Pre-Digital Inertial Forces in a Digital HRM Transformation: A Case Study of a South African Government Organisation

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Abstract

Purpose: This study examines how pre-digital inertial forces constrain the transformation of digital human resource management (HRM) in a South African government organisation. It explores the persistence of legacy paper-based routines and their interaction with digital systems, highlighting why digitalisation often fails to achieve its full potential in the public sector.

Design/methodology/approach: An interpretive case study was conducted, utilising 30 semi-structured interviews with senior, middle, and operational staff. Thematic analysis, guided by Besson and Rowe's (2012) multidimensional framework, identified eight categories of inertia.

Findings: Despite the widespread acceptance of digital HRM technologies and recognition of their benefits, entrenched pre-digital practices continue to coexist with the system. Eight inertial forces (cognitive, behavioural, psychological, affective, socio-cognitive, socio-technical, economic, and political) limited integration and sustained reliance on paper-based processes.

Research limitations/implications: The findings are specific to one public sector organisation. Future studies could investigate inertial forces in other sectors or track how they evolve with advances in automation and AI-enabled HRM.

Practical implications: Reducing inertia requires reconfiguring the relationship between legacy and digital practices, strengthening system integration, clarifying human resources policies, and building trust through training and change management.

Originality/value: This study applies a multidimensional inertia framework to digital HRM for the first time. It extends information systems and HRM scholarship by demonstrating how entrenched pre-digital practices and bureaucratic routines constrain digital transformation and by offering new insights into the specific challenges of digital reform in the public sector.

Keywords: digital HRM; digital transformation; organisational inertia; public sector; interpretive case study; technology adoption

Introduction

Digital transformation is reshaping human resource management (HRM) practices worldwide; however, its successful implementation remains elusive, particularly in the public sector (Enaifoghe et al. 2024). Despite heavy investment in digital HRM technologies, many organisations continue to struggle with unlocking their full business value (Adner et al. 2019; Hinings et al. 2018). Technologies such as cloud computing, artificial intelligence, and the Internet of Things (IoT) promise to revolutionise HRM (Ashford et al. 2018; Strohmeier 2020; Thite 2020), but readiness gaps persist. While 90% of global human resources (HR) leaders recognise the urgency of digitalisation, only 55% feel prepared for large-scale transformation (Deloitte 2020). This challenge is especially pronounced in the public sector, where bureaucratic structures and legacy routines may reinforce organisational inertia (De Vries et al. 2018; Hanelt et al. 2021).

Prior studies have examined barriers such as system quality and resistance to change (Ruël and van der Kaap 2012; Wirtky et al. 2016), often drawing on behavioural models like the technology acceptance model (TAM) or the unified theory of acceptance and use of technology (UTAUT). While valuable, these perspectives primarily frame inertia as individual resistance or attitudinal barriers. They offer limited insight into how deeply embedded pre-digital practices persist alongside digital systems, constraining transformation outcomes (Bohn et al. 2023). Moreover, while traditional models such as TAM and UTAUT have been widely applied (Bhattacherjee and Lin 2015; Venkatesh et al. 2003), recent work demonstrates the continued need to account for organisational context and readiness in system adoption (van Zyl et al. 2022). Recent scholarship has also begun to recognise the importance of organisational legacies in shaping digital outcomes (Gegenhuber et al. 2022), but a systematic framework for analysing these inertial forces in HRM is lacking. Scholars also increasingly emphasise that digital transformation in the public sector follows a different trajectory compared to private organisations, as it is shaped by institutional complexity, regulation, and entrenched practices (De Vries et al. 2018; Hong et al. 2022). Despite significant investments, many government-led digital initiatives continue to experience partial or failed implementation (Kempeneer and Heylen 2023), making it essential to examine the organisational forces that constrain transformation.

To address this gap, we draw on Besson and Rowe's (2012) multidimensional framework of information systems (IS) organisational inertia, which conceptualises inertia as a set of cognitive, behavioural, affective, socio-cognitive, socio-technical, economic, political, and psychological forces that inhibit digital transformation. This framework provides a richer basis for analysing barriers in digital HRM, moving beyond individual-level resistance to encompass organisational routines, technical dependencies, and institutional constraints. Guided by this perspective, we ask: What gives rise to pre-digital inertia in digital HRM practices, and how can these inertial

forces be counteracted? To answer this question, we conducted an interpretive case study of a South African government organisation. Using qualitative data from 30 interviews, we identified how pre-digital practices persisted and coexisted with digital systems, revealing the interplay of multiple inertial forces that undermined transformation.

Our study makes three contributions. First, it extends the e-HRM literature by applying a comprehensive inertia framework to the underexplored context of the public sector. Second, it provides empirical evidence from South Africa, highlighting how bureaucratic, political, and technical legacies shape the outcomes of digital HRM. Third, it offers practical insights for managers on reconfiguring legacy-digital linkages, strengthening trust, and improving system integration to reduce inertia.

Literature Review

Behavioural and System Approaches to Adoption and Use

For nearly four decades, IS research has relied on behavioural models to explain technology adoption, diffusion, and continuance. Well-known examples include the TAM (Venkatesh et al. 2003), innovation diffusion theory (Yusliza and Ramayah 2012), and the technology readiness model (Erdoğmuş and Esen 2011). These models highlight individual-level factors such as perceived usefulness, ease of use, attitudes, and behavioural intentions (Bhattacherjee 2001; DeLone and McLean 1992). Later extensions, such as UTAUT and IT continuance models, added further variables to increase explanatory power (Bhattacherjee and Lin 2015), often at the expense of parsimony and practical utility (Turner et al. 2010). Applied to HR systems, these models emphasise user satisfaction and system quality as predictors of adoption (Alshibly 2014). However, they typically assume pro-technology behaviour as the rational default, framing resistance as an individual deviation shaped by technological or contextual barriers. This perspective underplays the persistence of legacy organisational practices that may coexist with, and even undermine, digital systems.

Recent reviews and comparative studies highlight both the drivers and barriers to digital innovation in public organisations (De Vries et al. 2018; Hong et al. 2022; Neumann et al. 2024). While these studies identify leadership, organisational readiness, and institutional trust as critical determinants, less is known about how pre-digital practices persist and interact with digital systems in specific functional domains, such as HRM. Moreover, analyses of failed or partial digital transformations underscore the importance of examining the organisational routines and material elements that anchor legacy practices (Kempeneer and Heylen 2023). By applying the inertia framework to digital HRM, this study addresses these gaps and offers new insights into the persistence of pre-digital practices in the public sector.

