

# Innovative Factors That Influence the Performance of Human Talent in Organizations

José Morelos-Gómez<sup>1</sup>, Diego Cardona-Arbeláez<sup>2</sup>, Harold Lora-Guzman<sup>3</sup>

## Abstract

*The purpose of this research is to analyze the innovative factors that have an effective impact on the performance of human talent in organizations. A systematic literature review was carried out using the scientific database Scopus, for the time horizon of years 2015 to 2024, and the following keywords were established: innovation, human resources, human talent and innovation factors, the data was coded, which allowed filtering and selecting the most relevant articles, going from 454 documents to a final set of 37 articles included for the analysis. The analysis of innovation-related factors identified four key conceptual categories: a) knowledge acquisition and transfer; b) quality management and strategic financial control; c) technological assets and absorptive capacity, intellectual talent and psychological talent; and d) entrepreneurial orientation, social innovation and internal marketing. It is concluded that there are determining factors that directly influence the innovative performance of human talent within organizations, especially quality management, direct innovation management, knowledge acquisition and transfer, and technological assets, which are positioned as fundamental pillars to boost innovative capacity at the organizational level.*

**Keywords:** Human Talent, Innovation, Organizations, Innovative Factors.

## Introduction

Innovation for companies plays a fundamental role for their survival and development in any sector, especially in times as complex, changing and dynamic as those currently being experienced. In this context, companies need to innovate for several reasons, among which we can point out *a) Identification of new opportunities*: innovation can help organizations to discover new market opportunities and develop new products and services that meet the needs of consumers.

On the other hand, it contributes to *b) maintaining competitiveness*: innovation is essential to maintain an organization's competitiveness in a changing and constantly evolving market. Organizations that do not innovate run the risk of falling behind and being overtaken by their competitors (Olyanga, A.M et al 2022) (Kneipp, J.M, 2019) (Karman, A. et al. 2021); and in the same vein *c) efficiency optimization*: innovation can help improve the efficiency of a company's operations, which can lead to greater productivity from the use of technology that allows them to be more efficient in their various processes (Yoon et al., 2016) (Wittfoth et al., 2019) (Cardona et al., 2024).

Likewise, innovation also leads to *d) A value proposition for customers and consumers*: creating value for consumers is the path that leads organizations to provide more innovative products and services, as is the challenge in challenging fields such as aviation (Pereira, B., et al. 2022). And likewise, more personalized that better meet the needs of consumers and that from crowdsourcing this public leads to greater loyalty to the company (Cui, L., et al. 2019) (Toledo, et al., 2019).

Finally, without being all the reasons to innovate, but certainly a very important one is *e) Attraction and retention of human talent*: Innovative organizations can become more attractive to talented employees by providing opportunities for career advancement and development. Innovation can also help retain existing

---

<sup>1</sup> PhD in Social Sciences, mention in Management, Professor and Coordinator of the Master's Program in Organizational Management at the University of Cartagena, Email: [jmorelosg@unicartagena.edu.co](mailto:jmorelosg@unicartagena.edu.co) Cartagena, Colombia, Orcid Code: 0000-0002-0334-0575

<sup>2</sup> PhD in Administration. Professor at the University of Cartagena, Email: [dcardonaa@unicartagena.edu.co](mailto:dcardonaa@unicartagena.edu.co). <https://orcid.org/0000-0002-9123-0156>.

<sup>3</sup> PhD in Social Sciences, mention in Management. Professor at the University of Cartagena, Email: [hlorag@unicartagena.edu.co](mailto:hlorag@unicartagena.edu.co) <https://orcid.org/0000-0001-6945-0999>

employees, as high performers tend to be more motivated and engaged in organizations that encourage change and provide challenge zones for employees. (Kaur, G., et al. 2019) (Sommer, L. P. et al. 2017) and (Meister, J. C., & Willyerd, K.2021).

Therefore, innovation is essential for the success and survival of an organization in a changing and highly competitive market. Organizations that embrace a culture of innovation and foster creativity within the company and its employees are more likely to achieve sustainable growth and maintain their business leadership over time.

In this context, the general objective of this research is to conduct a study on the innovative factors that influence the performance of human talent in organizations, through a systematic literature review study. Based on the above, the following research questions are presented:

Q1. What are the innovative factors that influence job performance in organizations?

Q2. What are the elements of the organizational culture that encourage better innovative performance of employees?

The specific objectives are: i) To determine the existing theoretical foundations of innovation management and human talent management, ii) To determine the innovative factors that influence labor performance, iii) To determine the elements that are present in the organizational culture and that stimulate organizational innovative performance.

To carry out this study, the systematic literature review methodology was considered, with which the scientific database Scopus was considered for its quality, visibility and high recognition of scientific research. Likewise, a time horizon between 2015 and 2024 was used to analyze the results. For the identification and selection of articles, the following keywords were defined: "innovation" and "human resources" and "human talent" and innovation factors". Based on the inclusion and exclusion criteria, explained in Table 1, 454 articles were identified, subsequently, the data were coded and in this way those documents with relevance for the research were determined, which allowed determining 37 articles for the analysis (Jiju et al., 2018).

The structure of this article is presented as follows: First, the introduction is established which contains the most important elements related to the problem statement, objectives and problem questions of this research, then the theoretical framework is shown where studies with greater relevance on concepts of innovation management in organizations and human talent management of the most representative authors were included, thirdly, the methodology is presented where the type of research, the search databases and the inclusion and exclusion criteria are defined. Finally, the results, discussion and conclusions are presented.

### *Frame of Reference*

#### *Human Talent Theory*

Human talent theory constitutes a fundamental pillar in the analysis of how individual competencies - understood as the set of skills, knowledge, experiences and personal attributes - have a determining influence on the performance of specific tasks and, by extension, on organizational outcomes (Carlback et al., 2024; Nemeschansky, 2020). This theoretical framework has been widely used in academic literature to explore the impact that top managers, employees and executives have on strategy formulation and implementation within small and medium-sized enterprises (SMEs) (Ganotakis et al., 2021). In this context, the role of managers acquires a singular relevance, given that, their high trajectory, knowledge and experiences, is often a decisive factor in shaping strategic planning initiatives.

Human talent theory suggests that organizational leaders, possessing a deep understanding of the firm and its environment, are better positioned to guide strategic decisions through causal processes (Brinckmann et

al., 2019). These processes are characterized by being deliberate and oriented towards clearly defined objectives, in contrast to more flexible and adaptive approaches, such as those proposed by the logic of effect (Vanderstraeten et al., 2020). That is, leaders tend to base their decisions on a rigorous analysis of available information, integrating their previous experience and market knowledge to design strategies that maximize opportunities and minimize risks.

This causal approach not only reinforces coherence and strategic alignment but also facilitates the implementation of structured and measurable plans, key elements for the growth and sustainability of organizations in highly competitive environments. In addition, the ability of CEOs to articulate a clear vision and translate it into concrete actions allows them to align organizational resources with long-term objectives, which translates into greater efficiency and effectiveness in strategy execution (Dinku et al., 2024).

In summary, human talent theory not only emphasizes the importance of individual competencies in organizational success but also highlights how the specific knowledge and experience of founders can decisively shape the strategic direction of companies. This approach is particularly relevant in the context of firms, where agility, clarity in decision making and adaptability are critical factors in navigating dynamic and competitive markets (Somko et al., 2023; Gyasi et al., 2020).

### *Innovation Theory*

The innovation management literature has sporadically documented the existence of clandestine innovation practices that cannot be classified as either smuggling or creative deviance. In this regard, studies on user-driven innovation have highlighted how individuals develop solutions to address personal or process-specific needs (Von Hippel et al., 2023). In parallel, it has been observed that employees resort to hidden innovation when they face operational inefficiencies, lack of information, lack of appropriate technological solutions or situational constraints that hinder their work (Wu et al., 2020). Studies developed by Hartmann and Hartmann (2023) documented more than 100 innovations created by police and military employees for personal use, including applications designed to save lives, developed by soldiers on international missions and police officers attending traffic accidents. These innovations, unauthorized and kept secret, arose from the developers' fear of receiving negative feedback from their organizations and losing the ability to continue to be used (Achmad, 2023).

