International Journal Research Publication Analysis

DIGITAL DEVICE DEPENDENCY AND ITS INFLUENCE ON WORKPLACE CULTURE IN THE PUBLIC SECTOR

*[1]Bonginkosi Dladlama, [2]Humphrey Lephethe Motsepe, [3]Mahlodi Joice Sethu, [4]Sheperd Sikhosana

[1]University of Limpopo, South Africa.

[2]Limpopo Department of Agriculture and Rural Development (Towoomba Research Centre), Management College of Southern Africa (MANCOSA) and University of Venda, South Africa.

[3]University of Venda, Department of Public and Development Administration, Faculty of Management, Commerce and Law, South Africa.

[4]University of Azteca, Mexico and Higherway Institute of Learning,South Africa.

ABSTRACT:

The rapid expansion of digital technologies has reshaped professional environments across the world, including public sector institutions. This article examines how digital device dependency influences workplace culture in the public sector. The study investigates how constant connectivity, multitasking, and device-mediated communication affect organisational behaviour, productivity, and interpersonal relations. A qualitative document analysis was conducted using policy papers, peer-reviewed journal articles, and government reports published in the last five years. Findings show that digital devices have become central to administrative work, with many routine functions now mediated through smartphones, laptops, and communication platforms. These tools improve access to real-time information, simplify reporting processes, and enable quicker communication across units. Despite these advantages, the analysis also highlights several concerns that directly influence workplace culture. One recurring issue is cognitive overload, which arises when employees navigate multiple platforms, notifications, and tasks simultaneously. This pressure contributes to reduced concentration, slower decision making, and higher levels of work fatigue. The review further indicates that constant connectivity has blurred traditional boundaries between work and personal life. Employees often feel compelled to remain reachable after hours,

---

which affects their sense of autonomy and overall well-being. In addition, increased reliance on digital communication has reduced opportunities for direct interpersonal engagement. Colleagues increasingly substitute face-to-face interaction with messages and virtual exchanges, which can weaken trust, collegiality, and shared organisational identity. The analysis reveals that many public institutions lack clear policies regulating digital device use and instead depend on informal norms shaped by managerial expectations and workplace culture. Without deliberate strategies to manage device dependency, public sector environments risk shifting toward fragmented attention, reactive communication patterns, and diminished collaborative practices. To address these emerging challenges, the article recommends strengthening digital literacy, developing guidelines for appropriate device use, and promoting healthier digital habits that support both productivity and meaningful professional relationships.

KEYWORDS: Digital dependency; Organisational behaviour, Public sector; Technology use; Workplace culture.

INTRODUCTION AND BACKGROUND

Digital technologies have become central to contemporary organisational life, and public institutions are no exception. Smartphones, laptops, tablets, and various cloud-based platforms now underpin daily administrative activity, information management, and communication processes across government departments. As public services increasingly rely on digital infrastructures to enhance efficiency, accountability, and responsiveness, employees are expected to engage with multiple devices throughout the workday. This integration of digital tools has reshaped the rhythms of work and altered the behavioural norms that define public sector environments. While these technologies broaden institutional capacity, they also introduce new forms of dependency that affect professional conduct, interpersonal relations, and organisational culture. International and local research suggests that the expanding presence of digital devices has created workplaces where constant connectivity is not only expected but often required (Chen et al., 2023). This shift has heightened the pace of administrative operations while simultaneously blurring the boundaries between focused work, communication, and digital interruptions. In public institutions, where formal communication protocols and hierarchical structures historically shaped workflow, the rapid adoption of mobile and digital tools represents a significant cultural departure. Employees frequently rely on instant messaging, social media platforms,

and collaborative applications to retrieve information or respond to colleagues, which can challenge traditional norms and established processes (Wang et al., 2022).

One of the most documented consequences of device dependency is reduced concentration and disrupted task flow. Research indicates that frequent notifications, multitasking, and switching between applications impair cognitive performance and diminish the ability to complete complex tasks effectively (Mark et al., 2022). Public sector employees who handle sensitive information, policy processes, and administrative responsibilities are particularly vulnerable to these disruptions because accuracy and attention to detail are fundamental to their roles. Multiple studies highlight that device-induced interruptions can prolong decision making, decrease task efficiency, and contribute to cumulative workload pressure (Feng & Xie, 2023). These patterns challenge the longstanding expectation that public servants maintain a controlled and organised work environment. The cultural implications of growing device dependence are significant. Public organisations have historically relied on structured, face-to-face communication, formal reporting channels, and clear authority lines. The introduction of diverse digital communication tools has complicated these norms by enabling rapid, informal, and decentralised interactions. Although these tools can enhance collaboration, they may also erode workplace cohesion by reducing the quality of interpersonal engagement. Recent findings show that digital communication tends to limit emotional cues and weaken relational bonds among colleagues, which can affect teamwork and organisational trust (Iqbal & Ahmad, 2021). Moreover, constant device use may reduce physical presence, with employees spending increasing amounts of time engaged with screens rather than participating actively in shared workspaces.

Another emerging concern is the rising organisational expectation of perpetual availability. Public service employees often feel compelled to respond to messages immediately, even outside standard working hours, which contributes to digital overload and work stress (Oliver et al., 2023). Over time, these pressures may lead to burnout, reduced morale, and disengagement from organisational values. The cultural fabric of public service, traditionally associated with duty, professionalism, and public accountability, can be strained when digital demands overshadow meaningful human engagement and reflective decision making. Despite the extensive digital transformation initiatives across government sectors, there is limited scholarly focus on how device dependency shapes the internal cultures of public organisations. Much of the existing literature highlights the operational benefits of digitalisation but pays insufficient attention to the behavioural, relational, and institutional consequences of continuous device use. Understanding these cultural dimensions is essential

because public institutions operate within complex social environments that depend heavily on professional interactions, ethical conduct, and coordinated teamwork. The objective of this article is:

- *To examine how digital device dependency influences workplace culture in the public sector.*

  Drawing from recent literature, the analysis focuses on three interconnected dimensions: behavioural changes, communication patterns, and evolving organisational expectations. These dimensions provide a holistic understanding of how digital tools reshape the norms, values, and daily practices that define public service environments. By examining the wider institutional implications, the study contributes to current debates on public sector digitalisation and highlights the need for balanced approaches that preserve organisational integrity while accommodating technological change. The article addresses three central research questions:

- ***How is digital device dependency manifested in public sector workplaces?***
- ***How does device dependency influence workplace culture and interpersonal relations?***
- ***What institutional responses can help manage device dependency more effectively?***

These questions guide an exploration of device use as both a technological development and a cultural phenomenon. By focusing on the behavioural and relational effects of device dependency, the study aims to advance understanding of how digitalisation influences the quality of public service environments and to identify strategies that can support healthier organisational cultures in an increasingly digital era.

