HR innovation through interorganizational HR collaboration

HR innovation

Received 5 December 2021 Revised 14 December 2022

Accepted 20 October 2023

Ferry Koster

Department of Public Administration and Sociology, Erasmus Universiteit Rotterdam, Rotterdam, The Netherlands

Abstract

Purpose – Studies of inter-organizational relationships have traditionally overlooked the human resource management (HRM) field, with most research focusing on collaborations in the technical domain. This study endeavors to explore the impact of organizational human resources (HR) collaborations on HR innovativeness, drawing on theories about organizational learning capabilities to explain this connection. By analyzing the synergies arising from inter-organizational HR collaborations, this study aims to seek to shed light on the potential for HRM to contribute to organizational performance and foster innovation.

Design/methodology/approach – The study is based on a quantitative survey conducted among 326 Dutch companies. The survey aims to find out whether these companies collaborate with other organizations on HR-related issues, the extent to which they renew their HRM function, and whether they apply organizational learning practices. The data collected for the survey are analyzed using Hayes PROCESS macro to investigate mediation effects.

Findings – As per the study, HR collaboration results in innovation. The research suggests that collaborating with HR across different organizations significantly contributes to HR innovation. This relationship can be explained by the inter-organizational learning practices that organizations adopt. Therefore, when organizations collaborate with each other, they learn from each other, which enhances their learning capabilities and ultimately leads to HR innovation.

Originality/value – This study delves into the extent to which organizations collaborate on HR-related issues, which is a relatively new field. Moreover, it contributes to the research on the connection between interorganizational relationships and innovation by showing how much of it is explained by organizational learning.

Keywords Interorganizational HR-collaborations, Innovative HRM, Organizational learning practices, Dynamic capabilities

Paper type Research paper

Introduction

Research studies on innovative human resource management (HRM) focus on three main questions. Firstly, how much of HRM policies and practices contribute to the innovativeness of organizations? Secondly, to what extent the HRM policies and practices applied by organizations are innovative? And finally, how do innovations affect the use of HRM policies and practices? (Koster, 2019). These questions are studied in different research streams. It is essential to differentiate between different research streams to understand their goals and connect them to related research fields. In the case of research on organizational innovation, which concerns how much companies improve their products, services and processes, there are many questions related to organizational structures and strategies that have been explored by scholars such as Crossan and Appaydin (2010), Damanpour (2017), Alves, Galina and Dobelin (2018). Most of that type of research falls in the first category as it investigates the connection between HRM policies and practices and the innovativeness of organizations.

© Ferry Koster. Published in *Innovation & Management Review*. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at http://creativecommons.org/licences/by/4.0/legalcode

This article was financially supported by the Netherlands Organizations for Scientific Research (NWO/TOP Grant "Sustaining Employability", NWO 407-13-021).



Innovation & Management Review Emerald Publishing Limited 2515-8961 DOI 10.1108/INMR-12-2021-0232

This research shows that these policies and practices contribute to organizational innovation (Azevedo, Schlosser, & McPhee, 2021). Since this link is established, the question is how to move this field forward. In this study, two extensions of the research area are explored.

Firstly, innovation within organizations can take many forms. Traditionally, it has been thought of in terms of developing new goods and services and finding new markets. However, there is a type of innovation that focuses on how organizations manage their human resources (HR). This type of innovation is called HRM innovativeness, and it is concerned with the ability of organizations to renew the way in which they manage their HR. Organizations can achieve this by adopting new policies and practices or by changing existing ones. The focus of HRM innovativeness is not on which policies and practices are adopted but on the underlying process that allows organizations to match HRM to external changes and demands. This ability is studied under the heading of "best fit" approaches to HR by Koster and Benda (2020). Secondly, the text highlights the significance of collaborations between organizations in the human resources field. Numerous studies have been conducted to comprehend the aspects, substance and outcomes of inter-organizational relationships (Powell, Koput, & Smith-Doerr, 1996; Ahuja, 2000; Hardy, Phillips & Lawrence, 2003; Cropper, Ebers, Huxham & Ring, 2008). These studies have revealed that organizations team up with each other to gain knowledge, share resources and develop innovative products and services, as pointed by Nooteboom (2008), Tomlinson and Fai (2013), and Zahoor and Al-Tabbaa (2020). Past research has focused on collaborations between organizations concerning technical matters. Organizations often connect with others to improve their production, performance and innovativeness. This well-known concept has been extensively studied (Hardy, Phillips & Lawrence, 2003). However, it has vet to be determined whether organizations establish similar relationships with regard to their HRM. This would reflect their efforts to address HR-related issues jointly with other organizations.