On the other hand, the concept of open source innovation refers to the collaborative development of innovative products or applications that are characterized by being freely available and openly shared. A particularly striking finding is that many of these contributions are made by professionals during their working day (Munir et al., 2018). However, these professionals rarely inform their employers about their participation in such projects as Kuzior et al., 2023; Bitzer and Geishecker, 2010). Their motivation is often intrinsic, as they find satisfaction in the collaborative development process, value the opportunity to work with like-minded individuals, and seek to improve their technical skills (Kussainova et al., 2024).

Despite these advances, studies on user-driven and open source innovation have not systematically explored the factors that drive employees to innovate with or without the consent of their organizations (Crecelli et al., 2022). Nevertheless, existing findings suggest that hidden innovation is a broader and more complex phenomenon than initially considered, and that its outcomes may remain hidden from the organizations involved, raising significant implications for knowledge management and innovation in organizational settings (Gkika et al., 2020).

### *Relationship Between Human Talent and Innovation*

The literature on human talent and innovation explores the role of human talent in innovation performance and is classified into five areas main : The first, adopts a macro perspective, analyzing how human talent influences economic development through innovation at the regional or global level. This line of research, according to Alfalih and Hadj, (2024), Alvarado et al., (2023), examines the impact of education, skills and experience of the labor force on the innovative capacity of a country or region. The second area focuses

on the processes and systems that companies implement to develop their human talent, such as training and development programs, and how these initiatives affect innovative performance. These studies highlight investment in employee skills and knowledge as a key factor in enhancing innovation (Naqshbandi et al., 2023; Yao et al., 2023).

Likewise, the third area investigates how the qualifications and background of business leaders (founders, CEOs or top management teams) constitute an essential component of human talent that influences the innovative capacity of organizations. This approach analyzes the impact of leaders' education, skills and experiences on firms' innovative outcomes (Chin et al., 2021; Grilli et al., 2023). The fourth area examines how employees' collective human talent affects organizational outcomes, such as patent generation, new product development, and overall innovation (Demircioglu et al., 2024; Hang et al., 2024).

Finally, the fifth area focuses on outcomes at the individual or team level, exploring how educational background, skills and experiences employees' professional enhance their ability to generate innovative ideas and solutions (Huang et al., 2023; Sujatha et al., 2023).

## Methodology

In this research work, a systematic and exhaustive search of scientific articles published in English between the years 2015 and 2024 was conducted, using the Scopus database as the main source. To ensure a rigorous and reproducible methodological approach, the systematic literature review method was adopted, following a protocol structured in 3 main phases:

*Planning the review:* In this initial stage, the key research questions were defined and a detailed protocol was established to delimit the unit of analysis. This protocol included the identification of specific objectives, inclusion and exclusion criteria, and search strategies. 2. *Execution of the review:* In this phase, the systematic literature search was carried out, using a set of predefined keywords and applying filters based on the established selection criteria. The abstracts of the articles identified were reviewed to assess their relevance, and subsequently the full text of those that met the inclusion criteria was analyzed. *Analysis and synthesis of results:* In the final stage, the data obtained were extracted, analyzed and interpreted. The findings were systematically organized and synthesized, which allowed the generation of solid conclusions supported by the evidence collected (Gómez et al., 2024).

To ensure the quality and relevance of the review, gray literature was excluded, such as conference papers, workshops, books, editorials, prefaces, poster sessions, panel discussions, commentaries and publications unrelated to the research topic. These exclusion criteria made it possible to focus the review on studies of greater relevance and scientific rigor (see Table 1).

### *Organization of the Review.*

The article review and selection process was carried out following a systematic and reproducible approach, aligned with the best practices for literature reviews in the scientific field. Clearly defined inclusion and exclusion criteria were established to ensure the relevance and quality of the selected studies. The search was conducted in the Scopus database, one of the most recognized platforms for its broad coverage of high-impact scientific literature.

The initial search was designed using a combination of keywords related to technological innovation, productivity and operational performance in organizational contexts. Boolean operators and the advanced search option were used to refine the results. In addition, the search was limited to articles published in English, given its predominance as the language of communication scientific, and a time frame of ten years (2015-2024) was established to ensure the timeliness of the evidence collected.

The initial search identified a total of 454 articles. After eliminating duplicates using automated tools, filtering was performed based on the evaluation of titles, abstracts and keywords. This process made it possible to discard studies that did not directly address the relationship between technological innovation

and productivity in business environments. In cases where the information provided in the title, abstract or keywords was insufficient to determine the relevance of the study, the full text of the article was reviewed.

The inclusion criteria focused on studies that explored the interaction between technological innovation and productivity, with a specific focus on its application in organizations. Articles that deviated from this approach, such as those focused on areas such as biology, chemistry, medicine and marketing, were excluded. Likewise, gray literature (e.g., technical reports, unpublished theses) was discarded in order to prioritize sources with peer review and greater methodological rigor. To ensure the quality of the included studies, a two-stage evaluation process was implemented. In the first stage, a preliminary review was performed based on titles, abstracts and keywords. In the second stage, the full text of the articles that passed the first stage was reviewed, applying a quality checklist that included criteria such as clarity of objectives, methodology employed, relevance of results and contribution to the field of study. This rigorous process resulted in the final selection of 37 articles, which met all the established criteria and were included for analysis in this review.

**Table 1.** below shows the inclusion and exclusion criteria used for this research.

**Table 1. Inclusion and Exclusion Criteria**

Inclusion Criteria	First unit of analysis	Second unit of analysis
Academic journal articles, published in English.	Thematic articles such as: Engineering, management and economics	Articles related to organizational culture
Type of document	Articles related to innovative factors influencing job performance in organizations	Articles related to the elements of organizational culture that encourage better innovative performance in employees?
Time period	2015-2024	2015-2024.
Exclusion Criteria	Gray literature, conference papers, workshops, books, editorials, prefaces, poster sessions, panel discussions and commentaries, publications and papers related to topics of health, food, renewable energy, oceans and coasts, and combustion.	
	Articles published before 2015	
	Articles that were not published in English.	

Source: Adapted from Gómez et al., (2024).

### Review Process

In order to conduct the review, the following keywords were established: "*innovation*" and "*human resources*" and "*human talent*" and "*innovation factors*". In the initial phase of the analysis, related terms and synonyms were identified through an exhaustive review of scientific articles that addressed these keywords, as well as their respective bibliographic references. Figures 1 and 2 show the distribution and frequency of the nodes associated with the keywords and authors identified in the review. Finally, the search equation used, which integrated titles, keywords and additional filters, is presented.

