relates to increases in

work engagement, commitment, innovation and productivity when having abundant job resources (Knight, Patterson, & Dawson, 2024; Schaufeli, 2021). Digital technologies are acknowledged by recent studies as job resources, as they enable communication, collaboration, flexibility and access to information, but at the same time they can cause technostress and digital overload if they are not properly managed (Bakker & Demerouti, 2023; Tarafdar, Cooper, & Stich, 2022). Although there are some concerns about the theory's contextual variability and lack of consideration of institutional factors (Califf & Brooks, 2024; Bakker & Demerouti, 2023), it is highly relevant as it demonstrates how a supportive digital workplace can increase work engagement and the performance of public servants in the Lagos State Internal Revenue Service (LIRS).

Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) was first developed by Davis (1986) and later expanded by Davis (1989) to provide an explanation for employees' acceptance and use of information technologies. The model holds that the key factors influencing technology adoption are Perceived Usefulness (PU) and Perceived Ease of Use (PEOU), which affect the user's attitudes, behavioural intentions, and technology usage (Davis, 1989). When employees feel these technologies are useful, reliable and simple to use, they are more likely to adopt them. (Venkatesh, Thong, & Xu, 2016)

However, recent studies have gone beyond technology adoption to examine results like work engagement, innovation, organisational commitment, and performance (Dwivedi et al., 2023; Marangunić & Granić, 2021). In the public sector, staff having positive perceptions of the benefits of and ease with digital systems show higher technology acceptance, work engagement, and organizational goal commitment (United Nations, 2024; OECD, 2023; Al-Emran, Arpaci, & Salloum, 2023; Rahi, 2022). While TAM has been criticized for a narrow focus on individual perceptions and comparatively overlooked the part of organizational and contextual factors (Dwivedi et al., 2023), it is still relevant because it includes the explanation of how employees' perception of digital technologies affects their engagement with digital work processes. Combined with the JD-R Theory, TAM can explain fully how digital workplace attributes drive work engagement and consequently public service outcomes in the LIRS.

Empirical Review

Digital Work Environment and Work Engagement

Scholars have increasingly studied the relationship between the digital work environment and work engagement as organisations increasingly incorporate digital technologies into their work environments. Past research indicates that digital workplace technologies improve communication, collaboration, information access and operational flexibility, resulting in positive conditions to engage employees. Empirical results, however, are not conclusive as digital work environments will be effective if there are supportive organisational factors, digital competences of employees, leadership practices, and quality technological infrastructure.

The authors Ribeiro, Duarte, Filipe and Torres de Oliveira (2023) in their study Digital transformation and work engagement through the lens of Structural Equation Modelling (SEM), analysed 436 employees within Portuguese knowledge-intensive organisations. The study identified that a digital working environment had a significant positive impact on the employees' vigour, dedication and absorption as a result of enhanced communication, collaboration and perceived organisational support. The study, however, is only focussed on private organisations, thus restricting the applicability of the findings to public sector institutions in developing economies. In a similar vein, Molino, Ghislieri, Cortese and Colombo (2024) found that in an Italian context of 512 employees, reliable digital technologies and supportive work practices enhanced employees' engagement, while digital overload was associated with lower levels of psychological well-being and engagement. The results suggest that digital technologies could serve as a tool for an organization as well as a stress factor for the employees, based on their experience.

In the public sector, Aboramadan, Albashiti, Alharazin and Zaidoune (2022) found that organisational support, learning opportunities, technological resources and effective communication were significant factors that influenced employee engagement and organisational commitment using the PLS-SEM approach. Similarly, Kim and Park (2023) found that organisational support positively influenced work engagement and employee performance in the context of public servants in South Korea, without specifically investigating digital workplace characteristics. Adeosun and Adegbola (2023) found that digital technologies were found to have a positive impact on the efficiency of the organisations, while a lack of digital skills, technological support, and resistance to change posed a challenge for the employees to adapt. While work engagement was talked about conceptually, it was not measured itself. Together, these studies imply that supportive digital work environment promotes employee engagement, but there is still limited empirical evidence in public revenue administration agencies like the Lagos State Internal Revenue Service (LIRS), thus the need for the current study.

Work Engagement and Public Sector Performance

Work engagement has become one of the most extensively investigated predictors of employee and organisational performance. Contemporary literature argues that employees who are energetic, dedicated, and fully absorbed in their work contribute more effectively to service quality, operational efficiency, responsiveness, and organisational effectiveness (Bakker & Demerouti, 2023; Schaufeli, 2021). Consequently, empirical studies have increasingly examined the influence of work engagement on public sector performance under different organisational contexts.

