

# Innovation and human resource management: a systematic literature review

Innovation and  
HRM

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Mariana Namen Jotabá

*University of Beira Interior, Covilha, Portugal*

Cristina I. Fernandes

*University of Beira Interior, Covilha, Portugal and*

*Centre for Corporate Entrepreneurship and Innovation, Loughborough University,  
Loughborough, UK, and*

Marjaana Gunkel and Sascha Kraus

*Faculty of Economics and Management, Free University of Bozen-Bolzano,  
Bolzano, Italy*

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## Abstract

**Purpose** – This study aims to map scientific publications, intellectual structure and research trends in the development of human resource management (HRM) by adopting innovative practices. Specifically, it aims to (1) identify the fundamental contributions of research and to (2) determine the lines of research that constitute the most prominent intellectual structure to contribute to defining a future research agenda.

**Design/methodology/approach** – This study employs bibliometric, bibliographic coupling and cluster analysis techniques. To evaluate any potential patterns among the articles, it is analyzed how those were jointly cited. Hierarchical cluster analysis was also applied to those subject to bibliographic coupling analysis within the scope of grouping the interrelated articles into distinct sets.

**Findings** – The results enabled the identification and classification of various theoretical perspectives on human resources development through the adoption of innovative practices into four main approaches: (1) organizational factors of success, (2) strategic HRM, (3) human behavior and (4) learning management.

**Originality/value** – This study identifies, explores, analyzes and summarizes the main themes contributing to deepening the literature by identifying the priority areas concerning HRM through the adoption of innovative practices that can guarantee international standards of excellence.

**Keywords** Innovation, HRM, Systematic literature review

**Paper type** Literature review

## 1. Introduction

Potgieter and Mokomane (2020) argue that the strategic emphasis of a human resource management (HRM) department can be summarized as the effective management of teams and individuals in an organization aimed at competitive advantage and performance success. Thus, there is growing interest in investigating the role of HRM departments and practices in supporting companies' capacity for innovation (Engelsberger *et al.*, 2021). Due to the recent transformation (such as digitization) of most organizations, HRM's role in strategic management has become more important (Zhou *et al.*, 2020), as these practices can provide tools for change and innovation and support strategic decision-making in organizations (Sheehan *et al.*, 2016).

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The HR strategy is increasingly related to the prevailing organizational strategy, experiencing the direct impact of ongoing changes while supporting the organization's development in the emerging digital environment. Thus, HRM practices have increasingly considered the needs of Industrial Revolution 4.0, which inevitably points to huge changes in the established system and its contexts. Within this scope of change, high-performing organizations adopt radically different forms and become more digital and innovative (Deloitte, 2017).

HRM plays a significant role in supporting changes. Thus, several studies have begun to examine the relationship between HRM and innovation, specifically, practices that contribute to innovation in organizations. Looise and van Riemsdijk (2004) suggest that four aspects of HR are important for innovation in an organization, namely, work design, people, performance management and rewards, as well as communication and participation. De Leede and Looise (2005) present a model relating the HRM strategy to organizational results, such as innovation and success, noting that HRM practices, resulting from the strategy, can lead to results such as creativity, commitment and competencies, resulting in the organizational results of innovation and success.

Although HR practices and employees seem essential for innovation, empirical research linking the areas of HRM and innovation is quite scarce (De Leeds and Looise, 2005; Laursen and Foss, 2014; Seeck and Diehl, 2017). Given the strong and growing focus on innovation, the HRM of organizations also needs to review their employees' skills. According to Meskó *et al.* (2018), 50% of all current jobs will be outdated in the next two decades. This leads to the imperative challenges faced by HRM in advancing at a faster pace, adapting practices and routines as well as facilitating organizational learning (Muñoz-Pascual *et al.*, 2019). HR practices are innovative and support innovation within organizations (Kossek, 1987; Looise and van Riemsdijk, 2004).

Innovation in HR is related to changes in the social systems of organizations and the adoption and diffusion of these innovations, due to environmental forces and social processes (Kossek, 1987). As noted by Looise and van Riemsdijk (2004), these HR innovations are fundamental to innovation within organizations. Supporting employees' careers and establishing a goal and objective systems with rewards for successfully undertaking and conducting innovation (Cano and Cano, 2006) are important for innovation. Thus, reflecting on the impacts that innovation can enhance regarding the future of work and employment is important. Furthermore, the HRM's role in supporting these changes should be carefully analyzed. Hence, a more in-depth analysis of HRM structures, rethinking routine activities, reviewing policies, developing new knowledge and skills and enabling teams to work in work environments that are completely different from previous ones.

Seeck and Diehl (2017) were the first and so far only scholars to systematize the theme of innovation in HRM, identifying 35 empirical studies linking HRM and innovation over 25 years (1990–2015). The results indicate the importance of the relationship: HRM practices implemented by organizations have a positive effect on innovation. Given the growing importance, and the speed of innovation, examining the development of this strand of literature is of utmost importance. This is also observed by Natalicchio *et al.* (2018) who conclude that the direct effect of HRM is of interest to research and the moderating role of HR practices requires a broader debate in the literature.

