

# The importance of a framework for the implementation of technologies supporting Talent Management

**Abstract.** The speed and scale of technological change are raising concerns about the extent to which new technologies will radically transform workplaces. Competition for the best talent is being intensified, and talent management requires new approaches and innovative strategies for developing talent based on corporate culture and its unique properties. By implementing and adopting technology in Human Resources Management (HRM), organizations create an employee lifecycle that spans from the initial Hiring Process to encompassing areas such as Performance Management, Learning and Development until the Offboarding, shaping a Talent Management journey. Despite implementing technologies, a continuous practice observed in numerous organizations, there are challenges. The HRM technological market has become massive, and concerns arise about adopting these technologies' costs, practicality, and purpose. Because of that, designing strategies for implementing technologies in HRM, specifically in talent management, is hard to overview. In this context, this document aims to present the need for developing a framework that aggregates the implementation process of technologies supporting talent management utilizing Design Science Research (DSR). The holistic perspective we propose aggregates understanding of business challenges and how they relate to the technology selection, technological capabilities and implementation process, and expected metrics and impact.

**Keywords:** Workplace Transformation, Talent Management, Human Resources Management, Technology Implementation, Technology Adoption

## 1 Introduction

The speed and scale of current technological change are raising concerns about the extent to which new technologies will radically transform workplaces or displace workers altogether. Additionally, the profound impact of COVID-19 accelerated those changes, generating what we usually call New Ways of Working (NWoW) [1].

Human Resources (HR) and Information Systems (IS) experts are vital in designing and developing systems that empower organizations to embrace NWoW while fostering the necessary culture for talent to thrive. By adopting technology in Human Resources Management (HRM) that supports talent management, organizations foster an

employee experience that begins during the hiring process and extends to performance management and development [2]. Thanks to the collective efforts of scholars, substantial progress has been made in understanding how technologies have changed the world of work by inspiring the adoption of new HR initiatives and bringing up new types of human capital. However, technology evolves continuously, and new technologies are undoubtedly emerging to support talent management. Researchers will continuously set out to critically assess their impacts [3].

Despite implementing technologies in HRM being a continuous practice observed in numerous organizations, there are challenges. The "HR tech market" becomes more massive daily with new Artificial Intelligence (AI) driven platforms being announced. Some raise cautionary flags over the cost justifiability of different technologies, tools and applications. Others sound alarms over their practical implications. Still, others ask whose needs are being served and for what purposes they adopt or integrate a particular technology tool or application [4]. A study by HR advisory and research firm Josh Bersin Co. [5] found that 42% of respondents rated their technology implementations in HRM as needing to be entirely successful two years after implementation. Another central concern to HR is how to bolster employee and organizational resilience to disruption from new technologies [6], given that adopting new technologies in the organization may lead to some resistance at group and individual levels [7]. Because of that, employee technology adoption remains a crucial factor for many organizations [8]. Besides, designing strategies for implementing technologies in HRM within organizations is hard to overview, especially when some organizations fail to realize the anticipated benefits from their technological investments. This phenomenon will only be reduced by an increased understanding of aligning with the organization's strategy and effectively coordinating IS implementation [7]. Since talent management is commonly recognized as a decisive factor of success in organizations with a high demand for skilled individuals [9], along with the increasing recognition of technology as vital in this domain, this research holds significant importance and relevance.

Based on this, the research problem lies in the widespread adoption of technology in HRM, specifically in talent management; many organizations struggle to achieve successful implementation and adoption and fail to recognize its impact on their operations and outcomes.

In this document, we first present the frame of this research and the research problem (this section). It is followed by Section 2, where we present a preliminary literature review with conceptual theories on the key definitions. The future research methodology is detailed in section 3. We conclude the document in section 4 with the final remarks.