Knight, Patterson, and Dawson (2024) conducted a systematic review and meta-analysis of over 200 studies across Europe, North America, Asia, and Australia and found strong evidence that work engagement significantly predicts task performance, organisational citizenship behaviour, innovation, customer satisfaction, and organisational effectiveness. Although comprehensive, most studies reviewed were undertaken in private organisations. Similarly, Bakker and Albrecht (2022) concluded that engaged employees demonstrate greater resilience, organisational commitment, learning orientation, and adaptability, particularly during digital transformation initiatives.

Within public administration, Kim and Park (2023) found that work engagement significantly improved service quality, responsiveness, and organisational commitment among 487 South Korean public officials using SEM. Likewise, Aboramadan (2022) reported that work engagement mediated the relationship between servant leadership and organisational performance, with highly engaged employees demonstrating greater productivity and service delivery. In digitally transforming organisations, Ribeiro, Duarte, Filipe, and Torres de Oliveira (2023) established that work engagement enhanced innovation, collaboration, service quality, and organisational performance while partially mediating the relationship between employee experience and organisational effectiveness. Similarly, Montani and Staglianò (2022) found that engaged employees exhibited greater creativity, adaptability, collaboration, and work performance, reinforcing the role of engagement as a motivational mechanism linking organisational resources with performance.

Within Nigeria, Nwankwo and Kanu (2024) reported that work engagement significantly enhanced employee productivity, service responsiveness, and organisational effectiveness among selected public institutions implementing digital reforms. However, the study focused on general public institutions rather than revenue administration agencies and relied on multiple regression instead of Structural Equation Modelling. Overall, existing evidence consistently demonstrates that work engagement improves organisational and public sector performance. Nevertheless, empirical studies from developing countries remain limited, with few focusing on public revenue agencies or employing SEM to examine complex relationships among latent constructs. These methodological and contextual gaps justify the present study, which investigates the influence of work engagement on public sector performance within the Lagos State Internal Revenue Service (LIRS) using Structural Equation Modelling.

Today employee engagement is among the most widely researched predictors of employee and organisational performance. It is suggested in contemporary literature that when employees are energetic,

committed, and fully engaged in their work, they are more likely to deliver the quality of service, operational efficiency, responsiveness, and organisational effectiveness (Bakker & Demerouti, 2023; Schaufeli, 2021). Hence, the effects of work engagement on public sector performance have been intensively studied in various organisational settings.

Knight, Patterson, and Dawson (2024) performed a systematic review and meta-analysis of more than 200 studies throughout Europe, North America, Asia, and Australia, which revealed strong support for the connection between work engagement and task performance, organisational citizenship behaviour, innovation, customer satisfaction, and organisational effectiveness. Most of the studies reviewed took place in private organisations, although they were comprehensive. In the same way, Bakker and Albrecht (2022) found that employee engagement is associated with higher levels of resilience, organizational commitment, learning orientation and adaptability, especially when facing digital transformation projects.

Kim and Park (2023) used SEM to test the relationship between work engagement and service quality, responsiveness and organisation commitment among 487 public officials in South Korea within public administration. Similarly, Aboramadan (2022) found servant leadership to be a mediator between servant leadership and organisational performance: highly engaged employees are more productive and more effective in delivering services. Ribeiro, Duarte, Filipe, and Torres de Oliveira (2023) found that work engagement was significant for both the innovation and collaboration of employees, the quality of service they delivered and the effectiveness of the organisation, and that it also acted as a partial mediator between the employee experience and the effectiveness of the organisation in a digitally transforming organisation. In the same way, Montani and Staglianò (2022) showed that employees with higher levels of engagement also demonstrated higher levels of creativity, adaptability, teamwork, and performance, which highlighted the motivational power of engagement as a link between organisational resources and performance.

Nwankwo and Kanu (2024) stated that work engagement highly contributed to the productivity, service responsiveness and effectiveness of public institutions that have implemented digital reform in Nigeria. The limitations of the study, however, include that it did not include institutions that were related to revenue administration, but instead used multiple regression; and that the study did not use Structural Equation Modelling to model the research variables. There is generally strong evidence that work engagement has a consistently demonstrated positive impact on organisational and public sector performance. However, empirical research in developing countries is still scarce, particularly involving research on public revenue agencies and the use of SEM to explore the multiple interactions between latent variables. The above methodological and contextual gaps call for the current study which examines the effect of work engagement on public sector performance in Lagos State Internal Revenue Service (LIRS) through Structural Equation Modelling.

Gaps in the Literature

The findings from the literature show that there are significant conceptual, theoretical, methodological, contextual and empirical gaps that support this study. In the conceptual field, the research has been mainly concerned with digital transformation and technology adoption, while hardly addressed the behavioral reactions of the workers to digitally-enabled workplaces (Baptista et al., 2022; Vial, 2021). Likewise, research on work engagement has focused on job characteristics and organisational support, and not on the digital work environment as a strategic resource for increased vigour, dedication and absorption work (Bakker & Demerouti, 2023; Saks, 2022).

