Stickiness Impediments in Digital HRM

Rennie Naidoo
University of Pretoria
rennie.naidoo@up.ac.za

Sifiso Wiseman Ndlovu
University of Pretoria
ndlovsw@unisa.ac.za

Abstract

Realizing optimal value from digital HRM is a major challenge for most firms. This research adopts a practice lens to investigate how traditional HRM practice elements can constrain digital HRM practices. Findings from an interpretive case study suggest that constrained digital HRM practices emerge because employees and managers are embedded in sticky traditional work practices and not primarily because they are unwilling to adopt digital technologies. Conventional wisdom suggests that the quality of the digital HRM, meeting end-user performance expectations, and managing resistance to change can improve suboptimal digital practices. We propose that digital HRM transformation efforts should change outdated routines rather than focus only on technology improvements and individual behavioral change. The authors propose a model that explains stickiness in digital HRM practices and offers recommendations for HR practitioners to reduce stickiness.

1. Introduction

Digital technologies such as mobile, cloud, social media, analytics, big data, artificial intelligence, robot process automation, robotics, and IoTs afford practitioners the potential to revolutionize HRM [1, 2, 3]. While 90% of global business and HR leaders acknowledge that their firms need to embark rapidly on large-scale digitalization initiatives, only 55 per cent claimed they were prepared to change at the requisite scale and speed [4]. The ability to digitalize HRM practices is a critical organizational capability, but it has been shown to be challenging to accomplish [5]. Some researchers suggest that the value potential of digital HRM has not yet been realized, calling for IT and HR units to work in collaboration to unlock unrealized value [7, 8]. Researchers have suggested that many complications are constraining digital HRM practices [9, 10]. As HRM practices shift from traditional to digital HRM, the major challenge in unlocking potential value will be a socio-material accomplishment [11, 12]. HR and IT will be expected to focus on optimizing traditional HRM processes and providing new digitally-enabled value-added products and services [7, 13, 14, 15].

Some researchers have studied the entanglement between technology and humans in HR processes [12, 16]. However, there has been little research about how elements from traditional practices may be constraining digital HRM practices. We use the term 'stickiness' to refer to situations where elements from traditional practices tend to cling on to digital practices, thus impeding the optimal value potential of digital practices. An area of growing scholarly and practical importance is investigating the discursive and material nature of digital work arrangements and the meanings these contemporary forms of work are providing to employees [17]. More specifically, existing research has paid little attention to the material and discursive processes that give rise to the stickiness of traditional work practices. Instead of inefficient, traditional practices dying out, elements of traditional practices can end up co-existing alongside digital practices. The very elements that digital practices were to replace can persist because traditional practices are entangled in other practices in the organization.

Our purpose is to investigate stickiness in a digital HRM context. We conducted an interpretive case study of a digital HRM implementation using a practice perspective [18, 19]. Sensitizing concepts from practice theories are proposed as offering a broader and more holistic conceptualization of stickiness. This article applies these ideas empirically to a digital HRM transformation [20, 21]. We advance the e-HRM literature by shifting the focus from the individual user to understanding stickiness in digital HRM practices. We define stickiness as traditional practice elements that bind themselves tightly to digital practices, thereby constraining the realization of optimal value from digitally-enabled HRM practices. To explore stickiness in greater depth, the following research question was formulated: *What gives rise to stickiness in digital HRM practices, and how can stickiness be reduced?* In summary, we identified a tight association of redundant paper-based elements with digital HRM practices as a result of the following four stickiness impediments: 1)

URI: https://hdl.handle.net/10125/79976
978-0-9981331-5-7

lack of system integration, (2) lack of HR policy knowledge, (3) a culture of mutual distrust, and (4) red tape. This study has important practical implications, as it is currently difficult for HR and IT practitioners to unlock the value potential of digital HRM in the absence of insights on how to manage stickiness in digital HRM.

The paper is organized as follows: first, we review behavioural and practice-based perspectives of technology adoption and use, and then build to an organizational inertia and stickiness perspective to digital HRM. Second, we present our case study and analysis approach. We then discuss the impediments involved in the emergence of stickiness in digital HRM practices. Finally, we draw implications for digital HRM transformation initiatives before concluding the paper.

2. Conceptual Foundations

We build on recent conceptual developments in behavioural approaches, practice perspectives and organizational inertia to understand how stickiness practices emerge in Digital HRM.

