Digital Human Resources Management HUB: Exploring their Importance as Learning Space

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Abstract: The focus of this empirical study is to explore the importance of creating a HUB specialized in digital human resources management (HRM). Digital Hubs are collaborative networks that aim to stimulate the adoption of advanced digital technologies that promote interaction between different agents for emerging ideas, tools, and for digital networking. Furthermore, a HUB could provide an overview of digital skills and learning strategies to improve these skills to work in a digital society. The main objective of this research is to explore the role of HRH practitioners as agents of creating, acquiring and diffusing knowledge about digital HRM issues. Thus, this study intends to know several stakeholders' opinions about the importance of the creation of a collaborative platform to manage sourcing, information, and knowledge. It uses qualitative analysis to collect information based on an exploratory study using a focus group with a group of stakeholders (HRM professors, students, and practitioners) with an interest in the topic, through a collective semi-structured interview. The results show that it is important to create a digital HUB to enhance the use of advanced technology in the development of HRM and to facilitate the digital transformation of the different HRM stakeholders. As main activities to develop, the ones identified are: (1) to create a digital room to improve the learning of HRM students related with tools such as chatbots and avatars; (2) to do regular HRM talks to promote the sharing of new knowledge regarding digital innovations; (3) to define digital HRM working groups to create new knowledge; (4) to develop HRM entrepreneurship projects as well as (5) research projects related to digital issues; and (6) to share a digital HRM Library. We conclude by reflecting the importance of HRM digital transformation and also encourage higher education institutions to become shared and open digital learning spaces. The conclusion provides suggestions for opportunities for future research.

Keywords: Digital HRM, Digital HUB, Knowledge sharing, Acquisition of knowledge, Learning spaces, Higher education institutions

1. Introduction

Digital transformation has affected people, business, and education organisations, fostering new opportunities as well as challenges specifically in higher education institutions. Thus, digital transformation is the ability of an organisation to "adapt, respond, and position itself for success in the face of rapid technology evolution" (Guinan, Parise & Langowitz, 2019, p. 717).

Several scholars have analysed the impact of digital transformation on academic and practical organisations (Giones & Brem, 2017; Rippa & Secundo, 2019; Tekic & Koroteev, 2019). For instance, digital transformation can be related with various technological tools such as big data, artificial intelligence (AI), 4.0 machines, 3D printers and social media networks (Bresciani et al., 2021), digital platforms (Linzalone, Schiuma & Ammirato, 2020) and digital learning (Bygstad et al., 2022). However, as knowledge is the dominant production factor (Cardoni et al., 2019), universities become the main stakeholder in the creation and the transfer of knowledge, as well as in the selection of the kind of involvement practical stakeholders can have on this knowledge management (KM) (Lombardi et al., 2019; Trequattrini et al., 2018; Ramaswamy & Ozcan, 2018). Thus, the industry 4.0 revolution has impacted several areas and functions, including HR. As referred by Sengupta et al. (2021, p. 10169), "traditionally viewed as a support function that delivered employee services, HR function is now leading the digital transformation giving competitive advantage to the organisations worldwide. This transition is rapid to respond to the industry requirements and with a positive impact on the organisational performance through the optimization of its functions".

The objective of this paper is to research the importance of the creation of a digital HRM HUB in a public higher education institution specialized in HRM.

The methodology selected to answer our research questions is Yin's case study (Yin, 2014). Furthermore, the case study used semi-structured interviews with a focus group which included three different stakeholders (HR professors; students and practitioners). We adopt Rippa and Secundo's framework (Rippe & Secundo, 2019) to identify the motivations (Why), the stakeholders (Who), the activities (What), and the process (How) related with the creation of a digital HRM HUB.

The case study research provides, on the one hand, theoretical and practical insights for academic organisations implementing digital Hubs, involving specialized stakeholders, activities, and their processes (Kang et al., 2021) and, on the other hand, it contributes to the understanding of how a digital platform can foster the digital transformation on academic and professional HR environments.

The following sections present the literature review related to digital transformation on HRM functions and digital Hubs (section 2), followed by the description of the methodology (section 3). Section 4 presents the main results of the study, and section 5 underlines some conclusions.