Most of the previous studies have focused on the Technology Acceptance Model (TAM), the Unified Theory of Acceptance of Use of Technology (UTAUT), or Diffusion of Innovation (DOI) theory that describes technology adoption, but there has been limited research that addresses the motivational processes that connect digital work environments, work engagement, and performance (Dwivedi et al., 2023; Venkatesh et al., 2016). To overcome this limitation, this study combines Job Demands-Resources (JD-R) Theory and TAM.

Structural Equation Modelling (SEM) has only been used in a few relatively few studies to explore these relationships (Knight, Patterson, & Dawson, 2024; Ribeiro et al., 2023). In line with this, the majority of empirical studies are derived from developed nations of the world (Molino et al., 2024; OECD, 2023) and there are little or no studies on Nigeria, specifically the Lagos State Internal Revenue Service (LIRS). This study tackles these gaps by exploring the digital work environment, work engagement and public sector performance in LIRS integrated relationship.

METHODOLOGY

This section outlines the methodological procedures used in investigating the relationship between the digital work environment, work engagement and public sector performance in the Lagos State Internal Revenue Service (LIRS). It provides a research design, study population, determining the number of samples, sampling technique, data collection instruments, validity, reliability, data collection process, analytical techniques, and ethical considerations. A quantitative research method was used, as it can gather data in numerical form which can be objective and tested for hypothesised relationships between latent variables using multivariate statistical techniques. The methodological decisions were informed by the aim of the study and the requirement for the study to produce findings that would be reliable, valid and generalisable in the context of the Lagos State Internal Revenue Service.

Research Design

The study employed quantitative (Cross sectional survey) research design. The design was judged as suitable because it allowed for quantitative data to be collected from a large sample of informants at one time and the relationships between variables could be studied by using more sophisticated statistical analysis (Creswell & Creswell, 2018; Saunders, Lewis, & Thornhill, 2023). The cross sectional survey is especially helpful in organisational behaviour research that addresses employee perceptions of their work environment and behaviour outcomes. Furthermore, the design allows the use of Structural Equation Modelling (SEM) which makes it possible to estimate the relations among latent constructs simultaneously and considering measurement error.

Population

The target population consisted of 3, 200 permanent staff of the Lagos State Internal Revenue Service (LIRS) which includes administrative and operational staff in all departments and units. Permanent employees were chosen for their relevant organisational experience and regular exposure to the digital work environment they would need in order to be able to provide informed responses to work engagement and public sector performance. The three stages of sample size determination and sample are given below.

Sample Size Determination and Sample

The sample size was calculated at 95% confidence level and a margin of error of 5% in accordance with Yamane (1967) formula.

$$n = \frac{N}{1+N(e)^2}$$

Where:

N= 3, 200 (population size)

E =0.05 (margin of error for 95% confidence level)

$$n = \frac{3, 200}{1+3, 200 (0.05)^2}$$

$$n = \frac{3,200}{1 + 3,200 (0.05)^2} = \frac{3,200}{1 + 8}$$

$$n = \frac{3,200}{1 + 9} = 355.6$$

Sample Size = 356

The sample size was then approximated to 356 respondents, which meets the minimum sample size criteria for Structural Equation Modelling (Hair et al., 2022).

Sampling Techniques

In order to get the good representation of employees across the department and functional units in LIRS, stratified random sampling technique was used. The population was initially segmented on the basis of departmental classifications and then a proportional random sampling method was employed to choose the respondents from each stratum of the population. In this way, the sampling bias is reduced and the representativeness of the sample is enhanced.

Instrumentation and Data Collection

In order to get the good representation of employees across the department and functional units in LIRS, stratified random sampling technique was used. The population was initially segmented on the basis of departmental classifications and then a proportional random sampling method was employed to choose the respondents from each stratum of the population. In this way, the sampling bias is reduced and the representativeness of the sample is enhanced.

Data collection involved use of structured questionnaire which was designed based on validated measurement scales from previous studies. The DWE (The Digital Work Environment) construct was assessed by adapting two existing digital workplace scales, which were created in the present day by Ribeiro et al. (2023) and Molino et al. (2024), respectively. The instrument evaluated workers' attitudes towards digital infrastructure, digital communication, and digital collaboration, as well as technological support. The Utrecht Work Engagement Scale (UWES-9) (Schaufeli, Bakker, & Salanova, 2006) was used to assess Work Engagement, which consists of three dimensions: vigour, dedication and absorption.

For the measurement of Public Sector Performance, the items were adapted from the current literature regarding public administration performance in the areas of service quality, service efficiency, responsiveness and productivity (Kim & Park, 2023; OECD, 2023).

Responses were rated on a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree).