2.1. Behavioral Approaches

IS models generally attempt to identify factors that can promote pro-technology behaviors. The unified theory of acceptance and use of technology (UTAUT) posits that performance expectancy factors, such as perceived usefulness, perceived ease of use and behavioral intention to use, can predict actual user behavior within an organizational context [25]. Continuance behavior, which can be planned or habitual, involves factors such as the expected benefits, the usefulness of the IT in performing a task, and prior satisfaction levels with the technology [24]. The role of change agents would be to identify and modify the beliefs about end-users so that their use behavior might be changed [25]. Other models propose changing the system characteristics. In addition to individual factors such as user satisfaction, the IS success model emphasizes system characteristics such as system quality and information quality to be important predictors of use and, therefore, organizational impact [25]. Here the role of designers would be to identify and modify the technology to the satisfaction of the end-user so that their use behavior might be changed, which would translate into a net beneficial impact for the organization. Stickiness here results from the individuals' attitudes, values and beliefs constrained by various technological and contextual 'barriers'.

However, the increasing complexity of these models is arguably diminishing their practical utility [26]. Furthermore, more researchers are beginning to recognize that technology use does not occur in a social vacuum [27]. The role of context can sometimes play a more significant role than psychological and technological factors included in these models. Simply adding variables such as social norms as a proxy for context does not capture the richness of the social context. To capture the richness of the social context, researchers are showing an increasing interest in practice theory [11].

2.2. A Practice Perspective of Digital HRM

Another stream of IS and organizational research have explored technology use-in-practice [28]. Research has shown how the different ways that users interpret the same technology depends on the context of use. The technological frame concept was developed to describe how shared expectations and interactions can guide a user's understanding and use of a system [29]. More broadly, changes in work practices through IT use and how these changes are shared among the work group depends on their social representations [29]. A group of users with incompatible technological frames or social representations can impede organizational outcomes. However, these scholars have not explicitly referred to stickiness of traditional practices to inform how users engage with technologies in-use. More recently IS practice scholars have suggested that technology should be analyzed as part of the sociomaterial configuration that makes up organizational practices [11].

Proponents of the practice approach have argued that radically individualistic approaches fail to appreciate how relationships, material arrangements and the context influence social practices [20, 21]. In contrast to the IS use models outlined above that focus on individual attitudes, behaviors and choices, practice theorists focus on how practices are formed, reproduced, maintained, stabilized, challenged and eventually die [30]. From a practice perspective, stickiness is not simply the outcome of the individuals' attitudes, values and beliefs constrained by various technological and contextual 'barriers' but is embedded within a social context and occurs as part of social practices. For example, practitioners that maintain and strengthen suboptimal traditional paper-based practices through their continued use while also using the digital practices can be viewed as contributing to stickiness.

Szulanski's concept of stickiness from the Knowledge Management (KM) field provides an appropriate starting point [31]. Szulanski's definition of stickiness is unclear but refers to factors that can make knowledge transfers challenging to achieve without significant effort [31, 32]. Szulanski is concerned with why the knowledge transfer of best practices is so

problematic within the same organization. He identified several factors that impeded the firm's internal transfer capabilities. These stickiness factors include causal ambiguity, unproven knowledge, lack of source motivation, lack of source credibility, lack of recipient motivation, lack of recipient absorptive capacity, lack of retentive capacity, and a barren organizational context [31].

Similarly, early studies on organizational inertia have shown how firms fail to adapt or adapt slowly to new practices [33, 34]. Besson and Rowe [35] define inertia as the degree of stickiness during an organizational transformation. More recent organizational inertia studies have shown that the introduction of digital technologies can also result in stickiness [36, 37]. Our use of the term stickiness is closely related to the concept of organizational inertia in digital transformations, which refers to inertial forces that oppose change. We argue that stickiness arises out of these inertial forces, which tends to impede organizational agility.

Besson and Rowe [35] identify five main sources of inertia that are relevant to digital transformations: negative psychology inertia (fear of learning and resistance), socio-cognitive inertia (prevailing norms and values), sociotechnical inertia (embedded structures and technology architecture), economic inertia (IT capital investment), and political inertia (vested interests and alliances, power relationships). They argue that even the OT literature tends to overemphasize negative psychology inertia (mainly employee resistance) and socio-cognitive inertia while downplaying or neglecting socio-technical inertia and economic inertia [35].

Several scholars have suggested that studying organizational inertia requires a holistic and historical perspective [35, 37]. We extend Szulanski's stickiness model and complement existing organizational inertia studies by drawing from recent advances in practice theory that employ a more holistic approach in analyzing how social relations, material arrangements and context influence social practices. Our study is more concerned with the 'gluey' characteristics of traditional practices that cling to new digital practices even though they are suboptimal or counterproductive. There are several different approaches within the practice perspective. Still, all these approaches are sensitive to the multiple practices that interconnect to shape employees' daily activities, some of which will lead to stickiness [20, 21, 38]. To understand stickiness in a digital HRM context, we draw on Nicolini's conception of social practice, which features five key sensitizing concepts: discursive practices, objects, time and space, embodiment, and emotions [20].

3. Research Approach

We conducted a single case study of a digital HRM **i**mplementation at a government agency. The research question centred on stickiness in digital HRM practices. We used a practice lens to guide the study.