Thus, inspired by the work of Seeck and Diehl (2017) and building upon as well as updating it, we aimed to stimulate academic improvement and provide a better sense of direction and offer a thorough and systematic review of this expanding literature. We focus on addressing the following questions: What constitutes innovation in HRM? What theories support research on innovation in HRM? Our study makes several important contributions to the literature. First, we present a systematic review of the literature on innovation in HRM using bibliometric techniques (e.g. Donthu *et al.*, 2021). This helps identify the previous literature's findings and sets the stage for new research, summarizing the main knowledge

gaps and directions. Second, our review challenges several theoretical/conceptual assumptions prevalent in HRM innovation research and offers new perspectives that can shape future research. Third, we define a road map for an informed research agenda that proposes multiple improved directions.

Overall, our study aimed to conduct a mapping of scientific publications, intellectual structure and research trends in the area of innovation in human resources management. Specifically, we intend to (1) identify the fundamental contributions of research in this area and (2) determine the lines of research that constitute the most prominent intellectual structure to contribute to the definition of a future research agenda.

## 2. Methodology

This study aimed to critically analyze studies that examine HRM's role in innovative companies through a systematic literature review (SLR), bibliographic coupling and cluster analysis techniques. The SLR process starts with the definition, objectives and conceptual limitations (Kraus *et al.*, 2020). This study concentrates on the macro-context of strategic HRM associated with innovation to broaden the conceptual understanding of the adoption of such practices. For this, the following goals were established: (1) identifying studies published in scientific journals on HRM practices related to adopting and conducting innovation in organizations; (2) proposing an integrated evaluation of the problems and discoveries of the leading individual studies to understand the scenario surrounding human resources and innovation; and (3) presenting implications for HRM practices (Denyer and Tranfield, 2009).

Next, the software package VOSviewer was used to generate bibliometric maps and identify bibliographic coupling in the article references. Bibliographic coupling classifies two articles when they make recourse to the same reference item (Kessler, 1963). Each cluster was determined by analyzing the content and keywords, and thus, the most pertinent information of the articles in the sample. The resulting clusters serve as a starting point for organizing the scientific outputs.

### 2.1 Selecting the review method

This work aimed to overcome the challenges associated with the increasing volume of scientific production (e.g. subjectivity), as evaluating and comprehending a topic's literature requires scientific analytical tools (Kraus *et al.*, 2021). Therefore, it engages in a systematic process of identifying, analyzing and synthesizing discrete streams (Snyder, 2019; Kraus *et al.*, 2020; Vrontos and Christofi, 2021) to establish the theoretical underpinnings of in-home service consumption. For this, we adopted a hybrid review methodology by combining a bibliometric and framework-based review (Figure 1) (Snyder, 2019). The bibliometric review enabled us to quantify the productivity of scientific research,

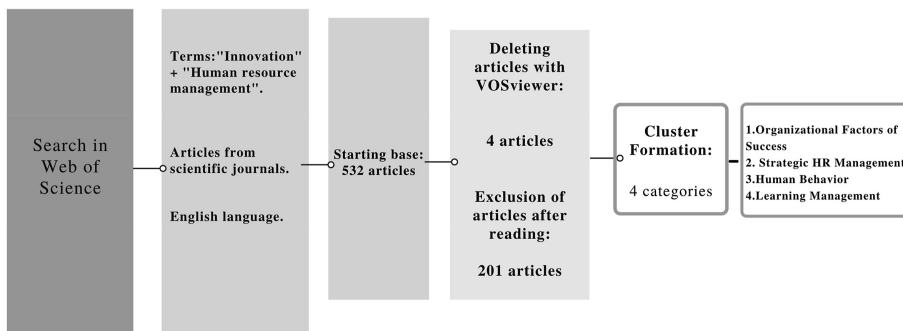


Figure 1. Research protocol

identify thematic clusters and establish the foundations of in-home service consumption (Mas-Tur *et al.*, 2020). The framework-based review set the foundations for the proposed innovation and HRM framework and a comprehensive understanding of innovation and HRM. A review based on bibliometric analysis provides a powerful set of methods and measures for studying the structure and process of scholarly communication. To study the available literature, we relied on three widely used techniques of bibliometric analysis: evaluative, relational and review techniques (Echchakoui, 2020). The evaluation technique focuses on the academic impact and includes three types of measures: influence (e.g. number of citations per year and per author), productivity (e.g. number of publications per year and per author) and hybrid (a combination of influence and productivity) (e.g. the average number of citations per paper). The relational technique explores the relationship between units of analysis on a specific topic or research field, identifying patterns and networks among journals, publications and/or authors. Co-citation analysis, bibliographic coupling, co-authorship analysis and co-word analysis are examples of relational techniques (e.g. Kraus *et al.*, 2012). The review techniques refer to systematic literature reviews, meta-analyses or qualitative studies (Echchakoui, 2020). The present study encompasses all three bibliometric techniques.

### *2.2 Data collection and processing methods*

A literature search was conducted using the *Web of Science* database. The search terms used were “innovation” and “human resource management” (and possible abbreviations). A total of 532 articles were obtained.

