

HRM 5.0 and Employee performance with VIKOR under Fuzzy Environment

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Abstract

Digital transformation in organizations is increasingly converging with values of human-centered work place and Human Resource Management 5.0 (HRM 5.0) is already on fire among the researchers and practitioners. This framework never considers the digital tools as independent technical solutions but as the supplements of people-oriented HR practices- responsive, inclusive and sustainable work systems are developed together. The methodology of the assessment of HRM 5.0 is difficult: a company has to measure the performance in many different parameters, which are often contradictory and cannot be measured easily. Multi-criteria decision-making techniques, especially in fuzzy environments, through VIKOR, offer systemic form of maneuvering such complexities.

This paper analyses the impact of the HRM 5.0 practices on the employee performance in terms of a fuzzy VIKOR decision framework. It builds a theoretical framework where HRM 5.0 dimensions are connected to performance measures and decision science is employed to shed light on such connections. The paper presents a stepwise methodology of assessing the HR practice impact on outcomes when the conditions are disturbing by uncertainty and vague data and information gaps. The methodology of the study is the combination of fuzzy set theory and VIKOR in relation to empirical analysis and practice ranking. In addition to the theoretical input, the work provides valuable advice to managers working on human-centered digital HR and outlines new research directions in the unexplored area.

Key Words: Human Resource Management 5.0, Fuzzy environments, Multi-Criteria Decision Making (FMCDM), Employee performance, Vikor decision framework.

Management Insight (2026). DOI: <https://doi.org/10.21844/mijia.22.1.3>

Introduction:

The movement toward HRM 5.0 being based on a more significant changes in the design of work and the organization of workforce implies the transformation of the traditional HR models. The old HR functions were streamlined to administrative efficiency and automation to standardize the processes. HRM 5.0 on the other hand concerns the interaction of advanced digital foundations, including data platforms, workflow software, predictive analytics, and more obviously human-oriented creativity, commitment, and flexibility. (Sultana et al., 2025) Current studies show that sound HR practices can improve employee skills, knowledge and loyalty that, in turn, increase the results of the organization. By

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How to cite this article: Singh A., Singh S., Tripathi P. (2026). HRM 5.0 and Employee performance with VIKOR under Fuzzy Environment, Management Insight, 22 (1) 28-38

Source of support: Nil

Conflict of interest: None

Received: 06.03.2026; **Accepted:** 15.04.2026; **Published:** 30.06.2026

deliberately incorporating diversity into its everyday practices, systems, and principles, employees feel more appreciated and motivated to participate and work harder, having discretion in their work. (Mishra et al., 2021)

HR 5.0 is, therefore, a compounds strategy that encompasses the use of technology to enhance organisational change with the concept of

humanistic in modern HRM. The main point of its focus is to find the balance between the efficiency advantages of the digital tools, including the data-driven decision-making and efficient operations, and the issues linked to empathy, inclusion, and diversity of the workforce. It is an orientation that focuses on individualized experiences of employees and humanized practices, robust systems, and healthy internal relationships (Prabakar et al., 2025).

Organizational structures are important mechanisms of transforming knowledge to action through incorporating learning into everyday activities (Yassin Sheikh and Hussein Nor, 2025). Differences in hierarchy, coordination styles and communication channels directly influence the degree of employee commitment, modes of collaboration and performance results. HR practices can provide the required support: the flexibility of work, a personalized policy regarding leave, and work-life balance programs enhance resilience and reduce stress (Elagaili et al., 2025). The human resource development (HRD) adds strategic levels in the long-term perspective, focusing on the growth of capabilities and not on immediate action. Rather than targeting only short-term gains, a strategic HRD perspective emphasizes sustained improvement at the organizational level, with the aim of enhancing overall performance rather than limiting impact to individual employee development alone (Parameswaran, 2020).

In many multi-criteria decision-making contexts, uncertainty in decision variables is often represented by triangular fuzzy numbers. These are defined on a closed interval specified by a lower bound, an upper bound and a most likely (modal) value, together capturing the imprecise and judgment-based nature of real-world assessments (Mimović et al., 2021). Performance management is a central strategic element of HRM, particularly in multinational corporations where coordinated

effort is vital for achieving organizational objectives. Through systematic evaluation processes, performance management supports informed managerial decision-making, reveals areas where employees require capability development and fosters engagement by enhancing transparency, confidence and mutual trust between employees and the organization (Maley et al., 2024). A positive employee experience is based on the premise that, instead of relying on isolated interventions to boost motivation, commitment, effort or retention, organizations should design everyday work conditions in ways that allow these outcomes to emerge naturally from routine work experiences (Vereb et al., 2024).

