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AI in HRM - A flashpoint in Human and Artificial Intelligence practices

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ABSTRACT
Purpose of this paper
The study seeks to investigate the impact of Artificial Intelligence (AI) on the transformation of Human Resource Management (HRM) procedures through advances in efficiency, fairness, personalization, and transparency.
Design, methodology, and approach
The study utilizes a comprehensive literature review of 89 Scopus-indexed articles published to 2024. The study employs the Theory-Context-Characteristics-Methodology (TCCM) Framework to systematically organize and assess academic research, delineating theoretical foundations, contextual applications, methodological trends, and developing traits of AI integration in Human Resource Management (HRM).
Findings
The review delineates five principal topic themes for the implementation of AI in Human Resource Management: AI in HR Transformation and Strategy, Talent Acquisition and Workforce Planning, Performance Management and Talent Development, Workforce Analytics and Retention Strategies, and Ethical Governance in HR. The results underscore the revolutionary capacity of AI, while simultaneously exposing enduring difficulties, including ethical dilemmas, algorithmic biases, and disparate levels of digital preparedness.
Practical implications
The results assist HR professionals in utilizing AI tools to improve recruitment, training, engagement, and performance evaluation. The research underscores the necessity for enterprises to invest in the development of digital capabilities, implement ethical supervision systems, and establish transparent AI-driven human resource procedures to optimize advantages and mitigate dangersv What is original/value of paper
This study presents a thorough synthesis of AI applications in HRM utilizing the TCCM framework, providing a structured comprehension of existing knowledge and emerging trends.
Keywords: Artificial Intelligence, Human Resource Management, TCCM Framework, Talent Acquisition, Performance Management, Workforce Analytics, Ethical Governance
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1. INTRODUCTION:

Artificial Intelligence (AI) has emerged as a transformative force in various industries, fundamentally altering traditional business operations. In Human Resource Management (HRM), AI integration has evolved from conceptual innovation to practical reality, significantly enhancing HR functions and organizational outcomes. AI-powered tools, such as predictive analytics and machine learning algorithms, enable HR professionals to make data-informed decisions, thereby improving their efficiency and effectiveness in managing human capital (Gartner, 2024).

The AI's ability to analyze vast amounts of data allows for the personalization of employee experiences. AI-driven performance management tools offer real-time feedback and coaching, enabling employees to align their goals with organizational objectives and enhance their performance (Dima et al., 2024). Furthermore, AI facilitates lifecycle management, from onboarding to retention, by predicting attrition risk and suggesting interventions (Madanchian et. al., 2024).

AI has recently demonstrated the potential to promote fairness and equity in HR decisions. By analyzing historical and real-time data, AI systems may detect discriminatory patterns in hiring, promotion, and compensation and help organizations mitigate bias (Hu et al., 2023). However, the ethical implications remain critical. Concerns about data privacy, algorithmic bias, and opacity of decision logic must be addressed to ensure

that AI does not introduce new forms of inequality (Zhai et al., 2023).

To build responsible AI in HR, rigorous frameworks are required to guide ethical and effective adoption. This systematic literature review (SLR) aims to map existing evidence, uncover trends, and propose a framework for AI-enabled HR transformation along with managerial implications.

2. REVIEW METHODOLOGY

Recent research has underscored the increasing significance of systematic literature reviews (SLRs) and framework-based methodologies for knowledge synthesis and theoretical advancement. Paul et al. (2024) examine the benefits of framework-based systematic literature reviews (SLRs), detailing prominent frameworks such as TCCM (theories-contexts-characteristics-methods), ADO (antecedents-decisions-outcomes), 5W+H (who, when, where, what, why, how) and IMO (input-mediators-outcomes), while offering methodological guidance for effective reviews. Jain et al. (2024) utilized the TCCM framework and SPAR-4-SLR Scientific Procedures and Rationales for Systematic Literature Reviews) protocol to examine green supply chain practices, employing bibliometric analysis to discern prominent papers, pivotal research clusters, and five principal theoretical areas, highlighting the heterogeneous essence of the discipline. Majumdar et al. (2023) employed SPAR-4-SLR and TCCM to conduct a comprehensive assessment of Open Innovation and firm performance in emerging nations, uncovering publication trends, research clusters, and the significance of mediators and moderators in the OI (open innovation) performance nexus. Bhardwaj and Kalro (2024) utilized the TCCM framework to examine consumer well-being research, highlighting dominant theories, emphasizing the services sector, and the necessity for additional investigations in emerging economies. This study employs the TCCM framework to systematically organize the review into four dimensions: theories, contexts, characteristics, and methodologies. This ensures a thorough literature review that identifies existing trends and gaps, thus providing a robust foundation for future research endeavors.

The present systematic literature review (SLR) methodology attempts to synthesize research on the subject matter of the influences of Artificial Intelligence (AI) on Human Resource Management (HRM) function, while presenting the gaps in the existing literature for further studies.