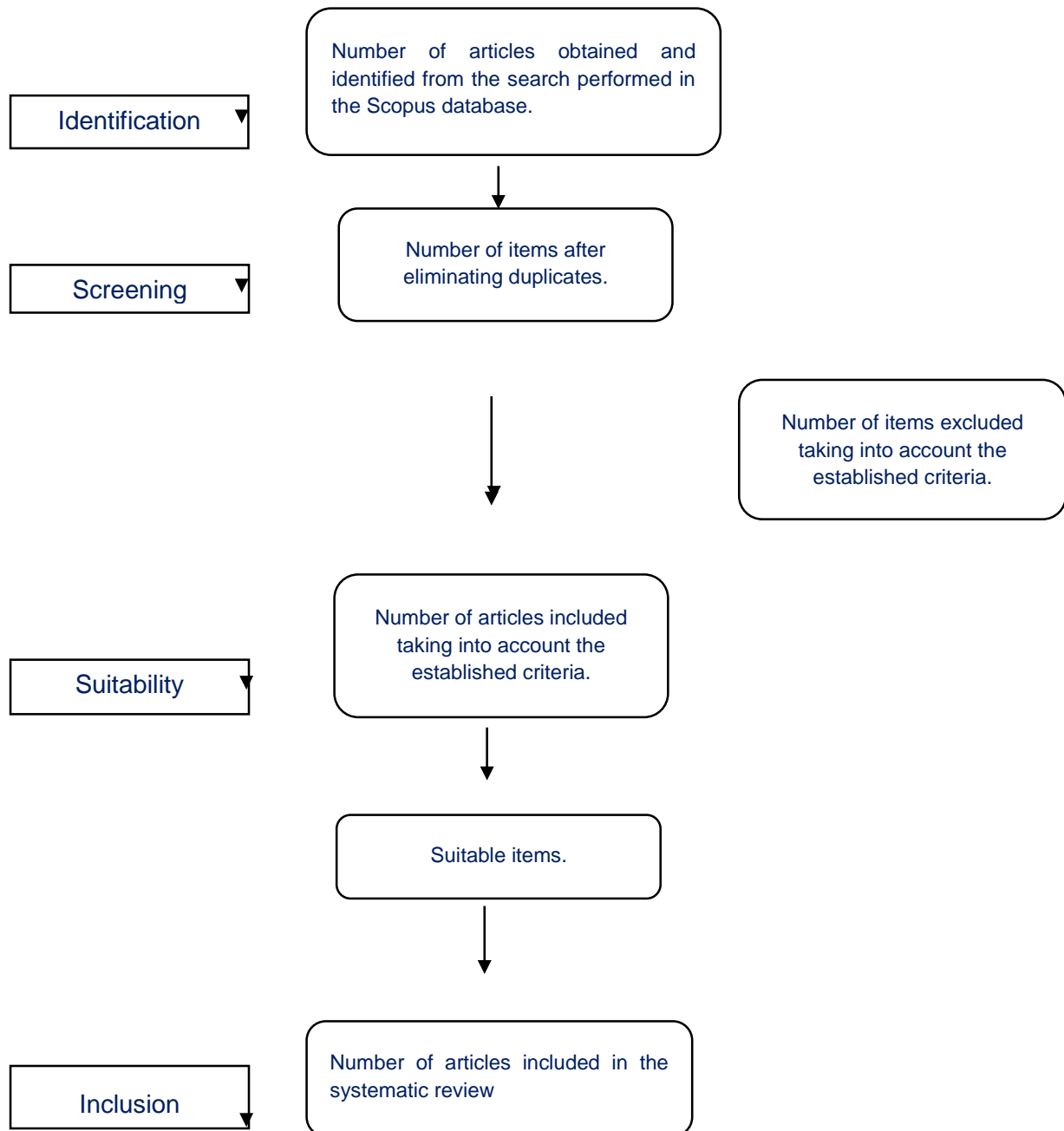




where the search results were recorded and coded. Each article was reviewed independently to ensure the objectivity of the process. Documents that presented unclear information or lacked data relevant to the research were excluded from the analysis. Once data extraction and registration were completed, coding was completed and an analysis combining quantitative and qualitative methods was performed.

Figure 3 illustrates in detail the process followed during the review and selection of the articles included in the research.

Figure 3. Diagram of the Review Process.



Source: Authors' own elaboration.

## Results

From the literature review, it was possible to identify the innovative factors and processes that promote innovative performance in organizations, as well as the elements present in the organizational culture that influence employee behavior towards innovation and business development. Tables 2 and 3 are presented below; the first one is related to the factors innovative, and the second one refers to the elements of the organizational culture that favor innovation in organizations and processes

**Table 2. Factors and Innovative Processes Identified**

factors Innovative and processes	Authors	Organizational aspects in which they influence or apply.	Industry	Countries research application
Knowledge acquisition, open innovation.	Pope, A. et al., (2020).	Positive innovation performance, human talent management.	Manufacturing, services.	Italy.
ISO 9001 Quality Management (QM) programs; Management Systems Accounting Control, tangible and intangible fixed asset investment strategies.	Escrig-Tena, et al., (2018); Al-Baghdadi, et al., (2021); Ausloos, M. (2018).	It contributes significantly to product innovation and process innovation. Improves financial performance, stimulates corporate change.	Manufacturing, Services and High-Tech Manufacturing	Spain; United Arab Emirates; Italy.
Technological assets and absorption capacity	Garcia-Sanchez, et al., (2018).	Supports greater labor flexibility, stimulates strategic thinking and change in organizational design.	Technology companies	Countries that make up the European Economic Community.
Theory on Sustainable Organizational Performance (SOP).	Rasool, S.F.(2019)	Program in product innovation and process knowledge, personnel development programs	Banking services	China
Business knowledge exchange; research with domestic and foreign companies	Abbas, J. & Sağsan, M. (2019) Elias et al., (2020).	Organizational learning in innovation; Increases the company's research and development work.	Banking; Manufacturing and services.	Pakistan, United Kingdom.
Relationship between intellectual talent, absorptive capacity, knowledge sharing.	Freitas et al., (2020)	It mitigates the loss of knowledge due to retirement or retirement of employees, converts human talent into structural talent, relational talent and	Manufacturing, services.	Brazil, Portugal



		employee trust incentivizes absorption capacity.		
High-performance work systems and theory of management by objectives	Do, H., Shipton, H. (2019).	Human talent and business environment supported by theories of creativity.	Manufacturing SMEs.	Vietnam
Entrepreneurial orientation of the company and social talent	Sulistyo et al., (2020).	Capacity for innovation, development of competitive advantages.	Craft manufacturing (SMEs)	Indonesia
Social innovation, sustainable development approach; incentive system, entrepreneurship.	Iqbal, Q., Piwowar-Sulej, K. (2022).	Improved sustainable performance, improved employee performance, greater willingness to change and challenge.	Education services	China and Pakistan
Knowledge management in the company.	Muñoz-Pascual, et al. (2020); Ganbold, G. et al., (2021).	Improved employee creativity, increased research and new product development is evident.	Manufacturing and services; Hospital services.	Spain; South Korea.
Goal-oriented theory, Complexity theory.	Zhou, K. (2021)	Moderates creative personality, innovative performance is evident, improves processes to make them easier for change.	High-tech manufacturing	China
Internal marketing and organizational learning.	Imani, et al., (2020).	Incentivize organizational innovation, improve employee performance levels, offer greater managerial vision in the direction of human talent.	Oil industry	Iran, England.
Innovative Practices, programs towards innovation.	Park, S. et al., (2016).	Increases job satisfaction, but with a more individual approach and not in the same way in a group.	Public companies	United States

Corporate governance and corporate absorptive capacity.	Asogwa, C.I. et al., (2020).	It increases the performance of companies, sets the path for appropriate boards of directors, redesigns the structure and processes of organizations.	Manufacturing	Nigeria
Market-oriented companies, Oslo Handbook Guide	Kanapik et al., (2020).	Greater innovation in marketing processes is evidenced. Increased individual employee performance.	Manufacturing and services.	Poland
Automation, knowledge transfer, technological process, tacit knowledge.	Mote, N.J.I., Karadas, G. (2022).	Improves employee creativity, increases knowledge transfer among employees, improves the innovative performance of the organization.	Manufacturing	Japan
Psychological talent, employee knowledge	Zhang, M. Liu, Y. (2022)	Psychological talent has a positive impact on innovation management, increases knowledge sharing among employees	High-tech manufacturing.	China, Japan.
Learning orientation, open innovation and strategic alignment	Al-Shami, et al (2021)	Follow-up of formal processes, organizational learning, support for the development of entrepreneurial skills in employees.	Airport service	Dubai

Source: Own elaboration based on Scopus database (2024).

From the review in Table 2, the factors and innovative processes that have an impact on organizational performance were identified; also, according to the rigorous analysis in terms of their organizational effects and application sectors, they were allowed in four conceptual categories a) Knowledge acquisition and transfer; b) quality management and financial strategic control; c) technological assets and absorption capacity, intellectual talent and psychological talent; d) entrepreneurial orientation, social innovation, internal marketing.

significantly the management of human talent, facilitating the exchange of knowledge and organizational learning; it was also identified that the sectors in which they are applied are manufacturing, banking and airport services and in countries such as Dubai, the United Kingdom, Italy and China. In the first instance, as described above, there are processes linked to the acquisition and transfer of knowledge and open innovation; these elements allow innovative performance to be generated and strengthen

The second conceptual category is related to quality management and strategic financial control, illustrated in programs based on integral management systems such as ISO 9001 and accounting management; these organizational aspects encourage product and process innovation, improve financial performance and stimulate profound organizational changes. The economic sectors in which these practices are applied are high-tech manufacturing and the service sector in countries such as Italy, Spain and the United Arab Emirates.

