TIPPING THE SCALES: AMBIDEXTERITY PRACTICES ON E-HRM PROJECTS

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1

Structured Abstract:

Purpose

We examine and conceptualise the ways in which a balance can be achieved between optimising the efficiency and effectiveness of electronic HRM (e-HRM) systems for human resource management (HRM) and enabling innovation to occur during the system implementation.

Design/methodology/approach

An intepretive case study of a UK local authority e-HRM system implementation is examined using the notion of ambidexterity as an analytical device. Ambidexterity relates to how an organisation develops the ability to operate efficiently in the now, while at the same time being able to adapt to environmental changes around and ahead of them in order to grow into the future.

Findings

As an intra-organisational capability, ambidexterity is found to derive from the simultaneous interplay and balancing of dual capabilities: *exploitation* and *exploration*.. E-HRM exploitation concerned the capability to generate new knowledge with innovatory effects, created through the everyday practices performed by practitioners at all levels in the organisation. E-HRM exploration, rather than being a purposeful act, was found to be an accidental consequence of engaging in exploitation to maintain the status quo.

Originality/value

There is a lack of detailed investigation of how organisations actually achieve ambidexterity, particularly in three under-researched areas: ambidexterity in the public sector, at HR functional level and e-HRM systems implementation. Bundling these three areas into an integrated examination allows us to both identify how exploitation and exploration play out in the ambidextrous practices of an e-HRM project and also to identify the dimensions of ambidexterity in balancing e-HRM work.

Keywords: Ambidexterity; e-HRM; exploitation; exploration; innovation.

Article Classification: Research paper

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INTRODUCTION

As organisations face pressure to achieve both efficiency and effectiveness in their human resourcing (HR) operations, they have increasingly turned to HR technology in the form of electronic HRM (e-HRM) as a potential solution (Parry and Tyson, 2011). E-HRM enables HR departments to store and analyse data to increase workforce information flows, to devolve many routine administrative and compliance functions traditionally performed by corporate HR departments (Bondarouk *et al.*, 2009b; Tansley *et al.*, 2001) and to enable 'the planning, implementation and application of information systems (IS) for both networking and supporting practitioners in their shared performance of HR activities' (Strohmeier, 2007, p.20). Bondarouk and Ruël found that there are essentially three goals related to the introduction of e-HRM (reducing costs, improving HR services 'and improving HR strategic orientation'), but unfortunately 'e-HRM is mostly directed at cost reductions and efficiency increases in HR services, rather than at improving the strategic orientation of HRM' (Bondarouk and Ruël, 2013, p 391).

However, we have seen some shifts of HR specialists away from focusing on routine administrative functions to play a more genuine strategic business-partnering role, thereby driving the 'modernization" of HR departments (Bondarouk & Ruël, 2009) and the implementation of "transformational" (i.e. strategic) HR practices (Bondarouk,*et al.*, 2009a; Ruël *et al.,* 2004; Marler, 2009). Contemporary e-HRM systems therefore have the potential to make it possible for HR practitioners to generate the real time data and metrics on HR related issues that make it easier to operate in the present, as well as supporting strategic decision making for the future (Lawler *et al.* 2004; Lengnick-Hall & Moritz, 2003) through the use of different technologies linked to strategic HR approaches. Nevertheless, as Marler & Fisher (2013) found in their examination of 40 studies of e-HRM research undertaken between 1999 to 2011, what is missing are e-HRM empirical studies that theoretically examine how e-HRM operational processes link with HR and organisational strategic practices. It is this gap that led us to undertake this particular case study of a UK local authority who are implementing an e-HRM system to support the human resource management (HRM) task of 8,000 employees operating in a rural area covering about 2,000 square miles and serving a population of 133,000 citizens.

3

After considering a number of theoretical frameworks for our study, for a number of reasons we chose the notion of ambidexterity as a possible analytical way forward.

Ambidexerity

The notion of ambidexterity has its origins in the field of strategy (Raisch and Birkinshaw, 2008), when Duncan (1976) argued that firms owe part of their success to being ambidextrous, that is, they have the ability to operate efficiently in the now, whilst at the same time being able to adapt to environmental changes around and ahead of them in order to survive and prosper into the future (Duncan, 1976; Gibson and Birkinshaw, 2004; Tushman and O'Reilly, 1996). March (1991) used ambidexterity as a master frame, that is, a relatively stable configuration of ideational elements and symbols (Snow and Benford, 1992), for identifying ways of both exploiting resources and carrying out innovation activities within an organization in order to ensure organizational learning in order to survive in turbulent times. In essence, *exploitation* includes the choice, refinement, implementation and execution of a particular course of action and *exploration* includes behaviour reflecting the search, discovery, experimentation and play of new courses of action (March, 1991).

Exploration and exploitation therefore have fundamentally different qualities. Exploitation 'is characterized by short-term time horizons, efficiency, reliability and refinement, while exploration involves long-term time horizons, search, experimentation, innovation and adaptability' (McCarthy and Gordon, 2011, p241). March (1991) argues that organizational processes that refine exploitation more rapidly than exploration tend to be effective in the short run but self-destructive in the long run (in Cheng and Van de Ven, 1996). In essence, then, ambidexterity provides for exploitation of old certainties and exploration of new possibilities within an organizational learning context (March, 1991).

In seeking to nurture competences in both exploitation and exploration there are two main ways in which ambidexterity research is framed in the literature. One frame is known as 'structural ambidexterity' (Duncan, 1976; Adler *et al,* 1999; McDonough and Leifer, 1983; Tushman and O'Reilly, 1996) and involves setting up organisational structures and workflows that facilitate both activities, whilst maintaining a balance between them. This is achieved in practice through the construction of either separate units with responsibility for

4

exploitation and exploration, or by sequencing and interspersing exploitation and exploration activities across time. Another option is 'contextual ambidexterity' (Birkinshaw and Gibson, 2004; Gibson and Birkinshaw, 2004; Raisch and Birkinshaw, 2008), involving the creation of an organizational context designed to inspire, guide and reward people to act in a certain way (Ghoshal and Bartlett, 1997), enabling 'exploitation and exploration behaviors to transpire in the same organizational unit.' (McCarthy and Gordon, 2011, p241). It is the second way we are utilising here.