There is a lack of research on inter-organizational collaborations in the HR domain, as evidenced by a mere handful of studies generated by a literature search of "human resource alliances" on research databases (Google Scholar reports less than 50 articles). Gardner (2005) termed the "inter-organizational collaborations" in the HR domain as "human resource alliances." On the other hand, search terms like "production alliances" (about 800 hits on Google Scholar) and "innovation alliances" (leading to over 2,000 articles in Google Scholar) lead to a long list of publications. This scenario suggests that researchers in the field of HRM have a low interest in studying inter-organizational collaborations in HR-related issues, at least not comparable to other functional fields of study. These collaborations are implied in the literature on other types of alliances such as collaboration on product development which goes along with mutual investments in training programs and learning across organizational boundaries. However, it still means that there needs to be more focus on inter-organizational alliances in HRM of organizations.

As a result, the picture that emerges from the current research is that organizations collaborate in all kinds of ways, except when it comes to their HR. There are at least two potential explanations for that. Firstly, it may be that organizations do not create human resource alliances to collaborate on HR-related issues. There is a conflict between the benefits of HR collaborations and the reluctance of organizations to engage in them. Such collaborations can provide a means to enhance organizational learning, increase available resources and mutually solve HR-related issues. Despite the theoretical and practical arguments supporting HR collaborations, it seems that many organizations are hesitant to participate. Being so, a second explanation is more plausible: there are inter-organizational collaborations in the human resources field, but they have yet to be explored more in the research. This scenario occurs because the most HR research has focused on the policies and practices within organizations rather than investigating how they are co-created with other

organizations (Martin-Rios, 2014). Ulrich and Dulebohn's (2015) answer to the question "What is next for HR?" illustrates how strong this in-ward looking perspective is rooted in the literature. Even though they argue that organizations should move from an inside/out approach to an outside/in approach, they pay attention to what steps should be taken by the internal organization.

Whatever the reason, what can be concluded from the existing body of knowledge is that there is a lack of knowledge concerning the extent to which organizations collaborate on HR-related issues, which of these issues they choose to collaborate on, and how this affects organizational performance. The question being answered holds significance for both the HRM theory and practical implications for HR practitioners. It can aid HR professionals in defining their external HR strategy. The study involves analyzing a dataset from 326 organizations in the Netherlands. The study aims to assess various hypotheses about when, why, and how these organizations collaborate on HR-related issues.

Inter-organizational HR collaborations

In order to explain whether inter-organizational collaborations in HR contribute to HR innovation, it is crucial to gain a theoretical understanding of this concept. There are two main characteristics that need to be defined. The first part of the definition involves collaboration between organizations. In the literature, these collaborations are defined in diverse ways. For instance, Gray (1985) emphasizes the input of such collaborations by defining them as the pooling of resources by two or more organizations that work on issues of mutual interest. On the other hand, In Huxham (1996) focuses on their outcomes, as these collaborations aim to generate "...some form of mutual benefit." (p. 1). The definitions provided are not mutually exclusive but rather complementary. They help to define the two essential characteristics of inter-organizational collaboration. Organizations can create cooperative relationships to solve problems rather than attempting to do so in isolation. This approach can lead to better outcomes and is often a more efficient use of resources.

The second part of the definition pertains to the content of collaborations within an organization, with a focus on human resource issues. "To understand it better, it is helpful to refer to the broad definition of HRM, which encompasses the policies and practices used to organize work and to employ people." (Boxall & Purcell, 2011, p. 3). When discussing human resource (HR) management, it is essential to note that the policies and practices involved can extend beyond just one organization. Most of the literature focuses on how individual organizations approach HR issues and the policies and practices they use to manage their personnel. Experts such as Gray (1985), Huxham (1996) and Boxall and Purcell (2011) define inter-organizational HR collaborations as policies and practices that are developed to organize work and to employ people, covering various HR-related issues and are implemented with other organizations to solve HR-related problems) (Koster, 2022). When organizations collaborate on HR issues, they combine their policies and practices to solve everyday problems.

To have a better understanding of the concept of inter-organizational human resource collaborations, such a concept should be distinguished from all related phenomena. The human resource collaborations are distinct from outsourcing of HR functions (Galanaki & Papalexandris, 2007). While outsourcing also concerns the relationships between organizations, it is driven by the market mechanisms, meaning that it is a matter of buying and selling these HR services. In contrast, inter-organizational human resource collaborations refer to the relationships between organizations that do not maintain a supplier-client relationship with each other when it comes to HRM. These organizations work together to solve HR problems that they mutually face, and the focus is on building ties between organizations. Furthermore, inter-organizational HR collaborations involve

organizations working together to solve the problems they face. These collaborations are like but distinct from knowledge-sharing networks, which focus on information flow and learning. Martin-Rios (2014) provides an example of such networks in the HR domain that is relevant to the topic investigated here. Finally, inter-organizational HR collaboration has a connection with borderless careers and an increasingly global workforce (Fenwick & De Cieri, 2004). It is also related to multi-employer working arrangements (Ziehe & Helfen, 2020), which means the boundaries between organizations are becoming less distinct. This is particularly relevant for such collaborations, as they can go beyond the limits of a single organization while they may mean that organizations collaborate more closely, they are not an example of collaboration. Hence, they are instead a factor explaining inter-organizational collaboration on HR issues. Furthermore, from a research perspective, it is more common to investigate these topics at the employee level, instead of at the organizational level.