Organisational Inertia in Transformation Contexts

Beyond individual adoption models, organisational change research has long recognised the role of inertia in constraining transformation. Rumelt (1995) defined organisational inertia as "the strong persistence of existing form and function," most evident in the continuation of inefficient practices. Sull (1999) introduced the concept of active inertia, in which organisations double down on ineffective routines despite environmental changes. These insights highlight that resistance is not always inaction; it may instead take the form of entrenched behaviours, resource commitments, and institutional legacies.

In the IS domain, scholars have expanded these ideas to examine inertia in IS-enabled transformations. Research links digital transformation challenges to various forms of inertia, including behavioural, socio-cognitive, negative psychological, socio-technical, economic, and political factors (Polites and Karahanna 2012; Haag et al. 2013; Mikalef et al. 2021). For example, Polites and Karahanna (2012) describe inertia as user attachment to, and persistence in, using an incumbent system, even if better alternatives exist. This work suggests that inertia is not merely attitudinal but is also embedded in organisational structures, technical systems, and power relations.

A Multidimensional Inertia Framework

To consolidate these insights, Besson and Rowe (2012) developed a multidimensional framework of organisational inertia. Their framework identifies eight types of inertial forces that interact to impede transformation: cognitive, behavioural, affective, negative psychological, socio-cognitive, socio-technical, economic, and political. This typology provides a comprehensive lens to examine how organisational routines, technical dependencies, institutional norms, and emotional or cognitive biases can combine to hinder change. Unlike traditional adoption models that emphasise individual decision-making, the inertia framework highlights the interplay of social, technical, and organisational legacies in shaping transformation trajectories. Recent work has further reinforced the value of this perspective by demonstrating how digital transformation processes can be understood and managed through the lens of organisational inertia (Kaganer et al. 2023). This makes it particularly relevant to public sector digital HRM, where bureaucratic traditions, regulatory constraints, and resource commitments often sustain pre-digital practices (De Vries et al. 2018; Hong et al. 2022; Kempeneer and Heylen 2023; Neumann et al. 2024).

Table 1 summarises eight forms of organisational inertia that constrain digital transformation, drawing on foundational studies in IS and organisational change alongside more recent public sector and digitalisation research. The definitions capture how each type of inertia has been conceptualised in prior literature, while the examples illustrate how these dynamics were manifested in the case organisation. Together, the table provides the conceptual foundation for analysing how legacy paper-based practices persist and interact with digital HRM systems in the public sector.

1   **Table 1:** Pre-digital inertial forces in digital-enabled organisational transformation research

Concepts	Definition	Examples from the case	Key references
Cognitive inertia	Persisting with pre-digital practices even when digital alternatives are available and more effective.	Managers insisted on filing copies of leave applications and printing performance reports, despite the system capturing them electronically.	Polites and Karahanna (2012); Haag et al. (2013); Kempeneer and Heylen (2023)
Behavioural inertia	The persistence of established routines, "the way things are done," even when processes can be streamlined.	Paper-based approvals continued as part of normal routines, which delayed system-based processing.	Polites and Karahanna (2012); Haag et al. (2013); De Vries et al. (2018)
Negative psychology inertia	Resistance caused by denial, fear, or reluctance to learn new systems.	Users complained about the complexity of the interface and avoided engaging with the system functions.	Besson and Rowe (2012); Neumann et al. (2024)
Affective inertia	Emotional discomfort or stress associated with abandoning pre-digital practices.	Employees found completing scorecards online to be tedious and described performance review negotiations in digital format as uncomfortable.	Polites and Karahanna (2012); Strohmeier (2020)
Socio-cognitive inertia	The endurance of organisational norms, values, and cultural expectations tied to legacy practices.	Norms and values supporting paper-based recordkeeping persisted across units.	Besson and Rowe (2012); Haag et al. (2013); Mikalef et al. (2021); De Vries et al. (2018)
Socio-technical inertia	Resistance arises from the misalignment between technical systems and organisational or social contexts.	Underutilisation of SAP's functions, weak integration with biometrics, and peak-time connectivity issues undermined adoption.	Besson and Rowe (2012); Haag et al. (2013); Mikalef et al. (2021); van Zyl et al. (2022)
Economic inertia	Sunk costs and prior investments in legacy systems or processes discourage change.	Paper-intensive practices were maintained despite the duplication of effort, reinforced by conflicting policies.	Besson and Rowe (2012); Haag et al. (2013); Hanelt et al. (2021)
Political inertia	Resistance is rooted in vested interests, power dynamics, or hierarchical control.	Leadership insisted on manual approvals, and interdepartmental dependencies caused delays in system use.	Besson and Rowe (2012); Haag et al. (2013); Hong et al. (2022)

2

3   Research Approach

4   **Case Study Site**

5   The research site was GovFin (a pseudonym), a government-run insurance agency in
6   the South African public sector, and its systems, applications, and products in data
7   processing (SAP)-based digital HRM solution. GovFin compensates victims of motor
8   vehicle accidents. GovFin delivers on its core mandate through the Operations and
9   Strategy department, supported by the Financial Services, Marketing, Human Capital,
10   and Information and Communication Technology divisions. The organisation employs
11   close to 3,000 employees across these functional areas. GovFin has a head office, nine
12   regional offices, and 11 customer service centres. Regional offices have operations
13   teams and a few support personnel providing business support services. It makes
14   payments to claimants and vendors through a legacy claims system, supported by back
15   office and HR functionality in SAP. The claims process is largely paper-based. A typical
16   case file for a claimant could include claim forms, hospital records, police accident
17   reports, the claimant's affidavit, hospital/medical accounts, accident sketch plans, x-
18   rays, medical expert reports, letters from the claimant's attorneys, and medico-legal
19   reports.