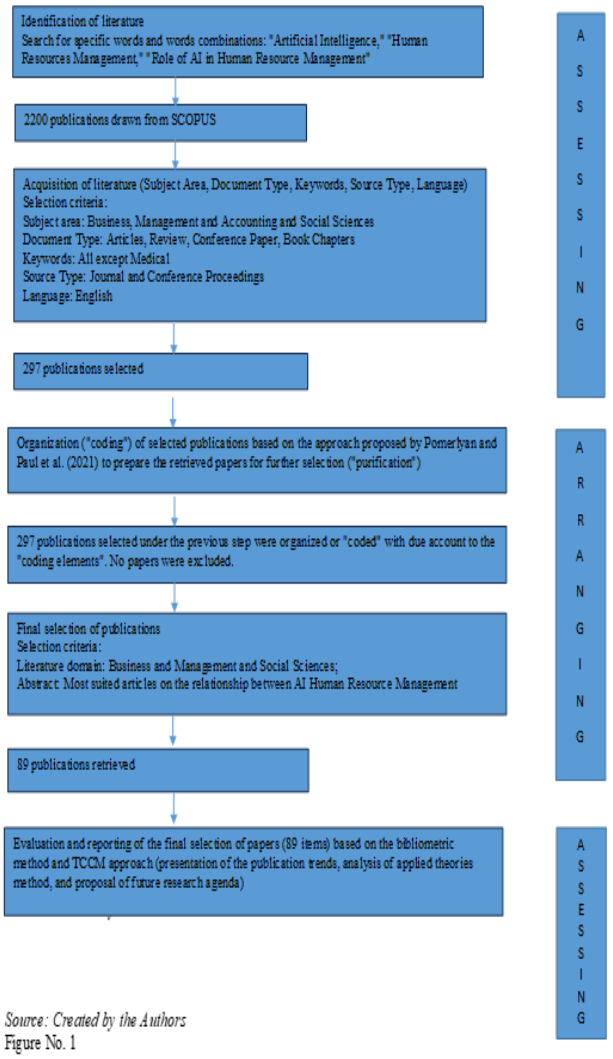
Data Collection and Selection Process

The data for the present study were mostly obtained from the Scopus database, which was chosen for ease of access, extensive coverage, and reliability for indexing peer-reviewed literature (Paul et al., 2021). Scopus has over 100 million records and more than 1.4 billion cited references. We found relevant studies by deploying carefully chosen keywords, such as Artificial Intelligence", "Human Resource Management", "Role of AI in Human Resource Management", "Technology, "and "Human Resources". Boolean operators were used to combine terms to make the search more accurate. The initial search yielded 2,200 searches, which were then narrowed down using definitive inclusion and exclusion criteria, ensuring that the final dataset was purposeful and relevant.

Inclusion/Exclusion Criteria

To be eligible for inclusion, studies had to be published in English and focused on business, management, or social sciences between 2000 and 2024. The selected documents included book chapters, research articles, review pieces, and conference proceedings. Exclusion criteria rejected studies not pertaining to both, artificial intelligence and its role in human resource management or either category. Following the application of the inclusion and exclusion criteria, 89 relevant studies were retained in the final dataset. Figure 1 shows a detailed description of the inclusion and exclusion techniques.

See Figure 1



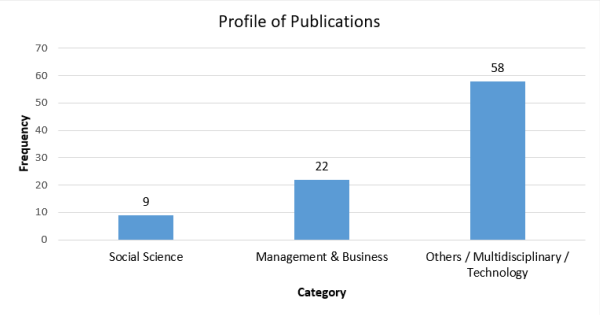
Source: Created by the Authors
Figure No. 1

3. RESULTS

Profile of Publications

Figure No. 2 indicates that almost 10% of journals pertained to the social sciences, encompassing subjects such as psychology, environmental studies, and ethics. Approximately 25% of papers are dedicated to management and business, indicating a robust research emphasis on organizational studies, human resources, business process management, and digital management. The predominant tendency to integrate management with applied sciences, computing, data analytics, artificial intelligence, sustainability, and engineering management was evidenced by the majority categorized as Others/Multidisciplinal/Technology (58%). Management concerns are typically associated with digital transformation, artificial intelligence, and sustainability initiatives, illustrating a trend in which academic research is increasingly transcending disciplines.

See Figure 2



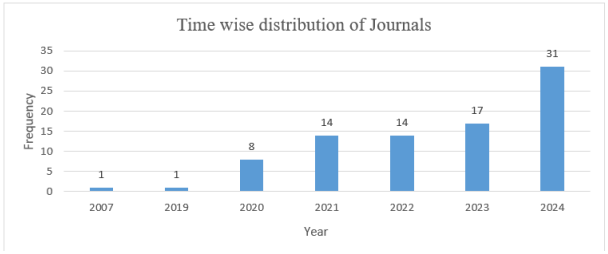
Source: Created by the Authors

Figure No. 2: Distribution of Publications Across Categories

Publication trends over time

The data analyzed throughout the stipulated period, as depicted in Figure 3, exhibited a clear increasing trend in publication numbers in recent years. The peak year was 2024, followed by 2023, 2022, and 2021. This signifies a considerable increase in activity and contributions, beginning in 2021. Discrepancies in individual entries and prior years have historically indicated diminished research activities. The data revealed a significant increase in academic or data contributions, especially after 2020, indicating enhanced engagement, revitalized interest in the field, or improved data reporting in the following years.

See Figure 3



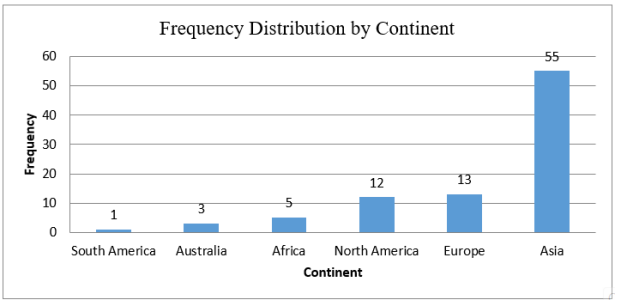
Source: Created by the Authors

Figure No. 3: Time-wise Distribution of Journals by Year

Study by Continents

As shown in Figure 4, a geographic study of 89 entries from 36 nations indicates that Asia is the primary contributor, with China and India being the leading contributors. The USA followed 11 entries from North America. Africa, Australia, and South America make smaller yet noteworthy contributions, while Europe exhibits moderate involvement, primarily driven by Switzerland and France. These figures underscore global academic engagement across continents and a concentrated pattern of activity in significant nations.

See Figure 4



Source: Created by the Authors

Figure No. 4: Distribution of studies by Continent

Results of the research review

AI-driven HR Transformation and Strategy, AI in Talent Acquisition and Workforce Planning, AI in Performance Management and Talent Development, AI in Workforce Analytics and Retention Strategies, and AI and Ethical Governance in HR are some of the main thematic groups that emerged based on the identification of patterns from the literature review. In addition to considering the themes' applicability to future studies and their implications for every stakeholder concerned, the themes were determined to be the primary themes based on the number of studies, as indicated in Table 1. A detailed explanation of each theme is provided below.