Gardner (2005) introduced the concept of inter-organizational HR alliances. These alliances refer to organizations' collaborations on employee-sharing, training and development, and quasi-internal labor markets. The latter involves a system in which employees are trained in one company and then transferred to another on a permanent basis. These three examples emphasize that the added value of such alliances mainly concern the employability of employees as they focus on increasing the fit between labor demand and labor supply, both in a quantitative and a qualitative sense. The formation of HR alliances enables multiple organizations to pool their resources and invest in skills development. This results in reduced costs and risks associated with such investments. Additionally, it allows for inter-organizational learning through the transfer of human capital from one organization to another. Thus, organizations can collaborate via HR alliances to mutually develop their human capital, which is especially beneficial for those organizations that cannot afford to do so individually. The current definition of inter-organizational HR collaborations goes beyond the concept of HR alliances. It encompasses a broader range of HR issues, such as recruitment, compensation, employee development and staff departure. Thus, it covers the entire HR cycle.

Inter-organizational HR collaborations and innovative HR

The next question is whether and how inter-organizational HR collaborations are related to the innovativeness of those organizations. While HR innovation may be seen as an example of process innovation rather than product innovation (Crossan & Apaydin, 2010), there are some notable differences to be considered. Firstly, process innovations cover all parts of the organization, not just managing HR. Secondly, efficiency and improved production are not the only factors driving these innovations. It is important to note that HR innovativeness differs from innovativeness in the technical fields. The latter is focused on creating new outcomes, while HR innovativeness involves adapting and renewing HR policies and practices to change the organization. This concept reflects the "best fit" approach in HRM research, which aims to understand how organizations can be adaptable. The "best practices" approach, on the other hand, focuses on finding the HR practices that contribute the most to an organization' innovativeness (Jimenez-Jimenez & Sanz-Valle, 2008; Seeck & Diehl, 2017). Both approaches have given an understanding of how HR practices and policies can contribute to organizational innovation. However, it is essential to distinguish between them as they are based on two different theoretical ideas. The best practices approach is closely related to Barney's resource-based view (Barney, 1991, 2001), which suggests that organizational performance depends on unique resources that are difficult for other organizations to imitate. On the other hand, the best-fit approach can be seen as a version of the dynamic capabilities approach (Teece, Pisano & Shuen, 1997), which proposes that organizational performance is determined by the ability of organizations to integrate, build, and reconfigure these resources. HRM is an essential aspect of any organization. One crucial

element of HRM is the ability of an organization to update and improve its HR policies and practices. To do so, an organization must have a robust process for establishing these policies and practices. However, there may need to be more than this process. Research suggests that inter-organizational relationships can contribute to an organization's capability for renewal. These relationships provide a foundation for building this capacity. By working with other organizations, an organization can gather insights and best practices to help it improve its HR policies and practices.

The general idea is that when organizations work together on HR-related issues, it leads to innovative HRM practices. This is supported by three theoretical mechanisms that suggest a positive relationship between inter-organizational HR collaboration and innovation (Crossan & Apaydin, 2010; Pouwels & Koster, 2017). The first mechanism is a resource argument, meaning that the collaboration between organizations and their ties with one another can provide access to valuable resources. The second mechanism concerns the knowledge base of organizations, meaning that collaboration can also expand this knowledge base. The third mechanism shows there is a risk sharing mechanism. These explanatory mechanisms are used to link HR collaborations with innovativeness of human resource functions as they contribute to the capacity of organization to create fit among its human resource practices: by having access to external resources organizations can develop this capability. A broader knowledge base implies receiving external information and learning from others to develop this capability. Sharing risks also means there is more room to experiment and fail to renew HR functions aimed at a more robust internal and external fit (Subramony, 2006; Som, 2007, 2012). These arguments lead to the first hypothesis.

H1. There is a positive relationship between inter-organizational HR collaboration and innovative HR.

Organizational learning practices

It has been suggested that collaboration between human resource and the innovation of human resource practices in organizations may indicate its added value. However, this relationship has also been criticized, much like the connection between high-performance work systems and organizational performance (Kaufman & Miller, 2011; Kaufman, 2015). Critics argue that more attention should be paid to the specific circumstances in which an organization applies certain human resource practices. In addition, the point of this criticism is that overestimating the value of high-performance work practices occurs when the circumstances are considered. Even if there is a connection between human resource policies. practices and organizational performance, it does not necessarily mean they will be effective in every organization. For example, applying these policies and practices may be so costly that it does not outweigh the benefits. In other words, the implicit advice that organizations should apply high-performance work practices overlooks the issue that it depends on whether an organization has a demand for these policies and practices. It seems to assume that the benefits associated with applying these practices always outweigh its costs. If an organization finds that certain practices are not required or that the associated costs outweigh the benefits, it may not need to implement them or that they do not provide any added value. To address this criticism, it is important to consider the factors that enable or restrict the implementation of these practices. As discussed earlier, one of the key reasons for organizations to collaborate with others is to gain access to resources and information and share the risks involved in joint ventures. The decision on which organizations should collaborate with other depends on identifying the most significant stakeholders who require access to resources and information and who stand to gain from sharing the risks. While there may be several reasons to consider, an organization's knowledge intensity plays a crucial role in collaboration (Adler, 2001). It suggests that when organizations share their knowledge,