## **2 Research Background**

A way forward for organizations to face uncertain and complex worlds posed by Digital Transformation (DX) and the NWoW in the workplace is by shifting towards a learning organization [10]. The learning organization concept flourished in the 1990s, stimulated by Peter M. Senge's *The Fifth Discipline* [11]. Senge defined the learning organization

as one where people continually expand their capacity to create the desired results, new and expansive thinking patterns are nurtured, where collective aspiration is set free, and where people continually learn how to learn [11]. "Learning organization" is still an appropriate and widely used term to describe an organization that prioritizes and values continuous learning and improvement. However, considering the new workplace demands, this represents an opportunity to reframe the learning organization concept. Besides the disciplines that promote learnability, a learning organization can also learn and adjust to a new context [10]. The transformation of work practices is now characterized by increased flexibility, digitization, virtualization, and mediation. This shift-like work fundamentally challenges the traditional "formal" bureaucratic organizing logic, emphasizing flexibility, adaptability, and dynamism [1]. Suppose previously organizations followed a job-based approach to talent management - that involves using a well-established jobs architecture to define job levels, grades, career paths, spans of control, the criteria for career progression and compensation based on job value - more recently, organizations must rethink their operating model [12].

In recent years, the concept of talent management has been distinguished as new, capturing the interest of most researchers [13]. Effective talent management would aim to attract and attach the best talent to the organization. Talent management can be defined as a set of functions and practices such as planning, training, development and retaining. For example, Creelman [14] defines talent management as recruiting, developing and maintaining talents, which is close to the traditional definition of HRM. To "win the talent battle", an organization must make talent management a top business priority. To recruit and keep the right individuals, the organization must constantly develop and improve the employee value proposition [15]. Within NWoW, talent management must give employees increased autonomy and flexibility regarding when and where they work [16]. Competition for the best talent is being intensified, and talent management requires new approaches and innovative strategies for developing talent based on corporate culture and its unique properties [9].

Technology supporting HRM plays a crucial role, particularly in talent management. It harnesses the potential of the NWoW by facilitating streamlined HR processes, reducing costs, and fostering employee engagement. Organizations increasingly depend on technologies to recruit, select, and manage their workforces [15]. Including AI in technology within talent management, focusing on employee journey, engagement, and performance is at the center of its development. HR should ensure that the new technologies supporting talent management are free from bias. Adopting a continuous improvement approach makes such initiatives more likely to be accepted and provide a fairer and more positive workplace environment if legal, ethical, and employee rights are adequately addressed [15]. This research will focus on technologies that support talent management with some examples including Skills Architecture Platforms - used to understand the workforce and to inform decisions about where to build, borrow or buy talent [17], - Learning Management Systems (LMS) - used to track, record, and report learning data [18], - Learning Experience Platform (LXP) - used to complement the LMS and deliver a personalized learning journey, - and Talent Experience Platform (TXP) - connects learning to talent management, skills management, career growth opportunities and insightful analytics [19].

The study of technological implementations and adoption within organizations has been part of academic research for decades. Holahan [20] defined implementation effectiveness as the "human connection" between an organization's decision to adopt a new technology and realizing a return on its investment. According to their study, implementation effectiveness is related to the successful adoption of the technology by the users, and it depends on the climate of implementation, organizational receptivity toward change, and innovation values fit. Several other theories specifically address the adoption of technology. The Unified Theory of Acceptance and Use of Technology (UTAUT), for example, identifies three effects arising from determinants of behavioral intention: performance expectancy, effort expectancy, and social influence [21]. In today's dynamic landscape, where technology advances rapidly, talent strategies are intricately linked with the implementation of technologies. Technology adoption and strategy renewal must emerge in parallel and inform one another. An organization cannot devise a new strategy without assessing the real potential of new technologies and its ability to acquire the necessary skills and resources. Conversely, it cannot adopt every new piece of digital technology without a strategic plan to leverage it [22]. Technological implementation is critical to why some organizations outperform others, as even a well-formulated strategy cannot guarantee success until it is effectively implemented [23].

### 3 Future Research

Our strategy integrates IS and HRM domains and establishes technology implementation and adoption models. Ultimately, we aim to create a comprehensive framework for organizations to evaluate, select, and integrate technologies into their talent management operations to maximize their potential to enhance organizational performance while supporting workplace transformation. In this research, successful implementation is conceptually defined as a process that starts before the technology implementation within organizations. This conceptualization encompasses comprehending business challenges and their interconnection with technology selection, technological capabilities, implementation and adoption processes, and, last but not least, the anticipated metrics and impact resulting from these implementations. Figure 1 presents the critical dimensions of the implementation and adoption process.