The third conceptual category is based on technological assets and absorptive capacity, intellectual talent and psychological talent. These organizational aspects aim to reduce the loss of knowledge due to staff turnover or retirement, converting human talent into structural and relational talent; these practices also foster creativity, stimulate strategic thinking and support significant changes in organizational design; these practices have been identified in high-technology economic sectors, manufacturing and service companies in countries such as Brazil, Portugal, China, the European Union and Japan.

Finally, the fourth conceptual category identified is entrepreneurial orientation, social innovation, internal marketing and high-performance work systems. These organizational aspects focus on developing sustainable competitive advantages, improving employee performance and job satisfaction, and fostering an innovative business environment. The analysis exercise identified the presence of the factors analyzed in the crafts, education and manufacturing sectors and in countries such as Indonesia, Pakistan, Vietnam, China and the United States.

**Table 3. Elements of Organizational Culture and Innovation.**

Elements of organizational culture	Authors	Organizational aspects /influence, applies	Industry	Countries application research
Theory of leadership . Transactional and transformational leadershipambide xterity	Zacher et al. (2016); Rizki, M. et al. (2019).	Organizational management, increased teamwork, good employee relations, improved innovative behavior.	Services, Banking.	Netherlands, Australia, Indonesia
Creativity from innovation seedbed	Stojcic, N. et al (2018).	Hiring creative employees and productive efficiency	Manufacturing, services.	United Kingdom.
Innovative climate, effective leadership, interaction factors of company size and seniority	Bibi, S. et al (2020), Hoang, G.et al (2021)	Innovative employee behavior, organizational learning, competitiveness , business performance.	Lawyer buffet services, Tourism	China, Vietnam.
Motivation, capabilities and search for opportunities	Elbaz, A.M. et al. (2018).	Knowledge transfer, job performance, business performance.	Travel services agency	Egypt

Market orientation, learning orientation and financial education	Sutjipto et al., (2021)	Improve commercial performance and innovation in SMEs, mainly through financial education.	Textile (SMEs) manufacturing	Indonesia
Self-efficacy and Transformational Leadership	Santoso, H.et al.(2019).	Improves employee creativity, there is a positive relationship between transformational leadership and innovative employee behavior.	Telecommunications.	Indonesia
Paternalistic leadership (benevolence, morality and authoritarianism); Empathetic leadership.	Li, L., Wang, S. (2021) Kim, K. (2022)	Increases innovative performance, creates a better organizational environment.	Manufacturing	China, South Korea.
Social exchange theory	Garud, N., Prabhu, G.N. (2021).	Improves R&D performance (results and efficiency). Improves inventors' social skills (social astuteness, networking skills, interpersonal influence and apparent sincerity).	High-tech manufacturing.	India
Business networks leadership inter-company .	Rehman, K.U. et al. (2021)	Willingness to change, increases new product development, stimulates innovative thinking.	Manufacturing and services.	Pakistan

Cultural diversity of work teams, organizational culture, intercultural relations, female leadership.	Gallou, F. Et al (2021), Jing, Z. (2022)	It significantly increases the innovative behavior of the company and the members of the work team. Sharing of knowledge among employees and exchange of opinions is encouraged.	Manufacturing and services.	Switzerland, United States, China.
Managerial skills, managerial competencies. Ambidextrous leadership.	Alebiosu, J. O et al (2022), Awan, F.H.et al (2021).	Improved knowledge transfer, evidence of the importance of management feedback on the performance of employees, as well as communication and better monitoring.	Manufacturing, Textile exporting companies.	Nigeria, Pakistan.
Management toward motivation, opportunities and teamwork	Nientied, P. (2018).	It pays attention to the development of team objectives rather than individual ones, supporting a more flexible organization.	High-tech manufacturing	Netherlands, Slovenia

Source: own elaboration based on the Scopus database (2024).

Based on the literature review in Table 3, a detailed analysis is presented on the elements that are evident in the organizational culture that encourage innovative behavior of employees in different economic sectors.

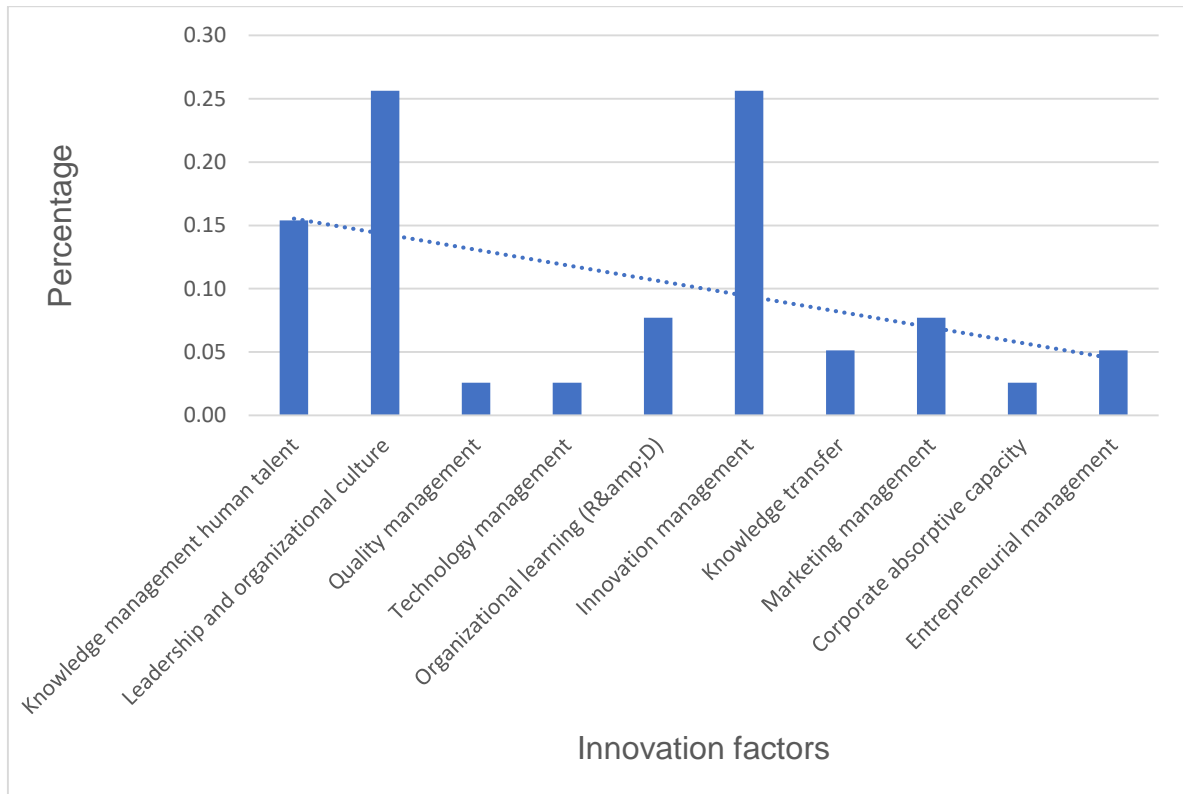
The first element of culture refers to transformational leadership, which has a direct influence on the innovative behavior of employees through creativity, inspiration and motivation. Ambidextrous leadership, which combines transactional and transformational practices, contributes significantly to the improvement of innovative performance and knowledge transfer, especially highlighting continuous feedback.

Another element of the culture that stimulates innovation has to do with the effective management of human talent through the selection and hiring of employees with creative profiles; likewise, the innovative climate accompanied by effective leadership and organizational learning leads to the generation of innovative behavior and the development of competitive advantages.

In this way, elements such as market orientation, continuous learning and financial education strengthen competitiveness and improve the capacity for innovation in organizations. On the other hand, the theory

of social exchange is an aspect that stands out by fostering social skills and effective interpersonal networks that optimize research, development and innovation. All the above is evidence that organizational culture contains key elements that can foster business development and innovation in organizations.