Table 3.1 Operationalisation of Variables

Variable	Dimensions	Source
Digital Work Environment	Digital infrastructure, Digital communication, Digital collaboration, Digital support	Ribeiro et al. (2023); Molino et al. (2024)
Work Engagement	Vigour, Dedication, Absorption	Schaufeli et al. (2006)
Public Sector Performance	Service quality, Service efficiency, Responsiveness, Productivity	Kim & Park (2023); OECD (2023)

Validity and Reliability of the Instrument

Content validity was accomplished by expert judgment conducted by academics in human resource management, organisational behaviour and public administration. They made observations on the questionnaire which provided feedback for modifications to make the questionnaire clearer, more relevant and had better coverage of content. Confirmatory Factor Analysis (CFA) was used to evaluate construct validity and Average Variance Extracted (AVE) and Composite Reliability (CR) were used to assess convergent validity. Hair et al. (2022) set the standard of 0.50 for an acceptable AVE and 0.70 for CR. The reliability was evaluated by conducting a pilot study with respondents who were not part of the study population. Internal consistency was assessed through Cronbach's Alpha and Composite Reliability with the alpha values of 0.70 and above reserved for acceptable internal consistency.

Data Analysis Techniques

IBM SPSS Statistics Version 29 and AMOS Version 29 were used for data analysis, preliminary analysis, and for Structural Equation Modelling. The demographic characteristics of the respondents and their answers to the questionnaires were summarized using descriptive statistics such as frequencies, percentages, means and standard deviations. A two-stage analysis, as recommended by Hair et al. (2022), was conducted to test hypotheses, which involved the use of Structural Equation Modelling (SEM).

The first step was the Confirmatory Factor Analysis (CFA) to assess the measurement model using fit indices, factor loading, Composite Reliability (CR), Average Variance Extracted (AVE) and discriminant validity. The second stage was Structural Model Analysis where the hypothesized relationships between the latent constructs were estimated. The strength and significance of the structural relationships were tested using standardised path coefficients (β), Critical Ratios (CR), p-values and coefficients of determination (R^2). Hypotheses were all tested at the 0.05 level of significance.

Table 3.2 Data Analysis Plan

Research Objective	Statistical Technique
Digital Work Environment → Work Engagement	Structural Equation Modelling (SEM)
Work Engagement → Public Sector Performance	Structural Equation Modelling (SEM)

Ethical Considerations

Approval was sought from the relevant officials of the Internal Revenue Service, Lagos State (LIRS), before data collection was started. The participation was voluntary and the respondents were well-informed about the purpose of the study. Questionnaire administration was preceded by informed consent. The respondents were assured that the information gathered would be anonymous, confidential and for academic research purposes only. The participants were told that they have the right to refuse to participate in the study and withdraw from it without any repercussions. The study was conducted in accordance with the ethical standards for conducting research with human research participants, such as respect for human research participants' autonomy, confidentiality and responsible management of human research participants' research data.

RESULTS

The findings from the statistical analyses carried out to investigate the correlation between the digital work environment, work engagement and public sector performance in the Lagos State Internal Revenue Service (LIRS) are presented in this section. The collected data were analysed using AMOS Version 29 and IBM SPSS Statistics Version 29. Demographic characteristics of respondents were first summarized using descriptive statistics and then the measurement model was tested and the hypothesized structural

relationships were evaluated by employing Structural Equation Modelling (SEM). The measurement model was evaluated using Confirmatory Factor Analysis (CFA) before the hypothesis testing, in order to guarantee the construct validity and reliability of the measurement model. The standardised path coefficient (β), Critical Ratio (CR), coefficient of determination (R^2) and probability values (p-value) were then used for estimating the structural model. Hypotheses were all tested at 0.05 level of significance.

Hypothesis One

H₁: The digital work environment has a significant positive effect on work engagement in the Lagos State Internal Revenue Service (LIRS).

Table 4.1 Structural Path Result for Digital Work Environment and Work Engagement

Structural Path	Standardised β	S.E.	C.R.	p-value	Decision
Digital Work Environment → Work Engagement	0.683	0.054	12.746	0.000	Supported

$$R^2 = 0.46$$

Interpretation

The results of the structural modelling showed that a positive and statistically significant relationship existed between the digital work environment and work engagement of employees of the Lagos State Internal Revenue Service (LagonisIRS) ($\beta = 0.683$, C.R. = 12.746, $p < 0.001$). The findings indicate that the digital infrastructure, the digital communication, collaborative technologies and technological support are all significant factors in improving employees' vigour, dedication and absorption. The coefficient of determination ($R^2 = 0.467$) shows that 46.7% of the variance of work engagement can be attributed to the digital work environment. This is significant explanatory power, as the perception of the digital workplace has proven to be an important factor in employees' psychological engagement. Therefore, the hypothesis was proven because creation of enabling digital work environment has a significant effect on work engagement in the Lagos State Internal Revenue Service, which makes the hypothesis one supported.

Hypothesis Two

H₂: Work engagement has a significant positive effect on public sector performance in the Lagos State Internal Revenue Service (LIRS).