The moderating relationship of ambidexterity in relation to IT, e-HRM and HRM
Within IT, the verbs used to explain exploitation of data through IT were 'automate' and 'informate' (Zuboff, 1988), where IT is used in a transactional sense for codifying, organising, processing and synthesising data in order to informate organizational decision making and the exchange of ideas (Sanders, 2008). In early studies of both IT and e-HRM, there was a tendency to focus primarily on exploitation and to rather ignore exploration (Stein and Zwass, 1995). More recently, there have been studies at least alluding to both exploitation and exploration, where IT is taken to be 'the anchor to achieve both exploration and exploitation, and thus ambidexterity', enabling the creation of 'an interconnected context as a medium to vertically and horizontally integrate efforts, knowledge and ideas into collective action, irrespective of time and geographic dispersion' (Revilla *et al.,* 2013, pps 4-5).

The aims of this paper are to use ambidexterity as an analytical frame to identify and conceptualise how the IT elements of e-HRM allows managers to exploit opportunities for effective human resourcing in the here and now by enabling the automation of their HR data operational tasks, whilst facilitating transformational activities to innovate for the future in the HR arena. We address these aims by seeking to show that there are several routes to ambidexterity in e-HRM work. Firstly, we identify how exploitation and exploration play out in the ambidextrous practices of a specific e-HRM implementation project and, secondly, we map the dimensions of ambidexterity inherent in *balancing* exploitation and exploration in order to facilitate discussions about e-HRM work.

Contributions of the paper
Our findings differ from, and contribute to, previous research in a number of important ways. We contribute to the HRM literature by drawing upon ambidexterity as a novel conceptual

5

lens to examine the processes of both completing routine, day-to-day human resourcing activities as *purposeful* and *intentional* efforts to achieve exploitation, whilst demonstrating how *unexpected* (or even *accidental*) exploration can occur. We contribute to the ambidexterity literature by highlighting the use of e-HRM as a complementary route to achieving the desired balance between exploration and exploitation in order to achieve ambidexterity at a (HR) *functional level*. And lastly, whilst the majority of past e-HRM studies focus on the general benefits of HR technology in use, this study focuses on the specific benefits that accrue when ambidexterity mediates the relationship between e-HRM implementation and strategic HRM developments.

We now continue the paper with an explanation of our research design, before presenting an explorative public sector case study demonstrating how the different stakeholders of an e-HRM implementation project 'play out' ambidexterity in their practice. We next discuss/analyse our findings, then conclude with recommendations for future research and suggested implications for managerial practice.

RESEARCH DESIGN AND ANALYSIS

The research design for this study comprised a case study organisation in the UK public sector, a large local authority (named in this paper as 'TLA': The Local Authority), with c8,000 employees in a rural area covering about 2,000 square miles and serving a population of 133,000 citizens. TLA is classed as a 'unitary authority', providing all local government services including: education, social care, planning, roads, bridges, leisure services and tourism. TLA manages within an extremely challenging geography and demographics, covering one of the most sparsely populated local authority areas in England and Wales, with one person in every four hectares, resulting in an increasingly ageing and culturally diverse population. They have an HR Director and a small HR division who are responsible for employee recruitment, development, rewards and relations. The e-HRM project team was housed in a central, corporate office with their e-HRM manager, who was not only active in delivering an appropriate e-HRM system, but through her networks with other authorities and the vendor client group she was also active in supporting learning in areas such as implementation of HR shared service centres. The organisation was a long-term, valued client of a software vendor we had collaborated with for over a decade. The highly-experienced

vendor had been in business since the mid 1980's, providing stand-alone (not integrated with other functional systems) HR software solutions, consultancy and outsourcing for public, private and not-for-profit sectors and they support the management, development and payment of approximately 10% of the UK workforce, equating to almost 3 million employees.

This is an interpretive case study of the public authority. Interpretivism was chosen as it has a proven pedigree as an appropriate method in the field of information systems (Benbasat et al, 1987; Walsham, 1995) and it enables researchers 'to understand human thought and action in social and organizational contexts' as well as having 'the potential to produce deep insights into information systems phenomena including the management of information systems and information systems development' (Klein and Myers, 1999, p67). We are therefore not undertaking a positivist approach with its enactment of formal propositions, testing hypotheses, quantification of measures of variables and drawing inferences about phenomena from a representative sample of a particular population. Nor are we critical realist case study researchers undertaking social critique in order to emancipate by highlighting and eliminating the restrictive nature of power and control mechanisms of dominating practices in order to enhance opportunities for realising human potential (Alvesson and Willmott, 1992). Rather, as interpretive researchers we make the assumption that our knowledge of reality in the use of information systems in the HR domain is gained only through processes of social construction by virtue of language, shared assigned meanings of phenomena and other ways of making sense (Boland, 1985; Deetz 1996; Orlikowski and Baroudi 1991).

Our overall aim, then, is to produce an understanding of the context of the e-HRM system, and the processes whereby such a system 'influences and is influenced by the context' (Walsham, 1993, pp. 4-5). In this we are also positioning this study alongside a growing number of studies in the technology arena where social construction of technological realities is a major consideration.

Data collection
Data collection was undertaken in several phases. Five semi-structured, digitally-recorded interviews (Kvale and Brinkmann, 2009, Hennink *et al.*, 2011) took place with our sponsor, TLAs e-HRM manager, over the period May 2011 to June, 2013, each lasting up to two hours

7

and held variously at two annual vendor e-HRM user group conferences, on the software vendor premises and at our universities offices. As our sponsor she selected12 interviewees for us by identifying those case organisation and vendor personnel who were particularly connected to the e-HRM system through their work. These interviewees included: chief executive officer; head of a service division; recruitment team leader; employment services manager; HR technology team members; leisure centre manager/system user and software vendor management. These interviews lasted between 30 and 60 minutes.