See Table 1

Main Theme	Sub Themes	Contributors
AI-driven HR Transformation and Strategy	AI in Education, AI in HRM/ JD and AI; AI in organizational adaptation; Impact of AI and Collective Intelligence on HR Practices; Transformation in HRM	Walker &Larson, 2024; Zhang, 2024; Ercik & Kardaş, 2024; Amazian et al, 2024; Poisat et al, 2024; Stone et al, 2024; Tanantong & Wongras, 2024; Orosoo et al, 2023; Dima et al, 2024; Abasaheb & Subashini, 2024; Yu, 2024; Tinguely et al, 2023; Sithambaram &

	AI Impact on HR Processes and Organizational Efficiency; AI's Impact on HR Roles; IoT in HRM Technology adoption and HR effectiveness; HR task automation in MNCs; AI perception in HRM; HR digitalization; Decision Support Systems for HR Capability Selection	Tajudeen, 2023; Agarwal, 2023; Deviprasad et al, 2023; Qahtani & Alsmairat, 2023; Weber, 2023; Murugesan et al, 2023; Bettayeb & Balbaa, 2023; Li et al, 2023; McGuire, 2022; Sharma et al, 2022; Pandey et al, 2020; Laksana, 2021; Adepu et al, 2020; Abdeldayem & Aldulaimi, 2020; Baldegger et al, 2022; Berhil et al, 2020; Nawaz et al, 2021; Hmoud, 2021; Lin & Hsu, 2010.
AI in Talent Acquisition and Workforce Planning	Generative AI in HRM; AI in recruitment efficiency; AI adoption in HR; AI and Machine Learning for Resume Screening in HR; AI-Driven HR for Entrepreneurship; AI in recruitment and hiring Technology Adoption; AI and Machine Learning for Public Sector HRM; AI in HRM for emerging economies	Chowdhury et al, 2024; Alnsour et al, 2024; Nawaz et al, 2024; Aguinis et al, 2024; Nain & Shyam, 2024; Arora & Mittal, 2024; Band et al, 2024; Wuisan et al, 2023; Tian et al, 2023; Budhwar et al, 2023; Aydın & Turan, 2023; Islam et al, 2022; Zhang & Yuan, 2022; Alam et al, 2022; Suseno et al, 2023; Niehueser & Boak 2020; Pampouktsi et al, 2021; Kshetri, 2021; Mehrabad & Brojeny , 2007.
AI in Performance Management and Talent Development	Chatbots in HRM; AI in HR leadership development; AI in employee turnover prediction; Application of machine learning in HRM for employee performance prediction; Personalized HRM Framework; AI for Employee Retention; Tactical HR with AI; AI in HR performance evaluation; AI-Driven Intelligent HR Management Systems; Performance appraisal systems	Almaraghi & Mofleh, 2024; Gülten & Baraçlı, 2024; Wu, 2024; Uppal et al, 2024; Nie, 2024; Huang et al, 2023; Paigude et al, 2023; Votto et al, 2021; Goes & De Oliveira, 2020; Liu, 2017; Samuel et al, 2014
AI in Workforce Analytics and Retention Strategies	AI in Healthcare HRM; Generative AI and HR Analytics in Workplace Coordination; AI for Employee Satisfaction; AI-Driven HR Optimization; AI-Enabled HR Strategies; AI in HR scheduling AI's impact on HR; AI in HR operations; AI in HR data integration; Digital HR risk prediction; Chatbots in HRM	Shahzad et al, 2023; Rasheed et al, 2024; Rath et al, 2024; Li, 2025; Yue, 2024; Gong et al, 2022; Zhang & Pan, 2022; Xin et al, 2022; Yang, 2022; Xie, 2022; Hu, 2022; Majumder & Mondal, 2021; Aldulaimi et al., 2021; Dai et al, 2021; Chakraborty et al, 2020.
AI and Ethical Governance in HR	Human-AI collaboration; Fairness in AI decisions; AI adoption drivers; Ethics in AI HRM Ethical AI in HRM; AI Decision-Making, Interactional Justice, Ethics in AI; Ethical AI in recruitment; AI-driven HR strategies; AI in HR crisis management; AI ethics in HR	Guggemos, 2024; Cai el al, 2024; Islam et al, 2023; Lukaszewski & Stone, 2024; Andrieux et al, 2024; Kaartemo & Helkkula, 2025; Bankins, 2021; Bankins et al., 2022; Delecraz et al, 2022; Konovalova et al, 2022; Khalifa et al, 2022; Tambe et al, 2019; Song & Wu, 2021.

The identified themes are discussed below in order of hierarchy in the HR process in an organization, beginning with strategic orientation, key process applications, and ethical and governance issues in the processes.

1. AI-driven HR Transformation and Strategy

Recent research underscores how AI integration requires strategic alignment with organizational goals, leadership support, and cultural adaptability.

Studies have consistently identified organizational preparedness, leadership commitment, and technological readiness as key drivers of AI adoption. Agarwal (2023) demonstrated that AI adoption in Indian IT firms is influenced by the Technology–Organization–Environment framework, in which perceived benefits and organizational preparedness are critical enablers of HR system effectiveness. Similarly, Almaraghi et al. (2024) in their study of UAE firms using neutrosophic analysis highlighted leadership support, digital readiness, and cultural adaptability as pivotal success factors for adopting AI in HRM. These findings underscore the need for HR leaders to treat AI not merely as an operational tool, but as part of a broader transformation strategy). Organizations with prior AI experience in HRM have a more positive perception of AI adoption; a belief in AI-driven HR transformation leads to greater acceptance.(Adepu K et al, 2020; Qahtani E.H.A.L.; Alsmairat M.A.K.,2023) studied IT and Banking sectors in different geographies.

Sithambaram and Tajudeen (2023) showed that Malaysian firms deploy AI in recruitment, analytics, and self-service platforms to gain efficiency, compliance, and strategic insights. Deviprasad et al. (2023) proposed a machine-learning-based automation framework for MNCs, enabling workforce forecasting and automating repetitive tasks. Sabale and Subashini (2024) integrated AI with the Internet of Things (IoT), transforming HR functions by improving efficiency and innovation, while raising issues of data privacy and the need for upskilling. Zhang (2024) further demonstrated that AI-enabled recruitment and performance assessments improve employee satisfaction and reduce employee turnover. These examples show AI's capacity to strategically redesign HR operations while requiring human oversight.