**Figure 1. Participation of Factors Innovation in Organizations**



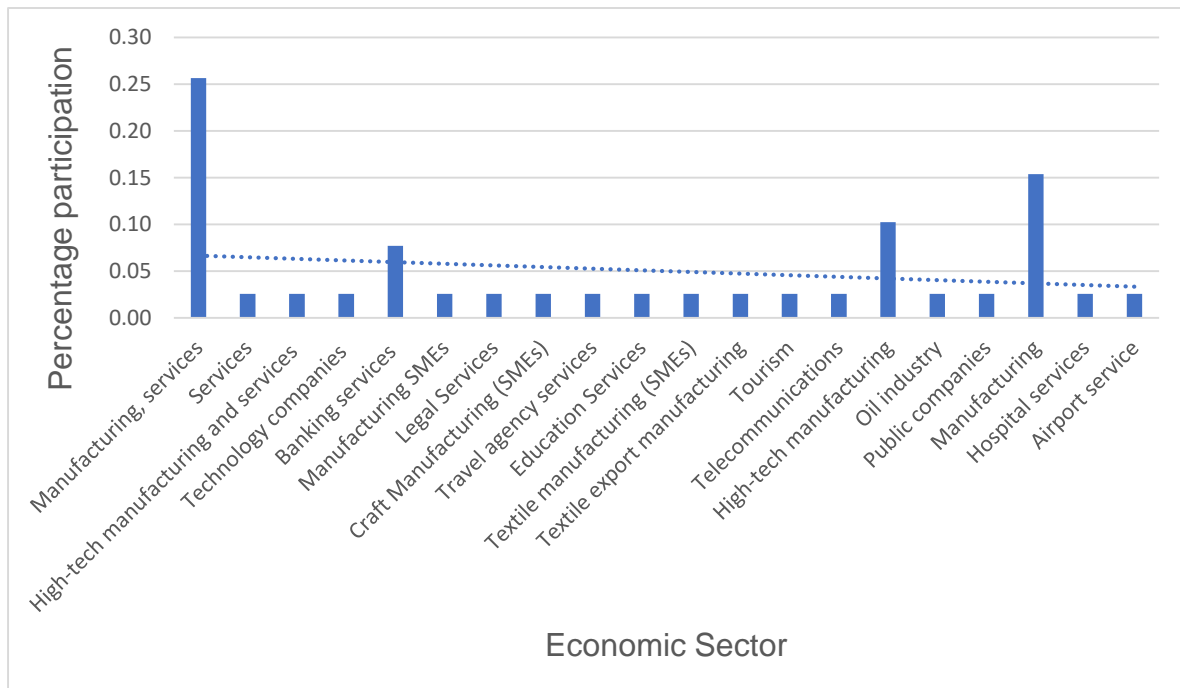
Source: Authors' own elaboration.

Based on a comparative analysis, Graph 1 illustrates in percentage terms the participation of innovation processes within the organizations; in this sense, the factors related to managing innovation and the development of leadership and organizational culture are the ones with the highest participation (25%) in what has to do with the key factors for innovative performance in the companies.

The factors that refer to human talent knowledge management and marketing management appear with an intermediate participation of around 12%, which shows that knowing and managing human talent and the search for new marketing strategies are sources of interest that drive innovation in companies.

Likewise, the factors with a lower participation, but no less important, are the factors related to organizational learning (R&D), corporate absorption capacity, technology and to a lesser degree entrepreneurial management, reflecting on the one hand the interest in these organizational aspects, but at the same time offering development opportunities that can be studied and used to promote and develop a better innovative performance in organizations.



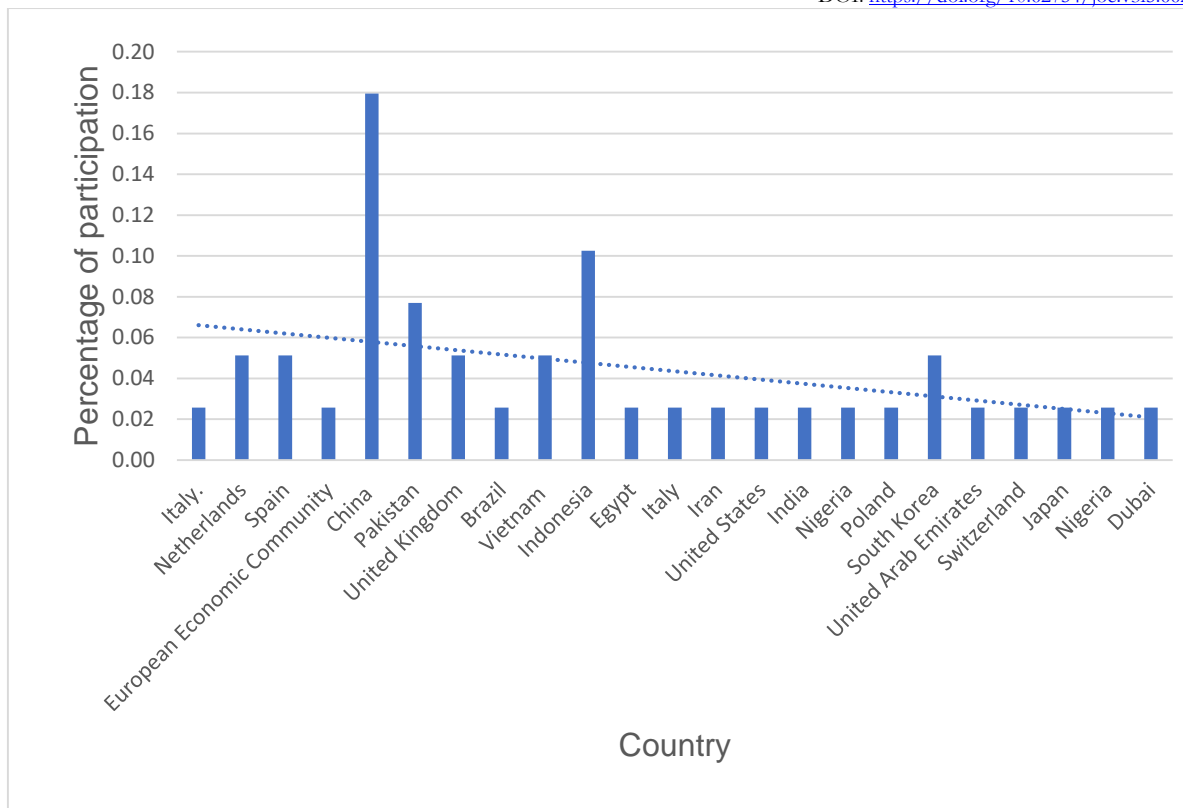
**Graph 2. Participation By Economic Sector in Innovation Processes of Human Talent**

Source: Authors' own elaboration.

Graph 2 shows the percentage participation of different economic sectors in processes related to innovation; the sectors with the highest participation (26%). This shows that these sectors are highly committed to development and innovation activities in the organizations.

High-tech manufacturing continues with a high participation, as well as banking services. In addition, according to the analysis, the sectors of Legal Services, Tourism, Telecommunications, among others, have a low participation, around 5%, which may indicate the need for greater interest of companies linked to these sectors in innovation processes.

Countries in which the most studies on innovation in human talent are represented.



Source: Authors' own elaboration.

Graph 3 shows the percentage of participation of different countries in processes related to innovation; firstly, China appears as the country with the highest participation in innovation, reaching approximately 18%; this undoubtedly reflects the leadership that the Asian giant has achieved in terms of innovation processes in organizations. Two other Asian countries, Indonesia and South Korea, also stand out as showing great interest in everything that has to do with innovation.

Other countries identified in the analysis are Pakistan, Spain, the Netherlands and Vietnam, which also have smaller participations, but are also very interested in innovation processes.

On the other hand, countries such as Italy, the United States, India, Switzerland, Japan and Dubai, appear with lower participation in the study.

## Discussion

The analysis presented in this research underscores the pivotal role of innovation factors in enhancing organizational talent performance. In this regard, management and knowledge of personnel, along with quality management and formal processes, emerge as pivotal drivers in the development of innovative-oriented programs. This assertion aligns with the findings of other studies, which similarly highlight these elements as crucial catalysts for organizational development and continuous improvement.