To obtain the primary objective and specific goals, the search focused on articles from academic journals, narrowing them to 446 articles; followed by the filters “topic,” in the categories of “management” and “business,” in English language and in December 2020. In summary, 241 articles indexed in the database were identified in the *Web of Science*, which can be considered “the most prestigious database and leading academic institutions and the research world” (Gasparyan *et al.*, 2013, p. 1271). Figure 1 provides the details of the research protocol.

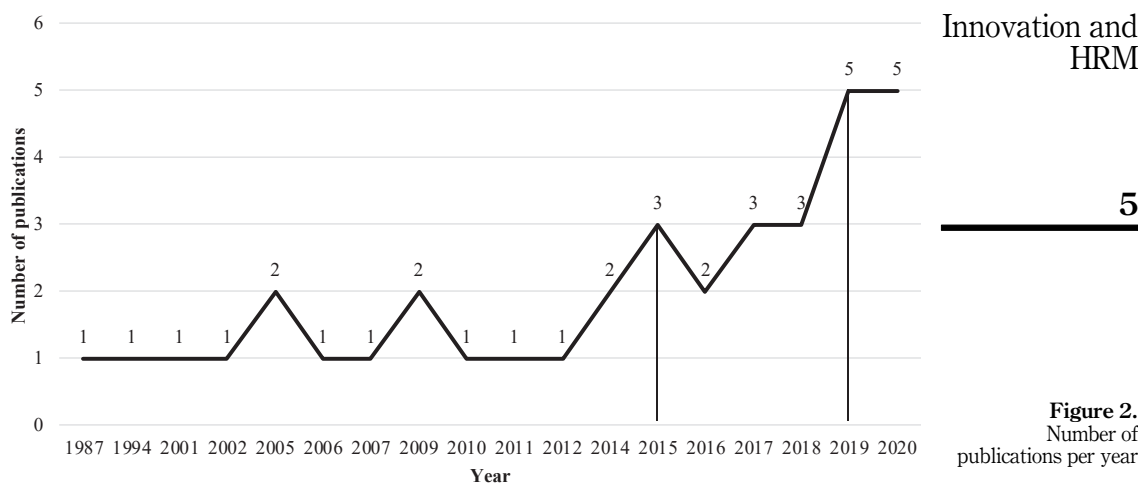
The data were processed using VOSviewer software (version 1.6.15), which sets the parameters for bibliographic coupling at a minimum cluster size of six articles. This procedure resulted in a final sample of 237 articles, which were grouped into four clusters. Among them, four articles excluded by the software were disregarded. Furthermore, based on the exclusion criteria, after reading the publications, 201 articles were excluded because they were not related to HR and innovation and the adoption of innovative practices in HRM, including theoretical/conceptual and empirical publications. Descriptive statistics were produced using SPSS Statistics software version 27.0.

## **3. Results**

Each scientific publication included in the sample was analyzed regarding (1) the performance, thus, the descriptive statistical data and (2) trends in clusters along with the cluster descriptions.

### *3.1 Performance*

As demonstrated by the previous overview study of Seeck and Diehl (2017), the number of publications relating HRM to innovation is relatively low. However, our study shows that there has been a rising interest in the topic, as presented in Figure 2. From 2015, in which the overview study of Seeck and Diehl ended its analysis, there has been a sharp increase in the



**Figure 2.**  
Number of publications per year

number of publications. There were only 18 studies on the topic from 1987 (the date of the first publication) to 2015, but another 18 from 2016 to 2020.

When examining the research methods of the publications, we found that the majority, namely 20 studies (55.6%), were quantitative by nature, followed by 11 (30.6%) qualitative studies. Among them, four (11%) were conceptual, and one (2.8%) was a mixed-method study that applied qualitative and quantitative methods.

A broad range of methods were employed across the articles. Regarding the quantitative articles, five publications utilized structural equation modeling, and four used regression analyses as methods, making them the most common methods. Case studies were the most popular method for qualitative studies with seven publications, followed by two studies using document analysis, and two using mixed methods design. Regarding conceptual studies, three were theory publications, and only one was a literature review. The only mixed-method study utilized linear regressions and telephone interviews as the quantitative qualitative methods, respectively.

### 3.2 Cluster trends

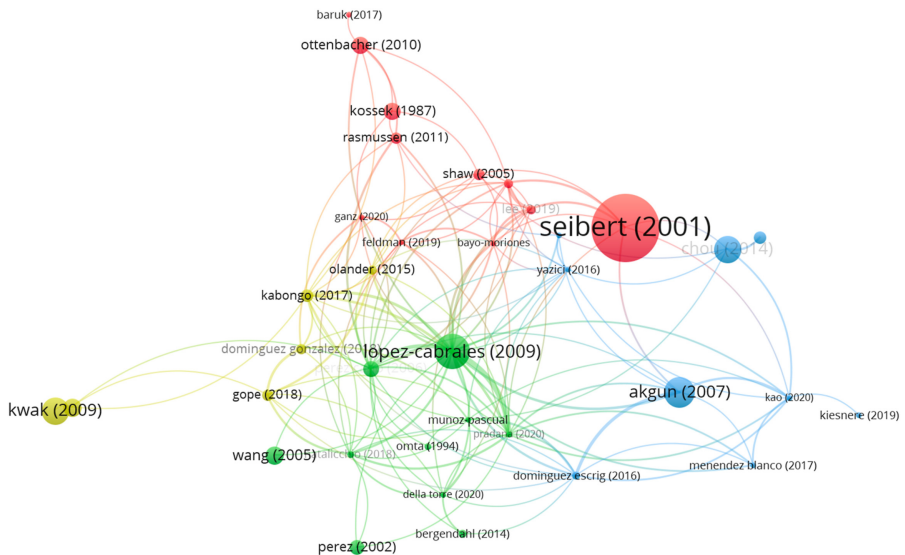
To portray the trends in the literature regarding innovation and HRM, we approached the bibliographic confluences among the 36 studies in the sample. This resulted in the definition of the four clusters. This organization of the clusters and respective publications contained in each was designated by the software tool for the construction and visualization of bibliometric networks (VOSviewer, 2021). Figure 3 presents a visual model of the cluster network.