The strategic outcomes of AI adoption are evident across multiple organizational contexts. In healthcare, a UAE case study (Li P.; Bastone A.; Mohamad T.A.; Schiavone F., 2024) revealed improvements in HR performance metrics and resilience when AI systems were deployed. In the energy sector, AI-enabled digitalization enhanced agility but showed uneven adoption (Sharma A.; Tyagi R.; Verma A.; Paul A., 2022). Zhang (2024) emphasized the positive links between AI use, job satisfaction, and reduced turnover, while Agarwal (2023) reported increased HR system effectiveness in IT firms.

Despite its benefits, AI transformation poses several risks. Dima et al. (2024) mapped AI's effects into five categories: task automation, data optimization, augmentation, work redesign, and social/relational transformation while considering fairness, bias, and threats to professional identities within HR. Lee and He (2023) further highlighted the risks of low social acceptability and the importance of explainability in HR–AI collaboration. A study on unrealistic optimism (Weber P., 2023)) found that HR managers often overestimated opportunities while underestimating risks, creating a strategic gap. Bahrain's public sector study (Abdeldayem M.M.; Aldulaimi S.H., 2023) revealed that governance and transparency constraints may hinder AI's long-term transformation potential.

AI transformation in HR cannot succeed through technology alone. Amazian et al. (2024) argued that AI must be paired with collective intelligence (CI)—the collaborative engagement of employees, communities of practice, and participatory approaches.

It is seen that the mentioned aspects are critical for technological adoption to translate into actual performance gains and cultural acceptance within organizations (Kumar et al., 2020; Chakraborty et al., 2023; Mukherjee & Bandyopadhyay, 2022; Srivastava et al., 2023; Rana et al., 2021. While employees have gradually accepted the introduction of AI into HRM processes, there are indications of areas of future effort. It is noteworthy that entrepreneurial orientation of HR practitioners and founders of Small and Medium Enterprises has a positive correlation with the adoption of AI in organizational systems (Baldegger R, et al, 2021). Financial costs and internal resistance were noted, but ranked as lesser concerns, since it could be safely assumed that the benefits would outweigh the costs.

The literature highlights several future research directions for AI transformation strategies in HRM. These include comparative studies on adoption across geographies and industries, longitudinal research on sustained outcomes, and frameworks for ethical AI governance. There is also a need to deepen the inquiry into how AI and CI interact synergistically to drive human-centered digital transformation. Future agendas should move beyond process efficiency to explore AI's role of AI in strategic workforce planning, leadership development, and employee well-being.

2. AI in Talent Acquisition and Workforce Planning

With a growing interest in the integration of AI into the recruitment and workforce planning processes, research studies have explored many interrelated but diverse objectives. By leveraging capabilities in automation, strategic streamlining, and data-driven decision-making, 19 studies have examined how these AI technologies can modernize HR processes. A wide majority of these studies have explored how novel AI technologies can enhance the recruitment process and workforce planning experience of both employers job seekers (Aydın & Turan, 2023; Alam et al., 2022; Zhang & Yuan, 2022). This is achieved in the way AI helps improve efficiency in resume screening, candidate shortlisting, and workforce forecasting (Aydın & Turan, 2023; Alam et al., 2022; Zhang & Yuan, 2022). Several studies have aimed to develop a comprehensive framework to bridge the gap between generative AI adoption and HR business objectives (Chowdhury et al., 2024; Budhawar et al.,2023). Moreover, the impact and specific outcomes resulting from AI adoption within HR talent acquisition, such as accuracy, time-cost saving, computing power, and personalization, have been extensively analyzed (Nawaz et al., 2024). Some studies have also studied the impact of AI-powered technology on recruitment and improving candidate experience by reducing unconscious bias and increasing accuracy and efficiency (Nain & Shyam,

2024). Research has attempted to study the applications of generative AI beyond operational tasks to support the strategic priorities of HR professionals, along with providing actionable guidance on creating effective prompts for AI tools (Aguinis et al., 2024). Furthermore, some studies attempt to highlight sector-specific nuances and insights, such as the adoption of AI in India's IT industry (Band et al., 2024) and the financial sector in Jordan (Alnsour et al., 2024). Interestingly, researchers have also attempted to understand how AI adoption affects relatively novel constructs like employer branding and entrepreneurial success (Wuisan, et al., 2023). To maintain sustained outcomes in recruitment, studies examine how AI-driven models can help automate the shortlisting process, making it more cost effective. This is achieved by creating models to assist in selecting suitable candidates and facilitating optimal appointment decisions (Aydın & Turan, 2023; Mehrabad & Brojeny.,2007). These studies rely on models like UTAUT the Unified Theory of Acceptance and Use of Technology (UTAUT) or the Tripartite Model of Attitudes to investigate the factors that predict HR professionals' intention to use versus the actual use of AI for talent acquisition (Alam et al., 2022; Suseno et al., 2023; Mathur et al.,2025). The link between this intention to use or change readiness and the emotional or cognitive elements (anxiety, belief in the efficacy of AI) of HR professionals has also been examined (Suseno et al., 2023). Researchers have proposed empirically validated AI-based models for evaluating competencies, workforce planning, and talent acquisition processes (Wuisan et al., 2023; Zhang & Yuan, 2022; Chowdhury et al., 2024). Tian et al. (2023) developed a machine learning-based recruitment system integrating Latent Semantic Analysis (LSA), Bidirectional Encoder Representations from Transformers (BERT), and Support Vector Machines (SVM) to enhance resume screening and candidate selection processes. This improved topic detection, better alignment of candidate skills with job requirements, and more interpretable insights for HR professionals compared with traditional methods. Collectively, these studies examined how AI can sharpen recruitment precision, achieve better person-job alignment, and optimize workforce planning through AI-augmented decision-making.