The study notes a striking disparity in the innovative participation of the economic sector, underscoring the dearth of development in programs or policies that are oriented towards innovation in human talent and organizations, particularly in sectors such as telecommunications, tourism, and legal services. This has resulted in significant gaps in innovation between the economic sectors identified in the study.

Conversely, the study underscores the preeminence of China in innovation, followed by other Asian countries such as Indonesia and South Korea, which also demonstrate a profound interest in innovative

processes that extend beyond mere innovation activities to encompass the implementation of public policies that encourage technological and innovative development. Conversely, countries with substantial technological and economic traditions, such as the United States and Japan, exhibited reduced engagement in the reviewed studies. This phenomenon merits further examination, as it may be indicative of a paucity of studies addressing innovation and human talent in the review.

## Conclusions

This research indicates that there are key factors that directly influence the innovative performance of human talent in organizations. These factors include quality management, direct management of innovation, and acquisition and transfer of knowledge. These aspects contribute or aim to improve productivity and operational efficiency, which can lead to the creation of sustainable competitive advantages in companies.

Conversely, the development of innovative processes exhibits disparities across the sectors delineated in the study, with the most prominent disparities observed in the manufacturing, high technology, and service sectors, and to a lesser extent in the legal services, tourism, manufacturing (SMEs), and other sectors. Moreover, a substantial body of research has documented a pronounced concentration of innovative processes in Asian countries such as China, Indonesia, and South Korea. These countries are followed by the United States, Italy, Spain, the United Arab Emirates, Pakistan, and Nigeria. Notably absent from the list are Latin American countries, which suggests a deficiency in the analysis and documentation of innovative practices in this region.

## References

- Abbas, J., & Sağsan, M. (2019). Impact of knowledge management practices on green innovation and corporate sustainable development: A structural analysis. *Journal of cleaner production*, 229, 611-620. <https://doi.org/10.1016/j.jclepro.2019.05.024>
- Achmad, W. (2023). MSMEs empowerment through digital innovation: The key to success of e-commerce in Indonesia. *Daengku: Journal of Humanities and Social Sciences Innovation*, 3(3), 469-475. <https://doi.org/10.35877/454RI.daengku1742>
- Al-Baghdadi, S., Gaaz, T. S., Al-Adili, A., Al-Amiery, A. A., & Takriff, M. S. (2021). Experimental studies on corrosion inhibition performance of acetylthiophene thiosemicarbazone for mild steel in HCl complemented with DFT investigation. *International Journal of Low-Carbon Technologies*, 16(1), 181-188. <https://doi.org/10.1093/ijlct/ctaa050>
- Alebiosu, J. O., Salau, O. P., Atolagbe, T. M., Daramola, O. A., Lawal, A. F., Igba, I., & Akinbiyi, F. (2022). Predicting the impact of managerial competencies on the behavioral outcomes of employees in the selected manufacturing firms in Nigeria. *Sustainability*, 14(19), 12319. <https://doi.org/10.3390/su141912319>
- Alfalih, A. A., & Hadj, T. B. (2024). Ecological impact assessment of green technological innovation under different thresholds of human talent in G20 countries. *Technological Forecasting and Social Change*, 201, 123276. <https://doi.org/10.1016/j.techfore.2024.123276>
- Al-Shami, S., Al-Hammadi, A. H., Al Hammadi, A., Rashid, N., Al-Lamy, H., & Eissa, D. (2021). Online social networking websites in innovation capability and hotels' performance in Malaysia. *Journal of Hospitality and Tourism Technology*, 12(1), 72-84. <https://doi.org/10.1108/JHTT-10-2018-0107>
- Alvarado, R., Murshed, M., Cifuentes-Faura, J., Işık, C., Hossain, M. R., & Tillaguango, B. (2023). Nexuses between rent of natural resources, economic complexity, and technological innovation: The roles of GDP, human talent and civil liberties. *Resources Policy*, 85, 103637. <https://doi.org/10.1016/j.resourpol.2023.103637>
- Asogwa, C. I., Ugwu, O. C., Uzuagu, A. U., Abolarinwa, S. I., Okereke, G. K. O., Anorue, H. C., & Moghalu, F. A. (2020). Absorptive capacity, business venturing and performance: Corporate governance mediating roles. *Cogent Business & Management*, 7(1), 1839157. <https://doi.org/10.1080/23311975.2020.1839157>
- Awan, F. H., Dunnan, L., Jamil, K., & Gul, R. F. (2023). Stimulating environmental performance via green human resource management, green transformational leadership, and green innovation: a mediation-moderation model. *Environmental Science and Pollution Research*, 30(2), 2958-2976. <https://doi.org/10.1007/s11356-022-22424-y>
- Bibi, S., Khan, A., Fubing, X., Jianfeng, H., & Hussain, S. (2024). Integrating digitalization, environmental innovations, and green energy supply to ensure green production in China's textile and fashion industry: environmental policy and laws optimization perspective. *Environment, Development and Sustainability*, 1-41. <https://doi.org/10.1007/s10668-024-05417-4>
- Bitzer, J., & Geishecker, I. (2010). Who contributes voluntarily to OSS? An investigation among German IT employees. *Research policy*, 39(1), 165-172. <https://doi.org/10.1016/j.respol.2009.11.007>