3.1 Case study site

Our research site was GovFin (a pseudonym), a government-run insurance agency in the South African public sector and its SAP-based digital HRM solution. GovFin compensates motor vehicle accident victims and delivers on its core mandate through the Operations and Strategy department, supported by Financial Services, Marketing, Human Capital, and Information and Communication Technology divisions. The organization employs close to 3,000 employees across these functional areas. GovFin has a head office, nine regional offices, and eleven customer service centers. Regional offices have operations teams and a few support personnel providing business support services. It makes payments to claimants and vendors via a legacy claims system with supporting back office and human resources functionality in SAP. The claims process is largely paper-based. A typical case file for a claimant could include: claim forms, hospital records, police accident reports, the claimant's affidavit, hospital / medical accounts, accident sketch plans, X-rays, medical expert reports, letters from the claimants` attorneys, and medico-legal reports. In the GovFin's SAP Environment, modules include SAP Finance, SAP Material Management, SAP Plant Management, SAP Portals, SAP BW, SAP Performance Management, SAP SRM, SAP HR, and SAP Payroll. GovFin has a license base of 600 active SAP users. However, our study focuses on SAP HR and related technologies. The HR function is performed in all regions. However, the regional teams only provide support services while the Head Office team formulates and implements the HR strategy. GovFin's first module, a leave management module, was implemented in 2008. This module allows employees to perform all leave-related activities electronically. In 2011 GovFin implemented a performance management module. This module enables the capturing of performance contracts and scores. In 2019, GovFin also implemented more modules, such as compensation management. We focus on the leave management and performance management modules. Although GovFin implemented the two key modules several years ago, these modules were still prone to stickiness impediments. The case explores how

stickiness unfolded within these two digital HRM practices.

3.2. Data Collection

We collected from both primary and secondary sources. Primary data collection consisted of interviews conducted between April 2019 and August 2019. A typical interview lasted 45 minutes, although we also had interviews that lasted up to 1 hour. Interviews were performed using a semi-structured approach. We used an interview guide to ask informants about how they experienced the use of digital HRM. All the interviews conducted were audio-recorded and professionally transcribed. A total of 30 interviews were conducted. The sample included three senior management, nine middle management and 18 operations staff. Ten informants were from the Head Office and 20 from the Regional Offices. Observations and informal face-to-face discussions complemented our interviews. Also, for triangulation purposes, secondary data from internal and external document sources were collected and analyzed. Functional area, seniority level and tenure were considered in selecting informants. Triangulation was assured by comparing interviews to confirm the themes found and shed more light on the sticky practices impeding the digital HRM transformation.

3.3. Data Analysis

We took a practice perspective to interpret and make sense of how stickiness unfolds in digital HRM practices. We chose two 'HR practices' as our unit of analysis: leave management and performance management. To identify stickiness, our analysis began with the development of a coding template [39]. The coding template contained sensitizing coding categories informed by the literature study on practices (See Table 1). This ensured that we paid particular attention on analyzing the materiality that encapsulated impediments, such as "legacy systems" and "paper-based practices".

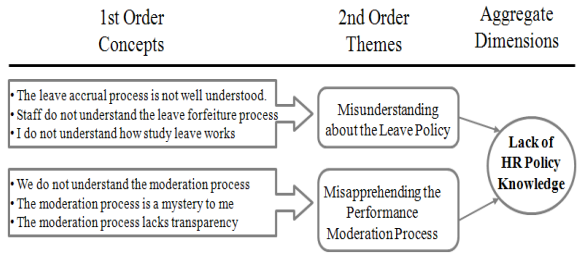

Figure 1. Sample stickiness results from the Gioia methodology

We then applied the Gioia methodology and thematic analysis shown in Figure 1[40]. First, we read the data set multiple times and worked independently to develop our first-order codes. We then worked collaboratively to find and categorize the codes that emerged during this iterative process into second-order stickiness themes. We identified the sticky discursive and material practices constituted by these thematic categories until we were satisfied that the joint analysis adequately reflected the data set. We often returned to the relevant literature to find additional support for each theme [40]. We then organized and aggregated our themes into a more abstract dimension. We selected the exemplars discussed next to show the link between the data and the analysis.

4. Results

Four key stickiness factors constrained the digital HRM practices. We present these impediments separately for theorization purposes but note they are mutually dependent in practice. The findings show that many of the line managers and employees favored adopting the new digital HRM practice. Contrary to approaches that emphasize the quality of the technology innovation, meeting end-user performance expectations of digital technologies and managing resistance to change, we emphasize impediments in our explanation of stickiness in digitally-enabled HRM practices.