Across these studies, key findings consistently highlight AI's potential to increase hiring efficiency, that is, reduce cost and time, and improve accuracy and objectivity in HR practices (Aydın & Turan, 2023; Band et al., 2024). Automated screening tools, NLP-based chatbots, and AI-backed predictive analysis can be leveraged (Band et al., 2024; Aydın & Turan, 2023; Alam et al., 2022). The application of AI can foster better candidate experiences and reduce human effort by HR professionals by assisting in decision-making processes. Moreover, by automating routine HR tasks (screening, interview scheduling, etc.), AI allows HR professionals to focus on the strategic priorities of the organization. As suggested by Aguinis et al. (2024) and Budhawar et al. al.(2023), the use of generative AI, such as ChaGPT, is seen as a game changer in streamlining HR tasks, from routine functions, such as drafting job descriptions, to those requiring more strategic focus. AI shortlisting models have shown a 90% accuracy rate (Zhang & Yuan, 2022; Wuisan et al., 2023), highlighting the scalability potential of these technological alternatives. As strategic alignment is important, AI's benefits are amplified when embedded in high-performance work systems and periodically reinforced by training, governance, and change management (Suseno et al., 2023). Employer branding and engagement can benefit from personalized candidate experiences and expertise in HR analytics (Dhamija & Bag, 2020; Alnsour et al., 2024). Moreover, research highlights the strong influence of emotional and cognitive responses, such as anxiety or belief in the efficacy of AI, on the intention to use or change readiness (Suseno et al., 2023). Despite their optimism, research cautions against overdependence on AI without an ethical lens and human oversight. It has been suggested by Niehueser and Boak (2020) and Budhwar et al. (2023) that human–AI collaboration is paramount in achieving sustainable HR transformation. Overall, AI has improved recruitment experience and has the potential to transform several HR workflows by enabling automation along with its predictive capabilities. However, the findings highlight that it is imperative to understand that the effectiveness of AI in HR depends on transparency, trust, and ethical safeguards (Band et al., 2024; Suseno et al., 2023; Niehueser & Boak, 2020). Therefore, ethical use, user training, and oversight are important for preventing the cascading effects of algorithmic bias and misuse (Budhwar et al., 2023; Chowdhury et al., 2024).

Arora & Mittal (2024) investigated how integrating AI into HR influences employee perceptions and showed that trust in AI technology mediates the relationship between AI integration and acceptance. Their findings underline that trust is a pivotal psychological mechanism that enables the adoption of AI. Islam et al. (2022) explored ethical dimensions in AI-augmented HR, emphasizing the necessity of fairness, transparency, and accountability to prevent algorithmic bias, especially in high-stakes decisions, such as hiring and promotion. Pampouktsi et al. (2021) offer sectoral perspectives (e.g., health and IT), illustrating how industry constraints and domain-specific regulations influence how AI systems must be tailored across different organizational contexts. Altogether, these studies reinforce the broader narrative that the success of AI in HR hinges not only on technical accuracy, but also on building trust, designing for ethics, and adapting to contextual realities.

Although notable advances have been made, the existing body of research has critical gaps that offer ample potential for future research. Most significantly, a key limitation was the lack of large-scale and in-depth data on this topic. This limits a comprehensive understanding of AI's long-term effects of AI on HR outcomes, such as performance, organizational dynamics, and overall well-being (Aguinis et al., 2024; Chowdhury et al., 2024). Psychological and emotional responses (anxiety, trust, and readiness) to AI require further exploration, particularly among HR professionals and employees. (Suseno et al., 2023; Nain & Shyam, 2024). Future research should delve into how AI adoption intersects with DEI (Diversity, Equity, Inclusion) goals, leadership development, and the influence of culture. A key

limitation is the inability to generalize these findings, as the majority of empirical research is limited to emerging economies and industry sectors (Kshetri, 2021; Band et al., 2024). Concerns must also be raised and addressed regarding the ethical, legal, and governance frameworks of AI in the HR. These ideas are considered in a nascent stage- in both theory and practice–as only a select number of studies provide actionable and practical guidance to ensure the transparency, accountability, and data protection required for seamless integration of AI and HR (Budhwar et al., 2023; Alnsour et al., 2024). Additionally, there is an impending need to co-design responsible and human-centered AI processes for talent management. The way forward could be multidisciplinary research that bridges computer science, organizational behavior theory, and AI ethics (Chowdhury et al., 2024; Aguinis et al., 2024; Kshetri, 2021). Overall, future research should provide robust empirical evidence on AI's impacts of AI, expand to underrepresented contexts and sectors, and develop ethical theory-driven models for AI in HR (Chowdhury et al., 2024; Alnsour et al., 2024; Kshetri, 2021).

3. AI in Performance Management and Talent Development

Artificial intelligence (AI) is becoming a vital tool in performance management and talent development owing to its ability to improve accuracy, efficiency, and HR practices. The effects of AI-driven technologies on career development, training, and employee evaluation have been the subject of numerous studies. The 11 studies under this theme aimed to evaluate the role of AI in supporting strategic decision-making in human resource management, career planning, and objective performance evaluations (Almaraghi & Mofleh, 2024; Nie, 2024,; Liu, 2017). To provide unbiased feedback and ideas for improvement, AI applications in performance management concentrate on automating assessments, monitoring employee key performance indicators (KPIs), and examining behavioral patterns (Votto et al., 2021; Uppal et al., 2024). Additionally, AI helps firms generate a more skilled workforce by forecasting leadership potential, identifying skill gaps, and suggesting customized training programs (Gülten & Baraçlı, 2024; Wu, 2024; Huang et al, 2023; Samuel et al., 2024). AI-powered HR analytics helps with succession planning, hiring, and retention by enabling HR managers to make informed decisions that support company objectives (Oliveira & Oliveira, 2020). Furthermore, AI is used to optimize human resource management strategies in a variety of work scenarios, guaranteeing flexibility in various organizational contexts (Paigude et al., 2023).

These conclusions show that AI-powered talent development and performance management systems have several benefits. By removing human bias and offering real-time feedback, AI guarantees more objective and data-driven performance evaluations, lowers administrative costs, and improves employee engagement (Uppal et al., 2024; Almaraghi & Mofleh, 2024; Votto et al., 2021; Nie, 2024). By using machine learning algorithms to suggest appropriate training courses and career advancement routes, AI-based talent development solutions enable individualized learning experiences, increasing worker competency and job satisfaction (Gülten & Baraçlı, 2024; Wu, 2024). Additionally, by identifying employees who are qualified for career development and forecasting future leadership candidates, AI-powered decision support systems can improve workforce management (Goes & De Oliveira, 2020). Fuzzy logic and rule-based classifiers are used in AI-driven performance appraisal systems to improve the evaluation procedures and guarantee efficiency and transparency in HR assessments (Samuel et al., 2024; Liu, 2017). Additionally, AI aids in the creation of HR management plans that increase flexibility in a variety of settings, allowing HR managers to implement data-driven policies that boost employee retention and engagement (Paigude et al., 2023). Additionally, firms may more effectively detect and handle worker issues using AI-based HR analytics, guaranteeing long-term viability and a competitive edge (Huang et al, 2023).