Table 4.2 Structural Path Result for Work Engagement and Public Sector Performance

Structural Path	Standardised β	S.E.	C.R.	p-value	Decision
Work Engagement → Public Sector Performance	0.741	0.049	15.124	0.000	Supported

$$R^2 = 0.549$$

Interpretation

The results showed that there was a positive and statistically significant relationship between work engagement and public sector performance in the Lagos State Internal Revenue Service ($\beta = 0.741$, C.R. = 15.124, $p < 0.001$). This means that staff who show more vigour, dedication and absorption will likely better

deliver quality services, enhance operational efficiency, meet taxpayers' needs quickly, and be more productive. The coefficient of determination, $R^2 = 0.549$ indicates that 54.9% of the variance in public sector performance is explained by work engagement. Again, the size of the standardised coefficient indicated that work engagement is a significant predictor of organisational effectiveness in the context of digitally enabled work in LIRS. So, Hypothesis Two is accepted: There is a positive relationship between employee engagement and public sector performance that is significant.

SUMMARY OF FINDINGS

The data of the Structural Equation Modelling analysis support the conceptual framework proposed. First, the findings show that working in a digital environment has a significant positive effect on work engagement, meaning that employees in supportive digital work environments, defined as environments with effective technological infrastructure, digital communication systems, collaborative work systems, and organisations that support digital systems, show higher levels of vigour, dedication and absorption. Second, the study finds that work engagement significantly impacts on public sector performance, thus, it means that work-engaged employees are more effective in the community service of the Lagos State Internal Revenue Service in relation to service quality, operational efficiency, responsiveness and productivity.

The results validate the notion that digital workplace investments must be made with an understanding that they need to engage the employees to trigger organisational performance improvement. The findings support the Job Demands-Resources (JD-R) Theory which suggests that the motivational process of employees is triggered by organisational resources that in turn improves organisational performance. The results obtained support the empirical evidence that the strengthening of digital work environment can be a strategic tool to boost employee engagement and improve the performance of public sector in organisations undergoing digital transformation like Lagos State Internal Revenue Service (LIRS).

DISCUSSION OF FINDINGS

This part relates the findings of the study to the research objectives, hypotheses, the literature reviewed and the theoretical framework. The digital work environment and its effect on work engagement and the impact of work engagement on the performance of public service in the Lagos State Internal Revenue Service (LIRS) is focused on.

Digital Work Environment and Work Engagement

The first goal focused on the impact of the digital work environment on work engagement among the Lagos State Internal Revenue Service (LIRS). The findings of the Structural Equation Modelling (SEM) results indicated that the work environment in the digital world was found to have a positive and statistically significant effect on employees' work engagement. The development of digital infrastructure, communication technologies, collaborative technologies and technological support increased employees' vigour, commitment and absorption, suggesting that a supportive digital workplace fosters employees' commitment, resilience and psychological attachment to work.

The current finding is in line with the Job Demands-Resources (JD-R) Theory, which suggests that organisational resources can spark employee motivation, increase work engagement, and boost organisational outcomes (Bakker & Demerouti, 2023). This study has demonstrated that the digital working environment was a helpful organisational tool for communication, collaboration, sharing knowledge and task performance. The discovery is also consistent with the Technology Acceptance Model (TAM) which suggests that so long as employees consider digital technologies to be useful and easy to use, they will be more likely to accept and embrace them (Venkatesh et al., 2016; Davis, 1989). Combined, the JD-R Theory and TAM account for how supportive digital workplace conditions facilitate employee engagement.

The outcome aligns with the findings of Ribeiro, Duarte, Filipe, and Torres de Oliveira (2023) that digital transformation contributed to better communication and employee collaboration, facilitating employee engagement. Likewise, Molino, Ghislieri, Cortese and Colombo (2024) found that supportive digital

working environments contributed to the psychological well-being of employees and their commitment to work, while Aboramadan, Albashiti, Alharazin and Zaidoune (2022) showed that organisational resources were very significant for employee engagement in public organisations. This study is, however, not without strength as it supplements earlier studies with empirical evidence from the digitally transformed public revenue agency in Nigeria. It implies that investments on digital need to be accompanied by employee training, organizational support and developing digital skills to maximize work engagement.

Work Engagement and Public Sector Performance

The second aim reviewed the relationship between work engagement and Public Sector performance in Lagos State Internal Revenue Service. The results showed that, the effect of work engagement on public sector performance is positive and significant. Higher vigour, dedication and absorption levels were strongly linked to higher service quality, operational efficiency, responsiveness and productivity, as well as higher commitment to organisational goals and taxpayers needs, with the resulting contribution to these goals.

The discovery empirically supports the motivational mechanism in the Job Demands-Resources (JD-R) Theory, which suggests that when workers have sufficient organisational resources, they get involved and show better performance (Bakker & Demerouti, 2023). It is also aligned with Saks (2022) who found that employee work engagement is a significant predictor of employee effectiveness and organisational success. Staff go above and beyond their job description, are open to new ideas, team up with others and enhance service provision.