4.1. Employees met performance expectancy

Our interviews provide ample evidence of the widespread diffusion and acceptance as well as the technology affordances of digital HRM practices in GovFin. Line managers and employees reflected on the usefulness, ease of use, and relative advantage of the digital technology compared to previous paper-based practices and showed very little resistance to the technology. They spoke about how easy it was to access the employee self-service and engage in digital HRM practices using their mobile device, as described by one interviewee: *"I can be sitting at home and I can access my payslip […]. It just allows me to do things I need to do without necessarily having to come to the office."* Apart from payroll, SAP digital HRM streamlined time and attendance practices. One employee commented, *"[…] we used to do overtime manually now you log your overtime into the system. So it is very easy."* Employees also felt empowered to process and review leave requests without having to visit the HR unit. The following excerpt from a line manager illustrates this point: *"ESS actually helps in managing your leave and also being able to approve leave for your subordinates […] You do not have to go to HR and ask them to do*

anything." Line managers and employees also expressed their satisfaction with the automated process for employee performance management. Another line manager commented, "*We were manually approving performance management way back, and it was easy to manipulate. Now you cannot manipulate."* The majority of end-users also spoke about embracing more efficient HRM digitalization practices rather than manual paper-intensive practices.

Table 1. Key concepts to understand HRM practices

Concepts	Definition	Examples from the case
Discursive practices	Discursive practices (speech, texts, and signs) convey knowledge, meaning, and intentionality in a practice situation, which human agents can use to influence each other.	• Employees reading strategic texts on the benefits of digital work practices versus paper-based work practices • Employees talking about HR policies, practices, and digital HRM applications
Objects (material objects, artifacts, technologies)	Objects participate in accomplishing practices making traditional practices durable, enabling, and even constraining new practices.	• Scanning a sick note to attach to an electronic leave application • Making a printout of a completed electronic performance scorecard
Time and Space	The historical and time-sensitive nature of practices and how past practices remain sticky in the present and the global, local and distributed nature of digital HR practices.	• The historical and durable nature of paper-based HRM practices • The seasonal nature of performance management reviews • Receiving an electronically submitted leave application in 'real-time.' • Working in a paper-based environment and the concomitant space required for paper-based files • Working away from the office in some remote location or at home and hence reconfiguration of multiple practices
Embodied (corporeality)	The way practices are internalized in the bodies of human agents, socializing how they speak, think, act, and feel.	• A manager and subordinate sitting together in a face-to-face meeting enacting their roles in a performance review discussion
Affective (emotions)	The way practices influence how human agents feel when performing certain activities.	• The 'discomfort' a subordinate experiences during a tough negotiation of their performance scores

Remarks like this that suggested little or no resistance were also quite common: *"I like technology, and I am also passionate about the environment, happy about the move from paper-based to an electronic system."*

4.2. Stickiness due to system integration issues

In the following statements, employees and line managers from across the organization reported that the system's full potential was not being exploited due to several system integration issues. Remarks about not using the rich functionality available in SAP digital HRM, in other words within-system integration, were common: *"[…] there is a lot of potential that the system has that we are not using, and I do not know why […]"*

Integration also concerned connecting different sub-systems. Some employees called for between-systems integration, "*It needs to be integrated into your other systems like your access control, security systems so that you are aware of what is happening."* One line manager spoke about the need to integrate with a time and attendance system to automate the reporting process: *"[..] we do not have the clock-in system, and we constantly have to report now and then on the ins-and-out of people."*Similarly, another line manager questioned why the biometric technology was not integrated with the ESS to track employee time, "*The attendance biometrics, I do not think they talk to ESS. How do you know if someone was here or not? […] That configuration is very important."* Another integration issue concerned the legacy systems applications, as

illustrated by the following comment by another line manager, *"However, that system does not talk to ESS. You may find that somebody is nominated, and you find that the day they were nominated on, they were not at work."*

Another integration impediment also concerned network connectivity. For example, when many users are active on the system simultaneously (concurrent usage) during peak periods like month-end, the organization's network infrastructure struggles to connect with the volume of users making multiple system requests. These issues also affect the responsiveness and availability of the digital HRM system. One employee remarked, "*It could be that nationally there is a problem but yes, it delays especially at the end of the month and I cannot afford to be down at that time."* The network connectivity issue creates a domino effect with application software. For example, it negatively impacts the way the digital HRM functionality was being experienced by many users. One of the employees stated: "*The one that I will say is problematic is the performance management. It is quite slow. For instance, if you want to load objectives, it takes a lot of time."*