Descriptive analyses were conducted to examine patterns in journals, groups of authors and publications related to the group and topic, as well as the number of citations related to the authors. Table 1 presents the journals in which the studies were published and the number of citations in the publications during data collection.

The identified articles can be grouped into four clusters (Figure 4):

The following table provides an overview of the articles in the four clusters:

Although the overall number of publications in the area was low, a broad range of journals served as an outlet for the studies. *Human Resources Management* and the *International Journal of Manpower* published the largest number of publications (three publications each).



**Figure 3.**  
Cluster network

In the former, two publications belong to Cluster 2, in 2020 and 2019, and one article to Cluster 1, which was published in 1987 and is the first publication in our study sample. In the latter, one article belongs to Cluster 3 (year of publication 2020), another to Cluster 1 (year of publication 2011) and one to Cluster 2 (year of publication 2005). *International Journal of Project Management*, *Journal of Management*, *Journal of Organizational Change Management*, *Organization Science* and *Technovation* have served as an outlet for two studies, whereas the remaining journals have published only one study in the area.

An examination of the citations revealed five author teams with over 100 citations: [Seibert et al. \(2001\)](#) with 637 citations under the auspices of Cluster 1, [Lopez-Cabrales et al. \(2009\)](#) with 175 citations belong to Cluster 2, [Akgun et al. \(2007\)](#) received 137 citations for their articles in Cluster 3, [Chou \(2014\)](#) with 108 citations in Cluster 2 and [Kwak and Anbari \(2009\)](#) gained 103 citations for an article in Cluster 4. Of the 36 published articles, four were not cited during data collection, which may be because they were all published in 2020.

#### 4. Cluster descriptions

In the next step, all articles in each respective cluster were read and analyzed to determine whether they responded to the research objective of providing implications for HRM. The analysis enabled the identification of shared characteristics and points of divergence, which led to the establishment of the research categories for each cluster. The four research clusters are discussed below:

##### 4.1 Cluster 1: Organizational factors of success

The cluster “organizational success factors” comprising 11 articles, focuses on understanding the relationship between proactivity and innovation and the appropriate role of the HR manager.

Proactiveness is a personality trait that is positively related to career growth and innovation ([Seibert et al., 2001](#)). HRM systems are mediators that influence the development of work and increase proactive behaviors and motivation, vital for the development of

Cluster	Title of the paper	Journals/Reviews	Authors	Year of publication	Total of citations
Organizational factors of success	What do proactive people do? A longitudinal model linking proactive personality and career success	Personnel Psychology	Seibert, S.E.; Kraimer, M.L.; Crant, J.M.	2001	637
	Strategies for achieving success for innovative versus incremental new services	Journal of Services Marketing	Ottenbacher, M.C.; Harrington, R.J.	2010	45
	Human-resources management innovation	HRM	Kossek, E.E.	1987	43
	Success and survival of skill-based pay plans	Journal of Management	Shaw, J.D; Gupta, N.; Mitra, A.; Ledford, G.E.	2005	20
	Knowledge management in the firm: concepts and issues	International Journal of Manpower	Rasmussen, P.; Nielsen, P.	2011	18
	Effects of HRM Systems on employee proactivity and group innovation	Journal of Management	Lee, H.W.; Pak, J.; Kim, S.; Li, L.Z.	2019	14
	Connecting HRM and change management: the importance of proactivity and vitality	Journal of Organizational Change Management	Tummers, L.; Kruyen, P.M.; Vijverberg, D.M.; Voeselek, T.J.	2015	14
	Falling not far from the tree: Entrepreneurs and organizational heritage	Organization Science	Feldman, M.P.; Ozcan, S.; Reichstein, T.	2019	5
	Contentment of employees vs their prosumeric activity in the scope of recommending an employer	Journal of Business and Industrial Marketing	Baruk, A.I.	2017	3
	Strategic HRM	Strategic human resources, innovation, and entrepreneurship fit: A cross-regional comparative model	International Journal of Manpower	Wang, Z.M.; Zang, Z.	2005
Human resources management and its impact on innovation performance in companies		International Journal of Technology Management	Perez, C.C.; Quevado, C.P.	2006	38
Benefits and barriers of telework: perception differences of human resources managers according to company's operations strategy		Technovation	Perez, M.P.; Sanchez, A.M.; Carnicer, M.P.D.	2002	30
Human behavior	Hotels' environmental policies and employee personal environmental beliefs: Interactions and outcomes	Tourism Management	Chou, C.-J.	2014	108
	Developing attitudes and intentions among potential entrepreneurs	Journal of Enterprise Information Management	Soomro, B.A.; Shah, N.	2015	22
Learning management	Analyzing project management research: Perspectives from top management journals	International Journal of Project Management	Kwak, Y.H.; Anbari, F.T.	2009	103

