



# Digital human resources management: a necessity in modern organizations

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## ABSTRACT

This paper will discuss a simple overview of how the concept of human resource management is carried out with digitalization. The explanation will be based on various existing studies, so that an elaborate and comprehensive picture of the new paradigm of human resource management based on the power of digital computing technology can be given. This research model tries with all its might to elaborate various scientific sources that will strongly support the construction of the analysis of a particular study. This research method is a qualitative research method with a descriptive approach. This research operationally examines various sources of literature relevant to the context of the above research. Digital Human Resource Management is considered as the basic need in the aspect of business organization. Every business organization has a long way to go by adopting digitalization. Digital HRM helps in maintaining a strong relationship between management and its employees. By preparing a strategy for DHRM will help in organizational performance.

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## 1. INTRODUCTION

Digital transformation can be said as the integration of digital technology in every area of a business, it brings out fundamental changes in how one operates and delivers value to the customers. It can also be considered as a cultural change that requires an organization to continually challenge the current status, experiment, and get ready to accept certain failure. Stolterman and Fors described digital transformation as digitalization, and a business model which is driven by the changes related to the application of digitalized technology in all possible aspects of human society (Sharma et al., 2022).

Digitalization is significantly affecting business processes, and organizational boundaries. To deal with the pace, digitalization is changing organizations, there is a need to understand and explore new skills and capabilities associated with digital transformation. Management consulting firms are driving this transaction process. In order to do so they are recruiting consultants with skills and capabilities associated with digital transformation (Bhanu Prakash et al., 2019).

As the "digitized" workforce increasingly encounters firms with changing HRM practices, the digital era necessitates digital HRM procedures. More significantly, organizations must develop strong employer brands in order to recruit, inspire, and retain people and one intriguing way of employer branding is to gamify employer branding initiatives using games for educational purposes (Najam et al., 2022).

The adoption of new technologies and digitalization of organizational processes have forced the rapid evolution of HRM practices, requiring the development and adoption of new HR competencies, new forms of employment, and agile HR processes. In that respect and to enable and accommodate rapid technological change and development, organizations are expected to develop procedures and establish practices for a continuous reappraisal of employee competencies, and also to introduce new forms of work organization (Barišić et al., 2021).

The transfer of general terminology to HRM can be discussed. First, a general concept can be transferred if the organizational phenomenon denoted by the concept has a comparable counterpart in HRM (Sakka & El Hadi El Maknouzi, 2022). In this case, an already existing HR phenomenon is denoted. Second, however, a general concept can also be transferred if the organizational phenomenon designated by the concept currently has no comparable counterpart in HRM but could be realized in the future. In this case, a potential future HR phenomenon is denoted (Strohmeier, 2020).

Furthermore, this study will discuss a simple overview of how the concept of human resource management is carried out with digitalization. Nowadays, Human Resource Information System (HRIS) plays a strategic role in the decision making process for effective and efficient Human Resource Management (Masum et al., 2018). Information technologies are rapidly transforming the field of human resource management at organizations (Zavyalova et al., 2022). The explanation will be based on various existing studies, so that an elaborate and comprehensive picture of the new paradigm of human resource management based on the power of digital computing technology can be given. Purpose In recent years we have seen an increasing use of digital tools within organizations. Obviously, digitalization also had a strong impact on the HRM function (Maria, 2020).

## 2. RESEARCH METHOD

This research is a theoretical study with a qualitative approach, with a literature study method (Patri & Heswari, 2022). This research model tries with all its might to elaborate various scientific sources that will strongly support the construction of the analysis of a particular study (Patton, 2002). This research method is a qualitative research method with a descriptive approach. This research operationally examines various sources of literature relevant to the context of the above research. The results of the reflection found that the need for ethnoscience mathematics literacy was met with representative local sources.

The type of research used in this study is descriptive research with a qualitative approach (Cresswell, 2012). The data taken, identified in the following order: (1) data collection (2) data sorting (3) data analysis (4) conclusion making. As for data analysis, there is a predetermined sequence in accordance with the empirical steps taken, namely as follows: (1) Examination of data (2) suspected data findings, (3) Data confirmation (4) Diagnosis, (5) Action.