Notwithstanding these advantages, there are many unanswered questions regarding talent development and AI-driven performance management. Bias in AI algorithms is a significant concern because machine-learning models may inherit discrimination from past data, resulting in unfair career development plans and performance evaluations (Votto et al., 2021; Wu, 2024). Furthermore, it is still difficult for employees to accept AI-based performance management since many employees and HR experts doubt that AI can accurately replace human judgment in career planning and performance reviews (Almaraghi & Mofleh, 2024). Furthermore, very few longitudinal studies have examined AI's long-term effects of AI on employee motivation, job satisfaction, and career advancement. However, the majority of current research focuses on the short-term effects of AI in HRM (Gülten & Baraçlı, 2024; Oliveira & Oliveira, 2020; Uppal et al., 2024). As extensive employee data gathering raises questions regarding confidentiality and ethical usage, data privacy and security threats linked with AI-driven HR systems represent another significant difficulty (Samuel et al., 2024). Additionally, there are gaps in the evaluation of the scalability of AI-driven HR solutions in a variety of work situations, especially in companies with differing workforce demographics and technological capabilities that differ (Huang et al, 2023; Paigude et al., 2023).

4. AI in Workforce Analytics and Retention Strategies

With the evolving dynamics of the integration of AI in HR, the 15 studies under review converge on the role of AI in transforming workforce analytics and retention strategies. Several studies have explored how artificial intelligence can be leveraged to improve the employee lifecycle, from recruitment, selection, and performance management to turnover prediction (Yang, 2022; Yue, 2024). These studies also focused on harnessing the predictive capability of AI by building intelligent systems for predictive modelling, workforce planning, and

strategic decision-making. The goal is to utilize these processes effectively to reduce employee attrition and improve job role fit (Zhang & Pan, 2022; Gong et al., 2022). Other studies appreciate the ability of AI to perform processes such as compensation planning, promotion and customized learning, even in dynamic environments like Industry 4.0 (Li, 2025; Yang, 2022). Attempts have been made to explore how AI-based HR analytics tools can help overcome gaps in knowledge sharing and performance in technology-driven organizations (Rasheed et al., 2024). Studies have explored the need to develop scalable HR tools to enable data-driven strategies to strike a balance between employee satisfaction and organizational sustainability. AI innovations, such as deep learning, machine learning models, NLP, and neural networks, can be harnessed for the same (Rath et al., 2023; Yue, 2024). More specifically, studies have focused on the need to establish Human-Computer Interaction (HCI) to facilitate objective salary prediction based on resume analysis (Gong et al., 2022), which further affects retention. Sector-specific nuances have also been studied in a small subset of papers, such as in Malaysia's AI readiness in HR and predictive compensation modelling. Dai et al. (2021) proposed an AI- and neural-network-based Petri net allocation model for human resources, demonstrating how intelligent optimization can improve resource allocation efficiency and decision-making in organizations. In summary, this research aims to clarify the goals and scope of integrating AI in HR analytics, establishing how better workforce outcomes can be achieved through AI-driven, personalized, and scalable HR systems.

The findings reveal how AI can enhance the effectiveness of an entire workforce analytics system in an organization by focusing on decision-making efficacy, predicting turnover, and designing dynamic interventions. For example, compensation levels, person-role fit, and the risk of attrition can be accurately predicted using models such as BPNN, CNN-LSTM, and hybrid deep learning frameworks (Gong et al., 2022; Yue, 2024). Zhang and Pan (2022) demonstrated the value of AI in resource utilization and optimization, as it showed over 99% accuracy in scheduling human resources in dynamic, complex, and multidepartment environments. With a recent focus on transparency and objectivity, studies have also established how AI tools can help foster transparency in performance management and promotions by leveraging clustering and predictive algorithms (Yang, 2022; Rath et al., 2023). The benefits of AI integration can also be seen in operational settings as it reduces the HR administrative burden and improves employee satisfaction. This is achieved through personalized training, flexible compensation, and fair assessments (Li, 2025; Zhang & Yuan, 2022). As suggested earlier, sector-specific empirical studies from Malaysian firms found a strong association between AI integration in talent acquisition and retention and enhanced organizational performance. Studies also appreciate the role of AI in supporting human judgment in HR processes, such as onboarding, retention planning, and effectively distributing workload (Yang et al., 2022; Rasheed et al., 2024). The real-time monitoring and predictive capabilities of AI have shown measurable impacts with higher retention rates (88%) among high-salary groups compared to low-salary employees (67%), and significantly lower turnover among promoted peers (10%) versus non-promoted peers (25%) (Yang, 2022). Hu (2022) proposed an AI-based risk prediction model for digital Human Resource Management (HRM), integrating risk event chains and graphs to forecast potential operational risks. This approach enhances risk identification and mitigation strategies, thereby improving HRM system stability and decision-making accuracy. Aldulaimi et al. (2021) demonstrated that automation, expert systems, and enhanced technical skills improve recruitment and workforce analytics, resulting in greater efficiency and precision in HR processes. Chakraborty et al. (2020) examined the influence of artificial intelligence on human resource management using PLS-SEM, showing that AI adoption positively impacts HR efficiency, decision-making, and employee engagement. Studies also emphasize that successful AI adoption depends not only on technology, but also on aligning AI initiatives with organizational strategy and employee readiness (Xin et al., 2022). Majumder and Mondal (2021) explored the role of chatbots in HR, highlighting that AI-driven conversational agents can streamline routine HR tasks, improve employee experiences, and support faster information access. AI can be used for risk prediction in digital human resource management, enabling organizations to anticipate potential employee turnover, assess retention risks, and implement data-driven strategies to improve workforce stability (Hu, 2022). Together, these studies underscore the potential of AI tools in enhancing HR operations, efficiency, and employee interactions. These research findings reinforce AI's effectiveness not only in predictive modelling, but also in enabling ethical, agile, and strategic HRM processes.