By producing credible evidence about the effects of HR practices, HR professionals can present stronger, empirically supported arguments for the value they create. The generation and sharing of such evidence also contribute to a common professional knowledge base, which is a defining characteristic of any established discipline (De Leao Laguna et al., 2018). Multi-criteria decision-making (MCDM) methods have been developed to deal with complex problems that require evaluating, classifying and prioritizing alternatives according to multiple criteria (Pool et al., 2018).

Originally the VIKOR method was developed more than twenty years ago as a part of multi-criteria decision techniques. It deals with compound problems with conflicting priorities. It has been applied in different areas, compared to other approaches, used in combination with other tools, and its steps have been modified to be useful (Lin et al., 2025). Sustainability is a matter of concern in HRM practices today because organizations are gaining pressure to meet social, environmental, and value-preservation requirements (Chauhan et al., 2025). It is true that psychological empowerment is more important than isolated initiatives used to be (Hahn and Kim, 2017). Research on HRD demonstrates that role-

specific engagement provides managers with tangible tools, but the concept of work engagement is ambiguous (Fletcher, 2016). The article by D'Armagnac et al. (2021) approaches talent management as an analytic human capital process that can be modeled by researchers. Employee voice signifies dedication and initiates invention in change (Jha and Singh, 2019). The leadership process is personality-and-context-based and is developed by training, which is adjusted to organizational culture (London and Sherman, 2021).

Literature Review

Human Resource Management 5.0

HRM 5.0 developed as an extension of Industry 4.0 discussion and the digital transformation conversation, yet it puts more emphasis on human-machine cooperation, sustainability, and individual work experience. It is based on the socio-technical systems theory, which presupposes that human and technical factors should be optimized; the HR practices must have a strategic relation to the needs that organizations have. Recent practice positions HRM 5.0 more fundamentally as human-oriented: more sophisticated systems enable agency, creativity, and well-being of workers as they enhance organizational agility and agility. HRM 5.0 practices, unique to the company, such as talent assessment methodology, systematic training, frequent performance appraisals, have direct impact on employee behavior, engagement, and performance.

HRM 5.0 is also a more significant shift to people-based management, sustainable long-term and flexible working. Now employees are forced to combine the interpersonal skills and technical knowledge, have to acquire constant learning and address the cultural differences. According to the latest sources, the interest in the overall quality of life of workers is on the increase (Capolupo et al.,

2025). Digital technology and the shifting employee expectations have driven remote and hybrid work to change the practice of HR significantly (Verma & Sinha, 2025). In the meantime, human capital has ceased to be a concept that relies solely on productivity, education, training, health and lifelong learning have become essential factors of innovation and sustainable growth in the long term (Al-Blooshi et al., 2025). Human resource development recognizes that individuals joining an organization, regardless of career stage, must acquire role-specific knowledge and capabilities; however, relatively limited attention has been given to the identity-related learning needs and processes that support effective career transitions (Black & Warhurst, 2018). Competencies therefore lie at the heart of HR functions, aligning employee capabilities with organizational strategy and providing an integrative link across HR activities throughout the employee lifecycle (Pb, 2019).

Employee Performance in HR Research

Employee performance is a central outcome in HRM research and is often examined in relation to practices such as training, performance appraisal, compensation and engagement systems. Numerous studies report positive links between well-designed HRM practices and performance results, particularly when HRM is aligned with organizational strategy and employees are empowered through participation and supportive work systems (Singh & Singh, 2019). Individual personality traits and relatively stable behaviour patterns influence how employees approach their work and interpret organisational expectations (Singh et al., 2022).

There are organizations which run by people. They are loaded with skills, experience, judgment. Businesses would not be running without their operations; they also make them competitive in the already crowded markets. But the coordination

headache with scaling. The larger the number of staff, the more difficult it becomes to maintain everyone in line. To draw this off, managers require clear objectives, proper communication, and actual leadership (Giri Goswami and Mansi, 2025).