(continued)

**Table 1.**  
Key journals with the most cited publications and authors



Cluster	Title of the paper	Journals/Reviews	Authors	Year of publication	Total of citations
	Inter-organizational projects in French innovation clusters: The construction of collaboration	International Journal of Project Management	Calamel, L.D.; Christian; P.T.; Retour, D.	2012	47
	Doing More with Less: Building Dynamic Capabilities for Eco-Efficiency	Business Strategy and the Environment	Kabongo, J.D.; Boiral, O.	2017	23
	The effect of HRM practices on knowledge management capacity: a comparative study in Indian IT industry	Journal of Knowledge Management	Gope, S.; Elia, G.; Passiante, G.	2018	18
	The effects of organization context on knowledge exploration and exploitation	Journal of Business Research	Gonzalez, R.V.D.; de Melo, T.M.	2018	15
	Human resources–strength and weakness in protection of intellectual capital	Journal of Intellectual Capital	Olander, H.; Hurmelinna-Laukkanen, P.; Heilmann, P.	2015	12
	Combining collaboration and competition: a key to improved idea management?	European Journal of International Management	Bergendahl, M.; Magnusson, M.	2014	11
	How does altruistic leader behavior foster radical innovation? The mediating effect of organizational learning capability	Leadership and Organization Development Journal	Dominguez E.E.; Mallen B.F.F.; Chiva G.R.; Lapedra, A.R.	2016	10
	Open innovation and the human resource dimension: An investigation into the Italian manufacturing sector	Management Decision	Natalicchio, A.; Petruzzelli, A.M.; Cardinali, S.; Savino, T.	2018	8
	Managing Industrial Pharmaceutical Research-And-Development - A Comparative-Study Of Management Control And Innovative Effectiveness In European And Anglo-American Companies	R & D Management	Omta, S.W.F.; Bouter, L.M.; Vanengelen, J.M.	1994	7
	Sustainability management emergence and integration on different management levels in smaller large-sized companies in Austria	Corporate Social Responsibility and Environmental Management	Kiesnere, A.L.; Baumgartner, R.J.	2019	4
	Exploring nurtured company resilience through human capital and human resource development: Findings from Spanish manufacturing companies	International Journal of Manpower	Menendez, B.J.M.; Montes-Botella, J.L.	2017	4

Table 1.

(continued)



Cluster	Title of the paper	Journals/Reviews	Authors	Year of publication	Total of citations
	Identification of growth factors for small firms: evidence from hotel companies on an island	Journal of Organizational Change Management	Yazici, S.; Koseoglu, M.A.; Okumus, F.	2016	4
	How does the use of information technologies affect the adoption of environmental practices in SMEs? A mixed-methods approach	Review of Managerial Science	Munoz-Pascual, L.; Curado, C.; Galende, J.	2019	3
	Innovation as the key to gain performance from absorptive capacity and human capital	Technology Analysis and Strategic Management	Pradana, M. Perez-Luno, A.; Fuentes-Blasco, M.	2020	2
	Social capital drives SME growth: A study of family firms in Poland	German Journal of HRM-Zeitschrift für Personalforschung	Marjanski, A.; Sulkowski, L.; Marjanska-Potakowska, J.; Staniszewska, K.	2019	2

Table 1.

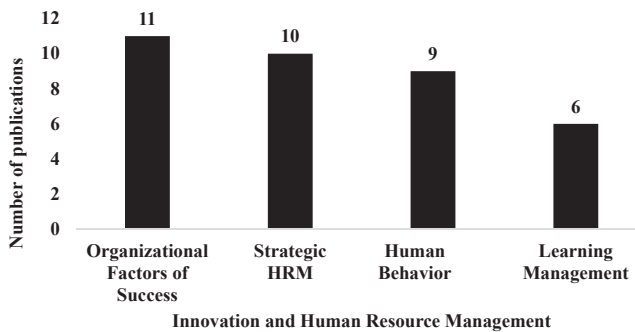


Figure 4. Clusters of innovative practice adoption

organizations (Tummers *et al.*, 2015). According to Shaw *et al.* (2005), the adoption of human resources compensation models is crucial for organizational innovation, regardless of the adopted compensation models.

Baruk (2017) clarifies that employer branding is important, and necessary for companies, such as employer brands, to establish strategies that allow them to achieve organizational innovation. From the viewpoint of Bayo-Moriones *et al.* (2020), HR and their performance evaluation must be aligned with the company's innovation strategy.

In this cluster, a group of three authors who focused their publications on knowledge management as a success factor for innovation can be identified.

