

## Chapter 13

# Digitalization of Human Resources: e-HR

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### ABSTRACT

*Recent decades brought about astonishing technologies that affected organizations in several ways. With the latest developments, organizations earned the capabilities to carry out their functions more efficiently and rapidly. Having several tasks affecting both interior and exterior customers, human resources departments also benefited from these technological developments. Owing to the digital revolution, e-HR emerged as a new way of practicing HRM activities with the latest web-based and computer-based tools and applications. These applications eased the work of HR professionals and served them the opportunity to focus on their core work, namely strategic human resources activities rather than procedural paperwork of the department. With a holistic and integrative approach, this digital transformation in HRM has been dispersed among all services in human resources including recruitment, career management, training and development, performance management, and compensation.*

### INTRODUCTION

Latest technological and competitive developments in the markets enabled the creation of real-time, knowledge-based, self-managed and interactive business atmosphere. This knowledge based interactive work atmosphere was impossible to believe throughout most of the twentieth century. After 1990s digitalization in all spheres of life have become prominent. Latest developments in web based technologies have given birth to production of large bulks of online data varying from social media posts to digitalized libraries. This new body of knowledge and data provided a significant source of data complimenting classical quantitative and qualitative data and allowing individuals to unravel sound patterns regarding managerial and social phenomena (Platanou, Mäkelä, Beletskiy, & Colicev, 2018). The creation of huge online data sets, namely Big Data has also grown significantly recently owing to the astonishing

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developments in data storage Technologies and digital monitoring mechanisms. This “Big Data” can help individuals understand collective patterns of events, behaviors, perceptions, and attitudes better and easier than other methods (Hannigan, 2015). And its use disseminated in a considerable wide scope of managerial functions including even human resources management.

In fact, use of technology is a new realm of study in management literature. When the related literature is examined as Orlikowski and Scott (2008) suggest there are two streams regarding use of technology in organizations. The first stream explains technological determinism reflecting an underlying positivist approach wherein technology can be conceived as a independent qualitative variable predicting organizational consequences. The second stream considers technology as a new construct evolving over time reflecting a more post-positivist perspective. In the first stream, technology is an entity interacting with different organizational aspects (Orlikowski & Scott, p. 439). It is considered as an independent variable that have a quiet noteworthy number of impacts in organizational life at various analysis levels including individual level, group level, enterprise level, and inter-organizational level. Moreover, it is effective on various organizational outputs when considered as an independent variable including effectiveness, agility, resilience, profitability, etc. (Orlikowski & Scott, 2008). This approach has a rather deterministic perspective, since it views technology as a causal factor which can create assessable, theoretically-determined results. For example, the number of IT projects accomplished in a certain organizations, the number and quality of technical tools used, the qualifications of IT personnel etc. can all be conceived as independent variables in the kind of researched that exist in this first stream of research. The second main stream of studies regarding technology which is prominent in management literature is the stream known with its focus on dynamic interactions between people factor and technology factor over time. This approach can be considered as less deterministic compared to the first one. It views technology as a component of complex process wherein organization of the structure can be accomplished. However, today technology should not be understood with a limited perspective. It is no longer a discrete entity. That is why it cannot be conceived as a quantifiable independent or dependent dimension. In fact, technology is emergent and cannot be determined fully. There are many factors, complicated relationships and grey areas in understanding effects of technology in organizational setting. That is why, Strohmeier (2009) explains the second stream of studies as studies of moderated organizational imperatives wherein there multiple actors interact with the aim of creating an outcome which is in fact cannot be predicted entirely.

In practice, although latest digital technologies have been utilized in HR information systems since 1980s, it was a different application when compared to e-HR. HRISs was focusing on automating HR systems that were used by HR department's itself, namely its sole 'customer' was HR professionals themselves. Moreover, HRISs were not successful in creating the ideal internal virtual value chain. On the other hand, e-HR is more about the application of the internet, including use of social media, and mobile communications technologies are important in changing the nature of interactions among HR professionals, managers and employees. Its aim was changing these relationships from a pure face-to-face relationship to a technology-based one (Martin and Redington, 2010). Nonetheless, HRISs can be accepted as the first step before transition to e-HR.

In technology research the term “e-HR” first emerged after 1990s. Emergence of the term “e-commerce” namely electronic commerce was the antecedent of the term. E- HR is a way of implementing HR activities, strategies and policies through a conscious and directed support of latest technology (Ruël, Bondarouk, & Looise, 2004). E-HR can be explained as a way of conducting HR strategies in companies through a willing, conscious and directed support of full use of internet-based technologies (Ruel et al.; 2004). As in the case in the term e-commerce, e-HR refers to conducting human resources transactions

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