Better performance by organizations follows many angles; the level of output, satisfaction level of people and motivation level. They desire employees to work like citizens of the organization, hang around as they wage war on those who leave, absenteeism as well as rule breaking. Pay works. So does recognition. Get them combined and dedication tends to follow (Sayem et al., 2025). Supervisors matter now, in fact they are expected to provide guidance, be with their people and doing what they are supposed to, motivation is not lost and performance will not suffer. There is culture that comes into this. People contribute more to environments that are based on real values and real support; the extent of performance of the company follows pretty closely the long-term involvement and productivity (Chaturvedi and Khanna, 2024).

Fuzzy Decision Making and VIKOR

MCDM methods involve VIKOR appraising options on a number of criteria that are often conflicting especially where uncertainty is involved. Fuzzy VIKOR takes an approach similar to the initial one but implements fuzzy sets to deal with inaccurate or language-based ratings. This is more of a fit to messy practical decisions. The method has gained sufficient applications in performance evaluation applications including certain government ones to demonstrate reliability in the case of thin or fuzzy information. There is seldom a single correct choice when it comes to real decisions, but rather there are several courses of action competing on various levels. VIKOR filters these conflicting needs in order to expose compromise solutions (Kwabla Lassey, 2025). Recent studies have also integrated fuzzy TISM with fuzzy MICMAC to manufacturing decision

making. Introducing fuzzy logic to TISM allows analysts to estimate the extent of influence of various criteria, as opposed to just indicating the presence of relationship as previous binary models do (Jain and Soni, 2018).

Research Gap

- The HRM 5.0 literature has remained mostly at the conceptual level. Not many scholars have tried to measure its influence on the performance of the employees in the form of structured decision-making techniques-fuzzy MCDM technique or VIKOR in particular. Few empirical studies have been conducted relating human-centered HR practices with individual outcomes using rigorous multi-criteria frameworks.
- Many employee performance studies depend on traditional statistical techniques and do not adequately capture the uncertainty and vagueness that characterise human judgements, even though fuzzy VIKOR is well suited to this type of problem.
- There is a clear gap in the form of integrated HR–MCDM frameworks that explicitly connect HRM 5.0 practices with multi-criteria performance evaluation.

Research Objectives

- To analyse how HRM 5.0 practices influence different dimensions of employee performance in complex, uncertainty-prone work environments.
- To design a fuzzy VIKOR-based evaluation framework that prioritises HRM 5.0 practices according to their relative contribution to employee performance outcomes.
- To generate a decision-oriented ranking of HR

interventions that can support managerial choices under conditions of ambiguity, subjectivity and incomplete information.

Research Methodology

Decision-making tools such as VIKOR, which are intended to identify compromise solutions in multi-criteria settings, offer strong potential for evaluating employee performance when precise “crisp” data are not available. When fuzzy logic is incorporated into VIKOR, vague linguistic ratings (for example, “high”, “medium”, “low” performance) can be converted into quantitative values in a systematic way within fuzzy VIKOR frameworks published in the multi-criteria decision literature.

By examining alternatives across several criteria at the same time, the VIKOR method helps decision-makers to see trade-offs more clearly and to make better-informed decisions about planning priorities, resource allocation and directions for research and development (Prasanth et al., 2025). Because good decisions usually require several considerations to be weighed at the same time, the decision process can become demanding and complex. Multi-criteria decision approaches are therefore widely used, as they allow different factors to be assessed together and help produce outcomes that are easier to justify and explain (Mohammed Mahmood et al., 2025).

Research Design

We conducted this study in three phases. First, HR managers and employees were requested to explain the performance and HRM 5.0 practices using simple terms. Second, we transformed such descriptions, such as labels such as Excellent, Good or Moderate into fuzzy numbers. Third, we used VIKOR to generate compromise rankings and rated each HRM 5.0 initiative.

Data Collection and Sampling

Data Collection and Sampling Data to be used in the study were collected using a convenience sampling strategy.

In order to have a diverse organizational context, we chose stratified random samples of employees in diverse industries. In the places we could track the subjects over time we have, this serves to reinforce causal claims and allows us to see the performance measures vary.