Following Hennink *et al*'s (2011) approach, our questions covered two elements: firstly to understand the organisational context, and secondly, to identify which critical incidents had had an impact on the implementation processes of the TLA Change Plan. An interview protocol was designed for all interviews (Hennink *et al*., 2011, Savin-Baden and Howell-Major, 2013). Questions were drawn from themes from the ambidexterity literature and linking to how did individuals see themselves coping with the demands of the 'here and now' with regard to the e-HRM system implementation meeting strategic HRM information requirements, for example,' how did they envisage they would build organisational structures and culture for the future and what would this mean for them in their role?'. The questions were then organised into broad thematic areas, producing an interview 'script' (Kvale and Brinkmann, 2009) to inform discussions with individual interviewees. As participants became more interested in the topic and freely offered further points for consideration, the interview proceeded as a conversation, such that 'knowledge is constructed in the inter-action between the interviewer and the interviewee' (Kvale and Brinkmann, 2009, p. 2).

In order to explore the functionality, general usage and governance of the HR technology in TLA, and because ambidexterity was an unknown and abstract concept for the interviewees, we firstly oriented the interviews by defining our focal theory, ambidexterity, as *attempts by organisational actors to achieve a balance between efficient and effective HRM in the present, whilst also enabling adaptation to accommodate future changes*. We next gave relevant examples of how ambidexterity is used in strategic management research and then our rationale for using this concept as a lens for this study of their e-HRM implementation work. Then, we asked the interviewees to try to link this notion with their regular practices in the implementation and use of their e-HRM system, probing their comments using (and explaining) ambidexterity sub-concepts such as exploitation and exploration, whilst being

cognisant that we should not lead the interviewees in their answers. While the first part of the interview was geared towards capturing insights related to HR technology usage and the trajectory of change, the second part aimed to encourage interviewees to reflect on their personal experiences and observations about the implementation of e-HRM on the human resourcing task. Finally, we drew on multiple sources of case evidence (Yin, 2003) to check our interview findings. The textual documentation examined included: vendor information on the e-HRM system; the TLA Change Plan is in the public domain; internal TLA material on strategic plans and diagrams for the project scheme. These documents were analysed by the two principal researchers separately and then together before being included in the analysis.

All interviews were transcribed verbatim (Seale, 1999). The data gathered from the interviews was supplemented with formal and informal discussions, document analysis, observation and attendance at formal workshops and presentations. Our emphasis was on capturing changes in practices and perceptions of organisational actors regarding the enactment of ambidexterity across time through exploitation and exploration. Our units of analysis are the stories interviewees told us about their lived, meaningful experiences (Denzin, 1989, p. 104) of the HR information system which was being implemented into the authority.

> So we are interested in your role as Chief executive of this whole picture, your thoughts and reflections on where you are today…as well as what your vision is of the future. Also recognising, that for you as well, it is not just what is happening within the organisation, but it is also the responsibilities you have for responding to external pressures.
>
> (Lead researcher to Chief executive in interview one)

Data analysis

The initial analytical emphasis was placed on understanding the structure, rationale and control that the organisation used to manage its HRM and e-HRM environment, as we first attempted to establish an overall understanding of the context of the case organisation with a specific emphasis on its usage. In order to pursue a rigorous and high quality research process rather than 'a disorganised stumble through a mass of data' (Silverman, 1993, p.43),

9

we chose to use NVivo 9 software to support our data analysis for its efficient and well-structured data management system (Miles and Hubermann, 1994, Gibbs *et al*., 2002) and a way of recording coding analysis by associating codes with definitions and memos to record emerging themes and theoretical contributions. The interview transcripts were independently coded, then the codes were compared and re-coded through an iterative process (King, 1998) to check for coding consistency (Weber, 1985) initially seeking examples of ambidexterity, exploration and exploitation.

As the interviews progressed, we undertook continual analysis of data to identify which activities in the e-HRM project work could be taken to be examples of exploitation and which of exploration. Emergent findings were presented to the e-HRM manager at different stages of the study in order to check the efficacy of elements of the case with factual elements such as project timelines, project activity phases and HR software functionality and occasionally adjustments were made. Overall, we identified two elements. Firstly, we noted the ways in which both exploitation and exploration played out in the ambidextrous practices of different role holders engaged in the project. Secondly, through this we were able to identify how ambidexterity shifts from exploitation to exploration of e-HRM in use. Specifically, we identified moments of 'turn' (Tansley and Newell, 2007) from exploitation to exploration across the sundry sites of ambidextrous practice experienced by different stakeholders in the case study. Thus stakeholders' narratives of their experiences of the system provided new conceptualising to enable us to make sense of the phenomenon of ambidexterity in e-HRM use; both in terms of its governance and utilisation. Open coding produced the exploitation-exploration strategic dimensions and axial and selective coding produced the definitions of each. The resulting data is mapped onto the matrix to be found in Table one, below.

Limitations of this study

The notion of ambidexterity was originally constructed within strategic management and studies in the field have previously been confined to this area. This makes this study theoretically and empirically experimental, making it a challenging research endeavour. Another limitation is that we only sought *views* from the interviewees on how external forces might limit or facilitate their ambidexterity, as opposed to actually studying those forces ourselves.