The creation, transformation and use of different types of knowledge must be considered fundamental assets in innovative performance (Nielsen and Rasmussen, 2011). For these authors, knowledge management is strictly related to learning, organization and innovation, which have a direct impact on the performance of companies. According to Feldman *et al.* (2019), regarding innovation, companies must adopt five practices: promote human resources based on their characteristics related to taking initiative and ability to lead, perform job rotation, pay attention to the remuneration system, provide job security and hire workers based on knowledge and experience. Ganz (2020) argues that companies with clear innovation goals should experiment with the best strategies to adopt, according to their

human resources. For this, they must experiment in low-risk environments and then apply the definitive strategy in a real context.

Kossek (1987) clarified that business innovation is directly linked to the ability to form networks and HRM alliances with professors and consultants. Moreover, it clarifies that senior management's role is to present the HR department and its respective executives as crucial elements in strategic decisions, in the construction of a work environment in which workers believe that executives care about their welfare. According to Ottenbacher and Harrington (2010), there are two global success factors for innovation: market attractiveness and strategic HRM. Thus, service advantage, empowerment, employee training and behavior-based assessment all influence the intended outcomes of innovation.

#### 4.2 Cluster 2: Strategic HRM

This cluster consists of 10 articles that contribute to understanding the impact of strategic HRM on innovation.

For Natalicchio *et al.* (2018), the success of innovation practices is not in the recruitment of highly qualified employees but in the ability to implement employee training activities. In other words, innovation occurs through teams, with a focus on learning and developing innovative minds. Thus, it is important to adopt collaborative and competitive mechanisms to manage innovative ideas that arise within a company (Cano and Cano, 2006; Bergendahl, and Magnusson, 2014). According to Wang *et al.* (2005), HRM has a direct and positive impact on the entrepreneurship process and, consequently, on the success of innovation activities. Omta *et al.* (1994) add the importance of management control and human resource practices to innovation's success.

Companies should also adopt advanced technological systems in HRM to create a collaborative culture that establishes alliances and partnerships; they should promote relationship networks for the exchange of experiences and technological support. This stimulus to organizational learning, through the development of human capital and its absorption capacity, is a predictor of organizational innovation (Perez *et al.*, 2002; Muñoz-Pascual *et al.*, 2019; Pradana *et al.*, 2020). Hence, Lopez-Cabrales *et al.* (2009) argue that the impact of innovation and organizational performance depends on the systematization of HR knowledge. They argue that knowledge-based HRM practices have a positive influence on innovation and profit. However, it is important to realize that these practices become more difficult in small-and medium-sized companies (Muñoz-Pascual *et al.*, 2019). Della Torre *et al.* (2020) remind us that, despite the importance of technological systems for innovation activities to be successful, it is essential to implement motivational systems dedicated to raising workers' motivation.

#### 4.3 Cluster 3: Human behavior

This cluster consists of nine articles that help us understand how human behavior contributes to innovation activities.

Along with physical and financial capital, human capital drives companies toward innovation activities. Several authors argue that organizational development is achieved through human capital, as it enables companies to obtain an innovative capacity that allows them the necessary resilience to face the obstacles and challenges arising from globalization, competitiveness and the knowledge-based economy (Menéndez Blanco and Montes-Botella, 2017; Marjanski *et al.*, 2019). For Yazici *et al.* (2016), innovation and proactivity are key factors for organizational growth. The organizational climate also promotes the well-being of employees and, therefore, if companies have more satisfied employees, they can implement innovative activities to achieve better results (Chou, 2014; Kao *et al.*, 2020).

In innovation activities, the leader's behavior has a direct impact. In organizational environments, marked by high competitiveness and uncertainty, innovation is vital for

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survival and long-term success. In these circumstances, leaders with altruistic behavior can create business environments that facilitate innovation, through appropriate learning atmospheres (Escrig *et al.*, 2016; Kiesnere and Baumgartner, 2019).

Another promoter of innovation and its success is the emotional capacity of companies and its impact on organizational learning. This learning ability is directly linked to product innovation and company performance (Akgün *et al.*, 2007; Soomro and Shah, 2015).

#### 4.4 Cluster 4: Learning management

This cluster is composed of six articles that relate learning management to innovation.

HR practices (recruiting and selecting activities, as well as training programs) must be effective and aligned with the knowledge management strategy and the business, regarding organizational strategy, for innovation activities (GOPE, Elia and Passiante, 2018). Companies that adopt knowledge management practices can generate a competitive advantage as a result of the innovative process (Gonzalez and de Melo, 2018). Gonzalez and de Melo (2018) show that the knowledge management process is impacted by five contextual factors: HRM, supportive leadership, learning culture, autonomy and information technology systems. Olander *et al.* (2015) argue that human capital and knowledge are the Allies of innovation. There are several practices related to commitment, trust, motivation and a sense of responsibility, which strengthen loyalty and improve the preservation of the company's intellectual capital.

For Calamel *et al.* (2012), the solution of sustainable models lies in innovation practices and identifying increasing levels of cooperation as well as creating collaborative projects in HRM; through collective learning different skills can be developed. In sustainable models focused on industrial ecology, the optimization and better efficiency of resources are achieved through the integration and coordination of skills, innovations and new routines in functional areas, innovation and development of all technologies, waste control, human resource adjustments, management of environmental constraints and networking and marketing (Kwak and Anbari, 2009; Kabongo and Boiral, 2017).