2. Literature Review

Increasingly, organisations are relying on innovative technologies to manage their operations and business, requiring a repositioning of HRM leaders (Abdussamad et al., in press; Sengupta et al., 2021) and a dynamic reinvention of the scope of HRM on a global scale (Vrontis et al., 2022). The use of advanced technology, a consequence of digital transformation, is enabling not only more transparency and objectivity, but also efficiency and effectiveness gains in the different HR processes through the use of AI-based mobile digital tools (Ogbeibu et al., 2021; Pan et al., 2022; Sengupta et al., 2021; Suseno et al., 2022; Vrontis et al., 2022). Previous literature (e.g., Giudice et al., 2022; Jaiswal, Arun & Varma, 2022; Seeck & Diehl, 2016) underlines the importance that AI is assuming in reshaping work and various HR tasks, by enabling not only a source of innovation, but, above all, the positive effect on labour productivity and the consequent increase in organisational performance. On the one hand, with digital transformation HRM managers have new responsibilities, such as responding to increased competition for globally mobile talents or adapting rapid technological advances in the HR process (Fındıklı & Bayarçeli, 2015). In line with this perspective, Seeck and Diehl (2016) suggest that HRM can create an enabling environment for technological innovation through improvements and changes in working conditions. To this end, learning digitalisation skills needs more investment in order to enhance the impact of HRM on organisational KM. On the other hand, digital transformation has triggered a need for a web-based HRM, known as electronic HRM (e-HRM) (Fındıklı & Bayarçeli, 2015; Vrontis et al., 2022) or "smart" HRM (Ogbeibu et al., 2021), defined as the digital revolution in HRM tasks, which are executed in a manner that somewhat depends on AI, cloud computing, big data, and automation (Ogbeibu et al., 2021). This recent e-HRM system brings several benefits to organisations as they allow the reduction of spatial and temporal barriers enabling HR professionals to play a more active role as strategy builders, more efficient and effective organisational support decisions (Zhou et al., 2021), and cost reduction and service quality improvement (Sengupta et al., 2021), thus contributing to an effective organisational knowledge management (Fındıklı & Bayarçeli, 2015). Therefore, these technologies not only have brought new vocabulary to the HRM discourse, but they are changing the HRM profession (Vrontis et al., 2022). On the one hand, we are witnessing radical changes in HRM practices (Fındıklı & Bayarçeli, 2015), such as e-HR Planning, hiring HR (recruitment and selection), developing HR (training and development, career management), rewarding HR (performance evaluation, compensation, and benefits), protecting HR (health and safety, employee relations/legal issues). Furthermore, there are other functions such as team management, KM, employer branding, employee engagement, overtime optimization, reduced staff turnover, quality of work life, support mobility, talent management, onboarding, and employee engagement, which have recently entered into its digitalization phase (Pan et al., 2022; Sengupta et al., 2021). On the other hand, digital tools make it possible to intensify digital relations between the various teams in different departments that, while working independently and autonomously, can exchange creative ideas for business models' transformation, driving innovation processes and stimulating value creation (Ogbeibu et al., 2021). Thus, as referred to in recent studies (Giudice et al., 2022; Jaiswal et al., 2022; Ogbeibu et al., 2021) there will be a continuous increase in demand for new skill sets including intuitive intelligence (for complex, chaotic and context-specific tasks) and empathetic intelligence (for tasks requiring high levels of emotions and empathy) to remain employable and competitive. If, on the one hand, it is true that e-HRM supported on AI requires the mastery of skills to work with AI (Suseno et al., 2022), it is also true that HR professionals need to develop skills to use these technologies for the benefit of companies and employees, i.e., skills that improve the quality of HR decisions (Vrontis et al., 2022).

With the Covid-19 pandemic, millions of students, professors, and professionals started to use various digital tools, leading to the emergence of new learning experiences, both in the education system and in the labour market, which requires more, and often, new digital skills. Thus, higher education is a central venue for the creation of new knowledge to support the digital transformation of education, research, and practical knowledge. Furthermore, digital knowledge enables new learning forms, visualization of information, data, and

ideas with tools to explore information, develop digital sources, and implement pedagogical innovations to promote an effective digital learning space (Bygstad et al., 2022). Furthermore, and as referred by Bygstad et al. (2022), higher education should be a digital learning space where students learn in physical, hybrid and digital spaces, which often interact. Furthermore, digital learning spaces should support collaborative learning which opens up new possibilities, such as closer co-operation with businesses and other communities.