20   In GovFin's SAP environment, the modules include SAP Finance, SAP Material
21   Management, SAP Plant Management, SAP Portals, SAP BW, SAP Performance
22   Management, SAP SRM, SAP HR, and SAP Payroll (Figure 1). GovFin has a licence
23   base of 600 active SAP users. However, our study focuses on SAP HR and related
24   technologies. The HR function is performed in all regions. However, the regional teams
25   only provide support services, while the head office team formulates and implements
26   the HR strategy. GovFin's first module, a leave management module, has been
27   implemented. This module allows employees to perform all leave-related activities
28   electronically. GovFin later implemented a performance management module. This
29   module enables the capture of performance contracts and scores. Recently, GovFin
30   implemented additional modules, such as compensation management. We focus on the
31   leave management and performance management modules. Although GovFin
32   implemented the two key modules several years ago, these modules were still prone to

33 inertial elements. The case explores how inertia unfolded within these two digital HRM
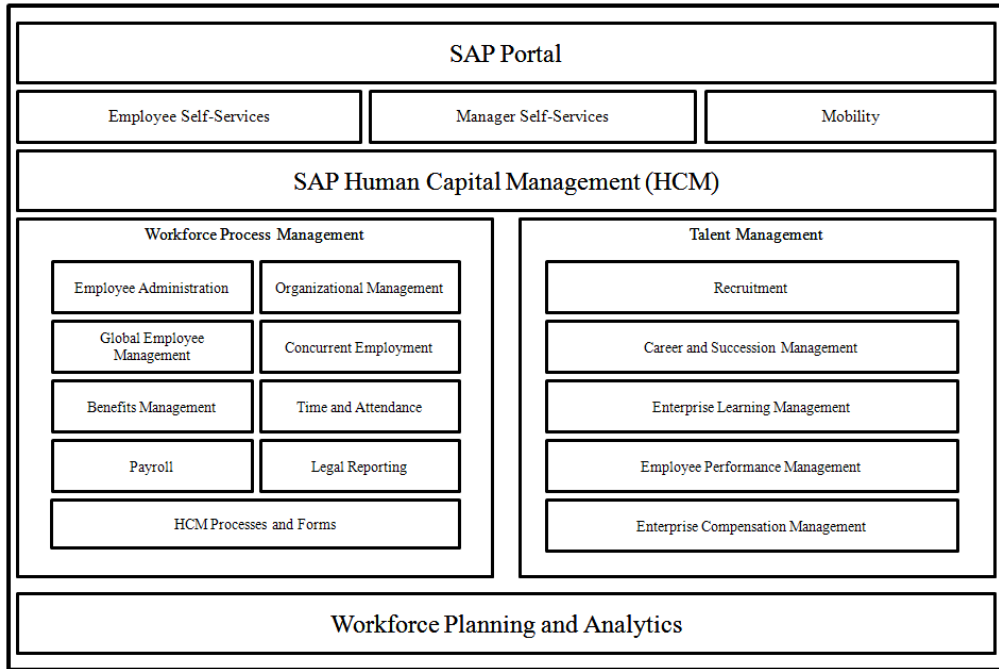34 practices.

Figure 1: GovFin's SAP digital HRM application architecture

35 **Data Collection**

36 We collected both primary and secondary sources. Primary data collection consisted of
37 interviews conducted over a four-month period. A typical interview lasted 45 minutes,
38 although we also had interviews that lasted up to one hour. Interviews were conducted
39 using a semi-structured approach. We utilised an interview guide (not provided here for
40 space reasons) to ask informants about their experiences with digital HRM and related
41 topics. All the interviews conducted were audio recorded and professionally transcribed.
42 Table 2 shows that a total of 30 interviews were conducted. The sample included three
43 senior managers, nine middle managers, and 18 operations staff members.
44 Ten informants were from the head office, and 20 were from the regional offices.
45 Observations and informal face-to-face discussions complemented our interviews. Also,
46 for triangulation purposes, secondary data from internal and external document sources
47 were collected and analysed. Functional area, seniority level, and tenure were
48 considered in selecting informants. Triangulation was ensured by comparing interviews
49 to confirm the identified themes and to shed more light on the entrenched practices that
50 were impeding the digital HRM transformation.

51 **Table 2:** Summary description of participants

Functional area	Position	Location
Internal Audit (1)	Senior managers (3)	Head office (10)
Finance (3)	Managers (18)	Regional offices (20)
Information and telecommunications technology (5)	Officers (9)	
Marketing and communications (2)		
Operations (16)		
Forensics (1)		
Human resource management (1)		
Learning and development (1)		

52 *Note:* Numbers in parentheses represent the number of participants (*n*).

53 **Data Analysis**

54 Our analysis followed a multi-step, iterative process to examine how pre-digital inertial
55 forces constrained the use of digital HRM practices. We selected two HR practices—
56 leave management and performance management—as the primary units of analysis.
57 Following prior adoption research that has employed structured frameworks to examine
58 contextual barriers to technology uptake (e.g., van Zyl et al. 2022), we used Besson and
59 Rowe's multidimensional inertia framework as a sensitising device to guide our data
60 analysis. We began by developing a coding template (Crabtree and Miller 1992)
61 informed by the IS literature on organisational inertia, with particular reference to
62 Besson and Rowe's (2012) multidimensional framework. This template includes eight
63 sensitising categories of inertia: cognitive, behavioural, negative psychological,
64 affective, socio-cognitive, socio-technical, economic, and political (see Table 1).
65 Interview transcripts were then coded by assigning data segments to these categories.
66 For example, mentions of "legacy systems" and "paper-based practices" were coded
67 under socio-technical inertia, while comments reflecting "status quo bias" or denial
68 were coded as negative psychological inertia. We remained open to emergent subthemes
69 within each category to capture context-specific nuances. Following Braun and Clarke's
70 (2006) guidelines for thematic analysis, both authors independently reviewed the data
71 multiple times to generate initial codes. We independently reviewed the data multiple
72 times and generated initial codes, consistent with recent studies that have successfully
73 applied thematic analysis to explore the human dimensions of technology adoption
74 (Seyitoğlu and Ivanov 2024).

75 We then compared interpretations and refined the categories through collaborative
76 discussion. This iterative process enabled us to identify recurring patterns that revealed
77 how pre-digital practices persisted alongside digital tools. To enhance trustworthiness,
78 we cross-checked themes against the full dataset to ensure consistency and
79 representativeness (Klein and Myers 1999). We also incorporated multiple participant
80 quotations under each theme to preserve the richness of lived experiences and ground
81 interpretations in the data. The final set of eight themes aligns directly with the inertia

82 framework, providing a structured theoretical lens through which to interpret the
83 findings.

Results

85 The purpose of this study was to examine how pre-digital inertial forces constrain the
86 implementation of digital HRM practices in a South African government organisation.
87 Our analysis focused on two core HR practices—leave management and performance
88 management—which were selected because they represent critical points of interaction
89 between employees, line managers, and the digital HRM system. Using Besson and
90 Rowe's multidimensional framework of organisational inertia as a sensitising lens, we
91 identified eight interrelated forces that explain why digital HRM practices were only
92 partially adopted at GovFin (see Table 1).