Analytical Techniques

The fuzzy VIKOR analysis will proceed through the following steps:

- Constructing a decision matrix that summarizes performance on each criterion.
- Aggregating individual fuzzy assessments into collective evaluations.
- Calculating closeness coefficients and rankings in order to identify which HRM 5.0 practices are most strongly associated with employee performance outcomes.

Experimentation

We propose an integrated *HRM 5.0 → Employee Performance* model assessed via *Fuzzy VIKOR*. Here:

- *HRM 5.0 Practices (independent variable)* include AI-driven recruitment, adaptive performance appraisal systems, and personalized learning platforms.
- *Employee Performance (dependent variable)* is measured across multiple dimensions such as task productivity, creativity, engagement, and adaptability.

- *Fuzzy VIKOR Evaluation* translates linguistic ratings of performance and HRM

implementation intensity into fuzzy values that the VIKOR algorithm uses to rank system effectiveness.

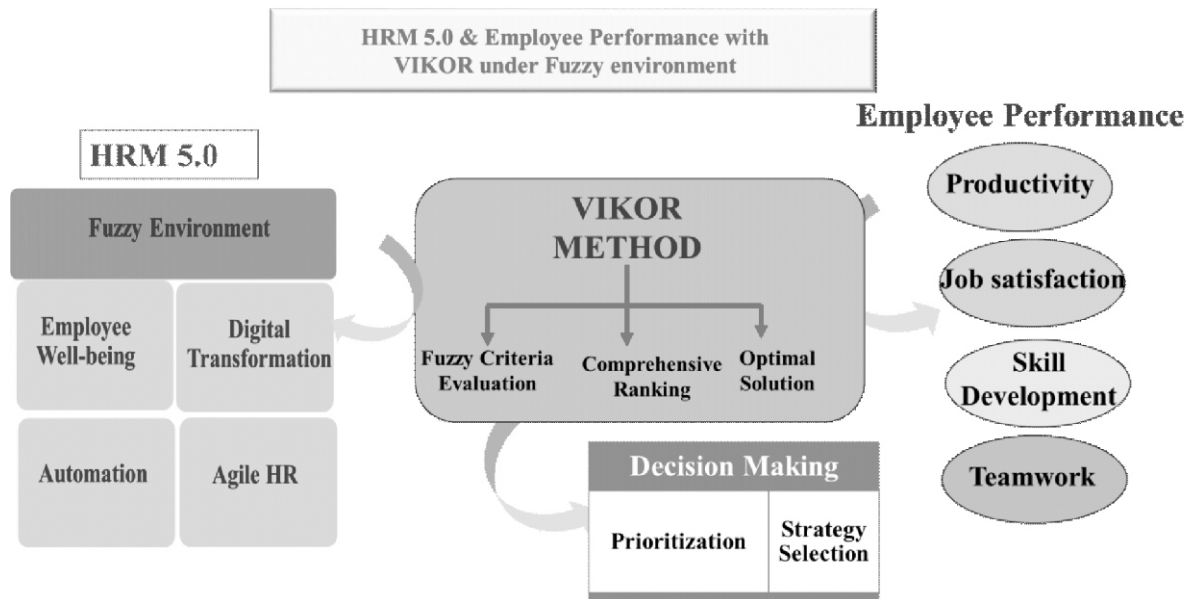


Fig 1. HRM 5.0 and Employee Performance Analysis

- The figure illustrates an integrated conceptual framework that links Human Resource Management (HRM) 5.0 practices with employee performance, supported by decision-making through the VIKOR method in a fuzzy setting. On the left, HRM 5.0 is portrayed as a human-centred, technology-enabled approach that brings together digital transformation, intelligent automation, agile HR practices and employee well-being. This overall approach reflects a move away from strictly efficiency-driven HR systems toward arrangements that combine advanced technologies with human values, adaptability and ongoing skill development.
- In the conceptual framework, the upper section depicts the employee performance results along the leading dimensions of productivity, job satisfaction, skill development and teamwork. Our five dimensions involve action and performance in the workplace. This is an

indicator that HRM 5.0 will go beyond the raw output to incorporate engagement and collaboration. VIKOR is the key decision mechanism to which several HR and performance criteria are exposed in order to produce compromise rankings. The approach pushes managers towards strategies where one compromises efficiency, satisfaction, and sustainability without fully compromising any of them.