- Brinckmann, J., Dew, N., Read, S., Mayer-Haug, K., & Grichnik, D. (2019). Of those who plan: A meta-analysis of the relationship between human talent and business planning. *Long Range Planning*, 52(2), 173-188. <https://doi.org/10.1016/j.lrp.2018.01.003>
- Carlbäck, M., Nygren, T., & Hägglund, P. (2024). Human resource development in restaurants in Western Sweden—a human talent theory perspective. *Journal of Human Resources in Hospitality & Tourism*, 23(2), 289-314. <https://doi.org/10.1080/15332845.2024.2282215>.
- Cardona-Arbelaez, D., González-Díaz, J., & Hernández-Cobos, J. (2024). The booksellers in Cartagena: challenges for the sustainability of their business model. *Dictamen Libre*, (34).
- Chin, M. K., Zhang, S. X., Jahanshahi, A. A., & Nadkarni, S. (2021). Unpacking political ideology: CEO social and economic ideologies, strategic decision-making processes, and corporate entrepreneurship. *Academy of Management Journal*, 64(4), 1213-1235. <https://doi.org/10.5465/amj.2019.1228>
- Cricelli, L., Grimaldi, M., & Vermicelli, S. (2022). Crowdsourcing and open innovation: a systematic literature review, an integrated framework and a research agenda. *Review of Managerial Science*, 16(5), 1269-1310. <https://doi.org/10.1007/s11846-021-00482-9>
- Cui, L., Liang, Y. and Li, Y. (2020), "The study of customer involved service innovation under the crowdsourcing: A case study of MyStarbucksIdea.com", *Journal of Industry - University Collaboration*, 2(1), 22-33. <https://doi.org/10.1108/JIUC-12-2019-0018>.
- Demircioglu, M. A., Audretsch, D. B., & Link, A. N. (2024). Innovation in public organizations: the role of human talent. *Public Management Review*, 1-26. <https://doi.org/10.1080/14719037.2024.2381073>
- Dinku, A. E., Singh, M., & Singh, S. (2024). Effect of human talent on the performance of small and medium enterprises: a mediating role of innovation practice in Ethiopia. *Cogent Business & Management*, 11(1), 2434729. <https://doi.org/10.1080/23311975.2024.2434729>
- Do, H., & Shipton, H. (2019). High-performance work systems and innovation in Vietnamese small firms. *International Small Business Journal*, 37(7), 732-753. <https://doi.org/10.1177/0266242619863572>
- Easa, N.F. & Orra, H.E. (2021), "HRM practices and innovation: an empirical systematic review", *International Journal of Disruptive Innovation in Government*, 1(1), 15-35. <https://doi.org/10.1108/IJDIG-11-2019-0005>.
- Elbaz, A. M., Agag, G. M., & Alkathiri, N. A. (2018). How ability, motivation and opportunity influence travel agents' performance: the moderating role of absorptive capacity. *Journal of Knowledge Management*, 22(1), 119-141. <https://doi.org/10.1108/JKM-07-2017-0308>
- Elia, S., Kafouros, M., & Buckley, P. J. (2020). The role of internationalization in enhancing the innovation performance of Chinese EMNEs: A geographic relational approach. *Journal of International Management*, 26(4), 100801. <https://doi.org/10.1016/j.intman.2020.100801>
- Escrig-Tena, A. B., Segarra-Ciprés, M., García-Juan, B., & Beltrán-Martín, I. (2018). The impact of hard and soft quality management and proactive behaviour in determining innovation performance. *International Journal of Production Economics*, 200, 1-14. <https://doi.org/10.1016/j.ijpe.2018.03.011>
- Freitas, W. R. D. S., Caldeira-Oliveira, J. H., Teixeira, A. A., Stefanelli, N. O., & Teixeira, T. B. (2020). Green human resource management and corporate social responsibility: Evidence from Brazilian firms. *Benchmarking: An International Journal*, 27(4), 1551-1569. <https://doi.org/10.1108/BIJ-12-2019-0543>
- Gallou, F., Grandeury, A., & Jones, G. (2021). Cultural diversity drives innovation: does institutional residence time impact behaviors? *Journal of Innovation Management*, 9(4), 1-IX. [https://doi.org/10.24840/2183-0606\\_009.004\\_0001](https://doi.org/10.24840/2183-0606_009.004_0001)
- Ganbold, G., Dorjgotov, E. O., & Jang, H. Y. (2021). Employees' Entrepreneurship and Organizational Innovation: Case of Korean Private Hospitals. *International Journal of Social Science and Humanities Research—MIYR*, 1, 38-51. <https://doi.org/10.53468/mifyr.2021.01.01.38>
- Ganotakis, P., D'Angelo, A., & Konara, P. (2021). From latent to emergent entrepreneurship: The role of human talent in entrepreneurial founding teams and the effect of external knowledge spillovers for technology adoption. *Technological Forecasting and Social Change*, 170, 120912. <https://doi.org/10.1016/j.techfore.2021.120912>
- García-Sánchez, E., García-Morales, V. J., & Martín-Rojas, R. (2018). Influence of technological assets on organizational performance through absorptive capacity, organizational innovation and internal labour flexibility. *Sustainability*, 10(3), 770. <https://doi.org/10.3390/su10030770>
- Garud, N., & Prabhu, G. N. (2020). Linking R&D inventors' social skills and bricolage to R&D performance in resource constrained environments in emerging markets. *IEEE Transactions on Engineering Management*, 68(3), 713-724. <https://doi.org/10.1109/TEM.2020.2997796>
- Gkika, E. C., Anagnostopoulos, T., Ntanos, S., & Kyriakopoulos, G. L. (2020). User preferences on cloud computing and open innovation: A case study for university employees in Greece. *Journal of Open Innovation: Technology, Market, and Complexity*, 6(2), 41. <https://doi.org/10.3390/joitmc6020041>
- Gómez, J. M., Franco, D. V., & Sánchez, G. R. (2024). Exploring frugal innovation's contribution on the manufacturing companies: an in-depth systematic review. *Serbian Journal of Management*, 19(1), 219-242. <https://doi.org/10.5937/sjm19-44091>
- Grilli, L., Mrkajic, B., & Giraud, E. (2023). Industrial policy, innovative entrepreneurship, and the human talent of founders. *Small Business Economics*, 60(2), 707-728. <https://doi.org/10.1007/s11187-022-00611-y>
- Gyasi, R. S., Li, C., Akolgo, I. G., & Owusu-Ampomah, Y. (2020). The impact of entrepreneurial training and performance of SMEs in Ghana. *International Journal of Scientific Research in Science and Technology*, 7(2), 126-134. <https://doi.org/10.32628/IJSRST207215>
- Hang, L., Lu, W., Ge, X., Ye, B., Zhao, Z., & Cheng, F. (2024). R&D innovation, industrial evolution and the labor skill structure in China manufacturing. *Technological Forecasting and Social Change*, 204, 123434. <https://doi.org/10.1016/j.techfore.2024.123434>

- Hartmann, M. R. K., & Hartmann, R. K. (2023). Hiding practices in employee-user innovation. *Research Policy*, 52(4), 104728. <https://doi.org/10.1016/j.respol.2023.104728>
- Hoang, G., Wilson-Evered, E., & Lockstone-Binney, L. (2021). Leaders influencing innovation: A qualitative study exploring the role of leadership and organizational climate in Vietnamese tourism SMEs. *Employee Relations: The International Journal*, 43(2), 416-437. <https://doi.org/10.1108/ER-07-2019-0279>
- Huang, B., Sardeshmukh, S., Benson, J., & Zhu, Y. (2023). High performance work systems, employee creativity and organizational performance in the education sector. *The International Journal of human resource management*, 34(9), 1876-1905. <https://doi.org/10.1080/09585192.2022.2054283>
- Imani, S., Foroudi, P., Seyyedamiri, N., & Dehghani, N. (2020). Improving employees' performance through internal marketing and organizational learning: Mediating role of organizational innovation in an emerging market. *Cogent Business & Management*, 7(1), 1762963. <https://doi.org/10.1080/23311975.2020.1762963>
- Iqbal, Q., & Piwowar-Sulej, K. (2022). Sustainable leadership in higher education institutions: social innovation as a mechanism. *International Journal of Sustainability in Higher Education*, 23(8), 1-20. <https://doi.org/10.1108/IJSHE-04-2021-0162>
- Jing, Z., Hou, Q., Zhang, Y., & Zhao, Y. (2022). The relationship between female leadership traits and employee innovation performance—The mediating role of knowledge sharing. *Sustainability*, 14(11), 6739. <https://doi.org/10.3390/su14116739>
- Karman, A. and Savanevičienė, A. (2021), "Enhancing dynamic capabilities to improve sustainable competitiveness: insights from research on organisations of the Baltic region", *Baltic Journal of Management*, Vol. 16 No. 2, pp. 318-341. <https://doi.org/10.1108/BJM-08-2020-0287>.
- Kaur, G., & Sharma, R. R. K. (2019). Total reward strategies to attract and retain employees: an analysis of Indian startups. *Journal of Management Research*, 19(4), 221-234.
- Kim, K. (2022). Supervisor leadership and subordinates' innovative work behaviors: Creating a relational context for organizational sustainability. *Sustainability*, 14(6), 3230. <https://doi.org/10.3390/su14063230>
- Knapik, W., Szewczyk, J., Jaworska, M., & Lisek, S. (2020). Social innovation management based on the example of care farms. *Zeszyty Naukowe. Organizacja i Zarządzanie/Politechnika Śląska*. <https://doi.org/10.29119/1641-3466.2020.148.20>
- Kneipp, J.M., Gomes, C.M., Bichueti, R.S., Frizzo, K. and Perlin, A.P. (2019), "Sustainable innovation practices and their relationship with the performance of industrial companies", *Revista de Gestão*, Vol. 26 No. 2, pp. 94-111. <https://doi.org/10.1108/REG-01-2018-0005>.
- Kuzior, A., Sira, M., & Brożek, P. (2023). Use of artificial intelligence in terms of open innovation process and management. *Sustainability*, 15(9), 7205. <https://doi.org/10.3390/su15097205>
- Kussainova, R. E., Kassymbekova, N. S., & Kaliyeva, A. B. (2024). Motivation as a tool for attracting young university teachers to innovative activities. *Bulletin of LN Gumilyov Eurasian National University. Pedagogy. Psychology. Sociology series.*, 146(1), 171-186. <https://bulpedps.enu.kz/index.php/main/article/view/525>
- Li, L., & Wang, S. (2021). Influence of paternalistic leadership style on innovation performance based on the research perspective of the mediating effect of the constructive deviance of employees. *Frontiers in Psychology*, 12, 719281. <https://doi.org/10.3389/fpsyg.2021.719281>
- Meister, J. C., & Willyerd, K. (2021). *The 2020 workplace: How innovative companies attract, develop, and keep tomorrow's employees today*. HarperCollins Publishers Inc.
- Mote, N. J. I., & Karadas, G. (2022). The impact of automation and knowledge workers on employees' outcomes: Mediating role of knowledge transfer. *Sustainability*, 14(3), 1377. <https://doi.org/10.3390/su14031377>
- Munir, H., Linåker, J., Wnuk, K., Runeson, P., & Regnell, B. (2018). Open innovation using open source tools: A case study at Sony Mobile. *Empirical Software Engineering*, 23, 186-223. <https://doi.org/10.1007/s10664-017-9511-7>
- Munoz-Pascual, L., & Galende, J. (2020). Ambidextrous knowledge and learning capability: The magic potion for employee creativity and sustainable innovation performance. *Sustainability*, 12(10), 3966. <https://doi.org/10.3390/su12103966>
- Naqshbandi, M. M., Meeran, S., & Wilkinson, A. (2023). On the soft side of open innovation: the role of human resource practices, organizational learning culture and knowledge sharing. *R&D Management*, 53(2), 279-297. <https://doi.org/10.1111/radm.12566>
- Nemeschansky, B. (2020). Listen to your customer-how to manage your restaurant more effectively. *Journal of Foodservice Business Research*, 23(1), 17-45. <https://doi.org/10.1080/15378020.2019.1671119>
- Nientied, P., & Slob-Winterink, C. (2018). The role of hrm in fostering innovation: A case study of a Dutch technical company. *Dynamic Relationships Management Journal*, 7(2), 13-24. <https://doi.org/10.17708/DRMJ.2018.v07n02a02>
- Olyanga, A.M., Shinyekwa, I.M.B., Ngoma, M., Nkote, I.N., Esemu, T. and Kanya, M. (2022), "Innovativeness and export competitiveness in the East African Community", *Modern Supply Chain Research and Applications*, Vol. 4 No. 3, pp. 177-201. <https://doi.org/10.1108/MSRA-02-2022-0006>.
- Papa, A., Dezi, L., Gregori, G. L., Mueller, J., & Miglietta, N. (2020). Improving innovation performance through knowledge acquisition: the moderating role of employee retention and human resource management practices. *Journal of Knowledge Management*, 24(3), 589-605. <https://doi.org/10.1108/JKM-09-2017-0391>
- Park, S., & Kang, Y. S. (2016). A study of process mining-based business process innovation. *Procedia Computer Science*, 91, 734-743. <https://doi.org/10.1016/j.procs.2016.07.066>
- Pereira, B. A., Lohmann, G., & Houghton, L. (2022). Technology trajectory in aviation: Innovations leading to value creation (2000-2019). *International Journal of Innovation Studies*, 6(3), 128-141.