Theme 1: Digital Systems Welcomed but Paper Practices Persist

94   Interviews revealed widespread acceptance of digital HRM technologies, with
95   participants highlighting their perceived benefits and ease of use. Line managers and
96   employees described these technologies as transformative, allowing for seamless access
97   to self-service tools, payroll information, and time tracking. One employee noted: "I can
98   be sitting at home, and I can access my payslip. … It just allows me to do things I need
99   to do without necessarily having to come to the office." Digital HRM systems,
100 particularly the SAP platform, have been credited with improving transparency and
101 efficiency. For example, a line manager shared: "We were manually approving
102 performance management way back, and it was easy to manipulate. Now you cannot
103 manipulate it. There are more controls in place because it is electronic." Similarly,
104 employees appreciated the automated leave approval process, which reduced their
105 reliance on HR personnel. These positive experiences suggested that the system's
106 technical capabilities met end-user expectations. However, they were consistently
107 overshadowed by inertial forces rooted in organisational practices. Although employees
108 and managers recognised the value of digital HRM tools, deeply ingrained traditional
109 practices—particularly paper-based workflows—persisted. The coexistence of digital
110 and manual processes created tensions that undermined the system's potential value.

Theme 2: Keeping Paper Records as Backups

112 A persistent reliance on paper-based practices emerged as a significant barrier to full
113 digital adoption. Participants frequently described retaining physical records as a
114 necessary safeguard, even when the digital system provided equivalent or superior
115 functionality. One participant explained: "My scores are kept in the paper-based as well
116 as ESS [employee self-service]. I always check with ESS. If I have scores on ESS,
117 I print them out and keep them in a drawer so that if ever one day it says my scores are
118 different, I have got a record that I always keep." This tendency to duplicate records
119 reflected limited confidence in the system's accuracy and durability, reinforcing
120 behaviours that left the digital transformation incomplete. Similar patterns were

121   observed in leave applications, which continued to be printed despite being processed
122   electronically. As one participant commented: "You do not need the hardcopy because
123   the manager will not approve leave on hardcopy. They approve leave on the system."
124   Many participants maintained parallel paper records or personal audits to verify system
125   information. Screenshots, handwritten leave tallies, and printed forms were used as
126   safeguards against perceived errors or late updates, reflecting a limited trust in data
127   accuracy. One employee stated, "Every time I fill in leave, I have a book whereby I add
128   or subtract the number of days according to what is on the ESS, just to check and balance
129   my days." Similarly, another employee mentioned, "Honestly, I check that every month.
130   … I take a screenshot because I do not trust ESS." These practices illustrate how a lack
131   of trust in digital processes sustained redundant paper-based methods and constrained
132   the transition to fully digital HRM.

Theme 3: Still Waiting for Permission

134   Behavioural inertia reflected entrenched routines that resisted change, even when digital
135   solutions provided clear benefits. Participants highlighted the approval processes as a
136   key example. One participant shared, "You need a supervisor to tell you that you can
137   load now; that is what causes the delay." This reliance on hierarchical instructions
138   mirrored pre-digital workflows, where manual oversight dictated the pace of work.
139   Despite the efficiency gains offered by the digital system, employees continued to
140   follow traditional practices. Another participant stated, "At the end of the quarter, when
141   you should be doing reviews, you are finalising a quarter. Those are the kinds of things
142   that cause delays, and it is not system issues; it is people." Behavioural inertia was
143   particularly evident in performance management, where manual approvals and legacy
144   workflows persisted alongside digital processes. Participants described waiting for
145   managerial prompts before submitting transactions, as well as a broader culture of last-
146   minute processing that predated digitalisation. An employee stated, "You will wait for
147   your manager, or you need a supervisor to tell you that you can load now; that is what
148   causes the delay." These findings illustrate how past behaviours became embedded in
149   the organisation's routines, creating barriers to digital transformation.

Theme 4: Persistence of Established Routines

151   Entrenched routines continued to shape HRM practices, even when digital systems
152   offered clear efficiency gains. Participants described approval processes that still relied
153   on hierarchical oversight. One participant shared: "For performance I find the process
154   to be very tedious and extremely manual. … You cannot do it without getting an email
155   saying that it is now open, and your manager will tell you. I think there are issues
156   because you will wait for your manager." This dependence on managerial instructions
157   mirrored pre-digital workflows, where manual supervision determined the pace of work.
158   Despite the potential of the digital system to streamline processes, employees often
159   continued to follow traditional practices. Established routines and hierarchical
160   approvals continued to structure digital work. Similarly, another employee stated,
161   "People like to leave things till the last minute. … It is a culture that has been created

162 … and it has been accepted." Such behaviours were particularly evident in performance
163 management, where manual approvals and legacy workflows persisted alongside digital
164 processes. These examples illustrate how deeply embedded routines create barriers to
165 achieving the full benefits of digital HRM.

Theme 5: Emotional Resistance to Digital HRM

166
167 Participants described feelings of stress and frustration when engaging with digitalised
168 HRM processes. In particular, the digitalisation of performance reviews was perceived
169 as overly complex and time-consuming. One employee remarked, "Now the system
170 required me to copy a different way and paste a different way." Beyond technical
171 frustrations, emotional discomfort arose during performance reviews conducted on
172 digital platforms. Employees noted the challenges of negotiating scores in this format:
173 "It is uncomfortable because you have to disagree on other things, … and those are
174 sometimes not easy to assemble." These accounts demonstrate how the transition from
175 familiar, manual processes to impersonal digital systems generated emotional barriers,
176 particularly in high-stakes interactions such as performance evaluations. Another
177 employee stated, "You spend an hour or so copying and pasting and the system just
178 throws you out forcing you to start again." Performance management processes were
179 often described as uncomfortable or stressful, especially when the negotiation and
180 justification of scores transitioned to a digital interface. Participants associated the
181 online process with cumbersome copying, pasting, saving, and potential data loss, which
182 intensified their frustration.

Theme 6: System Integration Gaps and Connectivity Constraints

183
184 System readiness challenges and limited integration emerged as significant barriers to
185 the adoption of digital HRM. Participants frequently highlighted the underutilisation of
186 the SAP platform's full capabilities. As one employee observed: "The system has
187 potential that we are not using, and I do not know why." A lack of integration with other
188 systems, such as attendance biometrics, further restricted functionality and reduced
189 confidence in the platform. In addition, connectivity issues during peak periods created
190 delays that undermined trust in the system. As one participant explained: "At the end of
191 the month, … it delays, and I cannot afford to be down at that time." These examples
192 illustrate a persistent misalignment between organisational infrastructure and the
193 demands of the digital system, limiting the effectiveness of digital HRM transformation.
194 Participants pointed to underutilised functionality, weak integration with related
195 systems, and slowdowns during peak times. One participant stated, "You will find that
196 at times the system does not talk properly to other systems. … If the system is used by
197 too many people at the same time, it may … go towards crashing." Similarly, another
198 employee mentioned, "Payday is clogged, you cannot do anything on the ESS."
199 Dependencies on other platforms (for example, security gateways) and intermittent
200 delays in approvals eroded confidence and encouraged offline contingencies.