- The framework supposes fuzzy conditions, which are uncertainty, ambiguity, incomplete data, that reflect the real HR decisions in which the judgement is subjective and the facts are dispersed. The fuzzy logic systems quantify qualitative input. This increases the quality of decision and makes prioritization of initiatives easier. The systematically analyzed HRM 5.0 practices elevate the performance of workers and move around the turbulent realities of the organization through the fuzzy VIKOR system.

Evaluation of HRM 5.0 Practices Using Fuzzy VIKOR

- Fuzzy VIKOR scores each HRM 5.0 practice from 0 to 1, where values near 1 show superior multi-criteria performance under uncertainty. Personalized learning and development (C3) has the highest score, which proves the greatest influence of tailored training on employee outcomes. Skill enablement (C2) and agile, inclusive HR practices (C5) are placed next but

with a high level of focus on ability-building and flexible policies. Human-machine cooperation (C1) and employee welfare provision (C4) score are solid but less prominent hence they are considered as contributors.

- Findings show employee performance improves most when organizations integrate learning, skill building, and adaptable practices rather than isolating one focus.

Table 1: HRM 5.0 Practices and Employee Performance Evaluation Criteria under a Fuzzy VIKOR Framework

Dimension	Criteria Code	Evaluation Criteria (Variables)	Description in HRM 5.0 Context	Type of Variable
HRM 5.0 Practices	C1	Human–Machine Collaboration	Degree to which employees effectively work alongside AI, automation, and intelligent systems	Independent
	C2	Digital Skill Enablement	Availability of digital tools, analytics support, and technology-oriented training	Independent
	C3	Personalized Learning & Development	Extent of customized upskilling, reskilling, and adaptive learning pathways	Independent
	C4	Employee Well-Being Support	Organizational support for mental health, work–life balance, and psychological safety	Independent
	C5	Agile & Inclusive HR Practices	Flexibility, inclusion, and responsiveness of HR policies in dynamic work settings	Independent
Employee Performance Outcomes	C6	Task Productivity	Efficiency and accuracy in completing assigned job responsibilities	Dependent
Decision Environment	C7	Creativity & Innovation	Employee ability to generate new ideas and improve work processes	Dependent
	C8	Work Engagement	Level of motivation, commitment, and involvement in work roles	Dependent
	C9	Adaptability & Learning Orientation	Employee responsiveness to change and continuous learning behavior	Dependent
	C10	Fuzzy Evaluation Consistency	Reliability of linguistic judgments under uncertainty using fuzzy numbers	Control / Methodological

This table lists criteria for assessing HRM 5.0's effects on employee performance via fuzzy VIKOR, grouped into HRM 5.0 practices, performance outcomes, and decision environment—each coded for easy reference.

HRM 5.0 practices are ways through which companies integrate structured practices with people centered management: Human-machine collaboration monitors daily interactions between employees and the system; skill enablement and personalized learning encompass training and development; employee well-being support measures work-life and mental health efforts, agile and inclusive HR practices measure policy flexibility and fairness.

The outcomes of performance include: task productivity (speed and quality of work), creativity and innovation (process improvements, novel solutions), work engagement (energy, dedication) and adaptability (handling change, upskilling). The last criterion takes into consideration subjective evaluation that is present in fuzzy evaluation thus making real VIKOR ranking possible.

Analysis & Discussion

The HRM 5.0 activities enhance the performance of the employees by calibrated human management which is supported by controlled support. The fuzzy matrices identify human centric leadership, flexibility of learning and collaborative culture as the most influential. In case leaders are people to whom people are sincerely committed, learning becomes a never-ending process, and tools are consistent, then employees will be engaged, motivated, and ready to be disrupted. The fuzzy logic is more indicative of the reality of the actual HR judgment than the inflexible scale points.

To the researcher, the combination of HRM 5.0 and fuzzy VIKOR can be seen as a method of struggling with messy data when it comes to complex results.

On land, performance is increased when systems interact with each other rather than when programs are isolated to create capabilities, safeguard well-being and promote collaboration. The compromise solutions of VIKOR indicate that the most effective strategies allocate the effort in dimensions rather than maximizing one of them.