## 3. RESULTS AND DISCUSSIONS

### Digital Transformation In HRM: Tools and Ways

An abundance of emerging technologies, especially in the IT sector, imposes needs for further expertise in companies. Furthermore, existing human resources might not be able to fulfill competence gaps in enterprises. To deal with this problem, companies should provide on-the-job training to their employees or recruit new experts. In any case the competence gaps should be first identified. For identifying any person's competence gaps, her/his background knowledge in connection to the target job should be properly assessed. Even in the case of the on-the-job-training, it should be properly understood, which trainings employees need in order to improve competence gaps in the company (Bohlouli et al., 2017).

From the analysis carried out it emerges that there is no clear and complete definition of digitalization. Indeed, most authors seem to use this term assuming that the reader is able to understand its meaning without receiving explanations. In this way, rather than giving definitions, they introduce the term digitalization simply by underlining the main implications it has for society in general and for organizations (Maria, 2020).

Industry 4.0 has brought about transformational and massive changes in all layers of industrial structure, including the dynamics of workforce capabilities for digital economy

requirements (Bakare, 2020). Organizations must ensure their productivity and competitiveness in the Industrial 4.0 era by developing future workforce competencies. Some researchers have previously stated that automation in Industry 4.0 will eventually replace most of the functions of human labor, some others claim that it is not possible to massively replace human labor with automation because digital systems will only be used to help human labor (Santoso et al., 2020).

There are various innovative digital transformation tools used in HRM for various activities, for recruitment process: RPA & Applicant tracking systems (ATS), which is used to widely to eliminate candidates who do not qualify. AI-powered job post writers for writing good and standard job postings. Onboarding softwares provide easier way of orientation of newly recruited employees. Recruiter chatbots, these are also AI enabled softwares that help the recruiter throughout the process (Chytiri, 2019). Digital technology also provides several services like, payroll, benefits, recruiting and onboarding, training, and various other tools which directly or indirectly implemented in HRM (Sharma et al., 2022).

There have been several ways found out by various previous researchers in order to make new age technological transformation in HRM possible in a better way. Starting from certain suggestions given by Zhao Lei and Yang Jing, that we need to follow the overall strategy of unified planning, top-level design, step-by-step implementation and constant improvement, emphasize the value, and refine the procedure of relevant business and eliminate the individual Information Island through business integration. Besides, we should also standardize the "weighting system" of management, realize the high-level resource sharing, and gradually enlarge the application range to bring the final purpose into reality (Sharma et al., 2022).

It is difficult for Human Resource Management to adapt themselves to a digital transformation and dealing with complexity while shifting the work process and its progress to a digital platform. Digital Human Resource in today's world plays an important role in the organization and other business operation by the means of creating momentum and internal capability (Varadaraj & Al Wadi, 2021).

### **Strategic Human Resource Management in Digital Format**

Human resources are amongst the most important resources of the firm. Without a doubt, HR can create competitive advantage for the firms. High efficiency of human resources is strongly related to firms' high performance (Barišić et al., 2021). Firms that yesterday performed well and had competitive advantage, do not mean that today would perform the same. Therefore, for firms to have competitive advantage, they should focus on turning talents into a source of competitive advantage. Many firms maintain records for basic data for HR as follows: how many employees are, what salary and other benefits they have, their demographic structure, etc. Some other firms maintain records of commitment, motivation and satisfaction of employees at work (Berisha Qehaja & Kutllovci, 2015).

Less than twenty years ago, tools for the personnel manager included a personnel manual, a union contract, an array of record keeping forms, a ream of carbon paper, a telephone, and even a company picnic (Varadaraj & Al Wadi, 2021). Like other management functions, which have evolved from the adding machine era through the calculator era to the computer era, human resource management has adopted many innovations. In spite of their value as a means for improving the efficiency and effectiveness of the organization, some have engendered strong resistance (Hannon et al., 1990).

The position of resources and competencies as the main factors that determine the sustainable innovation process beside being the main source in creating the competitive advantages of a firm. In order to gain it, both role and functions of strategic HRM must be aimed to create and manage the organizational competencies so that firm is able to adjust its resources with the environmental changes as necessary (H. H. dan Fairuzabadi, 2012).

Then, in the face of increasing takeover of HR tasks by AI applications, HR practitioners are expected to concentrate their capabilities around productivity and performance enhancement, cost reduction, facilitation of service changes, partnership management, personality management, networking, change management, and information management (Jia et al., 2018). Moreover, as some HR roles will be increasingly outsourced, another set of skills for in-company HR practitioners will be the ability to juggle relationships with external consultants (Sakka & El Hadi El Maknouzi, 2022).