4.3. Stickiness due to lack of HR policy knowledge

Stickiness also emerged because line managers and their subordinates lacked HR policy knowledge, which interfered with the digitally-enabled HRM practice reconfiguration. Some HR practices are governed by legal practices, such as the country's labor law. We found that some employees had trouble understanding the leave accrual process, *"I was made to understand that forfeiture leave is something that is over and above your actual leave whereas it is not."* Some employees also had difficulties understanding the organization's performance management policy. Legislative enactments governing these practices include planning, monitoring, measurement, review and improvement. One of the line managers explained this impediment by saying, *"I think even the performance management […] there is a lot that needs to be done because some people do not understand what performance management is."* One controversial area in performance management was the organization's moderation practices. A Moderation Committee carries out an evaluation procedure to ensure that the formal performance assessments concluded between managers and their subordinates were conducted in a 'realistic, consistent and fair manner.' The results of this process determine the annual bonus payout to staff. Although procedures such as moderation are well documented, several employees grumbled about the lack of transparency,*"You load your scores […] then you go to the system and find that the score is less and after you question, they will tell you it has already been moderated."* Although the leave forfeiture and moderation processes provoked resistance about HRM practices, the resistance was partly due to a lack of HR policy knowledge and was not directed at digital HRM.

4.4. Stickiness due to mutual distrust

Stickiness also emerged because of the uneasy relationship between managers and their subordinates. As already alluded to above, one reason is the distrust of the performance management process. This distrust places a constraint on terminating paper-based practices as this employee explains, *"My scores are kept in the paper-base as well as ESS. I always check with ESS. If I have scores on ESS, I print them out and keep them in a drawer so that if ever one day it says my scores are different, I have got a record that I always keep."* Reflecting on the performance review meetings, many employees commented on how uncomfortable it always feels to participate in these practices: *"It is uncomfortable because you have to disagree on other things, you have to try and provide proof sometimes, and those are sometimes not easy to assemble."* Social differences and distinctions are inscribed on the body through the enactment of the performance review. Such comments also reveal the discomfort subordinates experience during a difficult negotiation of their performance scores. Generally, it shows how employees feel about performing certain activities. This distrust also extends to the leave application process which places a constraint on terminating paper-based practices. A manager provides the following incident which exemplifies further distrust, *"The Doctor wrote a sick note for Thursday and did not include Friday. The employee did not come to work on Friday, using the same sick note and captured it on the system as it is. And now I am sitting with an escalation with this matter."* The poor service offered by the HR department also creates distrust and contributes to the persistence of paper-based practices. One employee explains, *"I do not know how many times I went to HR to make queries about my leave days, to check why my leave was not accrued and they did not give me a definite answer, and that is why I decided from that day on I am going to keep a screenshot."* Keeping printouts was a way for employees to avoid what they believed to be unfounded penalties in a bureaucratic context.

4.5. Stickiness due to red tape

Bureaucratic impediments also explain the stickiness of paper-based practices despite the availability of digital

HRM. As the following excerpt reveals, performing activities using paper-based practices are not necessarily connected to digital HRM: *"Loading of the contracts I think a lot of the deliverables are finalized very late, which therefore leads to late negotiations and then late loading of the contracts."* As confirmed by another employee, the performance management practice has elaborate path dependencies that also lead to stickiness. According to the employee, *"For you to complete your scorecard, you are dependent on other departments, and these departments have measurement and their measurement has to wait until the end of the month or end of the quarter."* The traditional manually intensive way of the performance appraisal process has arguably become more inefficient. As one of the line managers explains: *"[...] we still do it manually first. We sit together and then do together and if we agree you go and capture in the system, you send it to me again, I review it again."* Historically paper-based practices have been deeply embedded in GovFin's organizational routines. One of the employees commented on why these paper-based practices persist and why they have become difficult to eliminate: *"GovFin deals with a lot of paper, claim files and so forth. If you go to the office there are a lot of files sitting all over the show, taking up space [...]."* Another employee confirms the historical persistence of paper-based practices, and the difficulty in overcoming these sticky practices by taking full advantage of digital HRM: *"I think as GovFin we have a long way to go. We are still heavily reliant on paper, and I think our policies that are in place restrict us. They conflict with what the system is capable of doing."*