they stand to gain the most from the collaborative process. Hence, external ties are more valuable as they contribute to their learning capability (Eisenhardt & Martin, 2000; Zollo & Winter, 2002; Sorenson, 2003; Makani & Marche, 2012). Abstract learning mechanisms can be transformed into concrete organizational learning practices. These practices, as discussed by Rebelo and Gomes (2011) and Polo, Cervai, and Kantola (2018), involve assessing an organization's learning needs in the organization, and taking actions to improve skills through training and providing the necessary resources for skill enhancement. Organizations can become more innovative by adopting these learning practices, as Crossan and Appaydin (2010) and Pouwels and Koster (2017) noted.

H2. The positive relationship between inter-organizational HR collaboration and innovative HR is mediated by organizational learning practices.

Data and method

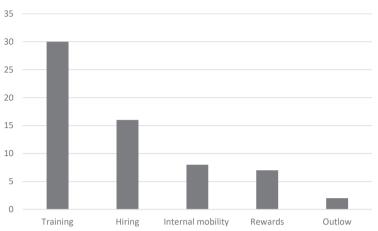
Data collection

The data for this study were obtained by conducting an online survey named "The Sustaining Employability Employer Survey" among Dutch organizations. The survey consisted of a range of questions related to the organizations' background information, HR innovation and HR-related associations with other organizations. The survey was designed as part of a broader research program that aims to examine employability policies and practices from both the employer and employee perspectives known as "Sustaining Employability". The survey was conducted through the Kantar business panel (NIPOBase Business), which is comprised of representatives of private and not-for-profit organizations with two or more employees. A total of 1,000 representatives of these organizations were invited to participate, out of which 549 filled out the online survey. The number of organizations included in the study varied for several reasons. Not all organizations responded to questions about HR innovativeness, which limited the number of organizations in that part of the analysis. The regression results of the 326 organizations were compared with the total data set, imputing the average value of innovative HR and using this variable to verify the importance of the remaining organizations' selection in the results. The results of those analyses were the same, showing that the exclusion of the organizations from the raw dataset is random. The analysis is performed using the 326 for which complete information is available.

Measures

Inter-organizational HR collaboration. The survey measured the extent to which organizations collaborate with others on HR-related issues. "Respondents were asked whether their organization collaborates with other organizations on [...]" followed by "recruitment and selection," "training," "career and development," "pay" and "outflow". Each of these questions could be marked with a yes (a value of 1) or a no (a value of 0). This variable was transformed into a dummy variable, with the value 0 if the organization did not collaborate at all (a score of 0 on the five items) and a 1 if they indicated to collaborate on at least one of the domains. To give an impression the topics on which organizations collaborate: "training" (30%) and "hiring" (16%) are the issues that organizations most often choose for collaborating with other organizations. Only two percent of the organizations indicated that they collaborated on "outflow" of personnel. Figure 1 shows these differences.

Innovative HR. Koster and Benda (2020) developed a scale to measure how innovative an organization's HR policies and practices is. This scale consists of four items that ask whether the organization has renewed its HR functions. The exact wording is: "Has your organization introduced renewal in the area of [...]" followed by four statements about the HR functions,



Source(s): Sustaining employability employee survey, figure by author

Figure 1.
Organizations
collaborating per HRissue (percentage)

namely, "...hiring personnel," "...outflow of personnel," "...internal mobility of personnel," and "...workforce composition." Respondents could rate these innovations of the HR functions on a scale from 1 (does not apply at all) to 5 (applies completely).

The organization's knowledge intensity was measured through questions about their organizational learning practices using four items.

- (1) The organization has a yearly budget for the development of personnel.
- (2) The organization uses training.
- (3) Whether a training period is required for new workers
- (4) Skill needs are regularly assessed.

Respondents could rate these aspects of the organization on a scale from 1 (does not apply at all) to 5 (applies completely).