Theme 7: Entrenchment of Paper-Based Investments

Historical investments in paper-intensive workflows have created barriers to the full adoption of digital HRM practices. Participants described the ongoing duplication of effort, as paper records were still maintained alongside digital processes. One employee noted: "We still maintain the paper as well, so that is one problem. … So, you are basically duplicating the effort." Employees also pointed out contradictions between organisational policies and the system's functionality, which reinforced reliance on paper-based practices. As one participant explained: "Our policies restrict us. They conflict with what the system is capable of doing." Duplication was common when units maintained full paper trails alongside digital entries. Participants linked this to historical practices and to policy requirements that had not been realigned with system capabilities, resulting in inefficiency and mixed signals. Another participant explained: "We complete a leave on SAP and then we complete a manual form and attach the certificate and then hand it to the manager." An employee stated, "We still do ESS, and we still do the paperwork. I do not know why we do both." These examples highlight how sunk costs in traditional processes, combined with misaligned policies, generate both financial and cultural barriers to digital adoption.

Theme 8: Leadership Control and Approval Dependencies

Leadership dynamics and entrenched approval structures slowed the transition to fully digital HRM processes. Participants reported delays caused by top-down requirements that reinforced manual workflows. One participant explained: "We have to wait for [leadership] to give us that manual document. … Then you have to go to the system and capture the same onto the system again." Interdependencies with other departments further exacerbated delays, as processes were held up until related measurements were completed. As one employee described: "You are dependent on other departments, … and their measurement has to wait until the end of the month." Top-down approvals and interdepartmental dependencies slowed digital workflows, particularly in performance contracting and score moderation. Several managers noted that key steps remained contingent on a single role or unit, creating bottlenecks, and reinforcing manual interventions. One employee remarked: "For you to complete your scorecard, you are dependent on other departments. … As a result, we always do our scorecards at the last minute." Another participant explained: "There is only one person in HR that can do that step. … That is a very painful process." These accounts highlight how organisational power structures and approval dependencies perpetuate traditional practices, constraining the efficiency of digital HRM systems.

Discussion

Our findings demonstrate that while digital HRM systems were widely accepted and appreciated for their convenience, transparency, and efficiency, pre-digital inertial forces remained deeply embedded in organisational practices. This tension between facilitation and inertia explains why digital transformation in HRM often delivers only

241 partial value in the public sector. In this section, we interpret the results through Besson
242 and Rowe's (2012) multidimensional framework of organisational inertia and discuss
243 their theoretical and practical implications.

244 Consistent with prior research on IS adoption and continuance (Bhattacherjee and Lin
245 2015; DeLone and McLean 1992), the participants recognised clear benefits in digital
246 HRM. However, these benefits were diluted by the persistence of paper-based practices.
247 This finding reinforces calls to move beyond individualistic adoption models
248 (Venkatesh et al. 2003) and to examine how legacy processes continue to shape digital
249 outcomes (Hanelt et al. 2021).

250 Our findings also reinforce earlier observations that digital transformation in
251 government organisations is often undermined by institutional complexity, hierarchical
252 structures, and cultural resistance (De Vries et al. 2018; Hong et al. 2022).
253 The persistence of hybrid paper–digital practices in our case resonates with Kempeneer
254 and Heylen's (2023) argument that many digital reforms result in partial or failed
255 implementation when legacy routines are not adequately addressed. At the same time,
256 the insights on managerial distrust and approval dependencies extend current work on
257 public sector digital adoption (Neumann et al. 2024), suggesting that inertia provides a
258 useful conceptual lens for understanding why even well-accepted systems remain
259 constrained in practice.

260 Figure 2 illustrates how facilitating forces and pre-digital inertial forces coexist within
261 the organisation's digital HRM environment, offering a useful lens for understanding
262 why even well-accepted systems remain constrained in practice. Our case shows that
263 paper elements were not simply redundant; rather, they were recombined with digital
264 workflows, creating hybrid practices that undermined transformation. The reliance on
265 paper backups illustrates cognitive inertia rooted in distrust of digital systems. Similar
266 findings have been reported in studies on status quo bias (Polites and Karahanna 2012).
267 Behavioural inertia, evident in hierarchical approval routines (persistence of established
268 routines), echoes prior research on the "stickiness" of organisational habits (Haag et al.
269 2013). Together, these findings suggest that cognitive doubts and habitual routines
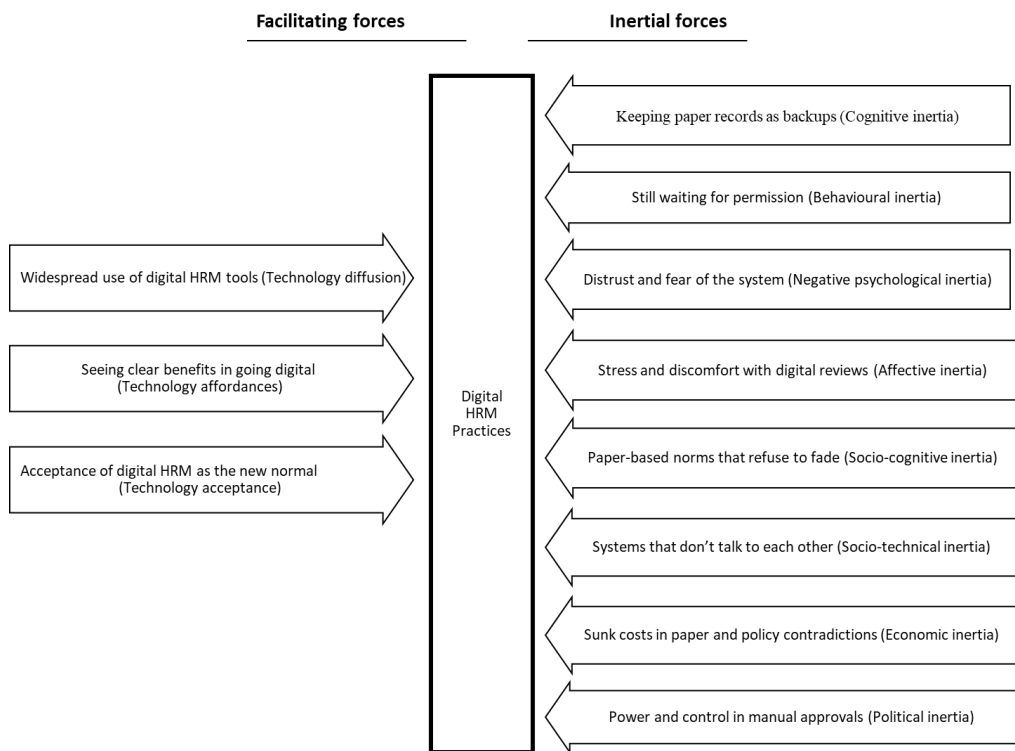270 reinforce one another, creating enduring obstacles to digital adoption.

