Envisioning the Future of Research at the Intersection of Human Resource Management and Technology

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ABSTRACT

This study looks specifically at how information technology (IT) affects HRM, a crucial component of work in the twenty-first century. We employ the well-known "Harvard" model of HRM, which provides a longer-term and more comprehensive approach to outcomes as well as a more contextualized view of stakeholders and HRM. We can better understand the benefits and drawbacks of the HRM-tech intersection for various stakeholders by applying those principles to the literature on IT and HRM. We demonstrate how swift technological advancements provide a fresh, astute, digital setting for HRM practices, supplying higher-quality HRM data and fostering a strong sense of HRM ownership among all stakeholders.

Key Words: Contingent HRM, e-HRM, Future of HRM, Information Technology,

Introduction

The interface between HRM and modern information technology is the topic of this paper. The now-classic book written by Beer, Spector, Lawrence, Mills, and Walton and published in 1984 serves as our inspiration in HRM. That book is frequently cited in European literature as the founding work of HRM as an academic discipline, along with a book of the same name that was published at the same time (though surprisingly not as frequently in the USA). In information technology, or simply technology from now on, we begin with the observation that technologies have evolved. Amplification of HRM (for mobile technologies), SMAC (for social media analytics), electronic HRM (e-HRM), HRM data mining, HRM cloud computing, and other new terms have added a new lexicon to the HRM conversation.

The paper adopts a structured approach, initially providing a concise overview of the HRM concept by referencing the classic Harvard 'map.' It contends that the 'outer boxes' of this map, which encompass context, stakeholders, and long-term outcomes, have been overlooked. The subsequent exploration delves into these 'outer boxes,' offering a renewed examination of the influence and scope of emerging technological advancements on HRM. In the third section, the paper applies contextual, multi-stakeholder, and long-term outcomes perspectives to HRM technology. The concluding segment synthesizes insights from the analysis, offering key takeaways for guiding future research endeavours.

The notion of HRM

While the concept of Human Resource Management (HRM) initially sparked controversy in Europe due to its reduction of human beings to mere 'resources,' it swiftly gained acceptance in the United States. Drawing inspiration, perhaps, from this model, it evolved into what is now termed 'strategic' HRM. Despite the original intent of HRM being inherently strategic, the addition of the trendy term 'strategy' served to underscore a particular focus on the central aspects—HRM policy choices and immediate effects, quantified as outcomes in economic terms (productivity and efficiency) for business owners.

This shift towards strategic HRM prompted a surge of research in the subsequent decade, with a specific emphasis on examining the connection between HRM practices and short-term economic indicators of firm performance. The research aimed to decipher the impact of HRM strategies on the immediate economic success of businesses.

In the subsequent section, we undertake a brief review of the original Harvard 'map of the territory,' contending that it remains a robust representation of the reality of Human Resource Management (HRM) in organizational contexts. Our focus zeroes in on the often-overlooked elements of this model—namely, the context, multiple stakeholders, and long-term outcomes. The intention is to leverage these specific components in our analysis of the impact and future implications of new technology on HRM, thereby shaping a forthcoming research agenda.

While acknowledging the merit of the extensive yet narrowly focused approaches applied to the interface between HRM and new technology, we assert that it is opportune to transcend those confines. We advocate for recognizing the value, interplay, and relevance of these 'ignored' areas, considering their pivotal role in the real challenges faced by those engaged in HRM. Our aim is to ensure that our research aligns with and reflects the multifaceted reality of HRM in organizational life.

Context

A crucial component integral to the Human Resource Management (HRM) system, inherent within rather than external to it, is the context in which HRM functions. Defined etymologically from Latin roots (contextus, putting together), HRM context encompasses both external and internal conditions and circumstances pertinent to HRM activities. The Harvard model adopts a systems perspective on HRM, emphasizing the interplay of elements where the whole surpasses the sum of its parts. General Systems Theory (GST) contributes to establishing principles that transcend various phenomena and disciplines, concentrating on the structural aspects of systems rather than their functions. GST suggests viewing HRM as contextually-bounded, acknowledging that phenomena are not isolated events but are intricately integrated in dynamic interactions. In essence, HRM is portrayed as an open system, comprising people, technology, organizations, and management processes. It operates within a continuous flow of human resources, adapting through the introduction of new HRM practices and the obsolescence of outdated ones, maintaining equilibrium with its internal and external environment. The principle of equifinality, introduced by Von and widely adopted in the configurational tradition of HRM research, asserts that the same final state can be achieved from different initial conditions and HRM antecedents, utilizing diverse pathways and mechanisms. Pertinent to this paper is the emphasis on information in the GST tradition, where the quality of HRM information is intricately tied to the quality of decisions made based on this information.