The results are consistent with the conclusions of Knight, Patterson and Dawson (2024) that work engagement is consistently associated with employee performance in occupations. In the same way, Kim and Park (2023) observed that engaged public employees exhibited higher levels of organisational commitment, responsiveness and service quality, and Aboramadan (2022) indicated that there was a positive link between work engagement and organisational effectiveness. This study has extended this findings by establishing the relationship within the Digitally transformed Lagos State Internal Revenue Service (IRS). The findings indicate that, to enhance public sector performance and organizational effectiveness, public organizations need to strengthen employee engagement by fostering a culture of supportive leadership, continuous learning, employee recognition, development of digital competency and initiatives for employee well-being.

CONCLUSION

From the result of this study, it is concluded that the digital work environment and work engagement are significant factors affecting public sector performance in Internal Revenue Service, Lagos State (LIRS). It has been found that a supportive digital work environment with effective digital infrastructure, communication technologies, collaborative platforms and technological support is a major factor in improving employees' work engagement. Moreover, those workers with higher vigour, dedication and absorption levels make a greater contribution to the organisation's service quality, efficiency, responsiveness and productivity. The results indicate that the resources of digital workplace reach their optimum organizational effect when they promote employees' psychological involvement and commitment.

The results support propositions of the Job Demands–Resources (JD-R) Theory which states that organisational resources stimulate employees and improve work engagement, which in turn increases organisational performance. These also help validate the Technology Acceptance Model (TAM), which shows that positive experiences with digital technologies have a positive effect on employee engagement and work outcomes. The study thus finds that digital transformation is not just a technological intervention but a continuous process within the organisation that needs to be supported by other investments in employee engagement, digital competences, organisational support and continuous capacity development. PSEs that are effective in embedding digital workplace projects into employee-centred management are more likely to see lasting service delivery and institutional improvements. Therefore, it is prudent to strengthen the digital work environment and boost employee engagement is an effective solution to improve the public sector performance in the Lagos State Internal Revenue Service and other digitally transforming public sector institutional entities.

RECOMMENDATIONS

The recommendations made in this study is that Lagos State Internal Revenue Service (LIRS) should focus on creating a strong digital work where employees can be engaged in the work and performance of public services will be enhanced. Management should ensure that there is a continuous investment in modern digital infrastructure, reliable information systems, secure digital platforms, and efficient communication technologies to enable smooth workflows, collaboration, and service delivery. It's also crucial that regular technical support and system upgrades are provided so workers can access digital technologies to do their jobs.

Moreover, LIRS should adopt a holistic approach to employee engagement, promoting vigour, commitment and absorption. This can be done by ongoing digital skills development, staff engagement in decision making, a leadership framework that supports digital skills, recognition and reward schemes, and professional development. This will boost staff engagement in the organisation's mission and increase their motivation and mind-set to be emotionally connected to their work.

The management should also cultivate an environment in the digital workplace where people innovate, share knowledge, collaborate and learn continuously. To reduce digital fatigue and the resistance to new technologies, policies that encourage employee well-being, work-life balance and flexibility regarding technology should be institutionalized. LIRS will be able to enhance the quality of services, operational efficiency, response and in general the performance of public services, while maintaining the excellence of the organisation in the context of a new public service in the digital era, by linking with the implementation of digital transformation projects and the implementation of human resources policies centred on the employee.

Limitations of the Study and Directions for Future Research

This study builds on existing literature on digital work environment, work engagement and public sector performance, but there are a few limitations to note. The study used a cross sectional survey design, resulting in an assessment of respondents' perception at a single time point. This means the results of the study do not allow for long-term causal relationships to be inferred between the study variables. Longitudinal studies are recommended to further explore the relationship between the digital environment and employee engagement and performance overtime.

It was limited to the Lagos State Internal Revenue Service (LIRS). Although LIRS is one of the most digitally transformed public sector institutions in Nigeria, the results might not be applicable to other public sector institutions that have different organizational structures, technological capacities, and administrative environments. To enhance external validity, the model should be replicated in other government agencies, ministries and state revenue authorities so that it can be tested elsewhere.

Lastly, this study examined direct links between the digital work context, work engagement, and performance in the public sector. Further studies may involve the incorporation of further mediators or moderators like digital leadership, organisational culture, digital competence, employee resilience, technostress, innovation climate and organisational support. These investigations would enable a more detailed understanding of the behavioural processes underpinning the impact of digital transformation on the performance of an organisation in the public sector.

REFERENCES

1. Aboramadan, M. (2022). The effect of servant leadership on employees' work outcomes in the public sector: The mediating role of work engagement. *International Journal of Public Administration*, 45(16), 1267-1280.
2. Aboramadan, M., Albashiti, B., Alharazin, H., & Zaidoune, S. (2022). Human resource management practices and public sector performance: The mediating role of employee engagement. *International Journal of Public Administration*, 45(11), 849-861.