## 5. Discussion

To support future research on HRM practices on innovation, we established the conclusions from a review of the evidence derived from the peer-reviewed literature using the *Web of Science* database. This was aimed at developing a structure that illustrates the core considerations around this theme, enabling the identification of behaviors for the adoption of innovative practices in HRM, evaluating the problems and discoveries and providing indications for human resource strategic management and policy practices (Aguinis *et al.*, 2021). For this, we used a framework that categorizes the clusters, specifically, organizational factors of success, strategic HRM, human behavior and learning management.

This duly highlights that this conceptual structure was developed by ascertaining the facts supporting the development of the knowledge base. This study identified, along with the four direct clusters around the core areas in strategic HRM, 15 themes/subareas of interest: proactivity, innovation in services, factors of influence in HRM, HR subsystems, knowledge management in HRM, organizational performance, HRM practices, learning capacity, impact on the organizational climate, impact on entrepreneurship, leadership, factors of organizational growth, impact on the organizational climate, project management and sustainable business models.

The subareas arise from the content analysis of the articles in each cluster. In Cluster 1, organizations with greater chances of obtaining superior organizational results present elements such as proactivity, the practice of innovation in services offered, knowledge management practices, the adoption of HR systems and innovation in HRM subsystems in

their routines. These success factors are interconnected with Cluster 2, which complements the strategic management of the area and its practices as key elements for performance and competitiveness gains. In Cluster 3, the relevance of behavior and human capital emerges to capture and enjoy the benefits of innovation, contributing to the growth and learning capacity of the organization through people, promoting impact on the organizational climate and developing the entrepreneurial spirit within the company itself. Moreover, the importance of leadership was analyzed to stimulate the construction of environments that allow their employees to be open to radical and incremental innovations. Finally, in Cluster 4, high-performance HRM practices as well as their effective ability in the relationship with knowledge management convey reiterate the existence of HR practices aimed at enabling individual learning, motivation and staff retention. This may prove favorable for HR managers to encourage employees to engage in learning processes and, consequently, improve organizational results and innovation.

Hence, we detailed the main trends in the literature on the motivations and obstacles to the adoption of innovation in HRM, as shown in [Figure 5](#).

Based on the reviewed articles, we identified various limitations of the research and, consequently, representing some potential contributions for consideration by future research projects, as outlined in [Table 2](#).

## 6. Conclusion

This study sought to critically analyze the literature to drive the development of HR through the adoption of innovative practices. We may affirm that this research field has been ongoing since 1987. Despite the 33 years of research, the field remains in the construction phase, and a significant proportion of the studies only adopt exploratory qualitative approaches. The trends regarding the number of articles published in this timeframe, despite the relatively low total number (only 36 publications), reflect an increasing level of academic interest in studying innovation in association with HRM, whether at the conceptual understanding level or through empirical studies enabling the development of new policies and more modern HRM practices, bringing better results that can benefit the company–HR sector–teams triad. The results obtained demonstrate that 2019 may turn out to be a landmark in this scientific field regarding associating innovation in HR given the surge in publications.

There was also the scope for identifying how the authors' main interests focus on understanding and developing mathematical models that can assist in identifying the organizational success factors in knowledge management, proactivity and HR subsystems. This objective arises from providing greater recognition of the factors that favor innovation-friendly management, as well as helping HR managers plan where they can prioritize efforts for organizational growth.

Furthermore, the research, to a certain extent, advances conclusions on the debate about knowledge management in the majority of these studies and that permeates throughout the clusters. These emphasize the relevance of learning and stimulating the development of teams and, as such, standing out on the list of priority tasks for HRM. This also pointed out how, paradoxically, this interlinkage between knowledge management and the clusters in the current research – the “learning management” cluster registered the lowest number of publications regarding the other groups. The justification may reflect how this theme underlies all approaches and is, therefore, not an individual theme of lesser interest.

This also advanced with the need to reflect on the importance of the HRM role within the organizations deemed innovative as well as those seeking to develop their innovative environments and as a mediator in this process to assist companies facing competitive markets.