10

CASE STUDY

This research study is located within a single case organisation (named in this paper as 'TLA': The Local Authority), which was representative of a large local authority in the UK public sector. This authority has approximately 8,000 employees (the largest employer in its area) and is located in a rural area of the UK, covering about 2,000 square miles and serving a population of 133,000 citizens. Government revenue funding reduction in 2010 resulted in budget cuts totalling more than £2.3M, which required corporate strategies for greater efficiencies whilst maintaining effective levels of public services. This led to the creation of the 'TLA Change Plan', an improvement plan with aims and objectives linked to government national priorities; setting out five key improvement objectives to shape service delivery until 2014 and identifying the teams and individuals tasked to deliver them within TLA. The TLA Change Plan was also run in parallel with individual service strategies resulting in 'Operational Delivery and Continuous Improvement' initiatives. In order to support the changes in their strategic HRM architecture, TLA procured an e-HRM system.

Implementation of an e-HRM system
TLA began, as many organisations do, with the implementation of a replacement payroll system, and progressing over time to an enterprise-wide, stand-alone (not ERP multi-functional) HR system. This was procured from an HR software systems vendor, specialising in stand-alone, modular HR systems to cater for a myriad of generic HRM processes.

> 'The Employment Services Model in respect of this local authority is born out of… the procurement of the HR payroll system…'We had a dedicated payroll system and … no HR system. And the problem … was that HR-related information and records were held on various media and databases. So there were paper files, spreadsheets …Back then we were in effect a payroll department with aspects of HR admin, either done in service areas within the Council or within HR. there was no sort of pulling of that together… we had employment process in place and I think it's fair to say that some of them were at least 30 years old…and that isn't exaggerating…and I think, looking back at that…this was one of the catalysts for change'. (Employment Services (ES) Manager)

11

A certain element of technological determinism is evident here as internal processes were changed to fit with the technology:

> 'From my point of view the main driver was the system, the integrated system…the technology side drove the decision-making and the need to change'. (ES Manager)

E-HRM as exploitation tool

Given that their main purpose is to support routine HR tasks such as recruitment, training records and payroll, it is not surprising that many e-HRM systems are designed mainly for exploitation rather than exploration purposes. This was evidenced where several of the interviewees, when asked about the ambidexterity inherent in the HRM technology/HRM strategy relationship, framed their answers in exploitation terms. Some also revealed an organisational systems culture of control rather than an on-going orientation towards e-HRM innovation in enacting HR practice:

> 'We need to now be looking at doing appraisals across the organisation in a more consistent way, and that's where the technology comes in…using the systems as the tool to do that to set out the lifecycles, to prompt people to be able to do it via self-service. ..The key to it all for us is that the technology is just the enabler…it's the tool that we're using'. (Transaction and Systems (T&S) Manager)

However, this is not to say that innovation does not occur in exploitation processes. For example, TLA's Recruitment Team Leader reported that 'the whole of the People Manager process' had transformed their operations. Web Recruitment had particularly negated the need for paper application forms to be manually entered into the system, 'that was so tedious – hand-feeding the application forms in there every day…The potential for error was high' – and Interview Scheduling – 'that's been brilliant…stuff like that makes life so much easier for all of us'.

E-HRM as exploration tool

In our interviews what became clear was the number of times e-HRM exploration was an outcome of identifying and engaging with difficult HR issues which initially required exploitation. In one memorable case this came when adding to the modules in the original e-

12

HRM implementation plan seemed to be a good solution. Here, the 22 leisure centres owned by the authority had had a continuing problem when undertaking manual timesheet recording for the many ad hoc and permanent staff covering exercise classes and other duties. One leisure centre manager offered to be a 'guinea pig' for the e-HRM systems team to identify and learn about the issues in order to inform the design of a new system module for use in all the centres. In considering these problems, the vendor's consultant realised that they had an old, existing module within the HR system which could provide the electronic functionality for planning and controlling staff work rostas and which could be applied, after some adaptations.

> '…it was a module they [the vendor] were saying was ready to sell to customers and then when we looked at it and it was like "yeah, well there's mileage in this but actually it's not yet fit for purpose'. (T&S Manager)

This rostering software is now available to all vendor customers and it enables the user to define, allocate and schedule task requirements, with problems such as under or over-staffing being easily identified and corrected. Mapping across to existing employee information, the software distributes alerts for issues such as roster clashes with holidays and learning activities. In addition, bespoke rules such as limits on shift lengths or working hours can be modelled and the roster checked against these. Implementation of the rostering module therefore appeared to happen as an *accidental occurrence*. Such an occurrence can be high uncertainty and risk if innovation is not given an appropriate level of scrutiny and consideration of corporate aims. However, in this case the inclusion of several stakeholders, including leisure centre manager, systems team and others meant that careful scrutiny was undertaken over time. Once the first innovation 'wave' took place, other instances followed:

> 'We took the application view within *the system…* so, using that technology to create all these different forms that somebody has to fill in'. (T&S Manager)

> 'We've made it dual-purposing, and now if we like we can build other forms within the app within that designer and it works really, really well'. (Recruitment Team Leader)

13

Barriers to achieving ambidexterity as a complete balance of exploitation and exploration

Although we perceived increasing instances of exploration features of the HR information system as the e-HRM implementation continued, we also noted that the exploitative features of the system were still in existence, not least because of the unwieldy nature of the system's functionality:

> 'I think it's fair to say we've started on a journey and we're not there yet…and actually getting people to use the system when it's new. I mean it's certainly the right way to go but I don't think the system is, well certainly not to me, that intuitive. I know they're trying to refine it…' (Head of Local & Environmental Services)

Some modules were seen only from an exploitative perspective:

> 'one of the key things of using technology for HR, not only for better communication using things like Facebook… but there is the recruitment issue, particularly for young people, that everyone says they find the formal recruitment system cumbersome. But how do you develop a system that they can identify with but that actually deals with all the regulatory issues which we have to cover when we recruit?' (CEO)

However, this may have been due to specific barriers to technology adoption:

> 'We are very restricted on what we can access during the day…can't get on Facebook…can't even get on certain website unless it's outside of core hours. ..For me it's total trust in people using modern technology to its full'. (Principle Officer, Professional Development)

Future developments/exploration

Social media was inevitably seen as an explorative technology with many benefits, especially with regard to engaging with the younger generation, although it is still at an early development stage of use. The CedarCrestone 2011-12 Survey Outlook predicts over 100% growth over the next three years in both workforce analytics/planning and social media applications.