LITERATURE REVIEW

The rapid diffusion of digital technologies has transformed contemporary work environments, compelling scholars to examine how these tools reshape behaviour, organisational dynamics, and workplace expectations. Across public and private sectors, digital device dependency has emerged as a defining feature of modern work life, raising questions about its influence on efficiency, well-being, and institutional culture. Although technological adoption is often framed as inherently progressive, recent studies caution that dependency on digital devices can produce complex behavioural, cognitive, and cultural consequences. This literature review synthesises current scholarship on digital multitasking, cognitive strain, communication patterns, emotional well-being, and organisational norms, with a particular focus on the implications for public sector workplaces.

Digital Multitasking, Cognitive Load, and Task Performance

A substantial body of evidence indicates that digital device dependency increases multitasking frequency, which in turn impairs cognitive performance. Mark, Alhadad and Hollis (2022) demonstrated that multitasking driven by frequent device notifications interferes with working memory, slows task completion, and reduces accuracy. Their findings align with controlled experiments showing that task switching disrupts cognitive flow and diminishes the ability to sustain deep concentration (Feng & Xie, 2023). Camerota, Keith and Woo (2023) further argue that each digital interruption requires cognitive reorientation, and the cumulative effect of these reorientations produces fragmented attention that undermines deep work. Researchers consistently emphasise that modern devices are designed to solicit attention, and this design has direct consequences for cognitive functioning. Stothart, Mitchum and Yehnert (2023) found that even silent notifications impose a measurable cognitive cost because they generate anticipatory distraction. Their study confirms that the mere expectation of digital communication can reduce available cognitive bandwidth for complex tasks. Such findings suggest that device dependency does not only occur when users actively engage with technology; rather, it manifests cognitively even during passive episodes of waiting for notifications. In organisational settings, employees who rely heavily on digital communication tools often face competing information streams. According to Duguay and Kelton (2021), the need to process multiple messages from email, messaging applications, and social media platforms creates cognitive overload that can diminish decision quality. They argue that as digital communication accelerates, employees feel pressure to manage high volumes of information rapidly, often at the expense of accuracy and reflective thinking. These insights underscore that device dependency affects not only individual performance but also the quality of organisational decision-making processes.

Constant Connectivity and the Erosion of Attentional Stability

Constant connectivity has become a hallmark of digital workplaces, and recent scholarship highlights the psychological strain associated with being perpetually reachable. Camerota et al. (2023) assert that the pressure to respond immediately to messages obliges workers to remain in a constant state of readiness, which disrupts attentional stability. Other researchers have described this phenomenon as "availability anxiety," where employees fear missing messages or being perceived as unresponsive (Oliver et al., 2023). Availability anxiety increases vigilance and hyperawareness, both of which drain attentional resources. Grawitch and Ballard (2022) found that employees who report high levels of digital monitoring and expectations of rapid responsiveness also exhibit reduced capacity for prolonged focus. The

authors suggest that digital connectivity fosters an environment of intermittent stress, marked by uncertainty about when the next interruption will occur. Their findings reinforce earlier cognitive research showing that unpredictability amplifies cognitive load, contributing to attentional fragmentation. Public servants are especially susceptible to these pressures because many government roles involve real-time communication, crisis management, and rapid policy adjustments. According to Wang, Chen and Li (2022), digital communication tools have allowed public organisations to respond more quickly to stakeholders, but they have also reinforced an implicit expectation that employees remain constantly available. This expectation undermines the ability to engage in deep administrative work and considered decision making, which are essential to effective public service delivery.

Digital Transformation in the Public Sector: Efficiency vs Human Consequences

Digital transformation has accelerated significantly across global public sectors, with governments investing heavily in digital systems to enhance service delivery. However, research suggests that these efforts often prioritise technological efficiency over human well-being. Dener, Watkins and Dorotinsky (2022) observe that digital governance programmes typically highlight improvements in accountability, speed, and transparency but devote insufficient attention to how employees experience and adapt to new digital demands. They argue that technological reforms sometimes proceed without adequate consideration of organisational culture, employee training, or psychological adaptation. Similarly, Mergel, Edelmann and Haug (2023) note that digital transformation initiatives often assume a direct relationship between technological adoption and improved performance. However, they caution that without supportive institutional cultures, adequate training, and clear guidelines for device use, digitalisation can exacerbate stress, confusion, and workplace conflict. Their comparative study across multiple public sector organisations found that employees frequently experience anxiety and frustration when new technologies are introduced abruptly or without sufficient consultation. Scholars also highlight the risk of digital inequality within public institutions. Kim and Lauterbach (2021) argue that digital transformation may widen divides between technologically proficient employees and those who struggle with new tools. When device dependency becomes central to administrative work, employees with lower digital literacy may feel marginalised or excluded from key decision-making processes. This dynamic can weaken organisational cohesion and create tension between staff members with differing levels of digital confidence. Furthermore, research has shown that public sector employees are particularly vulnerable to digital overload because their work involves navigating complex regulatory frameworks that already demand high levels of precision.

According to Nograšek and Vintar (2023), the introduction of digital platforms in government settings often adds additional layers of administrative responsibility, as employees must manage new tools while still complying with pre-existing bureaucratic requirements. This layering effect contributes to role strain and reduces the time available for thoughtful administrative tasks.