5. Discussion

In this section, we examine how stickiness can emerge in digital HRM practices. Line managers and employees encountered four impediments in reconfiguring their practices: system integration issues, lack of HR policy knowledge, mutual distrust, and red tape. These impediments interfered with reconfiguring digital HRM practices and undermined the optimal potential value that the organization could realize. Sticky elements from historical practices can remain a feature of digitally-enabled work practices. The emerging configurations of technology and related discursive practices used to reorganize work environments that co-exist with these stickiness elements can dampen rather than increase the performance and, ultimately, the value of digital technologies. Our case study findings show these four stickiness impediments constrained the performance of digital HRM by reproducing parts of the older paper-based routines. There was evidence of widespread technology diffusion, beneficial technology affordances, and the digital HRM's acceptance [22, 26, 28]. Although digitalization was widely accepted, it did little to alter the persistence and perpetuation of paper-based practices. First, our data show how digital practices are connected to multiple practices. For example, in the case, the performance management practice is part of the larger legislative practice in government while the leave management practices are part of labor law practices. Paper-based processes are also deeply embedded in the core practices of the organization. Second, managers maintain their position of power by the persistence and perpetuation of paper-based practices. In the case, bodies and space are connected to the continuity of traditional paper-based practices in the enactment of the performance management practice. Third, sticky elements such as paper-based objects become meaningful for line managers and employees in a climate of dominance and distrust. For instance, the co-located performance review process is an exercise of symbolic power for line managers. On the other hand, the self-managing and remote approach to performance management inscribed in digital HRM technologies empowers subordinates, challenges the hierarchical divisions of labor in bureaucratic organizations, and erodes line managers' symbolic capital and power. The physical co-presence of the line manager and subordinate in a performance review meeting is a strongly institutionalized practice, and persisting with paper-based elements means co-location rituals continue to persist. In this way, paper-based elements in performance review practices maintain the status differences between line managers and their subordinates. Although digital practices have a dominant status in the organization, the paper elements have become more than just a supplementary element but a tactic that signifies evidence in leave management and performance management practices. Paper elements have become a co-dependent part of digital HRM practices. Instead of vanishing, paper elements have recombined with the digital, thus enabling and constraining HRM practices at the same time.

6. Conclusion

In this section we present the implications of stickiness for theory and practice. We then conclude by discussing the need for more attention to be paid to organizational inertia and stickiness issues in future digital HRM research.

6.1. Implications for Theory

This paper extends the stickiness concept from knowledge management and organizational inertia perspectives to conceptualize how stickiness elements

from traditional material and discursive practices can impede digital HRM practices. Our conceptualization of stickiness in digital work practices has four main research implications. First, we advance the IS use literature by shifting the focus from the individual user to understanding stickiness in social practice. We go beyond individualistic conceptualizations that assume meeting end-user performance expectations, managing resistance to change, and altering the quality of the technology innovation alone are sufficient to improve suboptimal digital practices [22, 23, 24]. By focusing on the technology artifact, IT practice theorists also tend to overlook other elements that could constrain or enable digital work practices. We show that a focus on individual behaviors rather than a practice-based view, places disproportionate agency on end-users and the technology artifact, and neglects the multiple practices and elements that interconnect to shape stickiness ultimately leading to suboptimal performance in digital practices. We propose that digital transformation efforts should also aim to change sticky elements from outdated routines instead of only focusing on technology and changing the behaviors of end-users. Second, we advance the concept of stickiness from the knowledge management discipline in an important way. Apart from appropriating the concept of stickiness from a theory of knowledge transfer practices [31, 32] and employing it to other practices and routines, we provide a more holistic account of stickiness that incorporates an analysis of discursive practices, objects, time and space, embodiment, and emotions [20, 21]. Third, our case study supports Besson and Rowe's findings that organizational inertia can be multidimensional and interrelated in nature [35]. GovFin will need to overcome socio-technical constraints (legacy system integration), economics (capital investments to improve their network infrastructure and legacy migration), politics (the power play in performance management rituals, distrust about leave applications), socio-cognitive inertia (traditional norms of using paper), and negative psychology inertia (learning about the HR policies). Fourth, we advance theories of practice by examining the overlooked role of stickiness. While practice theorists have provided adequate conceptual tools to understand continuity and change, and insights into how and why certain practices persist, there has been little conceptualization of why certain unplanned or unwanted elements within a practice persist. Stickiness is not the same as durable or resilient practices but refers to elements with constraining features that interfere with the practice's performance [30]. Fifth, we introduce e-HRM researchers to a practice lens that provides a more nuanced understanding of digital HRM success [24, 28]. By analyzing the multiple practices that HR connects with, one can identify the sticky elements that undermine the performance of digital HRM. In our case, we found that instead of disappearing, paper elements recombined with digital HRM to constrain rather than enable the performance management and leave management practices. The absorption of paper elements into these digital HRM practices was suboptimal and counterproductive. Paper was not just a persisting element in the digital HRM practice but an inhibitor to the goal of creating a paperless environment. The stickiness of paper-based elements in digital practices has important performance ramifications for practitioners.