14

As implementation of the eHRM system continued with the LA, the possibility of using social media for learning emerged:

> 'It's at idea stage at the moment and we would like to be doing a lot more with it…in a way that fits with the working requirements of different services as well would be useful because...9-5 training doesn't fit with every service so again if you can do something that is flexible… [Also,] instead of imposing on a member of staff an appraisal I'd like to think that somehow they could talk interactively face to face via computer if they need to…so they can web-cam each other, Skype, I don't know.

Something which was frequently mentioned as a future development was that of mobile technologies, particularly tablet computers, which were seen to be part of the answer to engaging with harder to reach areas of service, such as Catering and Cleaning, where managers are travelling around more than being office-based:

> 'I think a lot of what they're [the vendor] working on…it's all going to change, it won't be self-service with People Manager, you're just going to go into portals…it's going mobile…but a lot of it will come down to analytics and engagement and social networking…that's next. …[But] 'We need [the vendor] to catch up with the mobile technology as well'. (T&S Manager)

This may not be considered as exploration if the technology already exists and is being used in other areas or organisations, but it could be considered exploration in terms of TLA's utilization of such technologies.

During our discussions with all interviewees we found that TLA demonstrated evidence not only of the standard exploitation elements of e-HRM technology in use, but also those more explorational aspects of e-HRM. These have also been mentioned in Bondarouk and Ruël's extensive literature review as: the generation of HR metrics to support strategic decision-making; organisational branding to improve organizational image; freeing HR staff from administrative burdens and allowing them to undertake strategic people-management activities; empowering managers through the development and support of management capacity to conduct HR activities; improving talent management through e-selection, self-

15

assessment and e-performance management and transforming HR professionals from administrative paper handlers to strategic partners (2013, p392). In other areas where transformational practices are increasingly popular, such as outsourcing of HR (Morley *et al.*, 2006; Ruël *et al.*, 2004) and the creation of HR shared service centres (Farndale *et al.*, 2009; Meijerink & Bondarouk, 2013), thanks to the e-HRM manager, TLA were leaders as advisors to other authorities in their sector.

DISCUSSION

In this section, we identify ten dimensions to explain how TLA utilised their e-HRM implementation processes in a way which encouraged ambidexterity by enabling the execution of routine HR operational tasks, whilst simultaneously allowing the exploration of new and innovative HR ideas through technology-in-use.

What constitutes exploitation and exploration in e-HRM ambidexterity work?
Exploitation in e-HRM systems implementation projects is necessarily highly purposeful, as the aim is the collection and control of HR data. E-HRM functionality tends, then, to be focused on satisfying the need to accommodate the here and now. However, as we saw in the TLA case study, there are many opportunities for exploration endeavours in exploitation work as well as separate innovation outcomes. Exploration in e-HRM systems is future-orientated and experimental with the aim of discovering new and novel ways of doing things.

We saw a number of instances in the e-HRM case study where exploitation and exploration occurred at the same time, although this is not to say that they could be called 'balanced' or that ambidexterity was 'achieved'. For example, the exploitation aim of e-HRM systems was to support *HR strategic goals* by enabling the improvement of the management of people to address current labour market pressures and all the other issues highlighted on the 'TLA Change Plan'. What was recognised over time, and had begun to occur, was the need to create a dramatic change that transforms traditional people management into talent management through access to quality human capital management e-HRM functionality and innovation in learning systems.

16

TLA's initial *horizons* for exploitation were initially short- to mid-term, with a c*ulture* change planned where the key determinant of e-HRM is for administrative control where existing HR procedures and organisational rules should dominate. As ideas for exploration emerged, this soon changed to a long-term view with an on-going cultural orientation towards innovation in e-HRM practices of experimentation, risk taking, agility, speed, flexible approaches to e-HRM systems use and implementation, intensive collaboration and teamwork.

Another key dimensionof e-HRM ambidexterity is the *innovation target/strategic focus* of the implementation. TLA's *e-HRM functionality* initially comprised technological determinism for supporting routine HR tasks but then e-HRM module developments enabled the joint construction of HR innovation ideas by different stakeholders combining their ideas. Strategically, with exploitation, the focus is on cost or feature improvements in e-HRM products, services, processes or internal marketing to users and optimization of existing organisational HR policies. However, exploration requires the identification and development of e-HRM processes, products and services offering unprecedented performance features and new organisational HR strategies and policies. In TLA, incremental *innovation* was still seen as a possibility for exploitation activities, but over time exploration occurred as the *innovation influencers* (external vendor staff and all internal stakeholders, guided by the e-HRM manager) began to think about more radical innovations.

The *risk profile* of systems is differentiated in the two elements of ambidexterity. In TLA, given the close collaboration with the vendor on developments and thereby privileged access, when normal problems arose, a low to medium risk profile evident. It was perhaps not appreciated that moving into more radical innovation in e-HRM could provide high levels of uncertainty and risk if an innovation is not given appropriate level of scrutiny and consideration made of corporate strategic aims.

In terms of *structure* of the e-HRM project, TLA initially had their e-HRM project staff centralized in corporate HQ, with high levels of hierarchy and formalization informing vertical communication within the organisation, but over time and primarily due to the e-HRM manager's networking capability and passion for the maximising of the system's

17

potential, there was some evidence of decentralization of project work, with networked low levels of hierarchy, formalization informing horizontal communication.

Activity specification is also a feature which emerged as important in ambidexterity work. With exploitation, HR tasks are strictly defined and highly specialized but exploration invariably requires HR tasks to be broadly defined with low specialization. Finally, *performance criteria and reward systems* were not measured in the case study but should also be mentioned. Ohr and Mattes (2013) suggest that with exploitation, performance will be measured separately for certain units and tasks with reward systems rewarding individual performance and with a focus on financial measures, but with exploration it could conceivably be the case rewards are related to the success of the radical innovation/the unit; that reward systems are designed to support teamwork and/or to discourage individual behaviour and there is a focus on individual, team and organisational learning.

