Chapter 101
e–HRM in a Cloud Environment:
Implementation and its Adoption:
A Literature Review

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ABSTRACT

As the digitization of HR processes in companies continues to increase, at the same time, the underlying technical basis is also developing at a rapid pace. Electronic human resources (e-HRM) solutions are used to map a variety of HR processes. However, the introduction of such systems has various consequences, which are not only technical but also imply organizational and functional changes within the organization. Additionally, the cloud environment contributes to enhancing e-HRM capabilities and introduces new factors in its adoption. A systematic review of the available literature on the different dimensions of electronic resources management was conducted to assess the current state of research in this field. This review includes topics such as the evolution of e-HRM, its practical application, use of technology, implementation as well as HR analytics. By identifying and reviewing articles under e-HRM, IT technology, and HR journals, it was possible to identify relevant controversial themes and gaps as well as limitations.

1. INTRODUCTION AND OBJECTIVES

The subject of this systematic literature review is the digital transformation of human resources (HR) processes into new cloud-based environments. Armstrong (2014) defines human resource management (HRM) as the comprehensive approach to the recruitment, development, and management of individuals based on a variety of philosophies and theories, with a critical aspect of HRM being on and contribution to the efficiency of an organization. The operationalization of HRM takes place through HR processes (Browne, 2000) that reflect the range of procedures from "hire to retire" (Dessler, 2013). The digital transformation of HRM processes using electronic HRM solutions (Bondarouk and Ruël, 2009), is increasing rapidly (Harris and Spencer 2018). Electronic HRM (e-HRM) is defined as the use of information technology to network and support at least two individual or several actors in the execution of HR activities (Strohmeier, 2007). Its role, as well as capabilities, have evolved steadily over the last 60 years, from the simple provisioning of information (DeSanctis, 1986) to process automation (Martinsons, 1997) to the transformation of HR (Lengnick-Hall and Moritz, 2003). The impact of e-HRM adoption goes hand in hand with the expectation of positive effects such as cost reduction, process quality improvement and also the repositioning of HR as a more strategic partner (Lengnick-Hall and Moritz, 2003). The technological evolution of e-HRM systems has not only improved process digitization (McFarlane, 1984; Lin and Chen, 2012) and thus influenced the way HR departments work (Snell, 1995; Stone and Dulebohn 2013), it has also raised new questions with regard to data security of personal data (Zafar, 2013; Lehnert and Dopfer-Hirth, 2016) or other legal concerns (Wong and Thite, 2009; Zafar, 2013). One of the newest trends is cloud-based e-HRM solutions (from now on HR Cloud). Cloud computing is "a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction" (Mell and Grance, 2011). This new technology offers the possibility of comprehensive digitization of all HR processes within one single system, resulting in new ways of process integration as well as improved analytic capabilities for the HR department while at the same time reducing the implementation and maintenance efforts for the IT department (Harris and Spencer, 2018; Ziebell et al., 2018). One question that arises with this new technology and the resulting process mapping is whether a new project management methodology (PMM) (Wagner 2011) approach should also be chosen during the digital transformation and how to measure project success (Ziebell et al., 2018).

Although e-HRM is a comparatively young field of research (Strohmeier, 2007; Johnson et al., 2016), there have been a few articles since 2006 representing comprehensive literature research. Ngai and Wat (2006) focus on the perceived benefits as well as barriers to implementation and conclude that a large part of the study is based on conceptual studies. Strohmeier (2007) examines the literature and finds that the research field of e-HRM is vastly and that the research methodology is empirical rather than theoretical. Bondarouk and Ruël (2009) focus on the e-HRM definition and show how future research will be. This review includes consideration of the multidisciplinary approach, as both HRM and IT are affected, as well as the repeated indication that theory-building research has been neglected so far. Strohmeier (2009) reviews the literature regarding the consequences of e-HRM and concludes that more in-depth research into that topic is needed. Marler and Fisher (2013) examine the relationship between e-HRM and strategic HRM and suggest more empirical research. Another approach is that of Geffen, who examine e-HRM literature in the context of multinational companies and conclude that the majority of research covers post-implementation questions such as e-HRM outcome and adoption. Also, they call for research

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