To understand how innovative HR and organizational learning practices are measured one needs to investigate the dimensionality of the items being used. This involves checking whether the items belong to different scales, and if they are internally consistent. To carry it out, a principal component analysis and a reliability analysis are needed on these items. The outcomes of the principal component analysis are displayed in Table 1. As per the Table, there are two dimensions identified. The items that measure innovative HR belong to one dimension, while the items that measure organizational learning practices belong to another dimension. None of the items load on both dimensions. Furthermore, the reliability analysis indicates that both scales are internally consistent. The Cronbach's alpha of the scale measuring innovative HR is 0.88 and the scale measuring organizational learning practices has a Cronbach's alfa of 0.75. Hence, two separate scales (innovative HR and organizational learning practices) are created by adding the scores on the items and dividing them by the number of items to ensure that they both run from 1 (a low score) to 5 (the highest score on the scale).

The following control variables have been added to the analyses: *organizational size* (measured by the number of employees in the organization), *economic sector* (indicated by the following sectors: raw materials and manufacturing, service sector and the public sector), the

INMR	-	1	2
	Renewal of	-	
	hiring personnel	0.83	0.20
	outflow of personnel	0.87	0.13
	workforce composition	0.85	0.24
	internal mobility of personnel	0.81	0.20
	Organizational learning practices		
	Regular assessments of skill needs	0.18	0.78
	Uses training	0.12	0.85
	Yearly budget for development of personnel	0.14	0.83
	New personnel need training time	0.06	0.41
	Eigenvalue	2.90	2,27
	Proportion of variance explained	36.26	28.37
	Cronbach's alpha	0.88	0.75
Table 1. Principal component analysis	Note(s): $N = 326$ Principal component analysis with varimax rotation Source(s): Sustaining employability employer survey, T	able by author	

type of *contracts* that the organization uses (measured by the *proportion permanent workers*) and aging of the workforce (indicated by the *proportion employees 55 and older* in the organization).

Table 2 provides a summary of the descriptive statistics of the variables included in the analyses. Some of the variables have missing values, which limits the number of organizations that can be included in the regression models. While the background variables such as organizational size, composition of the workforce and economic sector are available for all organizations, the questions about innovative HR and organizational learning practices are not available for all of them. Finally, Table 2 shows that the organizations operate in different sectors of the economy and differ in size.

Analyses

Several models were created to assess certain hypotheses. One of these models, called model 1, a regression model was made using innovative HR as the dependent variable and interorganizational HR collaborations as the independent variable, and control variables to test

	Minimum	Maximum	Mean	Standard deviation	Percentage
HR innovation	1	5	2.81	1.03	
HR collaboration	0	1			44
Organizational size	0	1,500	38.10	141.19	
Permanent employees (proportion)	0	1.00	0.80	0.25	
Employees >50 years and older	0	1.00	0.36	0.29	
(proportion)					
Raw materials and manufacturing	0	1			18
Services	0	1			60
Public	0	1			22
Organizational learning practices	1	5	3.52	0.79	
Note(s): $N = 326$					
Source(s): Sustaining employability e	mployer surv	ey; Table by a	author		

Table 2. Descriptive statistics

hypothesis 1. This model was analyzed using ordinary least squares regression analysis. Another hypothesis, hypothesis 2 is a mediation hypothesis and can be examined using different methods. For this study, Hayes' (2017) PROCESS macro was used as it is a straightforward and easy-to-understand way of investigating whether a third variable mediates the relationship between two variables. After carrying out the analyses, two more models were developed. The first of these two model, referred to as Model 2 explores the connection between inter-organizational HR collaborations and organizational learning practices. The third and final model, Model 3, examines the correlation between inter-organizational collaborations and organizational learning practices for HR innovation. One can compare the estimate of inter-organizational HR collaborations in Model 1 (without the measure of organizational learning practices) with the estimate in Model 3 (including organizational learning practices) to determine how much of the relationship between inter-organizational HR collaboration and innovative HR is explained by organizational learning practices. It will help understand whether it mediates this relationship).

Results

Table 3 presents the regression analysis results with HR innovation as the dependent variable. When the focus is on the control variables, organizational size is significantly related to innovation in HR (b = 0.13; p < 0.01). Larger organizations score higher on innovative HR. According to the results of model 1, there is a significant and positive relationship between the inter-organizational HR collaboration variable and innovative HR (b = 0.43; p < 0.01). The model's explained variance is 12% (R-squared = 0.12). This outcome supports hypothesis 1, which suggests a positive relationship between inter-organizational HR collaboration and innovative HR.

Two more models were estimated to test hypothesis 2. Model 2 investigates whether interorganizational HR collaborations are related to organizational learning practices. The results presented in Table 3 shows that they are. Organizations that engage in HR-related issues tend to apply these practices more (b = 0.51; b < 0.01). This analysis shows that the model can explain up to 20% of the differences in organizational learning practices (R-squared = 0.16). Model 3 further reveals that companies that implement organizational learning practices in their human resource domain are more innovative (b = 0.29; p < 0.01). This final model incorporates all the independent variables and explains up to 20% of the differences in HR innovativeness (R-squared = 0.20), hypothesis 2 suggests that organizational learning practices play a mediating role in the relationship between inter-organizational HR collaborations and HR innovativeness. The data presented in Table 3 can be used to assess the hypothesis. When the regression analysis included organizational learning practices, the impact of inter-organizational HR collaboration on HR innovation reduced from (b = 0.43 to b = 0.28). It indicates a 35% reduction in the main effect of inter-organizational HR collaboration. The results support hypothesis 2, which suggests that organizational learning practices mediate the relationship between inter-organizational HR collaboration and HR innovation.