Despite these advantages, key limitations and future research needs were identified. One limitation highlighted in multiple studies is that many models are validated only through small-scale interventions and simulations, leaving room for more real-world longitudinal studies across industries and contexts (Yue, 2024;). Similarly, sectoral diversity is another concern, as most studies have focused on IT or manufacturing. The service, healthcare, and education sectors demand more exploration (Rasheed et al., 2024; Li, 2025). As is the case with other HR processes, ethical issues such as algorithmic bias, transparency, and data privacy remain underdeveloped in both theory and practice (Yang et al., 2022). Several studies have emphasized the need to co-create human-centric AI systems that combine organizational behavior, ethics, and data science to drive equitable workforce solutions. There is also scope to study the impact of other moderating variables such as organizational culture and leadership (Shahzad et al., 2023). Future research can include understanding the long-term ROI on AI-based interventions and integrating AI feedback loops for continuous learning and development (Rath et al., 2023). It is also important to internalize the need for a deep

exploration of change management and workforce upskilling to transition from traditional systems to AI-driven platforms (Yang et al., 2022). Finally, there is a strong call to move beyond basic operational optimization to more strategic transformation by embedding AI-driven analytics into multiple dimensions of culture, leadership development, and inclusive talent management systems. Such efforts require robust ethical governance, multidisciplinary collaboration, and actionable frameworks to ensure that AI enhances the human core of HRM.

5. AI and Ethical Governance in HR

Incorporating Artificial Intelligence (AI) into Human Resource Management (HRM) has brought forth ethical dilemmas and opportunities, requiring organized governance to guarantee accountability, transparency, and equity. The necessity of ethical frameworks in HR functions has been highlighted by 13 research articles that examined AI-driven decision-making, bias mitigation, and human oversight.

Concerns regarding AI's transparency and potential for bias persist despite its growing use in hiring, performance reviews, career development, and employee well-being (Khalifa et al., 2022; Bankins, 2021; Delecraz et al., 2022; Lukaszewski & Stone, 2024; Tambe et al., 2019). Some research focuses on how AI affects employees' views of fairness in HR choices, particularly in recruiting and promotion processes, where employees may believe AI makes poor decisions (Cai et al., 2024; Bankins et al., 2022). Other studies have investigated the market factors that affect AI adoption in HR (Islam et al., 2023), the role of AI in augmenting rather than replacing the workforce, and the use of hybrid AI-human collaboration models to improve HR efficacy while upholding ethical standards (Guggemos, 2024; Song & Wu, 2021). Furthermore, by providing data-driven insights into employee engagement, well-being, and career advancement, AI is being researched for its potential to humanize HR procedures (Konovalova et al., 2022; Kaartemo & Helkkula, 2025). Furthermore, the potential advantages and disadvantages of generative AI (GAI) technologies in HRM have been investigated, emphasizing the necessity of ethical design frameworks to avoid bias in AI-generated HR choices (Andrieux et al., 2024).

The results highlight the advantages of AI-driven HRM and its ethical dilemmas. By eliminating hiring biases, automating performance reviews, and improving employee satisfaction through tailored recommendations, artificial intelligence (AI) has increased HR decision-making's efficiency, accuracy, and objectivity (Delecraz et al., 2022; Konovalova et al., 2022). AI's role of AI in workforce augmentation rather than replacement has been highlighted as turbulent market encourage AI adoption in HR (Islam et al., 2023). HR professionals are increasingly collaborating with AI technologies rather than completely replacing them (Guggemos, 2024). Additionally, recruiting outcomes have been found to be improved by AI-driven resume screening and employee assessments. However, candidates frequently perceive AI decisions as less fair than human ones, raising questions about their perceived fairness (Cai et al., 2024; Bankins et al., 2022). Despite AI's potential to enhance fairness, studies misuse of employee data, as AI systems can inadvertently collect and analyze sensitive information, leading to potential breaches of privacy and ethical violations (Andrieux et al., 2024; Kaartemo & Helkkula, 2025; Lukaszewski & Stone, 2024).

To guarantee equity, openness, and worker respect in AI-powered HR procedures, research has also suggested frameworks for decision making that support responsible AI governance in HRM (Bankins, 2021). According to these studies, AI has greatly increased decision-making accuracy, crisis management effectiveness, and HRM efficiency. Research indicates that algorithmic HR decision-making can occasionally serve to strengthen biases rather than eradicate them, especially when AI systems use recruiting data from the past that might represent current disparities (Tambe et al., 2019; Song & Wu, 2021). Furthermore, AI has been essential in managing hybrid work models, forecasting workforce risks, and aiding in crisis decision making; nevertheless, its ethical implications in these applications require further investigation (Khalifa et al., 2022).

Although AI-driven HRM has several benefits, research has revealed several gaps that need to be filled. The dearth of long-term research on AI's effects on workplace culture, motivation, and employee engagement creates a significant gap (Guggemos, 2024). Furthermore, research shows that bias mitigation strategies are still inadequate and need to be improved to guarantee fair hiring procedures, although AI-driven recruitment models seek to lessen bias (Cai et al., 2024; Delecraz et al., 2022; Song & Wu, 2021). Employees frequently doubt the accountability and impartiality of AI choices, particularly regarding performance management, layoffs, and promotions (Lukaszewski & Stone, 2024). Furthermore, because organizations find it difficult to implement measures that prevent sensitive employee data from being misused, privacy and data security issues continue to be understudied (Andrieux et al., 2024). It is crucial to incorporate human oversight into AI governance, because employees are concerned about the absence of justice and dignity in AI-driven judgments (Bankins et al., 2022). It is challenging to enforce ethical AI practices across industries because there is currently no widely recognized framework, even though some businesses have created internal guidelines for responsible AI use (Konovalova et al., 2022; Islam et al., 2023; Kaartemo & Helkkula, 2025; Tambe et al., 2019; Bankins, 2021). Further research is required to determine how AI may be used in future crisis situations, even though it is useful in controlling workforce disruptions during COVID-19 (Khalifa et al., 2022).

TCCM FRAMEWORK SYNTHESIS

To present a Theory, Context, Characteristics, Methodology (TCCM) synthesis based on a systematic review of selected papers focusing on AI-driven HR transformation and strategy.

Theoretical Background

The literature on AI in HRM has a fragmented theoretical foundation. A few studies apply established models, such as the Unified Theory of Acceptance and Use of Technology (UTAUT), Ulrich's HR Role Model, and the Theory of Institutional Entrepreneurship. UTAUT is used to explain technology adoption behaviors among HR professionals, emphasizing constructs, such as performance expectancy and social influence (Jain et. al., 2022). Ulrich's framework positions HR roles along strategic and operational dimensions, which is helpful in categorizing AI's functional impact (Verma et. al., 2022). Institutional entrepreneurship explains how organizations mobilize internal change agents to adopt AI technology. Studies have also applied Group Decision Support System (GDSS) logic to model collaborative decision-making for workforce planning.