The ten dimensions of ambidexterity are shown in Table 1, below:

Table 1: Dimensions of ambidexterity in balancing exploitation and exploration in the use of e-HRM to facilitate strategic HRM (amended from Ohr and Mattes, 2013)

	Exploitation	*Exploration*
HR Strategic goals	Improve the management of people to address current labour market pressures.	Create a dramatic change that transforms traditional people management into talent management through access to quality human capital management e-HRM functionality and innovation in learning systems.
Innovation influencers	Vendor and HR on incremental innovation	External: Vendor, Client user group. Internal: Users with e-HRM systems manager support on more radical innovation
Horizon	Short- to mid-term	Mid- to long-term
Culture	Key determinant: e-HRM for administrative control. Existing HR procedures and organisational rules dominate.	On-going orientation towards innovation in e-HRM practices; experimentation; risk taking; agility, speed, flexible approaches to e-HRM systems use and implementation; intensive collaboration and teamwork.
Innovation target/strategic focus	Cost or feature improvements in e-HRM products, services, processes or internal marketing to users: optimization of existing organisational HR policies.	Identification and development of e-HRM processes, products and services offering unprecedented performance features; new organisational HR strategies and policies.
Risk profile	Low to medium risk, given the close collaboration with the vendor on developments and thereby privileged access when normal problems arose.	High uncertainty and high risk if an innovation is not given appropriate level of scrutiny and consideration made of corporate strategic aims.
Structure	E-HRM projects are centralized in corporate HQ, with high levels of hierarchy and formalization informing vertical communication.	E-HRM projects are decentralized and networked low levels of hierarchy, formalization informing horizontal communication.
e-HRM functionality	Technological determinism for supporting routine HR tasks.	E-HRM module developments enable the joint construction of HR innovation ideas by different stakeholders.
Activity specification	HR tasks are strictly defined, highly specialized.	HR tasks are broadly defined and have low specialization.
Performance criteria and reward systems	Performance is measured separately for certain units and tasks; reward systems reward individual performance focus on financial measures.	Success of the radical innovation/the unit; reward systems are designed to support teamwork/to discourage individual behaviour. Focus on learning.

We argue that, in order to achieve ambidexterity through e-HRM, attention needs to be paid to all of these aspects.

CONCLUSIONS

In this paper our findings highlight a number of features of contemporary e-HRM enactment and contribute to previous e-HRM and ambidexterity research in a number of important ways. Firstly, we show how there has been a tendency in the past in both academic literature and organisational practice to take the main aim of e-HRM as one of exploitation, given that it is an efficiency enabler for the day-to-day 'routines' of human resource management. Exploitation in this context means the deliberate act of ensuring the processes of HRM (recruitment, training etc.) are supported through information management systems of the technological kind. However, a system only designed and used for exploitation cannot be labelled 'ambidextrous'. We suggest therefore that managers need to avoid the tendency of becoming overly-focused on exploitation at the expense of exploration, with 'the value of ambidexterity being an attempt to achieve a *balance* between exploitation and exploration, where each is mutually enhancing, with firms attempting to attain high levels of both (Gupta *et al*., 2006; Jansen *et al*., 2006) ' (McCarthy and Gordon, 2011, p.241).

Secondly, we suggest that managers could also usefully take exploration as an emergent process and its inception can be through both accidental and planned 'turns' from activities primarily focused on exploitation. The two elements of ambidexterity can occur both simultaneously or one (exploration) as a result of the other (exploitation). However, balancing the two does not imply that organisational resources should be evenly divided among exploration and exploitation and it can be that there is internal competition between the two alternatives at each evolutionary step. This means that the optimal distribution of exploration and exploitation can change with each of those steps and it is dependent on situational, external factors. Another important aspect is that of the 'trade-off', where 'organizations make explicit and implicit choices between the two' (March, 1991, p. 71) to attain an 'optimal mix' (March, 1991, p. 75). The essential essence of this trade-off relates to the competition for scarce resources (March, 1991; Uotila *et al*. 2009), e.g. time, space, funding, attention and effort, as the processes of exploitation and exploration play out over time.

20

Thirdly, we suggest that *all* e-HRM stakeholders could usefully take ambidexterity as a framework for implementation at both strategic and operational level and that this, by association, will require them to adopt a longer-term perspective. This ensures that not all activities are operational and related to exploitation, with exploration (i.e. innovation) hardly in the equation at all. However, some stakeholders will have more influence than others. For example, it was clear in TLA that the e-HRM manager was a major innovation influencer. However, in order to engender a culture that is orientated towards innovation, we argue that there that is a need to appoint additional innovation influencers to act as change agents and strategic prime movers (Moss Kanter, 1983). We recommend that these roles are also adopted by other stakeholders and not solely filled by e-HRM specialists. We also advocate the development of innovation targets, supported by the appropriate attitudes to risk, in order to enable the identification and development of enhanced and novel e-HRM processes.

Finally, as part of developing a culture that is supportive of e-HRM ambidexterity, the management of e-HRM projects needs to be decentralised and networking encouraged, enhancing communications. This needs to be facilitated by an emphasis on performance and reward systems that promote team working and an approach to job design that is not restricted to strictly defined, specialised HR tasks.

Areas for future research
There are many areas ripe for future research in the area of e-HRM ambidexterity. For example, the notion of HR ambidexterity has been utilised in several specific areas of HRM, but there are many other opportunities to use this 'lens' for specific areas of HR practice not traditionally seen as having exploration opportunities, such as payroll. This tends to be seen as a highly exploitative endeavour, but this is not necessarily the case and there is much room to identify examples of exploration as well exploring how ambidexterity could be enacted.