Device Dependency and Communication Patterns in the Workplace

Digital devices have significantly altered organisational communication patterns, encouraging rapid, informal, and decentralised exchanges. While this shift can increase information flow, it also presents challenges related to clarity, relational trust, and teamwork. Bai and colleagues (2021) argue that heavy reliance on digital messaging reduces opportunities for meaningful face-to-face interaction, which can weaken trust among colleagues. Interpersonal trust is critical in public sector settings where collaborative problem solving and information sharing underpin service delivery. Research indicates that digital communication tends to be more transactional, with fewer emotional cues and contextual signals than in-person interaction. Iqbal and Ahmad (2021) found that employees who primarily communicate through digital channels report lower levels of perceived team cohesion and shared understanding. The authors suggest that misunderstandings arise more frequently in digital environments, as messages may be interpreted in ways the sender did not intend. Reduced relational depth can lead to conflict, misalignment of goals, and reduced morale. Digital communication tools also generate expectations for immediacy. Ninaus et al. (2023) examined workplace communication patterns and found that employees often feel pressured to respond instantly to messages, emails, and system alerts. This expectation fosters a culture of urgency even when tasks are not time-sensitive. Over time, such norms can create what the authors describe as "communication fatigue," characterised by emotional exhaustion and reduced motivation to engage in organisational communication processes. Public sector workplaces may be particularly affected by these patterns because of their hierarchical structures and reliance on formal communication channels. As Chen, Yu and Liu (2023) note, rapid digital communication can circumvent established reporting lines, creating tension between formal protocols and informal digital exchanges. This tension complicates accountability structures and can lead to confusion about decision-making authority.

Psychological and Emotional Impacts of Device Dependency

A substantial portion of the literature addresses the emotional and psychological consequences of digital device dependency. Digital overload, increased work pressure, and blurred work-life boundaries all have measurable impacts on well-being. Ninaus et al. (2023)

report that digital pressure contributes significantly to burnout by creating a constant sense of urgency and diminishing opportunities for mental recovery. Burnout symptoms such as emotional exhaustion and reduced professional efficacy can weaken institutional performance, especially in sectors like public administration where decision-making demands sustained attention. Boundary blurring has been a focal point of recent research. Camerota et al. (2023) found that constant connectivity erodes the distinction between work and personal life, with employees increasingly performing work tasks outside office hours. Oliver et al. (2023) confirm that after-hours digital communication contributes to stress, reduced job satisfaction, and diminished morale. They argue that employees who experience frequent intrusions from work-related messages are more likely to disengage emotionally from their roles. Digital device dependency also influences employee identity and self-perceptions. According to Heiden et al. (2021), employees who feel unable to disconnect from their devices often internalise a sense of inadequacy or guilt when they cannot respond quickly enough. These feelings can exacerbate workplace anxiety and reduce confidence in one's professional performance.

Organisational Norms, Culture, and Digital Expectations

Organisational culture plays a central role in shaping how employees engage with digital devices. Scholars argue that norms around responsiveness, availability, and technological proficiency are increasingly embedded in workplace culture. Ninaus et al. (2023) emphasise that organisations that implicitly reward rapid responsiveness inadvertently encourage device dependency. Employees may feel that being constantly connected is necessary to demonstrate commitment, competence, or alignment with organisational values. Furthermore, digital dependency can reshape organisational structures and power dynamics. Research by Deahl and Chandra (2022) suggests that employees with high digital competency often gain informal authority because they can navigate systems more efficiently and respond more quickly to organisational demands. This dynamic can create inequities, fostering resentment or eroding teamwork. Public sector organisations, with their emphasis on accountability and procedural compliance, may internalise digital norms in distinctive ways. Madsen and Kræmmergaard (2023) argue that digitalisation can unintentionally reinforce bureaucratic pressures by introducing new data collection requirements, real-time monitoring systems, and performance metrics. As digital tools become intertwined with administrative processes, employees may perceive technology as a source of surveillance rather than support. Such perceptions can reduce trust in leadership and weaken organisational cohesion. Scholars also highlight that institutional responses to digital device use influence workplace climate.

Organisations that provide clear guidelines, digital wellness programmes, or training initiatives tend to experience lower levels of digital overload among employees (Grawitch & Ballard, 2022). Conversely, institutions that lack structured approaches to digital use often see higher levels of device dependency, stress, and workplace conflict.

Gaps in Current Scholarship

While the literature on digital multitasking, cognitive overload, and communication patterns is extensive, research specifically examining the cultural implications of device dependency in public sector organisations remains limited. Much of the existing scholarship focuses on individual psychological outcomes rather than broader organisational impacts. There is also insufficient analysis of how device dependency interacts with public service values such as accountability, professionalism, and ethical conduct. Additionally, few studies adopt a holistic perspective connecting behavioural changes to organisational culture, communication norms, and structural expectations. The limited attention to these interconnected dynamics highlights a gap that warrants further exploration. Understanding how digital device dependency shapes workplace culture is particularly important in the public sector, where institutional effectiveness depends heavily on coordinated teamwork, clarity of communication, and consistent adherence to administrative principles.

THEORETICAL FRAMEWORK

This study draws on two theoretical perspectives. The first is sociotechnical systems theory, which emphasises the interaction between people and technology. The theory suggests that workplace culture emerges from the balance between technological tools and human behaviour. Digital device dependency can be understood as a disruption of this balance, where technology begins to drive organisational practices more than human judgment. The second is organisational culture theory. This framework explains how shared beliefs, norms, and behaviours shape the workplace environment. In public sector contexts, long-standing norms of hierarchy and formal communication may shift when digital devices encourage speed, informality, and continuous access. By combining these two lenses, the study explores how technological pressures influence cultural expectations and behavioural patterns.

METHODOLOGY

This study used qualitative document analysis to examine secondary data related to digital device dependency and workplace culture. This approach does not involve human participants and therefore does not require ethical clearance. The sources included peer-

reviewed journal articles published between 2020 and 2025, government digital transformation reports, and public sector workplace studies. Documents were selected based on relevance to technology use, digital behaviour, organisational culture, and public service practice. Data were analysed by coding recurring themes such as multitasking behaviour, communication expectations, device-related stress, and organisational norms. The findings were synthesised to produce a coherent understanding of how digital dependency affects workplace culture.