3. Methodology

To answer the research questions, this study is a simple case study (Yin, 2014). The case study method is suitable when "a how or why questions are being asked about a contemporary set of events over which the investigation has little or no control" (Yin, 2014, p.14).

3.1 The case study context

We choose a single case study proposing a pilot experience of a digital HRM HUB by a public higher education institution in the North of Portugal. This institution integrates bachelor and master courses in the field of business sciences, including a bachelor and a master in HRM.

Studying this digital HRM HUB becomes important because it is being created by a public higher education institution to accelerate the digital transformation in HRM, in the academic and in the work subsystem. The aim of data collection is related to understanding the digital transformation in HRM, more specifically, how digitalisation can improve the creation of theoretical and practical HRM knowledge and its dissemination among its various stakeholders.

3.2 Data collection and analysis

Data were collected in three groups using semi-structured interviews with professors, HRM undergraduate and master's students, as well as HR practitioners (directors or managers), using an intensive qualitative research approach (Ragin & Amoroso, 2019), where participants received open questions. Because the theme is external to the life of the group, the authors selected focus groups over the individual interview. Each participant reflected from an intellectual, technical, and professional point of view only to originate new ideas (Mucchielli, 1974).

For the research, we used Rippa and Secundo's framework (2019) to identify the motivations (Why), the stakeholders (Who), the activities (What), and the process (How) that justify the creation of this digital HRM HUB.

We carried out online interviews using the Zoom platform and, after a previous contact by mobile phone or email, explaining the digital HRM HUB concept and the objectives of their participation in this study.

After obtaining confirmation of their interest to participate, we organised a date for an online meeting. The interview guide includes four main questions:
- Why is the higher education institution motivated to create a digital HRM HUB?
- Who are the stakeholders that should be involved in the creation of the digital HRM HUB?
- Which activities should be included in the digital HRM HUB?
- How should the dissemination of knowledge between the different stakeholders occur?

The data were gathered between September 2021 and January 2022. The average length of each meeting was of seventy-five minutes. In total, there were 6 meetings (2 with HR professors, 2 with HR undergraduates, 1 with HR students enrolled in the master's degree and 1 with HR practitioners (with manager or director positions)). In total, we involved over 150 participants related to 3 HR groups of stakeholders.

Data analysis followed three phases (Strauss & Corbin, 1990): (1) open coding, to identify the concepts and their properties to generate codes; (2) axial coding, to develop and to organise categories according to the relationship between the codes; and (3) selective coding to integrate the categories.

4. Results

This section presents the main results related to the creation and development of a HUB to share knowledge about digital HRM.

4.1 The Why perspective

A relevant dimension in the creation of a digital HRM HUB is the motivations that justify its existence. The motivations identified by the three groups of participants are diverse. In general, all participants emphasise that the existence of an HUB will help accelerate the digital transformation in digital HRM. Professors, in particular, considered it relevant to create a HUB that covers all areas of HRM intervention – individual, organisational, and societal, as "only this way will we be enhancing all areas of professional possibilities, and equalising our intervention in the different areas of HRM" (professors). Wanting the digital transformation to be the most complete and as comprehensive as possible, the mission of this HUB has to frame all areas of work that use digital HRM, so "the object of intervention should be diversified, with a mission oriented to respond to the interests of a professional, who works with individual or organisational management, who is responsible for defining employment, labour market and HR policies in national or international contexts" (professors). Another motivation behind the creation of this HUB is the need to innovate using advanced technological resources, benefiting from government support to update the teaching, and learning methods (professors). This group of professors also emphasises that this HUB could strengthen the institutional image of HRM education and "benefit the institution in terms of more candidates in the future and bring greater educational effectiveness in terms of student employability when they have digitalisation skills, which is still very scarce in comparison with the increasingly growing demand" (professors). From the perspective of the HRM professionals, this digital HUB will help accelerate the digital transformation of organisations and HRM agents. One of the HRM practitioners in the organisational environment underlines that "the creation of a digital HUB will increase the efficiency of resources and the effectiveness of the results in the different activities and processes of the day-to-day HRM of organisations" (practitioners). This argument was reinforced with the idea that "the adoption of more technologically developed resources in the execution of HRM tasks will allow us to become more strategic players, with a more adequate response to younger generations expectations, as they tend to favour a more digital performance and feel more attracted by more innovative work environments. Therefore, if we want the best people working with us, we have to modernise, we have to digitalise" (practitioners).