Facilitating forces   **Inertial forces**

Keeping paper records as backups (Cognitive inertia)

Still waiting for permission (Behavioural inertia)

Distrust and fear of the system (Negative psychological inertia)

Widespread use of digital HRM tools (Technology diffusion)

Stress and discomfort with digital reviews (Affective inertia)

Seeing clear benefits in going digital (Technology affordances)

Digital HRM Practices

Paper-based norms that refuse to fade (Socio-cognitive inertia)

Acceptance of digital HRM as the new normal (Technology acceptance)

Systems that don't talk to each other (Socio-technical inertia)

Sunk costs in paper and policy contradictions (Economic inertia)

Power and control in manual approvals (Political inertia)

Figure 2: Facilitating and inertial pre-digital forces in digital HRM transformations

271 Distrust of the system and emotional resistance highlight the role of negative
272 psychological and affective inertia. These findings extend prior e-HRM studies that
273 focus on system quality and user satisfaction (Ruël and van der Kaap 2012) by
274 demonstrating that digital resistance is not only rational but also emotional. In
275 particular, the discomfort of digitalised performance reviews reveals how interpersonal
276 dynamics and affective responses constrain digital HRM. System integration gaps and
277 infrastructure constraints illustrate socio-technical inertia, where technical limitations
278 reinforce resistance. Prior research emphasises the importance of system readiness in

279   digital adoption (Mikalef et al. 2021), and our case confirms this in the HRM context.
280   Similarly, the entrenchment of paper-based investments demonstrates economic inertia
281   driven by sunk costs and misaligned policies. These findings highlight how material and
282   policy legacies continue to weigh heavily on transformation efforts. Approval
283   bottlenecks and interdepartmental dependencies reveal political inertia within the
284   organisation. This finding echoes earlier work on vested interests in organisational
285   transformation (Besson and Rowe 2012) and extends it to the HRM domain.

286   While our findings emphasise how multiple inertial forces constrained digital HRM
287   adoption, they also resonate with recent work highlighting that inertia is not only a
288   barrier but also a process that can be managed. Kaganer et al. (2023) argue that digital
289   transformation unfolds through cycles of inertia and adaptation, where legacies shape
290   but do not fully determine outcomes. This perspective posits that understanding and
291   working with inertia, rather than viewing it solely as resistance, may enable public
292   sector organisations to navigate the tensions between legacy practices and digital reform
293   more effectively.

Conclusion

295   This study examined how pre-digital inertial forces constrain the adoption and
296   effectiveness of digital HRM practices in a South African government organisation.
297   While the digital systems were widely accepted and valued for their efficiency,
298   transparency, and convenience, deeply embedded paper-based practices continued to
299   persist. Drawing on Besson and Rowe's multidimensional inertia framework, the study
300   highlighted how eight interrelated forces—cognitive, behavioural, psychological,
301   affective, socio-technical, socio-cognitive, economic, and political—undermined the
302   full realisation of digital transformation.

Implications for Theory

304   The findings of this study contribute to the literature on IS and HRM in several
305   important ways. First, the study extends research on digital HRM transformation by
306   applying Besson and Rowe's (2012) multidimensional inertia framework to
307   demonstrate how different forms of inertia coexist and interact within a single
308   organisational setting. This perspective moves beyond prior work that has tended to
309   examine isolated barriers to adoption or single dimensions of resistance (Polites and
310   Karahanna 2012; Mikalef et al. 2021). By demonstrating how cognitive, behavioural,
311   psychological, affective, socio-technical, socio-cognitive, economic, and political
312   inertias emerge simultaneously, our study underscores the need for a more integrated
313   account of transformation processes. Moreover, we extend research on digital HRM
314   transformation by applying a multidimensional inertia framework, demonstrating how
315   multiple forms of inertia coexist and interact. This builds on recent work suggesting that
316   digital transformation is shaped by cycles of inertia and adaptation rather than by linear
317   change (Kaganer et al. 2023).

Second, the study enriches the IS adoption literature by shifting attention away from individual acceptance models, which typically focus on perceptions of usefulness, ease of use, and behavioural intention (Bhattacherjee and Lin 2015; Venkatesh et al. 2003), toward the persistence of legacy practices that continue to shape outcomes even after digital systems are in place. In particular, the findings highlight how paper-based processes did not simply disappear; instead, they recombined with digital systems to form hybrid paper–digital workflows. This emphasis on hybridisation offers an alternative to binary adoption–resistance narratives and aligns with recent practice-based studies that stress the coexistence of traditional and digital routines (Berente et al. 2019; Orlikowski and Scott 2023).

Finally, the study contextualises inertia within the public sector, a domain where bureaucratic structures, regulatory requirements, and entrenched authority relations are particularly influential. The findings illustrate how hierarchical approval processes, rigid policy frameworks, and institutionalised routines reinforced the persistence of pre-digital practices despite the broad acceptance of digital HRM technologies. This perspective extends prior digital transformation research that has largely focused on private-sector organisations (Hanelt et al. 2021; Hinings et al. 2018) and highlights the importance of situating inertia within specific institutional and regulatory contexts.

Implications for Practice

The findings also carry important implications for practice. They suggest that digital transformation in HRM requires much more than the introduction of new technologies. Successful implementation depends on building trust in digital systems so that employees and managers no longer feel the need to rely on paper backups. Clearer communication of HR policies is equally important to reduce confusion and ensure that digital processes are perceived as credible and reliable. Training and ongoing support play a critical role in addressing the psychological and emotional resistance that many employees experience when transitioning from familiar manual processes to less familiar digital workflows.