3. Adeosun, O. T., & Adegbola, O. (2023). Digital transformation and public sector service delivery in Nigeria. *African Journal of Public Administration*, 15(2), 87-104.
4. Al-Emran, M., Arpaci, I., & Salloum, S. A. (2023). Technology acceptance in digital workplaces: Recent developments and future research directions. *Information Systems Frontiers*, 25(2), 623-641.
5. Alfes, K., Shantz, A., & Bailey, C. (2023). Work engagement and employee performance: Contemporary perspectives and future directions. *Human Resource Management Review*, 33(4), 100954.
6. Andrews, R., Boyne, G. A., & Walker, R. M. (2022). Public management and performance: Research directions for the digital era. *Public Management Review*, 24(8), 1121-1140.
7. Bakker, A. B., & Albrecht, S. L. (2022). Work engagement: Current trends. *Career Development International*, 27(1), 4-11.
8. Bakker, A. B., & Demerouti, E. (2023). The job demands–resources theory: Ten years later. *Annual Review of Organizational Psychology and Organizational Behavior*, 10, 25-53.
9. Baptista, J., Stein, M. K., Klein, S., Watson-Manheim, M. B., & Lee, J. (2022). Digital work and organisational transformation: Emerging issues and future research directions. *Journal of the Association for Information Systems*, 23(4), 845-878.
10. Baptista, J., Stein, M. K., Klein, S., Watson-Manheim, M. B., & Lee, J. (2022). Digital work and organisational transformation: Emerging issues and future research directions. *Journal of the Association for Information Systems*, 23(4), 845-878.
11. Batary Citta, A., Nurdin, H., & Muchsin, W. (2026). Work from anywhere and public service responsiveness in Indonesia: The Mediating Mechanisms of Employee Engagement and Performance. *F1000Research*, 15, 1193. <https://doi.org/10.12688/f1000research.184616.1> (F1000Research)
12. Bryson, J. M., Crosby, B. C., & Bloomberg, L. (2023). *Public value governance: Moving beyond traditional public administration and the new public management*. Routledge.
13. Califf, C. B., & Brooks, S. (2024). Technostress in the digital workplace: A systematic review and future research agenda. *Information Systems Journal*, 34(1), 75-109.
14. Cepiku, D., & Mastrodascio, M. (2021). Leadership, organisational resilience and public value creation. *Public Management Review*, 23(12), 1769-1791.
15. Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage.
16. Davis, F. D. (1986). A technology acceptance model for empirically testing new end-user information systems: Theory and results (Doctoral dissertation, Massachusetts Institute of Technology).
17. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340.
18. Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The Job Demands–Resources model of burnout. *Journal of Applied Psychology*, 86(3), 499-512.
19. Dwivedi, Y. K., Hughes, L., Ismagilova, E., Aarts, G., Coombs, C., Crick, T., ... & Williams, M. D. (2023). So what if ChatGPT wrote it? Multidisciplinary perspectives on opportunities, challenges and implications of generative conversational AI for research, practice and policy. *International Journal of Information Management*, 71, 102642.
20. Dwivedi, Y. K., Hughes, L., Ismagilova, E., et al. (2023). *International Journal of Information Management*, 71, 102642.
21. Guest, D. E. (2022). Human resource management and employee well-being: Towards a new analytic framework. *Human Resource Management Journal*, 32(2), 245-263.
22. Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A primer on partial least squares structural equation modeling (PLS-SEM)* (3rd ed.). Sage.
23. Ikiba, M. A., Gambo, N., & Ogedengbe, F. A. (2026). The moderating role of work environment on training and development and employee engagement in the nigerian federal inland revenue service. *ShodhKosh: Journal of Visual and Performing Arts*, 7(7s). <https://doi.org/10.29121/shodhkosh.v7.i7s.2026.7845> (Granthaalayah Publication)