Being a HUB associated with a higher education institution that teaches HRM undergraduate and master's degrees, this HUB will contribute to the growth of the institution's reputation in the labour market by mobilizing the knowledge that is created, both academically and professionally, and that is disseminated in the community. This way, "we can be recognised as an educational institution aligned with the skills required by the current labour market, reinforcing our leadership in the North of Portugal regarding HRM education" (professors). The adoption of technologies is important to facilitate knowledge transfer between HR knowledge ecosystems, "keeping the academy and labour market ecosystems close through the co-creation, dissemination and acquisition of knowledge and skills that, sooner or later, we will all have to apply within the scope of our functions" (practitioners). Students, in turn, consider that this HR digital HUB may facilitate their entry into the labour market, especially in organisations that are more digitally proficient, considering that this HUB "allows us to find out which companies are technologically more advanced in the area of HRM" or by complementing the knowledge acquired in the classroom with knowledge disseminated by HRM professionals. One of the students emphasises: "this HUB allows us to contact and learn from those who are already in the field and (understand) how they are using technological resources to manage people and HRM processes" (students). Furthermore, the students believe that this HUB will enhance the image of HRM, not only in the demands for more innovative skills, but also in the ability to develop more complex activities. Additionally, they claim that it may also improve the average salary of the professional; "maybe we will no longer be associated with a pencil and paper degree; and people will perceive HRM as important or even more important than an engineer or students who study technology, and we may even have better salaries when we enter the labour market, as having mastery of more digital tools for our HRM role gives us a greater competitive advantage when applying for a position in organisations that are more digitally aware!" (students). HRM professionals refer that the HUB can allow them to acquire knowledge capable of developing new skills that will help them to make the digital transformation they are now embarking on by trial and error or with help from professionals. This is because these are very costly changes for those who have considered HRM digital transformation a priority. As one of the practitioners underlines, "we have already thought about it; I have already talked to other HR managers, but when we ask for quotes, we give up because it is very expensive to use companies specialized in digital transformation. We are doing some digitalisation in our HRM processes, but these are still far from what is desirable because the knowledge is still reduced". Another practitioner adds, "we already have something done! With the help of our IT department, we already have a smart HRM APP, but it still has many limitations, despite it speeding up many HRM tasks". Innovation is the common motivation for all stakeholders; either creating new HRM activities or innovating existing ones. The group of professors underlines that "we are very interested in the creation of this

HUB as this will give us the opportunity to be recognized as a digital teaching institution in HR, preparing our current and future students for the real needs of the market, that is increasingly digital. Therefore, this HUB can innovate our institution's HRM education, an area that is critical in the training offer of the institution".