Theoretical Implications

The combination of HRM 5.0 and fuzzy VIKOR applies the strategic HRM thinking to two directions. It transpounds systematic HR practices into wild-eyed multi-criteria analysis. It also links the people-focused practices and strict performance assessment.

Managerial Implications

Fuzzy VIKOR can be used by people operating HR operations to:

- Determine the multi-criteria performance data of HRM 5.0 investments of greatest interest.
- Be more systematic in clearing up ambiguity and subjectivity of performance reviews.
- Could be smarter in the decisions that it makes regarding the implementation, development, and growth of digital HR programs!

Result Findings

Fuzzy VIKOR results show distinct differences among HRM 5.0 alternatives in their impact on employee performance. Practices that are performing well in human-machine collaboration, skills building and work-life sustainability have better compromise ratings - they are closest to being optimal solutions. These results imply that the performance of employees is maximized whenever developed HR strategies are well aligned to the human needs such as autonomy, learning

possibilities, and psychological state.

The fuzzy analysis also shows the gaps in performance that are not identified through the traditional means. Variations in regret and utility values demonstrate that strengths in certain criteria can be undermined by weaknesses elsewhere, limiting overall effectiveness. This confirms the study's goal of providing actionable insights under ambiguity, with fuzzy VIKOR delivering nuanced HRM 5.0 assessment. Managers gain targeted areas for improvement rather than broad metrics alone.

Conclusion

Conceptually, this study proves HRM 5.0 significantly shapes employee performance when viewed through fuzzy multi-criteria decision-making. Integrating human-centered HR practices with fuzzy VIKOR evaluation shows organizations can systematically address performance assessment uncertainty. Results stick when strategies balance leadership, learning opportunities, and well-being support.

The model moves HRM theory and practice ahead by clarifying priorities in complex situations. While still conceptual, it creates a base for future empirical work across different industries and cultural settings. Later research can tighten the criteria, test the framework with real organizational data, and compare fuzzy VIKOR against competing decision methods to check its validity.

The framework developed here links HRM 5.0 to employee performance through fuzzy VIKOR. It underscores the strategic weight of human-centric HR practices and supplies a structured way to evaluate decisions under uncertainty. Testing with actual data and refining the criteria are the necessary next moves.

Scope for Future Research

- Use longitudinal research designs to examine how HRM 5.0 practices affect employee performance over time rather than at a single point.
- Conduct comparative studies across sectors (e.g. manufacturing, services, public sector) to test the generalisability of the fuzzy VIKOR-based evaluation model.
- Undertake cross-cultural research to explore how national culture and institutional settings condition the effectiveness of HRM 5.0 practices.
- Compare fuzzy VIKOR with other multi-criteria decision-making techniques (such as fuzzy TOPSIS, PROMETHEE or ANP) to assess methodological robustness.
- Incorporate additional mediators and moderators—such as leadership style, organisational culture, psychological empowerment and employee voice—to deepen theoretical explanation.
- Refine and extend the evaluation criteria by integrating sustainability indicators, green HRM dimensions and digital maturity indices.
- Apply mixed-method approaches that combine quantitative fuzzy analysis with qualitative interviews to gain richer insight into employee perceptions of HRM 5.0 initiatives.
- Explore the integration of advanced analytics, machine learning and real-time HR dashboards with fuzzy decision models for dynamic performance assessment.
- Use experimental or action research designs to examine how implementing prioritised HRM

5.0 practices affects measurable organisational outcomes.

Disclosure Statement

No potential conflict of interest was reported by the author(s).