The prevailing perspective among Human Resource Management (HRM) specialists has overwhelmingly embraced the single-stakeholder view, primarily focusing on the interests of the business owner. From this standpoint, all HRM activities are construed as geared toward enhancing the efficiency of the firm (with a limited emphasis on other types of organizations) with the ultimate goal of enriching the business owners. This orientation swiftly led to the adoption of a narrow concentration on financial performance indicators, endeavouring to demonstrate the contribution of HRM to firm success. Financial metrics like sales, profits, and market value gained prominence due to their ease of measurement and greater legitimacy in both the business community and academic institutions. Implicitly, if not explicitly declared, a paradigm emerged in HRM, suggesting that its primary purpose is to enhance financial returns for business owners. The employee perspective, inclusive of social partners such as trade unions and works councils, often found itself neglected or exclusively associated with disciplines like psychology, industrial sociology, and labour relations scholarship. This historical orientation has tended to side-line broader societal indicators of well-being in favour of a more narrowly defined focus on financial outcomes.

Impact of IT on HRM

Today, entrepreneurs with business acumen recognize the power of information technology (IT) tools to achieve business goals. It not only helps you achieve your business goals, but also helps you optimize your work processes.

Human resource management (HRM) includes activities such as recruiting, training, developing, and compensating employees within an organization. HRM should aim to achieve competitiveness in the HR field by providing continuing education and training programs for the personal and professional development of the organization's employees.

It has been widely proven that information and communication technologies (ICT) such as the Internet, mobile communications, and new media in the human resources department can significantly contribute to the implementation of an organization's human resources policies. Advances in technology can have a significant impact on a company's human resources department. This allows companies to improve their internal processes, core competencies, relevant markets, and overall organizational structure.

Human resources departments should primarily focus on the strategic goals of the organization. These strategies must be integrated into an organization's IT strategic plan. These are activities related to the development of a company's technical systems, such as product design (research and development) and IT systems. Technology development is an important activity for a firm's innovation process and may also include acquired knowledge. In this context, all activities have some technical content and can lead to greater technological advances.

Information technology can have a significant impact on organizations operating in dynamic environments. This increases the efficiency and effectiveness of the HR department. Therefore, using IT applications for database management and recruitment systems increases the efficiency of companies. However, innovation in human resource management can come in many different forms.

Find solutions quickly and flexibly during negotiations Identify new ideas for products and services. How to identify new markets Such innovations are complemented by information technology and have a positive impact on human resources. Rosabeth Moss Kanter, one of the leading management theorists of her time, believed that the renewal and success of business organizations depended on innovation (developing new products, introducing new services and methods of operation), entrepreneurship (taking business risks),) etc. Management (encourages all employees to participate in work decisions).

Information and communication technology (ICT) can have a major impact on human resource management, including:

- ➢ Better services to line managers

> ➤ Effective recruiting

> ➤ Data management and critical analysis

> ➤ Cost-reduction and efficiency

> ➤ Career development and human capital management

> ➤ Automation of HR processes etc.

New technology in HRM

The fusion of Information Technologies and Human Resource Management (HRM) is commonly referred to as electronic HRM (e-HRM). Since its inception, attempts to define e-HRM have taken varied forms, with different connotations. Initially, IT-oriented researchers described e-HRM as a "specialized information system designed to support the planning, administration, decision-making, and control activities of HRM." Subsequently, definitions evolved to encompass the use of the internet or intranet for HRM transactions, and more broadly, as "the administrative support of the HR function in organizations by using internet technology." Strohmeier refined the concept, defining e-HRM as "the planning, implementation, and application of information technology for both networking and supporting at least two individual or collective actors in their shared performing of HRM activities."

The e-HRM domain concentrates on integration mechanisms and HRM content shared through IT. Its goal is to enhance HRM processes by making them distinctive, consistent, efficient, and of high quality. The integration of IT in HRM not only aims to streamline existing processes but also seeks to create long-term opportunities within and across organizations for targeted users. This broad perspective encompasses the diverse ways in which IT can be leveraged to optimize HRM practices and outcomes.

Hence, the HRM exploration should aim to develop the understanding of this phenomenon and to contribute to its growth in terms of its (1) content, (2) design, (3) implementation, (4) its interaction with the organisational context, and (5) its short and long term consequences for multiple stakeholders.

e-HRM and context

Consultants specializing in electronic Human Resource Management (e-HRM) and vendors of HR Information Systems (HRIS) have exerted significant efforts to promote the idea that digitalizing HRM systems will lead to cost reductions and a more strategic orientation. This transformation is anticipated to occur as digital systems alleviate HRM professionals from administrative tasks, delegating HRM responsibilities to line managers and employees. Despite these assertions, e-HRM researchers have critically assessed these claims and highlighted a relative lack of research examining the effectiveness of technology's pervasive impact on HRM in organizations.