4.2 The Who perspective

Another of the questions underlying the creation of the HR digital HUB is related to who should be involved in the creation of this HUB so that it is perceived as an added value for future adherent members. All groups were unanimous in identifying a heterogeneous group of stakeholders, although it is a critical requirement to possess know-how in digital HRM. In the professors' group, four professors had greater sensitivity to digital transformation in HRM. One stated, "I think my participation might be important because I have been researching in the field of HRM 4.0". Experience in the development of digital tools in international research teams was also a valued requirement. Another professor stated, "I believe that the previous experience of the colleague in the project who developed several tools using virtual reality and augmented reality may be useful in this HUB, and they can now be readjusted for HRM core processes". Several HR practitioners in IT companies were invited to join the HUB given their proximity to digital transformation processes. Professionals linked to companies that are developing technologically advanced resources in the HRM area, namely using chatbots or HRM avatars, were also invited. On the one hand, the students, despite arguing that a greater cultural diversity of HRM experiences could be enriching, they believe that there is a need, initially, to "focus more on the participation of members who are already working in more technologically advanced environments to encourage others who are still less oriented towards the digitalisation of the role HRM assumes"(students). On the other hand, one of the CEOs of a company that develops an HRM support APP reinforces this by stating: "I am very interested in helping create this HUB by providing know-how and technological resources that can be used in demonstrations for HRM professionals who want to implement digital transformation in the organisations where they work, as well as case-studies to be used in practical work to complement classroom learning with your students" (practitioners). Of the 10 professionals interviewed, all showed interest in joining the HUB start-up team, providing the different digital resources they are currently using in their organisations. One of the practitioners refers that "we have been developing several micro training courses using virtual reality and gamification that may be interesting to share in the HUB, and even improve the resources that have been already developed with the feedback of the adherent members" or, "in terms of recruitment and selection, we have a very competent team in the development of resources with advanced technology. We have already created, in the company, an avatar that provides an important support in the selection of candidates and a chatbot that we use in the recruitment and selection processes with a high number of candidates". Other stakeholders will intervene mainly in the design of the image and in providing IT support in the creation and development of the HUB, explaining that "we are available to help. Our design department can create the image of the HUB, design the webpage, and edit various resources that are selected to share on the HUB" (practitioners).

4.3 The What perspective

One of the points explored in the focus group with the different stakeholders was related to the relevant activities and resources for the creation and promotion of knowledge of the HUB, proposed by the researcher, who is also responsible for the creation of this HUB.

According to participants, it is desirable to have differentiating activities to capture the diversity of interests of the members linked to the three dimensions of human resources management – individual, organisational, and societal. In an initial phase, there are 6 dissemination of knowledge activities planned to facilitate digital transformation in the HRM area:

1. *Digital HR Talks.* Through these talks, emerging themes of digital HRM in the context of work will be debated. The stakeholders recognise this activity as one of the most relevant and capable of attracting the adhesion of members, given the diversity of topics that can be shared. "In an initial phase of the HUB this may be the activity that mobilises more participants considering the collective debate of innovative topics within the scope of digital transformation" (professors).

2. *Digital Room* dedicated exclusively to HRM students and researchers. It includes several digital resources provided by partners in order to promote a digitalisation culture in HRM at work. This activity will be very useful for students to complement their learning, as they will be given the possibility to access digital resources that partner companies can share. "Our company is available to serve as a practical example in training-related knowledge, being able to make explanatory and demonstrative videos of the training using virtual reality" (practitioners). This is an activity that will attract the adhesion of students

considering the innovation of learning because "for us, it will be very useful to know apps and virtual assistants to support HRM because, when we get to the labour market, it is almost certain there will be these assistants to support our functions"(students).

3. *Research Projects in Digital HRM*. This activity is for researchers interested in deepening the study of HRM in the context of work, and may benefit from the administrative support of funding structures and the establishment of partnerships in national or international projects. This activity generated a lot of enthusiasm because it gives the possibility for master students to conduct research with empirical analysis of pioneer organisational partners in digital transformation; "for those who wish to research in the digital transformation area, we are available to be case studies, considering our know-how in digitalisation" (practitioners). For professors "this activity will support the achievement of more innovative research projects giving the opportunity to access funding, through applications to digital transformation incentive programmes, considering the strategic importance that digitalisation assumes for funding agencies, as well as the possibility for master students to develop pioneering research in the area of digital transformation".

4. *Digital HRM Entrepreneurship Projects*. This activity is for professionals interested in deepening the study of HRM in a work context and may benefit from the administrative support of funding structures and the establishment of partnerships in national and/or international projects. For some practitioners, "developing new digital tools will be fundamental to help the digital transformation to be effective and may attract investment from business angels who believe in our ideas because they are of practical application and even subject to patenting".