Conclusions

The present study shows that organizations collaborate with other organizations on HR-related issues. Organizations use HR alliances next to or in addition to production and innovation alliances. This observation provides the first addition of this paper to the literature. Gardner's (2005) theoretical claim that HR collaborations may benefit organizations finds empirical support in the present study. Furthermore, it is worth noting that these collaborations are not exceptional: 44% of the organizations make use of them.

		(Model 1) HR innovation	el 1) vation		(Model 2) Organizational learning	Model 2)		(Model 3) HR innovation	el 3) vation
	p	s.e	ф	p	s.e	4 I	p	s.e	þ
Constant	2.39	0.20	0.00	2.79	0.15	0.00	1.58	0.28	0.00
HR collaboration	0.43	0.12	0.00	0.51	60.0	0.00	0.28	0.12	0.02
Organizational learning practices							0.29	0.07	0.00
Organizational size	0.13	0.04	0.00	0.10	0.03	0.01	0.10	0.04	0.01
50 years and older	0.40	0.20	0.04	-0.18	0.15	0.21	-0.35	0.19	0.07
Permanent employees	0.25	0.16	0.13	0.42	0.12	00.00	-0.37	0.16	0.02
Sector									
Raw materials and manufacturing	-0.10	0.17	0.54	-0.14	0.12	0.27	-0.22	0.17	0.20
Public sector R^2	0.11	0.13 0.12	0.42	0.11	0.10 0.16	0.26	0.08	0.21 0.20	0.71
Note(s): $N = 326$									
Source(s): Sustaining employability employer survey; Table by author	employer sur	vey; Table b	y author						

Table 3.
Mediation analysis of HR collaboration, organizational learning practices and HR innovation

This study also explains why organizations engage in inter-organizational HR collaborations: They contribute to their innovativeness. Furthermore, organizations' learning practices explain the link between collaborations and innovation. These findings suggest that inter-organizational HR collaborations are best suited for learning and innovative organizations.

This paper opens the way for a broader view of HRM, which may also be more suited in today's knowledge economy. While the organizational landscape changes and organizational forms are move toward networks and ecosystems, most human resource studies remained inward-looking. The scope of HRM encompasses both internal and external personnel management. It means that organizations need to consider not just the human resource policies and practices that they adopt but also the parties they work with on these matters. Therefore, they must decide whether to apply these policies and practices internally, externally, or both. Hence, a broader conceptualization of HRM, offered here by looking at the external collaboration in the HR domain, helps answer this question. In addition, it would help HRM theory in the direction of an outside/in approach (Ulrich & Dulebohn, 2015).

This research has several implications and limitations. The first is that much more research is needed to understand where these inter-organizational HR collaborations come from and why organizations choose to govern them in a particular way. In that regard, this study is a first step. Additional studies are needed to extend our knowledge about how widespread these HR collaborations are, and under which conditions they are applied. The study aimed to identify the organizational factors that influence the implementation of HR collaborations. Future research should delve deeper into the nature of these collaborations, including the partners involved and their dynamics. That research can largely rely on work conducted in the field of inter-organizational relationships by applying these insights, research methods and theoretical explanations to the field of HRM. Secondly, the main theoretical explanation of the present study builds on the dynamic capabilities approach by assuming that HR collaborations contribute to an organization's capacity to renew its human resource policies and practices. Again, further in-depth research is needed to understand this connection. Finally, the research shows that organizational knowledge intensity is a common thread in understanding the results. Theoretically, this means that organizational learning theory provides some of the core explanations for this study. In a practical sense, this offers a way of reflecting on the future of organizations and how they are governed. Suppose the knowledge intensification of production processes continues. In that case, it may be expected that an increased number of organizations will move in the direction of collaborative community-like governance structures, both internally and externally.

This study calls on HRM researchers to look and think more across organizational boundaries. While traditionally, HRM researchers study the human resource policies and practices of organizations bound to a particular organization extensively, there is a need to be more outward-looking. Whereas a large share of human resource studies is implicitly or explicitly grounded in open systems approaches such as contingency theory, which focuses on internal and external fit, it seems that much of the research is based on the idea that external fit can only be achieved by adapting internal policies and practices to the external environment. The present research shows that there is merit in the idea that organizations achieve fit by creating HR-related collaborations with other organizations and not just by applying and renewing their HR functions on their own. Focusing on these collaborations opens the door to a wealth of research concerning how organizations build such alliances; learn from each other, and whether these collaborations offer specific advantages to organizations.