The introduction of AI to HRM will strongly develop the quantitative profile of this business function (Strohmeier, 2020). This means that it will also make it more amenable to cost-benefit calculations. Cost-benefit analysis is a methodology for decision-making that includes explicit consideration of the consequences (benefits) of a decision against its unfavourable effects (costs). AI really foregrounds this methodology as a tool for decision-making. Moreover, cost-benefit analysis makes it more accurate to account for decisions and judgements before stakeholders (Sabanci & Şahin, 2016). Cost-benefit analysis has long been a hallmark of marketing, finance, and operations within companies, whereas HRM had hitherto remained relatively isolated from the comparative consideration of costs and benefits (Sakka & El Hadi El Maknouzi, 2022).

The use of digital data to inform HRM practices are (1) Recruitment (e.g. personality, behavioural pattern), (2) Performance speed—no slacking, e.g.: Deploying GPS positioning to check mileage covered by street cleaners; Bracelet wearing to detect the lack of movement in 20 minutes and send reminders to get a move. (3) Dismissal – poor performers out – Amazon’s warehouse-worker tracking system can automatically fire people without a human supervisor’s involvement (Cooke, 2016). The Digital HRM have many steps below :

#### *Recruitment and Deployment*

As an important part of the system, the recruitment process includes review, screening resumes, interviewing candidates, matching suitable positions, etc. Ideal Corp, a software company that uses artificial intelligence to automate recruitment tasks, its CEO Somen Mondal says that the biggest impact of artificial intelligence is to automatically screen candidates and reduce bias. Artificial intelligence can learn the qualifications for successful employees in a particular position and apply this knowledge to select qualified candidates and score and rate candidates. According to Mondal, the company used artificial intelligence software to recruit, with a 71% reduction in recruitment costs and a threefold increase in recruitment efficiency (Jia et al., 2018).

#### *Training and Development*

In the process of continuous development, both internal development and external impacts continue to push employees forward. Using a variety of artificial intelligence technologies, it can be more comprehensive to help enterprises to form a learning organization culture, which avoids the ordinary teaching design model based on the traditional gap analysis of the ability model (Cooke, 2016). Human resources managers need to conduct research and identify gaps of employees and group them through various analysis methods such as questionnaires, interviews, job observations, assessments, and job data analysis. (Jia et al., 2018).

#### *Performance Management*

In performance management, the performance appraisal model can be embedded into the system with collecting and analyzing the information about employees’ work performance (H. H. Fairuzabadi, 2012). Using the intelligent decision support system, some scientific evaluation methods, such as 360-degree performance evaluation methods, can be used more automatically and quickly (Otley, 1999). These assessment methods are programmed and entered into the decision support system to more effectively count employee evaluation results (Jia et al., 2018).

#### *Compensation Management*

Compensation management, or salary management is a dynamic management process which determines, assigns, and adjusts employee compensation principles, strategies, levels, structures, and factors that with the guidance of organizational development strategies (Iqbal et al., 2020). AI application can assist to facilitate fairness of the compensation management. BP neural network is a supervised artificial intelligence technology based on biology, neurology, psychology and statistics (Jia et al., 2018).

#### *Employee Relationship Management*

Employee relationship management includes corporate culture and labor relations, coordinating the relationship between employers and employees (Lalić et al., 2020). In terms of labor relationship management and communication management, artificial intelligence technology can be used as an auxiliary system to solve many complicated process stereotypes, undertake management tasks, and act as performers, assistants, and consultants (Jia et al., 2018).

#### 4. CONCLUSION

Digital Human Resource Management is considered as the basic need in the aspect of business organization. Every business organization has a long way to go by adopting digitalization. Digital HRM helps in maintaining a strong relationship between management and its employees (Bahjat Abdallah et al., 2017). By preparing a strategy for DHRM will help in organizational performance. This study has to highlight the importance of DHRM in the aspect of the organization and by enhancing the recruitment process by creating an application by the top leading organization. The outcome of the research paper will act as an important aspect for researchers to implement further research on DHRM (Atwijuka & Caldwell, 2017). Every organization should develop its digital strategy to improve productivity. In the present scenario, DHRM is considered a more significant and growing research topic as well as an important topic for a business organization. With the use of DHR practice and through social media, the internet, AI, and other technology organization can maintain their performance and employees' quality standard for the smooth running of the organization.

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