- Rasool, S. F., Samma, M., Wang, M., Zhao, Y., & Zhang, Y. (2019). How human resource management practices translate into sustainable organizational performance: the mediating role of product, process and knowledge innovation. *Psychology research and behavior management*, 1009-1025. <https://doi.org/10.1093/cje/27.2.243>
- Rehman, K. U., Mata, M. N., Martins, J. M., Mariam, S., Rita, J. X., & Correia, A. B. (2021). SHRM practices employee and organizational resilient behavior: Implications for open innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(2), 159. <https://doi.org/10.3390/joitmc7020159>
- Rizki, M., Parashakti, R. D., & Saragih, L. (2019). The effect of transformational leadership and organizational culture towards employees' innovative behaviour and performance. <https://www.um.edu.mt/library/oar/handle/123456789/44453>
- Santoso, H., Abidinagoro, S. B., & Arief, M. (2019). The role of digital literacy in supporting performance through innovative work behavior: The case of indonesia's telecommunications industry. *International Journal of Technology*, 10(8), 1558-1566. <https://doi.org/10.14716/ijtech.v10i8.3432>
- Shi, J., Ausloos, M., & Zhu, T. (2018). Benford's law first significant digit and distribution distances for testing the reliability of financial reports in developing countries. *Physica A: Statistical Mechanics and its Applications*, 492, 878-888. <https://doi.org/10.1016/j.physa.2017.11.017>
- Sommer, L. P., Heidenreich, S., & Handrich, M. (2017). War for talents—How perceived organizational innovativeness affects employer attractiveness. *R&D Management*, 47(2), 299-310.
- Somko, M. L., Epikhin, A. I., & Epikhina, G. V. (2023). Elements of the theory of knowledge management as a basis for the development of staff competencies. *SHS Web of Conferences*, 164, 00050. <https://doi.org/10.1051/shsconf/202316400050>
- Stojcic, N., Hashi, I., & Orlic, E. (2018). Creativity, innovation effectiveness and productive efficiency in the UK. *European Journal of Innovation Management*, 21(4), 564-580. <https://doi.org/10.1108/EJIM-11-2017-0166>
- Sujatha, M., Mukherjee, U., Singh, N., & Bamel, U. (2023). Improving creativity among SME employees: exploring the role of organization-based self-esteem and psychological talent. *Employee Relations: The International Journal*, 45(4), 944-965. <https://doi.org/10.1108/ER-04-2022-0188>
- Sulistyo, H., & Ayuni, S. (2020). Competitive advantages of SMEs: The roles of innovation capability, entrepreneurial orientation, and social capital. *Contaduría y administración*, 65(1). <https://doi.org/10.22201/fca.24488410e.2020.1983>
- Sutjipto, B. E., Suman, A., & Wahyono, H. (2021, November). SWOT Analysis: Utilization of Technology and Innovation in the Sustainability of Trusmi Batik Business in Cirebon Regency, West Java. In *BISTIC Business Innovation Sustainability and Technology International Conference (BISTIC 2021)* (pp. 58-63). Atlantis Press. <https://doi.org/10.2991/aebmr.k.211115.008>
- Toledo, L.A., and Leon, F.H.A.D. (2019), "Crowdsourcing as a production model that uses collective intelligence, the collaborative culture and the formation of communities", *Innovation & Management Review*, Vol. 16 No. 4, pp. 344-356. <https://doi.org/10.1108/INMR-06-2018-0040>.
- Vanderstraeten, J., Hermans, J., van Witteloostuijn, A., & DeJardin, M. (2020). SME innovativeness in a dynamic environment: is there any value in combining causation and effectuation? *Technology Analysis & Strategic Management*, 32(11), 1277-1293. <https://doi.org/10.1080/09537325.2020.1766672>
- Von Hippel, E., Friedmann, J. C., Wu, N., Altman, E. J., & Szulanski, G. (2023). A Journey into User Innovation: An Interview with Eric von Hippel. *Research-Technology Management*, 66(3), 32-37. <http://dx.doi.org/10.2139/ssrn.4574087>
- Wittfoth, S., Berger, T., & Moehrle, M. G. (2022). Revisiting the innovation dynamics theory: How effectiveness-and efficiency-oriented process innovations accompany product innovations. *Technovation*, 112, 102410. <https://doi.org/10.1016/j.technovation.2021.102410>
- Wu, C. H., de Jong, J. P., Raasch, C., & Poldervaart, S. (2020). Work process-related lead users as an antecedent of innovative behavior and user innovation in organizations. *Research Policy*, 49(6), 103986. <https://doi.org/10.1016/j.respol.2020.103986>
- Yoon, S. N., Lee, D., & Schniederjans, M. (2016). Effects of innovation leadership and supply chain innovation on supply chain efficiency: Focusing on hospital size. *Technological Forecasting and Social Change*, 113, 412-421. <https://doi.org/10.1016/j.techfore.2016.07.015>
- Zacher, H., Robinson, A. J., & Rosing, K. (2016). Ambidextrous leadership and employees' self-reported innovative performance: The role of exploration and exploitation behaviors. *The Journal of Creative Behavior*, 50(1), 24-46. <https://doi.org/10.1002/jocb.66>.
- Zhang, M., & Liu, Y. (2022). Influence of digital finance and green technology innovation on China's carbon emission efficiency: empirical analysis based on spatial metrology. *Science of the Total Environment*, 838, 156463. <https://doi.org/10.1016/j.scitotenv.2022.156463>.
- Zhou, K. (2021). The influence of creative personality and goal orientation on innovation performance. *Frontiers in Psychology*, 12, 634951. <https://doi.org/10.3389/fpsyg.2021.634951>