References

- Adler, P. S. (2001). Market, hierarchy, and trust: The knowledge economy and the future of capitalism. Organization Science, 12(2), 215–234, doi: 10.1287/orsc.12.2.215.10117.
- Ahuja, G. (2000). Collaboration networks, structural holes, and innovation: A longitudinal study. Administrative Science Quarterly, 45(3), 425–455, doi: 10.2307/2667105.
- Alves, M. F. R., Galina, S. V. R., & Dobelin, S. (2018). Literature on organizational innovation: Past and future. *Innovation and Management Review*, 15(1), 2–19, doi: 10.1108/inmr-01-2018-001.
- Azevedo, M. C. D., Schlosser, F., & McPhee, D. (2021). Building organizational innovation through HRM, employee voice and engagement. *Personnel Review*, 50(2), 751–769.
- Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. doi: 10.1177/014920639101700108.
- Barney, J. B. (2001). Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. *Journal of Management*, 27(6), 643–650, doi: 10.1016/s0149-2063(01) 00115-5.
- Boxall, P., & Purcell, J. (2011). Strategy and human resource management. New York: Macmillan International Higher Education.
- Cropper, S., Ebers, M., Huxham, C., & Ring, P. S. (Eds) (2008), The Oxford handbook of interorganizational relations. Oxford: Oxford Handbooks.
- Crossan, M. M., & Apaydin, M. (2010). A multi-dimensional framework of organizational innovation: A systematic review of the literature. *Journal of Management Studies*, 47(6), 1154–1191, doi: 10. 1111/j.1467-6486.2009.00880.x.
- Damanpour, F. (2017). Organizational innovation. In Oxford Research Encyclopedia of Business and Management.
- Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: What are they?. *Strategic Management Journal*, 21(10-11), 1105–1121, doi: 10.1002/1097-0266(200010/11)21:10/113.0.co;2-e.
- Fenwick, M., & De Cieri, H. (2004). Inter-organizational network participation: Implications for global human resource development. *Journal of Management Development*, 23(9), 798–817, doi: 10. 1108/02621710410558422.
- Galanaki, E., & Papalexandris, N. (2007). Internationalization as a determining factor of HRM outsourcing. The International Journal of Human Resource Management, 18(8), 1557–1567, doi: 10.1080/09585190701502687.
- Gardner, T. M. (2005). Human resource alliances: Defining the construct and exploring the antecedents. The International Journal of Human Resource Management, 16(6), 1049–1066, doi: 10.1080/09585190500120764.
- Gray, B. (1985). Conditions facilitating interorganizational collaboration. Human Relations, 38(10), 911–936, doi: 10.1177/001872678503801001.
- Hardy, C., Phillips, N, & Lawrence, T. B. (2003). Resources, knowledge and influence. The organizational effects of interorganizational collaboration. *Journal of Management Studies*, 40(2), 321–347.
- Hayes, A. F. (2017). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach. New York/London: Guilford Publications.
- Huxham, C. (Ed.), (1996). Creating collaborative advantage. London: Sage.
- Jimenez-Jimenez, D., & Sanz-Valle, R. (2008). Could HRM support organizational innovation?. The International Journal of Human Resource Management, 19(7), 1208–1221, doi: 10.1080/ 09585190802109952.
- Kaufman, B. E. (2015). The RBV theory foundation of strategic HRM: Critical flaws, problems for research and practice, and an alternative economics paradigm. *Human Resource Management Journal*, 25(4), 516–540, doi: 10.1111/1748-8583.12085.