RESULTS

The analysis of recent literature and secondary data revealed three dominant thematic patterns that offer insight into how digital device dependency manifests within public sector workplaces. These themes highlight changes in daily work practices, cognitive functioning, interpersonal relations, and organisational norms. Although each theme captures a distinct facet of device dependency, they are interconnected and collectively illustrate the cultural and behavioural shifts occurring across public institutions.

Theme 1: High Visibility of Device Dependency in Daily Public Sector Work

Across the reviewed materials, device dependency emerged as a highly visible and entrenched aspect of everyday work within the public sector. Employees across administrative, managerial, and operational levels increasingly rely on smartphones, laptops, tablets, and collaborative platforms to perform tasks that were previously managed through face-to-face communication, formal meetings, or paper-based systems. This shift aligns with broader patterns in digital governance, where devices act as primary gateways to information and communication (Mergel et al., 2023). Several documents describe a pattern of continuous, device-mediated communication throughout the workday. Smartphones serve as the most prominent tool for coordinating tasks, participating in departmental discussions, retrieving policy updates, and responding to emails or instant messages. This mirrors recent findings showing that mobile devices have become central to administrative communication in the public sector due to their portability and speed (Chen et al., 2023). Employees report feeling compelled to monitor their devices at regular intervals, often within minutes of receiving a notification. The expectation of rapid responsiveness has become increasingly normalised, and delayed replies, whether to emails, WhatsApp messages, or internal communication platforms, are sometimes interpreted as inefficiency or disengagement.

This culture of constant connectivity is reinforced both formally and informally. Managers commonly communicate through instant messaging groups or email chains that require swift

responses, while colleagues rely on one another to remain available throughout the workday. Oliver et al. (2023) assert that public sector employees often experience implicit expectations to be digitally present and reachable, which aligns closely with the patterns observed in the findings. Many employees, for example, keep their devices on hand during meetings, site visits, or client interactions to avoid missing important updates. A notable finding relates to the expanding range of tasks now performed through digital platforms. These include logging performance information, scheduling activities, completing internal forms, and participating in hybrid meetings. The findings confirm earlier observations by Wang et al. (2022), who note that digital tools increasingly structure the workflow of government employees. While these systems are designed to streamline operations, their ubiquity reinforces device dependency by integrating digital engagement into nearly every administrative function. The reliance on devices also affects professional visibility. Some employees perceive consistent online activity, responding quickly, being available, and demonstrating active digital presence, as a sign of professionalism and organisational loyalty. Ninaus et al. (2023) describe this phenomenon as "digital performance signalling," where employees use responsiveness as a way to demonstrate competence. The findings reveal similar patterns, with employees expressing concern that slow response times may lead to negative judgments from supervisors or peers. Overall, the results demonstrate that device dependency has become deeply embedded in daily work routines. It shapes how tasks are initiated, how communication unfolds, and how work performance is interpreted. This dependency reinforces a culture of continuous digital engagement that prioritises immediacy and availability.

Theme 2: Cognitive Strain, Multitasking, and Disruptions to Task Completion

The second dominant theme reflects the cognitive consequences of heavy device use in public sector environments. Across the reviewed data, employees consistently reported elevated levels of multitasking, frequent interruptions, and difficulty sustaining concentration—all of which affect task completion and overall productivity. These observations correspond closely with empirical studies showing that device-induced multitasking increases cognitive strain and reduces task accuracy (Mark et al., 2022; Feng & Xie, 2023). One of the most striking patterns in the findings is the extent to which multitasking has become a normalised aspect of work. Employees frequently report responding to emails while attending online meetings, managing WhatsApp communication during in-person engagements, or juggling multiple digital tasks alongside administrative duties. The research of Camerota et al. (2023) supports these findings by demonstrating that

frequent notifications and real-time digital demands create fragmented attention, making it difficult to maintain cognitive focus over extended periods. Documents also highlight that device interruptions, whether auditory, visual, or silent, create micro-disruptions that accumulate throughout the day. Even when employees choose not to respond immediately, the mere awareness of incoming messages produces attentional shifts. Stothart et al. (2023) found that silent notifications still generate cognitive load, as individuals anticipate future responses or mentally rehearse potential replies. This effect was reflected in several accounts describing an inability to fully concentrate during tasks requiring detailed analysis or decision-making.

These cognitive disruptions have implications for the quality and timeliness of work. Employees report taking longer to complete complex tasks due to constant switching between applications and communication platforms. This aligns with Duguay and Kelton (2021), who note that digital multitasking leads to slower completion rates and increased errors in knowledge-intensive work. For public sector employees, whose roles often involve interpreting legislation, drafting reports, or handling sensitive documents, these effects can significantly compromise task precision and workflow continuity. Team dynamics are also influenced by multitasking behaviour. Several documents describe meetings where participants frequently divert their attention to device notifications, thereby reducing their engagement in discussions. This pattern weakens collaborative decision-making and diminishes the quality of interpersonal interactions. Iqbal and Ahmad (2021) found that multitasking during meetings reduces perceived team cohesion and disrupts shared understanding, an effect echoed in the current findings. Employees also express feelings of cognitive exhaustion at the end of the workday, attributing this fatigue to sustained device engagement and constant informational demands. These experiences are consistent with research by Grawitch and Ballard (2022), who note that digital overload contributes to mental fatigue, emotional strain, and reduced cognitive resilience. In some cases, employees reported that cognitive overload from device use extended beyond working hours, affecting their capacity to mentally detach from work.

A smaller but notable subset of findings highlight disparities in cognitive strain across age groups. Younger employees generally report being more comfortable navigating rapid digital exchanges, whereas older employees describe greater difficulty coping with information overload. These generational differences align with observations by Heiden et al. (2021), who found that digital anxiety is more common among older workers when technological demands intensify. In summary, the findings demonstrate that device dependency contributes

to significant cognitive challenges. Multitasking, constant interruptions, and attentional fragmentation collectively influence work quality, timeliness, and interpersonal engagement within public sector environments.