References

- i. Al-Blooshi, M. M., Jalil, M. H., & Mohamad, A. D. (2025). Human capital development as a driver of sustainable development: The mediating role of innovation capability in the UAE. *International Review of Management and Marketing*, 15(6), 191–201. <https://doi.org/10.32479/irmm.21698>
- ii. Black, K., & Warhurst, R. (2018). Career transition as identity learning: An autoethnographic understanding of human resource development. *Human Resource Development International*, 22(2), 1–19. <https://doi.org/10.1080/13678868.2018.1444005>
- iii. Capolupo, N., Maione, G., & Supino, S. (2025). The anatomy of human resource management (HRM) 5.0: A bibliometric review of practices and workforce skills. *The TQM Journal*, 1–23. <https://doi.org/10.1108/tqm-07-2025-0402>
- iv. Chauhan, M., Sonker, P., Singh, N., & Singh, V. K. (2025). Unifying HRM 4.0 and sustainable innovation in the framework of industry 5.0 and Society 5.0. *Journal of Marketing & Social Research*, 2(5), 205–212. <https://doi.org/10.61336/jmsr/25-05-23>
- v. Chaturvedi, D., & Khanna, A. (2024). Does leadership styles affect employees motivation and performance: An exploratory perspective? *Pacific Business Review International*, 17(10), 62–72. https://www.pbr.co.in/2025/2025_month/April/7.pdf
- vi. D'Armagnac, S., Ariss, A. A., & N'Cho, J. (2021). Talent management in turbulent times: Selection, negotiation, and exploration strategies for talent management in the aeronautics and space industries. *The International Journal of Human Resource Management*, 33(4), 1–29. <https://doi.org/10.1080/09585192.2021.1879205>
- vii. De Leao Laguna, L. L., Poell, R., & Meerman, M. (2018). Practitioner research for the professionalization of human resources practice: Empirical data from the Netherlands. *Human Resource Development International*, 22(1), 1–23. <https://doi.org/10.1080/13678868.2018.1483150>
- viii. Elagaili, T. A., Azam, S. M. F., Tham, J., & Khatibi, A. (2025). Employee performance in public sector: A bibliometric analysis of global trends and thematic development. *International Review of Management and Marketing*, 15(6), 10–21. <https://doi.org/10.32479/irmm.20150>
- ix. Fletcher, L. (2016). Training perceptions, engagement, and performance: Comparing work engagement and personal role engagement. *Human Resource Development International*, 19(1), 4–26. <https://doi.org/10.1080/13678868.2015.1067855>
- x. Giri Goswami, T., & Mansi. (2025). HR analytics: Transforming human resource management. *Pacific Business Review International*, 17(10), 32–40. https://www.pbr.co.in/2025/2025_month/April/4.pdf
- xi. Hahn, H., & Kim, S. (2017). An empirical study on the relationship between perceived employability and employee performance. *Human Resource Development International*, 21(3), 1–17. <https://doi.org/10.1080/13678868.2017.1366175>
- xii. Jain, V., & Soni, V. K. (2018). Modeling and analysis of FMS performance variables by fuzzy TISM. *Journal of Modelling in Management*, 14(3), 2–30. <https://doi.org/10.1108/jm2-03-2018-0036>
- xiii. Jha, J. K., & Singh, M. (2019). Exploring the mechanisms of influence of ethical leadership on employment relations. *IIMB Management Review*, 31(4), 385–395. <https://doi.org/10.1016/j.iimb.2019.07.010>
- xiv. Kwabla Lassey, M. (2025). Comparative analysis of PROMETHEE, VIKOR and TOPSIS for logistics centre location selection MCDM problem. *Research Square*, 1–14. <https://doi.org/10.21203/rs.3.rs-7870462/v1>
- xv. Lin, T., Hung, K., Jablonsky, J., & Lin, K. (2025). An enhanced VIKOR and its revisit for the manufacturing process application. *Computers, Materials & Continua*, 83(2), 1901–1927. <https://doi.org/10.32604/cmc.2025.063543>
- xvi. London, M., & Sherman, G. D. (2021). Becoming a leader: Emergence of leadership style and identity. *Human Resource Development Review*, 20(9). <https://doi.org/10.1177/15344843211009632>
- xvii. Maley, J. F., Dabić, M., Neher, A., Wuersch, L., Martin, L., & Kiessling, T. (2024). Performance management in a rapidly changing world: Implications for talent management. *Management Decision*, 62(2), 3085–3108. <https://doi.org/10.1108/md-07-2023-1162>
- xviii. Mimović, P., Tadić, D., Borota-Tišma, A., Nestić, S., & Lafuente, J. (2021). Evaluation and ranking of insurance companies by combining TOPSIS and the interval fuzzy rough sets. *Serbian Journal of Management*, 16(2), 279–299. <https://doi.org/10.5937/sjm16-27672>