Overview analyses indicate contradictory organizational outcomes across different e-HRM studies. In some cases, the adoption of e-HRM has demonstrated benefits such as cost savings, increased efficiency, flexible services, and enhanced employee participation. Conversely, other studies report negative consequences, including work stress, heightened HRM administration, and dissatisfaction with technological properties. A significant factor contributing to this variation is the under-theorization of e-HRM. Moreover, studies often neglect to adequately consider contextual factors.

Recruitment leveraging advanced technologies allows for an ad hoc approach based on real-time requirements. However, the adoption of smart technological solutions demands a higher level of flexibility, on-call employee availability, and a larger pool of potential candidates. While these technologies can optimize job-person fit by aligning job tasks with employees' availability and qualifications, criteria such as personal interests or job enrichment may be overshadowed by more 'objective' measures.

The advent of advanced e-HRM is expected to offer valuable insights into various types of information, empowering technology users to conduct diverse analyses of their HRM data. However, this technological evolution may also transfer additional responsibilities to e-HRM users, necessitating increased self-awareness regarding their well-being, demanding extra flexibility, and ultimately relying on their choices to share HRM-related information.

In many businesses, particularly those not categorized as 'smart' organizations, familiarity with IT may be less prevalent. It is conceivable that the uptake of e-HRM is more prominent in the 'smart' sector, notably in high-tech industries and businesses (such as finance) extensively leveraging the latest technology in other areas of their operations. However, this adoption will likely vary based on the size of the organization, with larger and, potentially, some smaller and newer entities displaying higher acceptance rates, though effectiveness may differ between these two extremes. Additionally, the country in which an organization operates is a significant factor, as seen in the impact on the use and operation of other forms of technology. It is probable that this also applies to e-HRM, with organizations in smaller countries with high levels of education likely making more effective use of e-HRM than those based in larger countries with lower education levels.

e-HRM and long-term outcomes

New situations bring new questions. How do companies 'future-proof' themselves in the era of smart industries? Unlike many HRM interventions, the use of e-HRM is insidious and can lead to future-proofing within the organization. It can have unannounced and possibly unanticipated effects on how

HRM is conducted and is difficult to reverse. This raises questions about the role of HRM specialists. Many run the risk of being limited to more or less "feeding the machine", but some find new space and have important new data to help with long-term planning. There may be some. Big data will change the way HRM specialists work, providing the opportunity to monitor, control and control work processes and work tasks with high precision. A key challenge in future-proofing an organization and ensuring long-term survival and success is ensuring that companies use new technology and knowledge to develop new intelligent business propositions and collaborate effectively. and how to organize and make optimal use of your network. Data available. But it also requires understanding and facilitating the monitoring of employee competencies needed to create and sustain success. Since the days of Web 1.0, some companies have considered the "Internet" to be part of their infrastructure. With new digital practices such as e-commerce and open source, the Internet has been seen as a means to monitor customer relationships, collect relevant information, and sell advertising. Today, expectations for the "Internet of Things" revolve around operating and operating machinery, monitoring working conditions, generating data, and designing new business models, all remotely. We see how the boundaries between consumption and production blur, and consumers become producers or co-producers.

New technology and HRM: a research agenda

The impact of e-HRM on the employment relationship is closely related to the overall role of technology in the organization. work pressures, role ambiguity or overload, job enrichment, job identification and depersonalization, justice and equality, inequality within and between organizations, inclusion and exclusion, unemployment and new job creation, power and Issues such as loss of power. Different interest groups, retraining and upskilling, the emergence of new organizational forms – these new and old themes will continue to dominate his HRM and technology research agenda.

We seek multiple conceptual lenses: political, behavioural, institutional, economic, sociological, design, and cultural. Each study comes with its own specific research questions. From a policy perspective, the role and exercise of power in e-HRM projects and implementation, and what role it plays in the standardization and localization of e-HRM, are questioned. The behavioural lens focuses on individual behaviour and the role of interpersonal relationships. From an economic perspective, we focus on quantifying the costs and benefits of e-HRM standardization and localization. The institutional perspective addresses social construction, while the cultural perspective helps reveal what role the cultural background of the elements involved in an e-HRM project plays in shaping e-HRM. A design science professional can enrich e-HRM research by exposing the IT "black box" to her HRM professionals.