At the technical level, efforts must focus on system integration and infrastructure readiness to ensure that employees are not forced to duplicate work across digital and paper-based systems. These measures are essential to prevent frustration, inefficiency, and the erosion of confidence in digital HRM. Equally important is the role of leadership. Visible commitment from senior managers is essential to dismantle political and policy-related barriers that reinforce traditional workflows and delay adoption. By recognising and proactively addressing these different inertial forces, HR and IT leaders in government organisations can move closer to unlocking the full potential of digital HRM and creating the conditions for more efficient, transparent, and trusted HR processes. HR and IT leaders can unlock the full potential of digital HRM in government organisations by addressing these forces proactively, ensuring that legacy practices are

357 not merely displaced but reconfigured in ways that support long-term digital
358 transformation.

359 Recent industry research also highlights the need for structured and deliberate
360 implementation strategies to limit organisational inertia. Leading advisory reports from
361 Gartner (2025), Deloitte (2023), and McKinsey & Company (2023) emphasise that
362 effective digital transformation is achieved when change management is integrated with
363 system design and rollout. Strategies that combine clear communication, user-centred
364 design, agile implementation, and continuous feedback help to reduce behavioural and
365 socio-technical resistance (Deloitte 2023; Gartner 2025; McKinsey & Company 2023).
366 In the context of digital HRM, this means aligning policy reform, leadership
367 engagement, and workforce capability-building with phased integration plans.
368 Embedding these principles into transformation initiatives allows organisations to
369 convert inertia from a constraining force into a managed variable that maintains stability
370 without compromising the pace of change, thereby supporting sustainable digital
371 maturity (Zhang and Chen 2024).

Limitations and Future Research

373 This study has several limitations that should be acknowledged. It was based on a single
374 case study of a South African government organisation, which provided valuable
375 contextual insights but limited the transferability of the findings. The unique
376 characteristics of the organisation, including its bureaucratic structures, regulatory
377 environment, and workplace culture, shaped the ways in which pre-digital inertial forces
378 were experienced. As such, caution should be exercised when applying these findings
379 to other sectors or national contexts.

380 Future research could extend this work by examining inertial forces in a broader range
381 of organisations, including the private sector and cross-country settings, to determine
382 whether the dynamics observed here are specific to the public sector or more widely
383 applicable. Another fruitful avenue would be to investigate how digital-native
384 employees respond to the persistence of pre-digital practices, as generational differences
385 may influence the ways in which inertia is experienced and negotiated. Research could
386 also explore the role of inertial forces in shaping emerging forms of human–automation
387 collaboration, where employees increasingly work alongside digital agents and robots.
388 Understanding how legacy practices persist or evolve in these settings would shed
389 further light on the challenges of digital transformation in HRM.

References

391 Adner, R., P. Puranam, and F. Zhu. 2019. "What Is Different about Digital Strategy? From
392   Quantitative to Qualitative Change." *Strategy Science* 4 (4): 253–61.
393   https://doi.org/10.1287/stsc.2019.0099.
394

Alshibly, H. H. 2014. "Evaluating E-HRM Success: A Validation of the Information Systems Success Model." *International Journal of Human Resource Studies* 4 (3): 107–18. https://doi.org/10.5296/ijhrs.v4i3.5929.

Ashford, S. J., B. B. Caza, and E. M. Reid. 2018. "From Surviving to Thriving in the Gig Economy: A Research Agenda for Individuals in the New World of Work." *Research in Organizational Behavior* 38: 23–41. https://doi.org/10.1016/j.riob.2018.11.001.

Berente, N., K. Lyytinen, Y. Yoo, and C. Maurer. 2019. "Institutional Logics and Pluralistic Responses to Enterprise System Implementation: A Qualitative Meta-Analysis." *MIS Quarterly* 43 (3): 873–902. https://doi.org/10.25300/MISQ/2019/14214.

Besson, P., and F. Rowe. 2012. "Strategizing Information Systems-Enabled Organizational Transformation: A Transdisciplinary Review and New Directions." *Journal of Strategic Information Systems* 21 (2): 103–24. https://doi.org/10.1016/j.jsis.2012.05.001.

Bhattacherjee, A. 2001. "Understanding Information Systems Continuance: An Expectation-Confirmation Model." *MIS Quarterly* 25 (3): 351–79. https://doi.org/10.2307/3250921.

Bhattacherjee, A., and C.-P. Lin. 2015. "A Unified Model of IT Continuance: Three Complementary Perspectives and Crossover Effects." *European Journal of Information Systems* 24 (4): 364–73. https://doi.org/10.1057/ejis.2013.36.

Bohn, S., A. A. Gümüsay, G. Von Richthofen, and G. Reischauer. 2023. "Digital Organising." *Internet Policy Review* 12 (4): 1–15. https://doi.org/10.14763/2023.4.1726.

Braun, V., and V. Clarke. 2006. "Using Thematic Analysis in Psychology." *Qualitative Research in Psychology* 3 (2): 77–101. https://doi.org/10.1191/1478088706qp063oa.

Crabtree, B. F., and W. L. Miller, eds. 1992. "A Template Approach to Text Analysis: Developing and Using Codebooks." In *Doing Qualitative Research*. SAGE.

De Vries, H., L. Tummers, and V. Bekkers. 2018. "The Diffusion and Adoption of Public Sector Innovations: A Meta-Synthesis of the Literature." *Perspectives on Public Management and Governance* 1 (3): 159–76. https://doi.org/10.1093/ppmgov/gvy001.

Deloitte. 2020. *2020 Deloitte Global Human Capital Trends*. https://www2.deloitte.com/us/en/insights/focus/human-capital-trends.html.

Deloitte. 2023. *Human Capital and Productivity: How Organisations Can Move Beyond Efficiency to Create Real Value*. https://www.deloitte.com/us/en/insights/topics/talent/human-capital-trends/2023/human-capital-and-productivity.html.

DeLone, W. H., and E. R. McLean. 1992. "Information Systems Success: The Quest for the Dependent Variable." *Information Systems Research* 3 (1): 60–95. https://doi.org/10.1287/isre.3.1.60.

443 Enaifoghe, A., N. C. Ndebele, A. Durokifa, and X. Thusi. 2024. "Drivers of Digital
444   Transformation and Their Efficacy in Public Sector Human Resource Management."
445   In *Digital Transformation in Public Sector Human Resource Management*, edited by
446   E. Shava and N. Ndebele. IGI Global. https://doi.org/10.4018/979-8-3693-2889-7.ch003.

448 Erdoğmuş, N., and M. Esen. 2011. "An Investigation of the Effects of Technology Readiness
449   on Technology Acceptance in E-HRM." *Procedia – Social and Behavioral Sciences* 24:
450   487–95. https://doi.org/10.1016/j.sbspro.2011.09.131.