Furthermore, whilst the emphasis in the literature is on purposeful, intentional efforts to achieve competence to automate and informate (i.e. exploitation) *and* transformation (i.e. exploration, and thus ambidexterity), there is a lack of detailed investigation of how organisations actually achieve this as a purposeful intention (Adler, Goldoftas, & Levine, 1999). Areas that remain particularly under-researched are: ambidexterity in the public sector, at a functional level (but see Dhifallah, 2011), at team level and at individual level. As we saw from the e-HRM manager's vital input in TLA, individual managers can develop

21

ambidexterity in their roles and much research can be undertaken to explore how managers manage the day-to-day realities of work, whilst building and enacting competences in exploration. Such competences could include: ongoing monitoring of the external environment for new insights and trends approaching tipping points, networking with external agents to identify new trends that can inform and accelerate foresight activation, collaborating with internal innovation teams as well as other business and functional teams to undertake innovation opportunity assessments and constructing business cases to shape new initiatives.

REFERENCES

Adler, P.S., Goldoftas, B. & Levine, D.I., (1999), "Flexibility versus efficiency? A case study of model changeovers in the Toyota production system". *Organization Science,* Vol. 10 No.1, pp. 43-68.

Benbasat, I., Goldstein, D.K. & Mead, M. (1987) "The Case Research Strategy in Studies of Information Systems," *MIS Quarterly,* Vol. 11 No. 3, pp. 369-386.

Birkinshaw, J., & Gibson, C.B. (2004), "Building Ambidexterity into an Organization", *Sloan Management Review,* Vol.45 No. 4, pp.47-55.

Boland, R. J. Jr. (1985) "Phenomenology: A Preferred Approach to Research in Information Systems," in *Research Methods in Information Systems*, E. Mumford, R. A. Hirschheim, G. Fitzgerald, and A. T. Wood-Harper (eds.), North-Holland, Amsterdam, pp. 193-201.

Bondarouk, T.V., Ruel, H., & van der Heijden, B. (2009), "e-HRM effectiveness in a public sector Organization: a multi-stakeholder perspective". *International Journal of Human Resource Management*, Vol. 20 No. 3, pp.578-590.

Bondarouk, T.V. & Ruël, H.J.M. (2009), "Electronic Human Resource Management: challenges in the digital era"**.** *International Journal of Human Resource Management*, Vol.20 No. 3, pp. 505-514.

Bondarouk, T.V. & Ruël, H.J.M. (2013), "The strategic value of e-HRM: results from an exploratory study in a governmental organization", *The International Journal of Human Resource Management,* Vol. 24 No. 2, pp. 391-414.

CedarCrestone. 2011–2012, "HR Systems Survey: HR Technologies, Deployment Approaches, Value, and Metrics". 14th Annual Edition.

Cheng, Y.T. & Van De Ven, A.H., (1996), "Learning the innovation journey: order out of chaos?" *Organization Science,* pp. 593-614.

Deetz, S. (1996) "Describing Differences in Approaches to Organization Science: Rethinking Burrell and Morgan and their Legacy," *Organization Science* , Vol. 7 No. 2, pp. 191-207.

Denzin, N.K. (1989) *Interpretive Biography. Qualitative Research Methods.* Series 17. Sage Publications Inc., California.

Dhifallah, S. (2011). "Human Resources Management in service of ambidexterous organizations". *International Journal of Business, Management and Social Science,* Vol. 2 No. 1, pp. 16-23.

Duncan, R.B., (1976). "The ambidextrous organization: Designing dual structures for innovation". *The Management of Organization Design,* Vol.1, pp.167-188.

Farndale, E., Pauuwe, J. & Hoeksema, L. (2009) "In-Sourcing HR: Shared Service Centres in the Netherlands". *The International Journal of Human Resource Management,* Vol. 20 No. 3, pp. 544-561.

Ghoshal, S. & Bartlett, C.A., (1994). "Linking organizational context and managerial action: The dimensions of quality of management". *Strategic Management Journal,* Vol.15 No. S2, pp. 91-112.

Gibbs, G.R., Friese, S. & Manabeira, W.C. (2002) "The Use of New Technology in Qualitative Research: Introduction to Issue 3(2) of FQS." 3(2). Retrieved 4 June 2004 from http://www.qualitative-research.net/fqs-texte/2-02/2-02hrsg-e.htm

Gibson, C.B. & Birkinshaw, J., (2004). "The antecedents, consequences, and mediating role of organizational ambidexterity. *The Academy of Management Journal,* pp. 209-226.

Gupta, A.K., Smith, K.G. & Shalley, C.E., (2006). "The interplay between exploration and exploitation". *The Academy of Management Journal ARCHIVE,* Vol.49 No.4, pp. 693-706.

Hennink, M., Hutter, I. and Bailey, A. (2011). *Qualitative Research Methods*, Sage Publications, London.

Jansen, J.J.P., Van Den Bosch, F.A.J. & Volberda, H.W. (2006). "Exploratory innovation, exploitative innovation, and performance: Effects of organizational antecedents and environmental moderators". *Management Science,* Vol. 52 No. 11, pp. 1661-1674.

King, N. (1998). "Template Analysis". in Symon, G. and Cassell, C. (eds.), *Qualitative Methods and Analysis in Organizational Research*, Sage Publications, London.

Klein, H. K. & Myers, M. D. (1999) "A set of principles for conducting and evaluating interpretive field studies in information systems". MIS Quarterly. Vol. 23 No. 1, pp. 67-93.

Kvale, S. and Brinkmann, S. (2009). *Interviews: Learning the Craft of Qualitative Research Interviewing*, The Sage Qualitative Research Kit Series, 2nd edn., Sage Publications, London.