- xix. Mishra, P., Singh, R., & Yadav, G. (2021). Retention of employee using Taguchi loss function. *PIMT Journal of Research*, 13(3B), 75–80. https://www.researchgate.net/publication/354059843_RETENTION_OF_EMPLOYEE_USING_TAGUCHI_LOSS_FUNCTION
- xx. Mohammed Mahmood, A., Avci, I., & Yousif Mohammed, S. (2025). A new framework enhancing, evaluation and benchmarking for cybersecurity DDOS attack detection models through the integration of BMW and VIKOR methods. *Mesopotamian Journal of Cybersecurity*, 5(3), 1109–1121. <https://doi.org/10.58496/MJCS/2025/059>
- xxi. Parameswaran, H. (2020). Strategic human resource development: A manoeuvre for future competencies. *Serbian Journal of Management*, 15(2), 353–370. <https://doi.org/10.5937/sjm15-22393>
- xxii. Pb, S. (2019). Developing human resource competencies: An empirical evidence. *Human Resource Development International*, 22(1), 1–21. <https://doi.org/10.1080/13678868.2019.1605580>
- xxiii. Pool, J. K., Arabzad, S. M., Asian, S., Fahimi, M., & Kazemi, R. V. (2018). Employing fuzzy ANP for ranking the personality of international brands in the sports shoe industry. *Journal of Modelling in Management*, 13(1), 137–155. <https://doi.org/10.1108/jm2-02-2016-0009>
- xxiv. Prabakar, S., Kumar, V. S., Sangu, V. S., Muthulakshmi, P., Prabakar, S., & Basha, S. M. (2025). Catalysts of change: The transformative journey from HR 1.0 to HR 5.0 – Innovations, challenges, and strategies in human resource management with technology and data-driven integration. *Indian Journal of Information Sources and Services*, 15(1), 47–54. <https://doi.org/10.51983/ijiss-2025.ijiss.15.1.08>
- xxv. Prasanth, V., Sriram, S., Selvam, M., & Ramachandran, M. (2025). Multi-criteria performance evaluation of digital electronics using the VIKOR method. *REST Journal on Emerging Trends in Modeling and Manufacturing*, 11(3), 23–35. <https://doi.org/10.46632/jemm/11/3/3>
- xxvi. Sayem, S., Akter, M., Islam, M., & Islam, A. (2025). Employee empowerment and its performance in emerging economy: Mediating role of psychological capital. *Serbian Journal of Management*, 20(2), 287–304. <https://doi.org/10.5937/sjm20-51454>
- xxvii. Singh, R., & Singh, G. (2019). An innovative methodology for organizational development. *International Journal of Recent Technology and Engineering (IJRTE)*, 8(4), 9299–9301. <https://doi.org/10.35940/ijrte.d9477.118419>
- xxviii. Singh, R., Khan, M. F. M., Mishra, A., Sharma, S., & Pushkar, B. K. (2022). Probing micro-organizational behaviour to enhance employee engagement and boost business performance: A goal programming approach. *Pacific Business Review International*, 14(12), 8–22. https://www.pbr.co.in/2022/2022_month/June/2.pdf
- xxix. Sultana, P., Habiba Laskar, N., Rahmatulla Laskar, S., Mazharunnisa, M., & Bagchi, J. (2025). Diversity and inclusion in the workplace: Analysing the effects of inclusive HR practices on employee performance and organizational commitment. *Pacific Business Review International*, 17(10), 152–165.
- xxx. Vereb, D., Krajcsák, Z., & Kozák, A. (2024). The importance of positive employee experience and its development through using predictive analytics. *Journal of Modelling in Management*, 20(1), 51–69. <https://doi.org/10.1108/jm2-02-2024-0057>
- xxxi. Verma, M. K., & Sinha, A. R. (2025). Assessing the impact of HRM practices on employee absenteeism with reference to remote employees. *International Review of Management and Marketing*, 15(6), 68–79. <https://doi.org/10.32479/irmm.19548>
- xxxii. Yassin Sheikh, A., Ali, & Hussein Nor, A. (2025). Exploring the role of environmental knowledge, awareness, and organizational behavior in driving sustainability performance and decision-making: Evidence from Somali business organizations. *International Review of Management and Marketing*, 16(1), 325–340. <https://doi.org/10.32479/irmm.19916>