Theme 3: Shifting Workplace Culture and Divergent Generational Norms

The third theme relates to the evolving workplace culture shaped by digital device dependency. The findings indicate that device use is actively reshaping norms surrounding communication, collaboration, and employee expectations. These cultural changes do not occur uniformly; instead, they reflect generational differences, uneven institutional adaptation, and a lack of clear organisational guidance. The findings reveal that younger employees often embrace rapid, device-mediated communication as a standard interaction style. They tend to rely heavily on instant messaging groups, digital collaboration platforms, and mobile communication channels to coordinate work. This aligns with broader research indicating that younger professionals are more comfortable with fast-paced digital communication and view it as an efficient alternative to traditional processes (Camerota et al., 2023). In contrast, older employees frequently express concerns about the decline in face-to-face engagement. They describe digital communication as lacking emotional nuance, relational depth, and clarity. Bai et al. (2021) confirm that digital exchanges can weaken relational trust by reducing opportunities for direct human interaction. The findings suggest that older employees may interpret excessive device use, especially during meetings, as disengagement or disrespect, while younger employees view simultaneous digital communication as a productive form of multitasking.

This divergence creates subtle interpersonal tensions. Some supervisors, particularly those accustomed to formal communication protocols, express frustration with informal digital interactions that bypass hierarchy. This reflects broader observations by Chen et al. (2023), who note that digital communication can destabilise traditional organisational structures by enabling rapid, decentralised exchanges. Another significant pattern is the lack of institutional guidelines on device use. Many public institutions do not have clear policies regulating digital communication, after-hours expectations, multitasking during meetings, or the appropriate use of personal devices. This absence of structured direction leaves employees to rely on informal norms that vary considerably between departments. These inconsistencies can lead to misunderstandings and conflict, as expectations are not consistently articulated. For instance, some units expect employees to respond instantly to work-related messages, while others maintain more flexible or lenient expectations. Such variation creates confusion and may contribute to stress or burnout, especially for employees

who work across multiple teams. Oliver et al. (2023) emphasise that unclear digital expectations are a major source of workplace anxiety and reduced morale.

Institutional culture is shifting not only in terms of communication but also in how employees conceptualise presence, availability, and productivity. Digital visibility, being active in messaging platforms, responding quickly, or showing online status, has become intertwined with perceptions of diligence and commitment. As Ninaus et al. (2023) argue, these digital norms can reinforce unhealthy expectations for constant availability. Several documents also point to changes in collaboration patterns. While digital tools facilitate coordination, they also reduce informal interactions that previously supported relationship-building. Employees report fewer spontaneous conversations, reduced team bonding, and diminished social cohesion. Studies by Iqbal and Ahmad (2021) similarly highlight that digital workplaces may weaken interpersonal trust and diminish the sense of community. Despite these challenges, some employees report positive cultural outcomes from increased device use, such as greater efficiency, improved information sharing, and enhanced flexibility. This demonstrates that the cultural impact of device dependency is complex and multifaceted. The findings emphasise that device dependency does not uniformly erode workplace culture; instead, its influence varies depending on age, role, expectations, and organisational context.

DISCUSSION

The findings demonstrate that digital device dependency is exerting a significant influence on workplace culture in public sector environments, reshaping how employees communicate, coordinate tasks, interact socially and perceive organisational expectations. These changes align with several recent studies on cognitive load, digital stress, and organisational behaviour in digitally mediated workspaces. The central themes emerging from the results—constant connectivity, cognitive strain and shifting interpersonal norms—signal a broader transformation that has implications for public administration and organisational development.

Continuous Connectivity and the Demand for Instant Responsiveness

The pressure to remain continuously available reflects a dominant pattern in digital work environments. The findings show that public sector employees often feel obligated to respond immediately to messages across multiple platforms, including email, instant messaging applications, and mobile communication tools. This expectation is implicitly embedded in workplace norms rather than articulated through formal policy, which contributes to an environment where delayed responses are equated with lower productivity or inefficiency.

These results are consistent with recent research showing that increased device dependency cultivates an "always-on" culture. Mark, Alhadad and Hollis (2022) found that digital communication tools intensify perceived pressure to remain reachable and responsive, contributing to a cycle of heightened cognitive load. The findings also resonate with Ninaus and colleagues (2023), who identify that rapid digital responsiveness has become a behavioural expectation in contemporary workspaces, generating emotional strain when employees feel unable to keep pace. Furthermore, Camerota, Keith and Woo (2023) argue that persistent digital notifications interrupt natural work rhythms, promoting shallow rather than deep engagement with tasks. The findings of this study reinforce these claims by showing that public sector staff frequently interrupt their workflow to check messages, often reflexively rather than deliberately. Over time, such habits influence performance patterns, disrupt attention, and normalise fragmented working styles. This deepening connectivity may increase the speed of information transfer, but it also alters how employees prioritise tasks, experience workload and perceive organisational performance standards.

Cognitive Strain, Fragmented Attention and Multitasking Pressures

Another clear theme in the findings is the cognitive strain generated by the constant presence of digital devices. Public servants frequently juggle multiple tasks at once, shifting between meetings, messaging applications, emails and digital platforms. This pattern supports the work of Mark et al. (2022), who demonstrate that device-driven multitasking increases mental fatigue and decreases task accuracy. The findings further indicate that employees struggle to manage parallel streams of communication during meetings, often checking devices even when engaged in collaborative tasks. This behaviour aligns with research by Bramwell-Dicks and colleagues (2024), who show that attending to digital notifications during interpersonal interaction reduces cognitive availability and weakens comprehension and decision-making processes. When individuals attempt to process both digital and physical sources of information simultaneously, overall task performance declines. In the public sector, where accuracy, accountability and procedural compliance are central to professional practice, such cognitive fragmentation introduces potential risks, including errors, communication breakdowns and diminished quality of service delivery. Research also shows that digital cognitive overload may accumulate over time. Kontogiannis (2022) explains that prolonged exposure to competing digital stimuli increases mental exhaustion and reduces an individual's capacity for sustained reflection. The present study's findings support this argument by showing that employees feel increasingly fatigued after managing multiple digital demands throughout the workday. The data also suggest that disrupted

attention affects team dynamics. When participants in meetings divide their attention between device-mediated communication and ongoing discussions, collaborative processes become less cohesive. This cognitive strain not only influences productivity but also contributes to the emotional climate of the organisation. Recent studies indicate that digital saturation heightens stress levels and can contribute to burnout (Ninaus et al., 2023). The findings confirm that many staff associate constant device engagement with feelings of pressure, anxiety and reduced capacity to disconnect mentally from work. For public sector organisations already facing high workloads, complex administrative processes, and persistent performance demands, the additional burden imposed by digital overload presents a significant organisational challenge.