Lawler, E. E., Levenson, A., & Boudreau, J. W. (2004). HR Metrics and Analytics: Use and Impact. *Human Resource Planning*, Vol. 27 No. 4, pp. 27-35

Lengnick-Hall, M. L., & Moritz, S. (2003). "The Impact of e-HR on the Human Resource Management Function". *Journal of Labor Research*, Vol. 24 No. 3, pp. 365-379

March, J.G., (1991). "Exploration and Exploitation in Organizational Learning". *Organization Science,* Vol.2 No. 1, pp. 71-87.

Marler, J. H. & Fisher, S. L. (2013). "An evidence-based review of e-HRM and strategic human resource management". *Human Resource Management Review.* Vol. 23 No. 1, pp.18-36.

McCarthy, I.P. & Gordon, B.R. (2011). "Achieving contextual ambidexterity in R & D organizations: A management control approach". *R & D Management,* Vol. 41 No. 3, pp. 240-258.

McDonough, E.F. & Leifer, R. (1983) "Using Simultaneous Structures to cope with Uncertainty". *Academy of Management Journal* Vol. 26 No. 4*,* pp.727-735.

Meijerink, J. & Bondarouk, T. (2013) "Exploring the central characteristics of HR shared services: evidence from a critical case study in the Netherlands", *The International Journal of Human Resource Management,* Vol. 24 No. 3, pp 487-513.

Miles, M.B. & Hubermann, A.M. (1994). *Qualitative Data Analysis: An Expanded Sourcebook*, 2nd edn, Sage, London.

Moss Kanter, R. (1983) "Frontiers for Strategic Human Resource Planning and Management". *Human Resource Management,* Vol. 22 No. 1/2, pp. 9-21.

Office for National Statistics (2012) Statistical bulletin: Public Sector Employment, Q1 http://www.ons.gov.uk/ons/rel/pse/public-sector-employment/q1-2012/stb-pse-2012q1.html [accessed 23.11.13.].

Mattes, F. & Ohr, R-C. (2014) "Balancing Innovation Via Organizational Ambidexterity – Part 1", available at http://www.innovationmanagement.se/2013/05/29/balancing-innovation-via-organizational-ambidexterity/ (accessed 12 March, 2014).

ORACLE (2011) White Paper, "HR Analytics: Driving Return on Human Capital Investment". Available at: http://www.cedarcrestone.com/media/whitepapers/OracleHRAnalyticsWP-092011.pdf [accessed 23.11.13.]

Orlikowski, W. J. & Baroudi, J. J. (1991) "Studying Information Technology in Organizations: Research, Approaches and Assumptions," *Information Research*, Vol. 2 No. 1, pp. 1-28.

Parry, E. & Tyson, S. (2011). "Desired Goals and Actual Outcomes of e-HRM ", *Human Resource Management Journal*, Vol. 21 No. 3, pp. 335-354.

Raisch, S. & Birkinshaw, J.,(2008). "Organizational ambidexterity: Antecedents, outcomes, and moderators", *Journal of Management,* Vol. 34 No. 3, pp. 375-409.

Revilla, E, Prieto, I.M. & Rodriguez, B. (2011). "Information Technology and the ambidexterity hypotheses: An analysis in product development". *Journal of Operations and Supply Chain Management.* Vol. 4 No. 2, pp. 1-18.

Ruel, H., Bondarouk, T., & Looise, J. (2004). "e-HRM: innovation or irritation. An explorative empirical study in five large companies on web-based HRM". *Management Revue*, Vol. 15 No.3, pp. 364-381.

Sanders, N. R. (2008) "Pattern of information technology Use: The impact on buyer-supplier coordination and performance". *Journal of Operations Management,* Vol. 26, Iss 3, pp. 349-367.

Savin-Baden, M. & Howell-Major, C. (2013), *Qualitative Research: The Essential Guide to Theory and Practice*, Routledge, Abingdon.

Seale, C. (1999). *The Quality of Qualitative Research,* Sage Publications, London.

Silverman, D. (1993). *Interpreting Qualitative Data: Methods for Analysing Talk, Text, and Interaction,* Sage, London.

Snow, D.A. & Benford, R.D. (1992). "Master Frames and Cycles of Protest" in Morris, A.D. & McClurg Mueller, C. (Eds) *Frontiers in Social Movement*, Yale University, USA.

Stein, E. W. Zwass, V. (1995) "Actualizing organizational memory with information systems". *Information Systems Research*, Vol. 6 No. 2, pp. 85-117.

Stone, D. L., & Lukaszewski, K. (2009). "An expanded model of the factors affecting the acceptance and effectiveness of electronic human resource management systems". *Human Resource Management Review*, Vol. 19, pp. 134–143.

Strohmeier, S. (2007). "Research in e-HRM: review and implications". *Human Resource Management Review*, Vol.17 No.1, pp. 19-37.

Tansley, C. & Newell, S. (2007). "A knowledge-based view of agenda-formation in the development of HR information systems". *Management Learning,* Vol. 38 No. 1, pp. 95-119.

Tushman, M.L. & O'Reilly, C. A., (1996). "Ambidextrous organizations: Managing evolutionary and revolutionary change". *California Management Review,* Vol. 38, pp. 8-30.

Uotila, J. Maula, M. Keil, T. & Zahra, S.A. (2009) "Exploration, exploitation and financial performance: analysis of S&P 500 corporations", *Strategic Management Journal*, Vol. 30 No.2, pp. 221-231.

Walsham, G. (1993). *Interpreting Information Systems in Organizations*, John Wiley and Sons, New York.

Walsham, G. (1995). "Interpretive case studies in IS research: nature and method", *European Journal of Information Systems,* Vol 4, pp. 74-81.

Weber, P.R. (1985), *Basic Content Analysis*, Sage Publications, Beverly Hills, CA.

Yin, R.K. (2003). *Case Study Research: Design and Methods,* 3rd edn. Applied Social Research Methods Series Vol. 5.Sage Publications Ltd, London.

Zuboff, S. (1988). *In the Age of the Smart Machine*, Basic Books, New York.