6.2. Implications for Practice

Adopting a practice lens, the results of this study highlight that stickiness can persist in the post-implementation phase of a digital HRM transformation effort. As for the second part of our research question, one way for practitioners to reduce stickiness is to prioritize identifying and reducing stickiness elements in existing practices. First, leaders of transformation efforts in digital HRM should recognize that while elements from historical processes may enable line managers and their subordinates, they can also interfere with the performance of the digitalization initiative. Interestingly, in the case, rational actions carried out by line managers and subordinates at the local level as tactics to manage the prevailing distrust were at odds with the productivity goals of digital HRM at the organizational level. Second, top management can influence the downward trajectory of paper-based practices on performance by openly calling for the elimination of paper in digitally-enabled HRM practices. Third, when designing change interventions, change managers should be mindful of the practice elements (e.g. materials and meanings) that can create stickiness and reconfigure these. Change managers should not underestimate the work and effort that is required to embark on a digital transformation effort. To minimize stickiness, material elements should be considered more broadly, and interventions should address links to other practices. For example, digital practices facilitating performance review meetings may still be co-dependent on paper due to the prevailing distrust and lack of transparency with the moderation practices. Fourth, IT practitioners supporting HR should ensure that they reconfigure the ways legacy systems are integrated with digital HRM and other technologies, so that line managers are not forced to rely on manual and paper-based forms to create reports. Fifth, HR practitioners should identify the competencies that employees need to perform the digital HRM practice. In the case, it is possible that if the HR policy on leave

forfeiture and the moderated performance scores had been explained better, paper-based elements would not have been so tightly bound to digital HRM practices, and stickiness could have been reduced. Lastly, line managers and their subordinates need to foster mutual trust by openly discussing their expectations and concerns. Building two-way trust between line managers and subordinates could go a long way toward reducing sticky elements in digital HRM practices.

6.3. Limitations and Future Research

Our study was exploratory, and our findings were limited to the experiences of line managers and employees working with digital HRM at a government organization. The unique contextual, material, embodied and discursive characteristics of these workers' experiences with digital HRM shaped our insights about stickiness. Future research could also provide insights into how HR practitioners and business leaders should work through these sticky practices to realize optimal value from digital HRM practices. While our study examined stickiness in digital HRM practices in a government organization, it is plausible that converting core processes in other organizations from paper to digital workflows will also show stickiness. Another promising avenue for future research would be investigating the digital workforce, especially the new generation of digital-native workers, and their response to stickiness in digital work practices.

7. References

[1] Ashford, S.J., B.B. Caza, and E.M. Reid, "From surviving to thriving in the gig economy: A research agenda for individuals in the new world of work", *Research in Organizational Behavior 38*, 2018, pp. 23–41.

[2] Strohmeier, S., "Digital human resource management: A conceptual clarification", *German Journal of Human Resource Management: Zeitschrift für Personalforschung 34*(3), 2020, pp. 345–365.

[3] Thite, M., "Digital human resource development: where are we? Where should we go and how do we go there?", *Human Resource Development International*, 2020, pp. 1–17.

[4] Deloitte, *2020 Deloitte Global Human Capital Trends*, 2020.

[5] Tansley, C., and S. Newell, "A Knowledge-based View of Agenda-formation in the Development of Human Resource Information Systems", *Management Learning 38*(1), 2007, pp. 95–119.

[6] Chanias, S., M.D. Myers, and T. Hess, "Digital transformation strategy making in pre-digital organizations: The case of a financial services provider", *The Journal of Strategic Information Systems 28*(1), 2019, pp. 17–33.

[7] Bondarouk, T., and H. Ruël, "The strategic value of e-HRM: results from an exploratory study in a governmental organization", *The International Journal of Human Resource Management 24*(2), 2013, pp. 391–414.

[8] Poba-Nzaou, P., S. Uwizeyemunugu, and M. Laberge, "Taxonomy of business value underlying motivations for e-HRM adoption: An empirical investigation based on HR processes", *Business Process Management Journal 26*(6), 2020, pp. 1661–1685.

[9] Ruël, H., and H. van der Kaap, "E-HRM Usage and Value Creation. Does a Facilitating Context Matter?", *German Journal of Human Resource Management: Zeitschrift für Personalforschung 26*(3), 2012, pp. 260–281.

[10] Wirtky, T., S. Laumer, A. Eckhardt, and T. Weitzel, "On the Untapped Value of e-HRM – a Literature Review", *Communications of the Association for Information Systems 38*, 2016, pp. 20–83.

[11] Orlikowski, W.J., "The sociomateriality of organizational life: considering technology in management research", *Cambridge Journal of Economics 34*(1), 2010, pp. 125–141.

[12] Orlikowski, W.J., "Digital work: a research agenda", In *A Research Agenda for Management and Organization Studies*. Edward Elgar Publishing, 2016, 88–95.

[13] Parry, E., "An examination of e-HRM as a means to increase the value of the HR function", *The International Journal of Human Resource Management 22*(5), 2011, pp. 1146–1162.

[14] Thite, M., "Digital human resource development: where are we? Where should we go and how do we go there?", *Human Resource Development International*, 2020, pp. 1–17.

[15] Bondarouk, T., E. Parry, and E. Furtmueller, "Electronic HRM: four decades of research on adoption and consequences", *The International Journal of Human Resource Management 28*(1), 2017, pp. 98–131.