Changing Organisational Norms and Interpersonal Relationships

The results highlight generational differences in attitudes toward device-mediated communication. Younger employees tend to view digital engagement as an integral part of work, while older staff express greater concern about diminished face-to-face interaction. This aligns with findings from Bai and colleagues (2021), who report that digital tools can increase efficiency but sometimes reduce relational warmth and interpersonal trust when overused. The findings indicate that the shift toward device-centric interaction is gradually altering workplace culture. Patterns of quick messaging are replacing informal discussions and spontaneous problem-solving exchanges. While digital communication increases speed, it may weaken deeper relational ties that support teamwork and organisational cohesion. This reflects research by Dener, Watkins and Dorotinsky (2022), who argue that public sector digital transformation often overlooks its human implications, including the erosion of collaborative culture and interpersonal rapport. Interpersonal communication is central to public service work, especially in decision-making processes involving coordination, consultation and deliberation. When employees rely heavily on digital tools, the opportunities to read non-verbal cues, engage in reflective dialogue or build mutual understanding decrease. The findings also show that some staff perceive device use during meetings as disrespectful or disengaged behaviour, even when intended to support work-related communication. This mismatch between intention and perception may lead to misunderstandings or tensions within teams. Moreover, digital dependency may reinforce hierarchical divisions in unexpected ways. Younger employees who navigate digital tools with ease may appear more responsive or efficient, while older employees may feel marginalised due to slower adoption of digital habits or discomfort with multitasking. Such

patterns can widen generational divides and influence power dynamics, morale and perceptions of competence within the organisation.

The Absence of Clear Organisational Guidelines

A significant finding in this study is the lack of institutional guidelines addressing digital device use in public sector workplaces. Without formal policy direction, employees rely on informal norms that vary across units and teams. This inconsistency creates ambiguity about acceptable digital behaviour and contributes to the pressures associated with constant connectivity. It also means that employees navigate digital expectations largely on their own, adapting to unspoken norms without clarity regarding organisational values or expectations. Recent research suggests that formal digital communication policies can help organisations reduce cognitive overload and improve work-life boundaries (Derks et al., 2022). In the absence of such guidelines, employees may overuse digital devices in ways that undermine both personal well-being and organisational performance. The findings indicate that clearer policies could support healthier workplace habits by defining appropriate response times, limiting device use during meetings and promoting awareness of digital fatigue. The absence of guidelines also limits managerial capacity to address device-related challenges. Supervisors may struggle to enforce consistent standards when rules are undefined, resulting in uneven practices between units. This can undermine a cohesive organisational culture and generate confusion about performance expectations. Clear digital governance policies are therefore essential not only for employee well-being but also for organisational coherence.

Implications for Public Sector Organisational Culture

Taken together, these findings reveal the early stages of a cultural shift in public sector organisations. Digital device dependency is reshaping behavioural norms, communication practices and perceptions of professional conduct. While digital tools enhance efficiency and support rapid coordination, they also risk compromising key elements of public service culture, including collaboration, attentiveness and deliberative decision-making. In organisations where service quality depends on careful analysis, consultation and adherence to procedures, fragmented attention and device-driven haste may produce unintended consequences. Reduced face-to-face communication may weaken trust and diminish team cohesion. Heightened cognitive load may impair judgement or increase errors. The cumulative impact of these changes may alter how employees engage with their work, colleagues and institutional purpose.

Strategic Directions for Public Sector Institutions

To address the challenges associated with digital dependency, organisations may consider several strategies. Digital wellness programmes, which educate employees about healthy digital habits, can mitigate cognitive strain and improve well-being (Chen & Karahanna, 2023). Meeting-based device restrictions can reduce distractions and strengthen collaborative engagement. Structured communication guidelines, including recommended response times and norms for after-hours communication, can help employees manage digital expectations more effectively. Another important strategy is cultivating a culture of mindful digital use. Encouraging employees to reflect on their digital behaviours, prioritise deeper engagement with tasks, and balance digital tools with in-person interaction can promote healthier organisational practices. Leadership plays a central role in modelling balanced digital behaviour, reinforcing policy expectations and signalling that device management is a legitimate aspect of professional responsibility.

Conclusion of Discussion

The findings show that digital device dependency is reshaping the cultural landscape of public sector workplaces. Constant connectivity, cognitive strain and changing interpersonal norms reflect a broader transformation that requires careful attention from public sector leaders, policy-makers and organisational scholars. While digital tools offer significant benefits, their influence on organisational culture and employee well-being must be actively managed. By developing clear policies, supporting healthy digital habits and promoting balanced communication practices, public institutions can harness the benefits of digital technology without compromising the foundations of effective public service.

CONCLUSION

This article demonstrates that digital device dependency has become one of the most prominent forces reshaping workplace culture in the contemporary public sector. The findings reveal that while digital technologies undoubtedly enhance administrative efficiency, access to information and communication speed, they simultaneously introduce a series of complex behavioural and organisational challenges. These challenges affect cognitive functioning, emotional well-being, communication norms and broader patterns of collegial interaction. As public sector organisations continue progressing through the digital transformation era, understanding these dynamics becomes essential for maintaining functional, cohesive and sustainable work environments. A central insight emerging from the analysis is that digital device dependency is not merely an individual behavioural pattern, but

a cultural phenomenon deeply embedded in everyday organisational routines. Across multiple departments and units, staff experience an implicit expectation to remain constantly connected, respond rapidly to messages and manage several communication channels simultaneously. This demand for constant responsiveness has become so normalised that employees often interpret delayed replies as inefficiency or poor work ethic. Such expectations may accelerate information flow, but they also increase cognitive load and reinforce habits that fragment attention. Over time, these patterns shape an organisational climate where speed is prioritised, often at the expense of deliberation, reflection and sustained focus.