24. Kim, S. (2022). Public service motivation and work engagement in public organizations: A review of recent evidence. *Public Personnel Management*, 51(4), 487-506.
25. Kim, S., & Park, S. M. (2023). Public service motivation, work engagement and organisational performance: Evidence from public organisations. *Public Personnel Management*, 52(3), 356-379.
26. Kim, S., Fan, B., Yang, W. Y., Ramey, J., Fox, S. E., Zhu, H., Zimmerman, J., & Eslami, M. (2024). Public technologies transforming work of the public and the public sector. *arXiv*. <https://arxiv.org/abs/2405.18579> (arXiv)
27. Knight, C., Patterson, M., & Dawson, J. (2024). *Human Resource Management Review*, 34(1), 101012.
28. Lagos State Government. (2025). Lagos State records over ₦1 trillion internally generated revenue. Lagos State Government.
29. Lehmann, J., & Beckmann, M. (2024). Digital technologies and performance incentives: evidence from businesses in the swiss economy. *arXiv*. <https://arxiv.org/abs/2412.12780> (arXiv)
30. Lestari, F. M., & Hadijah, H. S. (2025). A Model for Improving Public Service Performance Through Strengthening Digital Competence and Employee Engagement in Local Government Agencies. *Jurnal Manajemen Pelayanan Publik*, 2(2), 121-129
31. Marangunić, N., & Granić, A. (2021). Technology Acceptance Model: A literature review from 1986 to 2020. *Universal Access in the Information Society*, 20(4), 985-1007.
32. Mergel, I., Ganapati, S., & Whitford, A. B. (2021). Agile: A new way of governing. *Public Administration Review*, 81(1), 161-165.
33. Molino, M., Ghislieri, C., Cortese, C. G., & Colombo, L. (2024). Digital work environments, employee well-being and work engagement: Emerging perspectives. *International Journal of Environmental Research and Public Health*, 21(2), 1154.
34. Montani, F., & Staglianò, R. (2022). Innovation climate, work engagement and employee performance: A resource-based perspective. *European Management Journal*, 40(5), 769–781.
35. Naqshbandi, M. M., Kabir, I., Ishak, N. A., & Islam, M. Z. (2024). The future of work: work engagement and job performance in the hybrid workplace. *The Learning Organization*, 31(1), 5-26.
36. National Information Technology Development Agency. (2024). Nigeria digital economy and e-government implementation report. NITDA.
37. Nwankwo, C. U., & Kanu, S. I. (2024). Digital innovation and employee performance in Nigeria's public sector. *Journal of African Business*, 25(1), 112-131.
38. OECD. (2023). *Government at a Glance 2023*. OECD Publishing.
39. Organisation for Economic Co-operation and Development (OECD). (2023). *Digital government review: Strengthening public sector digital transformation*. OECD Publishing.
40. Organisation for Economic Co-operation and Development. (2023). *Government at a glance 2023*. OECD Publishing.
41. Organisation for Economic Co-operation and Development. (2024). *Tax administration 2024: Comparative information on OECD and other advanced and emerging economies*. OECD Publishing.
42. Rahi, S. (2022). Investigating the role of technology acceptance in digital public services: An integrated TAM perspective. *Government Information Quarterly*, 39(4), 101722.
43. Ribeiro, N., Duarte, A. P., Filipe, R., & Torres de Oliveira, R. (2023). Digital transformation, employee experience and work engagement: Evidence from knowledge-intensive organisations. *European Management Journal*, 41(6), 902-914.
44. Saks, A. M. (2022). Caring human resources management and employee engagement. *Human Resource Management Review*, 32(3), 100835.
45. Saunders, M., Lewis, P., & Thornhill, A. (2023). *Research methods for business students* (9th ed.). Pearson.
46. Schaufeli, W. B. (2021). Engaging leadership: How to promote work engagement? *Frontiers in Psychology*, 12, 754556.
47. Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire: A cross-national study. *Educational and Psychological Measurement*, 66(4), 701–716.

48. Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two-sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3(1), 71-92.
49. Tarafdar, M., Cooper, C. L., & Stich, J. F. (2022). The technostress trifecta: Technology, work, and employee well-being. *Information Systems Journal*, 32(1), 6-42.
50. United Nations. (2024). United Nations E-Government Survey 2024: Accelerating digital transformation for sustainable development. United Nations.
51. Van Dooren, W., Bouckaert, G., & Halligan, J. (2024). *Performance management in the public sector* (4th ed.). Routledge.
52. Venkatesh, V., Thong, J. Y. L., & Xu, X. (2016). *Journal of the Association for Information Systems*, 17(5), 328–376.
53. Vial, G. (2021). Understanding digital transformation: A review and a research agenda. *Journal of Strategic Information Systems*, 30(2), 101684.
54. Wiyono, D., Dewi, D. A., Ambiapuri, E., Parwitasari, N. A., & Hambali, D. S. (2025). Strategic esg-driven human resource practices: transforming employee management for sustainable organizational growth. *arXiv*. <https://arxiv.org/abs/2505.08201> (arXiv)
55. Yamane, T. (1967). *Statistics: An introductory analysis* (2nd ed.). Harper & Row.
56. Yunus, A., Qadri, M. N., & Hakim, A. (2026). From Digital Infrastructure to Employee Performance in Public Sector Transformation. *Journal of Business Studies and Management Review*, 9(2). <https://doi.org/10.22437/jbsmr.v9i2.57891> (online-journal.unja.ac.id)
57. Zhan, X., & Xie, S. (2025). Linking workplace digitalization to work engagement: evidence from China public sector organizations. *Frontiers in Psychology*, 16, 1455250. <https://doi.org/10.3389/fpsyg.2025.1455250> (Frontiers)