[16] Stein, V., and T.M. Scholz, "Manufacturing Revolution Boosts People Issues: The Evolutionary Need for 'Human-Automation Resource Management'' in Smart Factories'", *European Management Review 17*(2), 2020, pp. 391–406.

[17] Baptista, J., M.-K. Stein, S. Klein, M.B. Watson-Manheim, and J. Lee, "Digital work and organizational transformation: Emergent Digital/Human work configurations in modern organizations", *The Journal of Strategic Information Systems 29*(2), 2020, pp. 101618.

[18] Walsham, G., "Doing interpretive research", *European Journal of Information Systems 15*(3), 2006, pp. 320–330.

[19] Klein, H.K., and M.D. Myers, "A Set of Principles for Conducting and Evaluating Interpretive Field Studies in Information Systems", *MIS Quarterly 23*(1), 1999, pp. 67–93.

[20] Nicolini, D., *Practice Theory, Work, and Organization: An Introduction*, Oxford University Press, 2012.

[21] Shove, E., M. Pantzar, and M. Watson, *The dynamics of social practice: Everyday life and how it changes*, Sage Publications, 2012.

[22] Yusliza, M., and T. Ramayah, "Determinants of Attitude Towards E-HRM: an Empirical Study Among HR Professionals", *Procedia - Social and Behavioral Sciences 57*, 2012, pp. 312–319.
[23] Venkatesh, V., M.G. Morris, and G.B. Davis, "User Acceptance of Information Technology: Toward a Unified View", *MIS Quarterly 27*(3), 2003, pp. 425–478.
[24] Bhattacherjee, A., and C.-P. Lin, "A unified model of IT continuance: three complementary perspectives and crossover effects", *European Journal of Information Systems 24*(4), 2015, pp. 364–373.
[25] DeLone, W.H., and E.R. McLean, "Information Systems Success: The Quest for the Dependent Variable", *Information Systems Research 3*(1), 1992, pp. 60–95.
[26] Turner, M., B. Kitchenham, P. Brereton, S. Charters, and D. Budgen, "Does the technology acceptance model predict actual use? A systematic literature review", *Information and Software Technology 52*(5), 2010, pp. 463–479.
[27] Davison, R.M., and M.G. Martinsons, "Context is king! Considering particularism in research design and reporting", *Journal of Information Technology 31*(3), 2016, pp. 241–249.
[28] Orlikowski, W.J., "Using Technology and Constituting Structures: A Practice Lens for Studying Technology in Organizations", *Organization Science, 11*(4), 2021, pp. 404-428.
[29] Vaast, E., and G. Walsham, "Representations and actions: the transformation of work practices with IT use", *Information and Organization 15*(1), 2005, pp. 65–89.
[30] Nicolini, D., "Practice as the Site of Knowing: Insights from the Field of Telemedicine", *Organization Science 22*(3), 2011, pp. 602–620.
[31] Szulanski, G., *Sticky Knowledge: Barriers to Knowing in the Firm*, Sage Publications, London, 2003.
[32] Szulanski, G., "Exploring Internal Stickiness: Impediments to the Transfer of Best Practice Within the Firm", *Strategic Management Journal 17*, 1996, pp. 27–43.
[33] Kelly, D., and T.L. Amburgey, "Organizational Inertia and Momentum: A Dynamic Model of Strategic Change", *Organizational Inertia and Momentum: A Dynamic Model of Strategic Change 34*(3), 1991, pp. 591–612.
[34] Dean, J.W., "Integrated Manufacturing and Job Design: Moderating Effects of Organizational Inertia", *The Academy of Management Journal 34*(4), 1991, pp. 776–804.
[35] Besson, P., and F. Rowe, "Strategizing information systems-enabled organizational transformation: A transdisciplinary review and new directions", *The Journal of Strategic Information Systems 21*(2), 2012, pp. 103–124.
[36] Zhen, J., C. Cao, H. Qiu, and Z. Xie, "Impact of organizational inertia on organizational agility: the role of IT ambidexterity", *Information Technology and Management 22*(1), 2021, pp. 53–65.
[37] Mikalef, P., R. van de Wetering, and J. Krogstie, "Building dynamic capabilities by leveraging big data analytics: The role of organizational inertia", *Information & Management 58*(6), 2021, pp. 103412.
[38] Schatzki, T.R., "Peripheral Vision: The Sites of Organizations", *Organization Studies 26*(3), 2005, pp. 465–484.
[39] Crabtree, B.F., and W.L. Miller, "A template approach to text analysis: Developing and using codebooks", In *Doing Qualitative Research*. Sage Publications, 1992, 93–109.
[40] Gioia, D.A., K.G. Corley, and A.L. Hamilton, "Seeking Qualitative Rigor in Inductive Research: Notes on the Gioia Methodology", *Organizational Research Methods 16*(1), 2013, pp. 15–31.