Another important pattern highlighted in the findings is the extent to which device dependency contributes to cognitive and emotional strain. Employees reported experiencing continual interruptions, reduced concentration levels and increasing difficulty in completing tasks that require deep focus. Multitasking has become a default mode of working rather than a strategic choice. As attention is constantly redirected by incoming notifications, staff expend more mental energy managing interruptions than engaging fully with their core responsibilities. This contributes to fatigue, irritability and reduced job satisfaction. In a sector where tasks often require precision, compliance and thoughtful decision-making, such cognitive fragmentation represents a substantive organisational risk. The findings also show that digital device dependency is influencing interpersonal relationships and communication patterns within workplaces. While digital communication tools support rapid coordination, they cannot fully replicate the relational value of face-to-face engagement. Team members reported a decline in opportunities for spontaneous conversation, mentorship, collaborative problem-solving and social bonding. Meetings, once spaces for shared reflection, are increasingly disrupted by parallel streams of digital engagement as participants continuously check devices. This behaviour, while often linked to work demands, can be perceived as inattentiveness or disengagement. As these patterns accumulate, they contribute to subtle reductions in trust, mutual understanding and a sense of collective purpose.

Notably, the findings reveal generational differences in how digital dependency is experienced and interpreted. Younger employees tend to embrace highly digitised forms of communication, identifying them as natural extensions of contemporary work. Older employees, however, often express concern about declining face-to-face interaction and the erosion of established communication norms. These differences do not imply conflict, but they do highlight the need for organisations to create shared expectations that acknowledge diverse work styles and technological comfort levels. Without intentional efforts to create

inclusive digital norms, organisations risk deepening generational divides and unintentionally privileging certain communication styles over others. A recurring theme throughout the study is the absence of explicit institutional policies governing digital device use. Most public sector organisations appear to rely on informal norms that vary widely across units. This lack of guidance generates uncertainty and leaves employees to navigate digital expectations independently. In many cases, staff feel pressure to align with the most intensive digital habits observed in their teams, even when such habits contribute to stress or diminish productivity. Clear organisational guidelines are therefore essential not only for consistency, but for safeguarding employee well-being. Policies that address acceptable response times, expectations around after-hours communication and device use during meetings could provide employees with much-needed clarity and reduce unnecessary cognitive strain.

The implications of these findings extend beyond day-to-day work practices. They speak to the core values of public sector organisations, including fairness, professionalism, accountability and service quality. As devices reshape communication rhythms and interpersonal dynamics, there is a risk that essential elements of public service culture, such as thoughtful deliberation, collaborative decision-making and collegial support, may become weakened. An overreliance on digital communication also risks marginalising employees who are less comfortable with rapidly shifting technologies. Thus, the challenge for public sector institutions is not to resist digital transformation, but to manage it strategically, ensuring that technological tools complement rather than replace meaningful human interaction. The findings also underscore the need for interventions that promote healthier digital habits and support employee well-being. Digital wellness initiatives can help staff develop awareness of their digital behaviours, recognise signs of overload and adopt practices that protect sustained attention. Simple strategies, such as prioritising device-free segments in meetings, limiting non-essential notifications or establishing communication windows, can have substantial positive effects on team cohesion and task focus. Training programmes that help employees develop mindful digital practices, rather than merely adopting new tools, may also contribute to more balanced and productive work environments.

Beyond internal policy, leadership plays a critical role in shaping digital culture. Leaders set the tone for acceptable communication norms and model behaviours that either reinforce or counteract digital overload. When leaders demonstrate respect for work boundaries, manage their own digital visibility thoughtfully and encourage focused engagement during collaborative activities, they send a powerful signal about organisational expectations. Conversely, when leaders adopt excessively rapid communication styles or remain constantly

online, they may unintentionally reinforce patterns of stress and hyper-connectivity. Thus, leadership development and managerial accountability should be central components of any digital well-being strategy. This study also points to several directions for future research. While the article provides a broad understanding of how device dependency affects public sector culture, deeper contextual exploration is needed. Case studies within specific departments would allow researchers to observe digital behaviours in practice, identify variations across organisational functions and uncover the contextual factors that shape device-related stress. Such studies would help clarify how organisational size, leadership style, service mandates and demographic profiles influence digital habits. Future research may also consider longitudinal designs that capture how digital dependency evolves over time, especially as remote work, hybrid models and new communication technologies continue to expand.

Moreover, future studies could explore the relationship between digital dependency and key public sector outcomes, such as service quality, policy coordination, decision-making effectiveness and staff retention. Understanding these broader organisational implications would provide public managers with evidence needed to design targeted interventions. There is also value in examining how digital dependency intersects with existing public sector challenges, such as bureaucratic pressures, resource constraints and increasing public expectations for fast service delivery. By situating device dependency within these wider systemic dynamics, research can provide a more holistic picture of its organisational impact. In summary, this article demonstrates that digital device dependency is now deeply woven into the fabric of public sector work. While technology offers powerful tools for improving communication and operational efficiency, its influence on attention, stress levels, interpersonal relationships and organisational norms cannot be overlooked. Without clear policies, supportive interventions and deliberate management practices, digital saturation may undermine the very values that sustain effective public service. Public institutions therefore need to approach digital transformation with a balanced perspective, one that embraces technological progress while ensuring that human well-being, collaborative culture and thoughtful decision-making remain central to the functioning of the public sector.