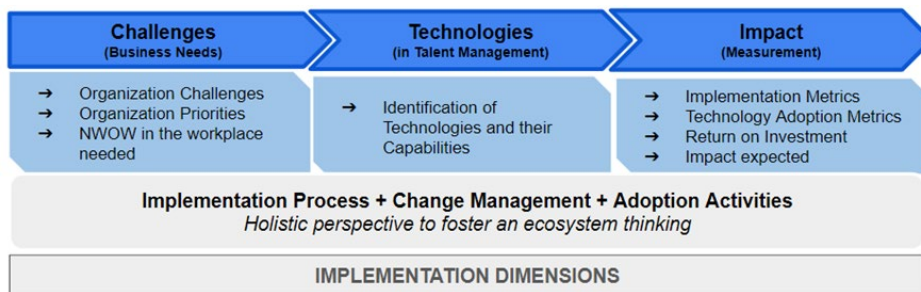


Fig. 1. Implementation Dimensions

The research methodology that will be employed is Design Science Research (DSR) due to its focus on the solution that addresses a generalized and real problem [24]. We will incorporate the process of six different activities outlined by Peffers [25] and the guidelines proposed by Hevner [26] into this research. Figure 2 presents the process DSR of the research.

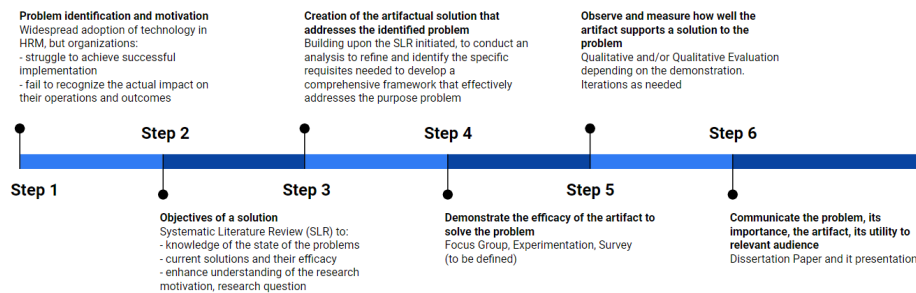


Fig. 2. Design Science Research Process (adapted from Peffers et al., 2007)

In Step 1, we atomized the problem conceptually (challenges, technology and impact) so that the solution could capture its complexity. In addition, our justification of the solution's value brings the understating of the reasoning associated with the problem [25]. By following Kitchenham's Procedures for Performing a Systematic Literature Review (SLR) [27], we will derive the objectives of the solution in Step 2. In addition, we propose conducting interviews with professionals specialized in the field to gather valuable insights regarding implementing technology in Talent Management. In Step 3, we will develop the framework that effectively tackles the identified problem and holds significance in solving a business challenge. The selection of a demonstration process remains undecided and will depend on the opportunities we create to use the framework effectively in Step 4. Considering our purpose to rigorously demonstrate the framework's utility, quality and efficacy, in Step 5, we will design and conduct a research survey to collect feedback from professional practitioners in the field. In the final step (Step 6), we will communicate the artefact, its utility and novelty, the rigor of its design, and its effectiveness to researchers and practicing professionals.

## 4 Conclusion

By utilizing DSR, this study aims to understand the key factors organizations should consider for practical implementations and adopting technology supporting talent management. This holistic perspective fosters an ecosystem thinking on implementing and adopting technology that strategically guides what should be considered for a successful implementation.

Despite the already sustained relevance of this research, specific points need a more in-depth analysis. Until now, the research has primarily concentrated on the organizational perspective and challenges, with limited exploration of the influence of employee

motivations. Acknowledging that the pandemic contributed to a significant shift in workforce engagement, exploring the factors influencing employees is equally important. Both perspectives are interrelated and form integral parts of the equation when we discuss implementing technology solutions. Moreover, a deep exploration of the technologies in talent management is also needed. The concept still needs to be recognized by academic research, and special attention is needed in the SLR to ensure that the relevant information is captured. Suppose the framework is intended to be applicable across various technologies used in talent management practices. In that case, it is essential to categorize the technology based on its capabilities rather than relying on labels that may become obsolete rapidly. Finally, yet importantly, there are specific fields that, although yet to be fully defined, can be included in this research. Software architecture and its integration with Human Resource Information Systems (HRIS) are fundamental aspects to consider. By incorporating these dimensions into the research, we can better ensure the relevancy of the practical aspects of the framework and its effective implementation within the technological landscape of organizations.

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