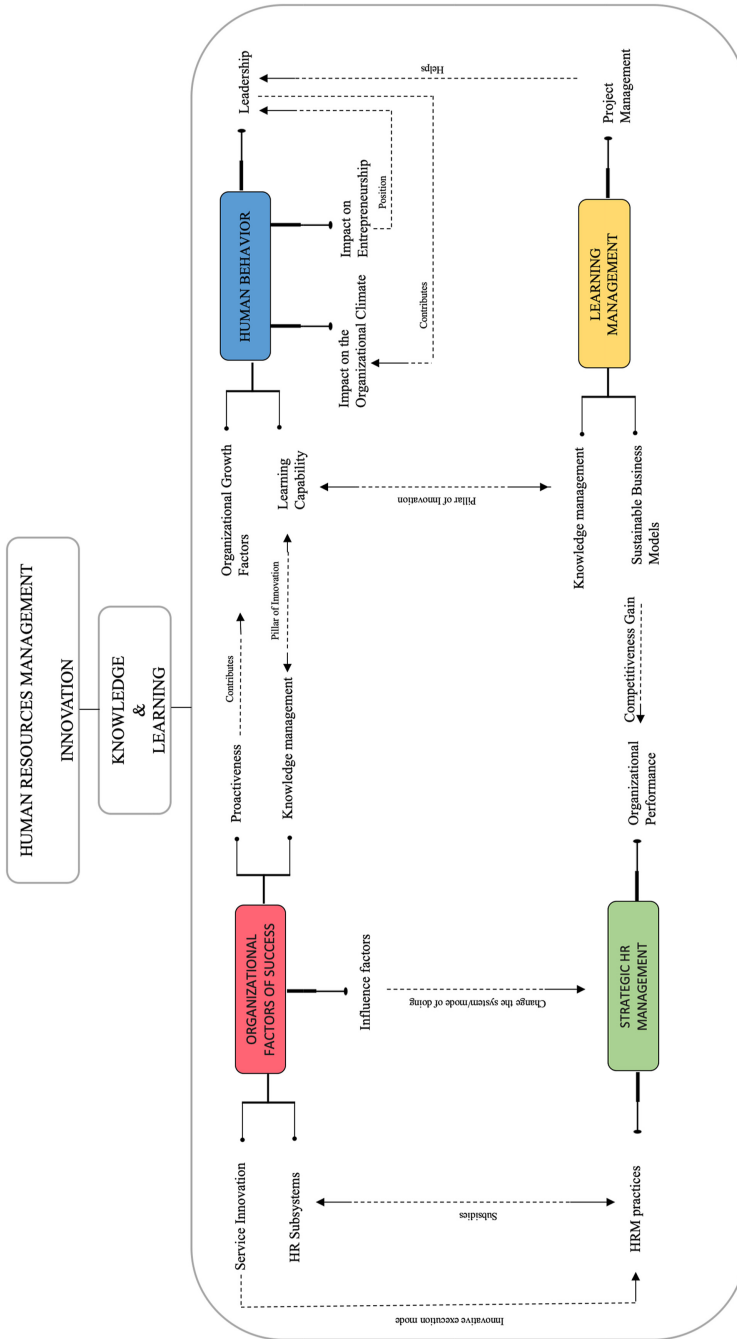


Figure 5. Framework for adopting innovation in HRM

Cluster	Future directions
Organizational factors of success	Within the scope of the organizational factors of success, specifically, the factors influencing HRM, there is the need for more conclusive research on which factors have a greater influence on successful adoption processes. Specifically, researchers should concentrate on analyzing the impact of the innovation type Regarding employer branding innovative practices – monitoring the satisfaction with the employer's brand from the employee perspective. This needs to enable companies to identify what matters to their employees and target their investments
Strategic HRM	Identifying the changes in the functions of HR managers in an era of disruptive technology and innovation HRM's role as a strategic partner and the impact of the changes in functions on the results of organizations might be subject to study Understanding the future of work, specifically, the functions of HR professionals What skills do professionals need to develop in this new scenario? What activities will disappear, and which will be launched? Studies may approach the specific features and set of abilities of HR managers (profile) necessary to bring about the adoption of disruptive technology in the organization. If HR department reorganization is essential in the future due to this disruptive technology, this also represents a topic for research Advancing with studies that seek to identify the impacts of adopting intelligent systems and practices deploying technologies and verifying whether there are advantages in turning the HR department into "HR tech"
Human behavior	The theme of the leadership role versus innovation calls for studies focusing on the development of structures for corporate sustainability that are applicable beyond the range of senior management, therefore, interviewing persons at different management levels to involve more staff who had to change their routines due to the implementation of sustainability
Learning management	Broaden the sample of studies across organizations of different sizes to examine the attitudes of employees toward the introduction of innovation in their working processes and consider the implications for training and development

**Table 2.**  
Future directions

This also verified only a low level of research on approaches to the deployment of technologies, specifically, the adoption of systems versus innovation in the HR department. This raises questions about how HR might better accompany technological practices and means. Would it be a good innovation practice for HR to adopt systems that facilitate routine tasks and management? What image should HR convey in support of other sectors and the organization without bolstering its position, thus, without adopting innovative practices by deploying software and "tech practices" that facilitate and enable their tasks?

The research also corroborates an understanding of the future of work in approaching research that presents sustainable business models, acclaimed for applying more modern and longer-lasting organizational practices.

As every study, also ours has a number of limitations. First, our keywords, process and use of specific databases (Web of Science) may have resulted in the omission of potentially relevant other studies. Second, because we concentrated on analyzing and integrating existing research, we did not provide research propositions connecting the themes and elements of innovation and HRM. Third, this review only included studies published in peer-reviewed academic journals written in English; it excludes books, conference proceedings and other literature, as well as articles written in other languages that might have been relevant. Although we are aware of and confident in our results, we believe they are representative of

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the research conducted in this field. Hence, we believe that we provided a perspective of the intellectual structure of this field of study, along with the contribution of our conceptual model, for future investigation.

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**Corresponding author**

Mariana Namen Jotabá can be contacted at: [mariananamen@gmail.com](mailto:mariananamen@gmail.com)