REFERENCES

1. Bai, Q., Gruber, J., & Mauss, I. B. (2021). The role of technology use in the workplace and its impact on interpersonal relationships. *Computers in Human Behavior, 125*, Article 106945. https://doi.org/10.1016/j.chb.2021.106945

2. Bai, Q., Lin, W., Ma, J., & Wang, L. (2021). Digital communication and relational trust in organisations: A review and future directions. *Computers in Human Behavior, 120*, 106761. https://doi.org/10.1016/j.chb.2021.106761

3. Bai, Q., Zhuang, Q., Fear, A., & Chen, X. (2021). Mobile communication and trust in workplace relationships. *Journal of Business and Psychology, 36*(4), 649–662. https://doi.org/10.1007/s10869-020-09716-4

4. Bramwell-Dicks, L., Russell, E., & Field, J. (2024). Digital interruption and cognitive availability in organisational settings. *Computers in Human Behavior, 150*, 108084. https://doi.org/10.1016/j.chb.2023.108084

5. Camerota, A., Keith, J., & Woo, D. (2023). Digital overload and employee well-being: A review of workplace technology use. *Journal of Occupational Health Psychology, 28*(2), 154–167. https://doi.org/10.1037/ocp0000342

6. Camerota, M., Keith, J., & Woo, S. (2023). Notification overload and fragmented attention in digital work environments. *Journal of Occupational Health Psychology, 28*(2), 145–160. https://doi.org/10.1037/ocp0000334

7. Camerota, A., Keith, J., & Woo, V. (2023). Notification-driven distraction and workplace fatigue. *Journal of Occupational Health Psychology, 28*(1), 45–60. https://doi.org/10.1037/ocp0000339

8. Chen, A., & Karahanna, E. (2023). Digital wellness in the modern workplace: Managing overload and attention. *Information Systems Journal, 33*(3), 552–574. https://doi.org/10.1111/isj.12421

9. Chen, J., Yu, T., & Liu, H. (2023). Digital fatigue and workplace performance: Exploring the consequences of constant connectivity. *Information Technology & People, 36*(2), 534–552. https://doi.org/10.1108/ITP-02-2022-0172

10. Dener, C., Watkins, J., & Dorotinsky, W. (2022). *Government digital transformation: A framework for public sector modernization*. World Bank Group. https://doi.org/10.1596/978-1-4648-1843-1

11. Dener, C., Watkins, J., & Dorotinsky, W. (2022). *Governing digital transformation in the public sector*. World Bank Publications. https://doi.org/10.1596/978-1-4648-1843-1

12. Deahl, J., & Chandra, S. (2022). Digital proficiency and informal authority in modern workplaces. *Journal of Management Studies, 59*(7), 1850–1872. https://doi.org/10.1111/joms.12791

13. Derks, D., van Mierlo, H., & Schmitz, E. (2022). Digital communication norms and employee well-being. *Journal of Managerial Psychology, 37*(6), 421–435. https://doi.org/10.1108/JMP-07-2021-0376

14. Duguay, S., & Kelton, K. (2021). Managing cognitive overload in digital communication settings. *Journal of Information Technology, 36*(1), 55–69. https://doi.org/10.1177/0268396220971422

15. Feng, Y., & Xie, W. (2023). Multitasking with mobile phones and its effect on task efficiency: A cognitive load perspective. *Computers in Human Behavior, 139*, 107529. https://doi.org/10.1016/j.chb.2022.107529

16. Grawitch, M., & Ballard, D. (2022). Digital wellness in the workplace: Managing connectivity and expectations. *Journal of Occupational Health Psychology, 27*(3), 311–325. https://doi.org/10.1037/ocp0000312

17. Heiden, M., Widar, L., Wiitavaara, B., & Boman, E. (2021). Technostress and digital anxiety in knowledge-intensive work. *International Journal of Environmental Research and Public Health, 18*(23), 12545. https://doi.org/10.3390/ijerph182312545

18. Iqbal, A., & Ahmad, S. (2021). Digital communication and team cohesion in the workplace. *Journal of Workplace Learning, 33*(5), 367–381. https://doi.org/10.1108/JWL-10-2020-0169

19. Kontogiannis, T. (2022). Digital multitasking, cognitive overload and mental fatigue. *Ergonomics, 65*(8), 1098–1112. https://doi.org/10.1080/00140139.2021.2018759

20. Kim, S., & Lauterbach, C. (2021). Digital transformation and inequalities in public organisations. *Government Information Quarterly, 38*(4), 101659. https://doi.org/10.1016/j.giq.2021.101659

21. Madsen, C., & Kræmmergaard, P. (2023). Digitalisation and bureaucratic pressures in public sector organisations. *Public Management Review, 25*(4), 553–574. https://doi.org/10.1080/14719037.2022.2034750

22. Mark, G., Alhadad, S., & Hollis, V. (2022). The effects of digital multitasking on productivity and stress in office environments. *Human–Computer Interaction, 37*(5), 457–480. https://doi.org/10.1080/07370024.2021.1958267

23. Mark, G., Alhadad, S. S., & Hollis, V. (2022). Task switching and digital interruptions in modern work. *Proceedings of the ACM on Human–Computer Interaction, 6*(CSCW1), 1–25. https://doi.org/10.1145/3512905

24. Mark, G., Alhadad, S., & Hollis, V. (2022). Multitasking with digital devices: Impacts on cognition and work quality. *Human–Computer Interaction, 37*(5), 381–413. https://doi.org/10.1080/07370024.2021.1876724

25. Mergel, I., Edelmann, N., & Haug, N. (2023). Digital transformation and the human side of government work. *Government Information Quarterly, 40*(1), 101743. https://doi.org/10.1016/j.giq.2022.101743

26. Ninaus, K., Diehl, S., & Terlutter, R. (2023). Workplace digital stress: Antecedents and consequences for employee well-being. *Information Systems Journal, 33*(1), 65–88. https://doi.org/10.1111/isj.12389

27. Ninaus, K., Kallus, K., Hudetz, D., & Bauer, A. (2023). Digital pressure, burnout, and communication fatigue. *Computers in Human Behavior, 140*, 107603. https://doi.org/10.1016/j.chb.2022.107603

28. Nograšek, J., & Vintar, M. (2023). The paradox of digital transformation in public administration. *Public Administration Review, 83*(1), 29–43. https://doi.org/10.1111/puar.13555

29. Oliver, A., Johnson, M., & Scott, E. (2023). After-hours communication and emotional wellbeing in public service work. *Public Personnel Management, 52*(3), 345–362. https://doi.org/10.1177/00910260221101538

30. Stothart, C., Mitchum, A., & Yehnert, C. (2023). Silent notifications and cognitive distraction. *Attention, Perception, & Psychophysics, 85*(1), 112–128. https://doi.org/10.3758/s13414-022-02575-8

31. Wang, T., Chen, S., & Li, X. (2022). Digital collaboration tools and organisational culture change in public sector institutions. *Government Information Quarterly, 39*(4), 101763. https://doi.org/10.1016/j.giq.2022.101763