- Kaufman, B. E., & Miller, B. I. (2011). The firm's choice of HRM practices: Economics meets strategic human resource management. *ILR Review*. 64(3), 526–557, doi: 10.1177/001979391106400306.
- Koster, F. (2019). Innovative HRM. A review of the literature. *Journal of Technology Management and Innovation*, 14(2), 97–106, doi: 10.4067/s0718-27242019000200097.
- Koster, F. (2022). A knowledge-intensity-based collaborative community governing mechanism for interorganisational HR collaborations. *Journal of Work-Applied Management*, 14(2), 288–301, doi: 10.1108/jwam-09-2021-0054.
- Koster, F., & Benda, L. (2020). Innovative human resource management: Measurement, determinants, and outcomes. *International Journal of Innovation Science*, 12(1), 287–301, doi: 10.1108/ijis-03-2020-0027.
- Makani, J., & Marche, S. (2012). Classifying organizations by knowledge intensity–necessary nextsteps. *Journal of Knowledge Management*, 16(2), 243–266, doi: 10.1108/13673271211218843.
- Martin-Rios, C. (2014). Why do firms seek to share human resource management knowledge? The importance of inter-firm networks. *Journal of Business Research*, 67(2), 190–199, doi: 10. 1016/j.jbusres.2012.10.004.
- Nooteboom, B. (2008). Learning and innovation in inter-organizational relationships. In S. Cropper, M. Ebers, C. Huxham, & P. S. Ring (Eds), *The Oxford handbook of inter-organizational relations* (pp. 607–634). Oxford: Oxford University Press.
- Polo, F., Cervai, S., & Kantola, J. (2018). Training culture. *Journal of Workplace Learning*, 30(3), 162–173, doi: 10.1108/jwl-01-2018-0024.
- Pouwels, I., & Koster, F. (2017). Inter-organizational cooperation and organizational innovativeness. A comparative study. *International Journal of Innovation Science*, 9(2), 184–204, doi: 10.1108/ijis-01-2017-0003.
- Powell, W. W., Koput, K. W., & Smith-Doerr, L. (1996). Interorganizational collaboration and the locus of innovation: Networks of learning in biotechnology. Administrative Science Quarterly, 41(1), 116–145, doi: 10.2307/2393988.
- Rebelo, T. M., & Gomes, A. D. (2011). Conditioning factors of an organizational learning culture. Journal of Workplace Learning, 23(3), 173–194, doi: 10.1108/13665621111117215.
- Seeck, H., & Diehl, M. R. (2017). A literature review on HRM and innovation. Taking stock and future directions. The International Journal of Human Resource Management, 28(6), 913–944, doi: 10. 1080/09585192.2016.1143862.
- Som, A. (2007). What drives adoption of innovative SHRM practices in Indian organizations?. The International Journal of Human Resource Management, 18(5), 808–828, doi: 10.1080/09585190701248695.
- Som, A. (2012). Organizational response through innovative HRM and re-design: A comparative study from France and India. The International Journal of Human Resource Management, 23(5), 952– 976, doi: 10.1080/09585192.2012.651323.
- Sorenson, O. (2003). Interdependence and adaptability: Organizational learning and the long–term effect of integration. *Management Science*, 49(4), 446–463, doi: 10.1287/mnsc.49.4.446.14418.
- Subramony, M. (2006). Why organizations adopt some human resource management practices and reject others: An exploration of rationales. *Human Resource Management*, 45(2), 195–210, doi: 10.1002/hrm.20104.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. Strategic Management Journal, 18(7), 509–533, doi: 10.1002/(sici)1097-0266(199708)18:73.0.co;2-z.
- Tomlinson, P. R., & Fai, F. M. (2013). The nature of SME co-operation and innovation: A multi-scalar and multi-dimensional analysis. *International Journal of Production Economics*, 141(1), 316–326, doi: 10.1016/j.ijpe.2012.08.012.
- Ulrich, D., & Dulebohn, J. H. (2015). Are we there yet? What's next for HR?. Human Resource Management Review, 25(2), 188–204, doi: 10.1016/j.hrmr.2015.01.004.

- Zahoor, N., & Al-Tabbaa, O. (2020). Inter-organizational collaboration and SMEs' innovation: A systematic review and future research directions. Scandinavian Journal of Management, 36(2), 101109, doi: 10.1016/j.scaman.2020.101109.
- Ziehe, D., & Helfen, M. (2020). 'You are not my boss!': Managing inter-organizational collaboration in German ground handling operations. German Journal of Human Resource Management, 35(3), 2397002220978114.
- Zollo, M., & Winter, S. G. (2002). Deliberate learning and the evolution of dynamic capabilities. Organization Science, 13(3), 339–351, doi: 10.1287/orsc.13.3.339.2780.

Further reading

- Contractor, F. J., & Lorange, P. (2002). The growth of alliances in the knowledge-based economy. International Business Review, 11(4), 485–502, doi: 10.1016/s0969-5931(02)00021-5.
- Eurofound (2015). Third European company survey. Overview report: Workplace practices: Patterns, performance, and well-being. Luxembourg: Publication Office of the European Union.
- Powell, W. W. (1990). Neither market nor hierarchy. Research in Organizational Behavior, 12, 295–336.
- Powell, W. W., & Snellman, K. (2004). The knowledge economy. Annual Review of Sociology, 30(1), 199–220, doi: 10.1146/annurev.soc.29.010202.100037.
- Trede, F., Macklin, R., & Bridges, D. (2012). Professional identity development: A review of the higher education literature. Studies in Higher Education, 37(3), 365–384, doi: 10.1080/03075079.2010. 521237.
- Von Nordenflycht, A. (2010). What is a professional service firm? Toward a theory and taxonomy of knowledge-intensive firms. Academy of Management Review, 35(1), 155–174, doi: 10.5465/amr. 2010.45577926.
- Zardkoohi, A., Bierman, L., Panina, D., & Chakrabarty, S. (2011). Revisiting a proposed definition of professional service firms. Academy of Management Review, 36(1), 180–184, doi: 10.5465/amr. 2010.0080.

Corresponding author

Ferry Koster can be contacted at: koster@essb.eur.nl