5. *Thematic Work Groups*. This activity will aggregate members in restricted forums according to the interest in participating in the debate or development of working tools aimed at HRM in the workplace. It allows the creation of restricted groups, with a call for members who are effectively interested in deepening their knowledge on a specific theme or tool, considering that "in groups specialized in specific HR processes, it is always easier to debate and deepen our knowledge" (practitioners). This is an argument reinforced by another practitioner who supports the creation of specific work groups since, "together with other professionals of the same sector and with a similar organisational reality, I can benefit from peer knowledge and experiences, giving me guarantees of the return on the investment I may make".

6. *Digital HRM Library*. Through this library it will be possible to offer a diversity of digital resources in the different areas of HRM, either by consulting, uploading, or downloading resources suitable for improving specific knowledge. As a professor mentions, "some of these resources can be created in the classroom by our students, others can be shared because they are open access, available on websites or in social networks. Our role is to ensure that, on a weekly basis, we do research and share links that may be of interest to all members and that can help upskill and re-skill the digitisation of the stakeholders linked to the digital HRM area".

4.4   The How perspective

A part of the questions asked in the focus groups sought to understanding the procedural implementation of the HUB in order to provide knowledge that is creative and able to mobilise professionals with experience and knowledge in digital transformation in HRM and who can be mentors to other professionals and students interested in proceeding with digital transformation in HRM.

The knowledge will be disseminated through a platform fully managed by one of the professional stakeholders of this HUB, accessible either by personal computer or smartphone. Another stakeholder will be in charge of managing the image and providing the HUB's IT support, creating alerts of new events or of whenever new resources are introduced or updated. There will be a team to support the dissemination of the different activities, with personalised alerts and invitations according to the areas of interest of the adhering members. For the students, "this HUB allows us to be up to date about the activities that are planned, and we only sign up if we are interested in the topic. There are topics that may not be of interest now, but if they become available in the digital library, we can consult them at any time" (students). Furthermore, according to the students, "it is important to develop a platform that is user-friendly and with an appealing design to increase participation and interest in the shared knowledge". Through this HUB, companies can have access to different activities, knowledge resources or business tools in order to involve numerous users who can be suppliers, customers or participants in diverse knowledge and information. As referred by one professor, "the use of a digital platform is essential to manage HRM's big data of knowledge in collaboration with diverse stakeholders". Moreover, students consider that "the HUB is important to manage our career's opportunities to fast access to innovations

of digital contents and to obtain help for different needs" (students). For HRM practitioners, the HUB "is an important channel to share knowledge aligned to the digital period of development and became an essential tool for carrying out digital HRM activities" (practitioners).

5. Conclusions

The Covid-19 pandemic has accelerated digital transformation in higher education. In this study, we explore the possibility of creating infrastructures to support digital transformation in learning, in the interaction between education subsystems and work organisations, highlighting the shared role that the different stakeholders could take to develop a digital learning space that, on the one hand, benefits students' qualifications and their development of digitalization skills in e-HRM, and, on the other hand, develops digitalization skills in professors and HR professionals. This study, although exploratory, seeks to underline the main strengths that a digital HRM HUB may bring as a shared solution for the acquisition and development of new forms of knowledge, including new actors outside the academic institution, such as HRM practitioners and organisations who could reinforce the network and the sharing of digital sources.

The results demonstrate that all stakeholders acknowledge the relevance of this HUB in being able to encompass all processes capable of enabling digital transformations in HRM. However, motivations vary among participants. On the one hand, professors believe this HUB is an opportunity to attract new students. On the other hand, students see benefits regarding their future professional opportunities. Finally, professionals recognise that the HUB may foster digital transformations in their own HRM processes. Thus, although the activities proposed were regarded as relevant, priorities vary among stakeholders. Professors essentially value digital HR talks and research projects in the field of digital HRM; students emphasise the relevance of the digital room and digital HRM library and profissionals consider digital HRM entrepreneurship projects and thematic work groups essential.

This study has some limitations, the main one being related to the generalisation of the results, which should be viewed with restraint, since this is a case study, which is a small sample within a public higher education institution. In future research, it would be interesting to extend the study to other higher education institutions that also have HRM degrees and analyse the role of Digital HRM in knowledge management.

We are confident that the present study has provided a roadmap for future research and practical implications related to HRM digital transformation and also encourage higher education institutions to become shared and open digital learning spaces, which promote the successful implementation of a digital approach to HRM.

Acknowledgements

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