Context

The context of e-HRM invariably encompasses its targeted users, organizational support, and technological characteristics. The effective integration of e-HRM into daily organizational life places targeted users at the center of its adoption. Human actors are not only influenced by the organizational context but are also shaped by the characteristics of e-HRM technology. Throughout the enactment process of e-HRM, human action is both facilitated and constrained by communication on the goals of e-HRM, the extent to which it provides personal outcomes, and the intrinsic benefits derived from its usage. While technology accessibility increases, personnel management becomes increasingly reliant on its use, and the benefits extend beyond improving job outcomes. It is essential to recognize that technology does not determine HRM practices; instead, for e-HRM to be seamlessly integrated into daily HRM processes, it must be actively enacted by human actors.

Three scenarios for contextual e-HRM enactment emerge:

1.Inertia-Based Enactment:

Characteristics: Users (HRM professionals, line managers, and employees) choose to work with e-HRM in a traditional manner, preserving existing technological circumstances.

Top Management Involvement: Limited involvement in e-HRM implementation, as attention may shift to other organizational issues, inadequate resources are allocated, and responsibilities are often delegated to consultants and vendors.

User Participation: Highly restricted, with users having limited involvement in the implementation process, often not invited or ignored when participating in e-HRM projects.

2.Mutual Adjustment:

Characteristics: Users strive for consensus to refine traditional face-to-face HRM practices and incorporate new IT possibilities.

Top Management Involvement: Both top management and individual users actively participate and offer advice throughout the e-HRM implementation.

User Participation: Users engage in HRM search activities, document creation, and problem recording and analysis.

3. Improvisation-Based Enactment:

Characteristics: Users significantly alter HRM work processes, embracing e-HRM applications with a deep understanding of the technology's purpose.

Top Management Involvement: Senior managers are actively involved in e-HRM project groups, advising and controlling the enactment process, discussing adjustments, and maintaining organizational attention.

User Participation: Users are engaged in improving HRM processes through their active participation in e-HRM implementation, taking control, and involvement in working groups or prototyping teams.

Long-term outcomes

Developments in stakeholder theory are gradually finding reflection in Human Resource Management (HRM), where stakeholder satisfaction is intricately linked to their values and assumptions, as well as those prevalent in the workplace. Trust among diverse stakeholders is fundamental to a multi-stakeholder approach, and this is central to HRM. The long-term implications of e-HRM for organizations are significantly contingent on context. While in some countries, industries, and business sizes, the implications may be minimal, for others, they become integral to survival and success in a highly competitive marketplace. The key, particularly for the latter, lies not solely in e-HRM but in managing its complete integration.

Empirical studies confirm that the role of e-HRM is more complex than merely supporting existing HRM processes. Internal and external forces within organizations operate reciprocally, leading to the transformation of the HRM function into a strategic player. Simultaneously, the deployment of e-HRM is a result of managerial decision-making in HRM. This co-evolutionary relationship suggests that e-HRM and HRM mutually reinforce and structure each other, especially with the advent of new smart technologies accelerating networked collaborations within and across organizations.

For the workforce, long-term effects may vary, ranging from the development of new interaction modes with bosses and the HRM department to increasing distance and, in some cases, dramatic work intensification and redundancy. An implication of e-HRM is the potential risk of distancing, where direct contact between HRM specialists, line managers, and workers diminishes. Understanding these effects, especially the potential 'dark side,' requires further research. This suggests a need for different, qualitative research methodologies, including action research, that extend beyond the formal boundaries of the organization.

Conclusion

Indeed, there exists a substantial research agenda in the realm of e-HRM, and it is crucial to reassess certain foundational assumptions that have shaped much of the existing research. One predominant unspoken assumption revolves around prioritizing the interests of shareholders as paramount. Additionally, there has been a tendency to consider context as largely irrelevant and to prioritize short-term efficiency and the notion of 'doing more with less' over the long-term effects on various stakeholders.

To ensure that e-HRM research remains realistic and relevant, there is a pressing need to challenge these assumptions and broaden the focus of our work. This entails re-examining the balance between short-term gains and long-term impacts, considering the interests of various stakeholders beyond shareholders, and acknowledging the significance of contextual factors in the deployment and outcomes of e-HRM. By questioning these assumptions and adopting a more comprehensive perspective, researchers can contribute to a more nuanced and holistic understanding of the complex interplay between e-HRM, organizational contexts, and the diverse interests of stakeholders. This shift in focus can lead to more insightful and applicable findings, fostering the development of e-HRM practices that align with the broader goals of sustainability, equity, and long-term organizational success.

Acknowledgement

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