452 Gartner. 2025. *Gartner Digital Execution Scorecard™ – Achieve Your Digital Priorities.*
453   https://www.gartner.com/en/chief-information-officer/research/digital-execution-
454   scorecard.

456 Gegenhuber, T., D. Logue, C. R. Hinings, and M. Barrett, eds. 2022. "Institutional Perspectives
457   on Digital Transformation." In *Research in the Sociology of Organizations,* vol. 83.
458   Emerald. https://doi.org/10.1108/S0733-558X20220000083001.

460 Haag, S., F. Born, S. Kreuzer, and S. Bernius. 2013. "Organizational Resistance to E-
461   Invoicing: Results from an Empirical Investigation among SMEs." In *Electronic
462   Government,* edited by M. A. Wimmer, M. Janssen, and H. J. Scholl. Springer.
463   https://doi.org/10.1007/978-3-642-40358-3_24.

465 Hanelt, A., R. Bohnsack, D. Marz, and C. Antunes Marante. 2021. "A Systematic Review of
466   the Literature on Digital Transformation: Insights and Implications for Strategy and
467   Organizational Change." *Journal of Management Studies* 58 (5): 1159–97.
468   https://doi.org/10.1111/joms.12639.

470 Hinings, B., T. Gegenhuber, and R. Greenwood. 2018. "Digital Innovation and
471   Transformation: An Institutional Perspective." *Information and Organization* 28 (1): 52–
472   61. https://doi.org/10.1016/j.infoandorg.2018.02.004.

474 Hong, S., S. H. Kim, and M. Kwon. 2022. "Determinants of Digital Innovation in the Public
475   Sector." *Government Information Quarterly* 39 (4): 101723.
476   https://doi.org/10.1016/j.giq.2022.101723.

478 Kempeneer, S., and F. Heylen. 2023. "Virtual State, Where Are You? A Literature Review,
479   Framework and Agenda for Failed Digital Transformation." *Big Data & Society* 10 (1):
480   20539517231160528. https://doi.org/10.1177/20539517231160528.

482 Klein, H. K., and M. D. Myers. 1999. "A Set of Principles for Conducting and Evaluating
483   Interpretive Field Studies in Information Systems." *MIS Quarterly* 23 (1): 67–93.
484   https://doi.org/10.2307/249410.

486 McKinsey & Company. 2023. *Generative AI and the Future of HR.*
487   https://www.mckinsey.com/capabilities/people-and-organizational-performance/our-
488   insights/generative-ai-and-the-future-of-hr.

Mikalef, P., R. van de Wetering, and J. Krogstie. 2021. "Building Dynamic Capabilities by Leveraging Big Data Analytics: The Role of Organizational Inertia." *Information & Management* 58 (6): 103412. https://doi.org/10.1016/j.im.2020.103412.

Neumann, O., K. Guirguis, and R. Steiner. 2024. "Exploring Artificial Intelligence Adoption in Public Organizations: A Comparative Case Study." *Public Management Review* 26 (1): 114–41. https://doi.org/10.1080/14719037.2022.2048685.

Orlikowski, W. J., and S. V. Scott. 2023. "The Digital Undertow and Institutional Displacement: A Sociomaterial Approach." *Organization Theory* 4 (2): 26317877231180898. https://doi.org/10.1177/26317877231180898.

Polites, G. L., and E. Karahanna. 2012. "Shackled to the Status Quo: The Inhibiting Effects of Incumbent System Habit, Switching Costs, and Inertia on New System Acceptance." *MIS Quarterly* 36 (1): 21–42. https://doi.org/10.25300/MISQ/2012/36.1.02.

Ruël, H., and H. van der Kaap. 2012. "E-HRM Usage and Value Creation: Does a Facilitating Context Matter?" *German Journal of Human Resource Management: Zeitschrift für Personalforschung* 26 (3): 260–81. https://doi.org/10.1177/239700221202600304.

Rumelt, R. 1995. "Inertia and Transformation." In *Resource-Based and Evolutionary Theories of the Enterprise*, edited by C. A. Montgomery. Kluwer Academic. https://doi.org/10.1007/978-1-4615-2201-0_5.

Kaganer, E., R. W. Gregory, and S. Sarker. 2023. "A Process for Managing Digital Transformation: An Organizational Inertia Perspective." *Journal of the Association for Information Systems* 24 (4): 1005–30. https://doi.org/10.17705/1jais.00819.

Seyitoğlu, F., and S. Ivanov. 2024. "Robots and Emotional Intelligence: A Thematic Analysis." *Technology in Society* 77: 102512. https://doi.org/10.1016/j.techsoc.2024.102512.

Strohmeier, S. 2020. "Digital Human Resource Management: A Conceptual Clarification." *German Journal of Human Resource Management: Zeitschrift für Personalforschung* 34 (3): 345–65. https://doi.org/10.1177/2397002220921131.

Sull, D. N. 1999. "Why Good Companies Go Bad." *Harvard Business Review* 77 (4): 42–52.

Turner, M., B. Kitchenham, P. Brereton, S. Charters, and D. Budgen. 2010. "Does the Technology Acceptance Model Predict Actual Use? A Systematic Literature Review." *Information and Software Technology* 52 (5): 463–79. https://doi.org/10.1016/j.infsof.2009.11.005.

Van Zyl, W. R., S. Henning, and J. A. van der Poll. 2022. "A Framework for Knowledge Management System Adoption in Small and Medium Enterprises." *Computers* 11 (9): 1–23. https://doi.org/10.3390/computers11090128.

536 Venkatesh, V., M. G. Morris, G. B. Davis, and F. D. Davis. 2003. "User Acceptance of
537   Information Technology: Toward a Unified View." *MIS Quarterly* 27 (3): 425–78.
538   https://doi.org/10.2307/30036540.
539
540 Wirtky, T., S. Laumer, A. Eckhardt, and T. Weitzel. 2016. "On the Untapped Value of E-
541   HRM: A Literature Review." *Communications of the Association for Information Systems*
542   38: 20–83. https://doi.org/10.17705/1CAIS.03802.
543
544 Yusliza, M., and T. Ramayah. 2012. "Determinants of Attitude towards E-HRM: An Empirical
545   Study among HR Professionals." *Procedia – Social and Behavioral Sciences* 57: 312–19.
546   https://doi.org/10.1016/j.sbspro.2012.09.1191.
547
548 Zhang, J., and Z. Chen. 2024. "Exploring Human Resource Management Digital
549   Transformation in the Digital Age." *Journal of the Knowledge Economy* 15 (1): 1482–98.
550   https://doi.org/10.1007/s13132-023-01214-y.