Contexts

Context refers to the specific environments in which the research is situated, including geographic location, industry sector, organization type, and institutional setting. Generic references to 'organizations' or 'HR professionals' are common, limiting the interpretability and comparative value of the research. Moreover, there is minimal exploration of cultural, regulatory, or institutional differences, which are critical for understanding how AI adoption in HRM varies globally. SMEs, public sector institutions, and developing economies are particularly underrepresented.

Characteristics and Constructs

The observations in this section are drawn from a range of studies, including those that emphasize performance optimization (Uppal et al., 2024), bias reduction (Wu, 2024), and workforce analytics for strategic alignment (Deviprasad et al., 2022; Rao et al., 2023). Despite the differences in focus, all pointed toward the critical role of clearly defined and measurable characteristics in advancing AI-HRM applications. Some of the key applications repeatedly observed in these studies are - Predictive hiring and talent acquisition using machine learning; AI-driven performance management and feedback systems; Skill gap analysis and reskilling recommendations; Bias detection and mitigation in HR processes; Employee engagement and sentiment analysis using NLP- Compensation forecasting and workforce planning; digital maturity and AI readiness; Ethical AI adoption and transparency

Methodological Approaches

Several studies have highlighted methodological contributions and limitations. Gülten and Baraçlı (2024) note the limitations of data transparency and reproducibility. Uppal et al. (2024) used regression techniques for performance forecasting, whereas Deviprasad et al. (2023) integrated organizational surveys in multinational contexts.

Most studies in the AI-HRM literature adopt quantitative designs. Surveys are commonly used to assess attitudes toward AI tools or evaluate the performance of predictive models. Tools such as regression models, structural equation modeling, and decision trees appear across different studies. Predictive analytics and machine learning algorithms have been deployed to forecast HR outcomes such as employee turnover, performance ratings, and engagement levels. Conceptual papers, although prevalent, often lack empirical testing.

PRACTICAL IMPLICATIONS OF THE STUDY

The practical implications of the SLR are manifold. The various stakeholders affected by technological interventions in HR can be grouped into practical HR managers, employees and managers of non-HR functions, customers and Entrepreneurs or Top management.

The implications for practicing HR managers are that Training Needs to upskill the HR workforce and the overall organizational workforce to practice AI-enabled HR processes.

The implications for employees and non-HR managers are the need to be upskilled for technological adoption, provide timely feedback to enhance the quality and effectiveness of the processes, and prepare for future workplaces. Developing the competency to deal with technostress could lead to the crucial role in effective adoption of AI in HR processes.

Customers should be aware of the technologies being used, providing feedback on the type and levels of service so that product and service satisfaction can be enhanced.

Finally, entrepreneurial commitment from the top management plays a key plays a role in investing in tools that could lead the organization into the future.

FUTURE RESEARCH AGENDA

In catering to the stakeholders of HRM, future research should be faced with the need to balance technological interventions with employee experience as well as employee engagement, with organizational needs to fulfil strategy, speed, accuracy, and results..

Theories

With the rapid development of technologies and HR analytics, domain-specific theoretical models tailored to AI applications in HRM are imperative. Developing AI-HR maturity frameworks that integrate organizational readiness, ethical considerations, and leadership commitment. workforce agility, data infrastructure quality, and a continuous learning culture could provide valuable insights into the future of workplaces. Such frameworks bridge the conceptual and practical gaps in the field.

Context

Understanding this context is crucial for evaluating the generalizability and applicability of research findings, yet many AI-HRM studies fall short in this regard. Future research should strive to provide richer contextual descriptions. Comparative studies across industries (e.g., healthcare vs. retail) and regions (e.g., Europe vs. South Asia) would reveal how institutional and sectoral factors shape AI adoption. Additionally, studies should address organizational size, maturity level, and workforce characteristics to better assess contextual contingencies. Detailed contextual framing enhances both academic and practical relevance. The availability of literature with diverse contexts and cross-sectoral and international comparative studies could facilitate a wider understanding of the contextual outcomes of AI operating under different institutional conditions.

Characteristics

The inconsistency and repeated use of application terminology limits the comparability of findings and development of cumulative knowledge in the field. To strengthen the 'Characteristics' dimension in AI-HRM research, future studies could:

- Develop and validate standardized definitions for emerging constructs such as AI readiness and digital maturity: Establish operational metrics for AI-enabled HR functions (e.g., success rates of predictive recruitment tools)
- Explore inter-relationships among constructs (e.g., how bias mitigation interacts with engagement outcomes)
- Design construct taxonomies that can evolve with technological and organizational contexts

The absence of standard terminology and measurement frameworks weakens the comparability of results across studies.

Methodology

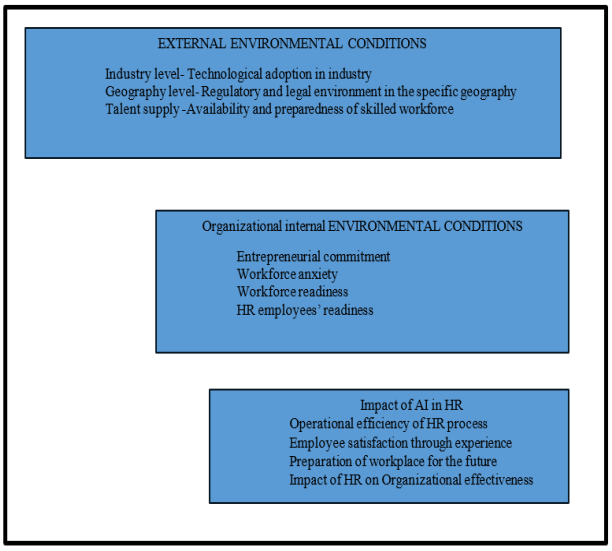
Despite the various research methods presently applied, the field would benefit from more consistency and innovation in design. While the methodology is presented in empirical papers, few studies provide transparency in the sampling procedures, validation techniques, or software tools used. There is a strong need for diverse methodologies, including mixed-methods designs and longitudinal frameworks, to capture both the technological and social aspects of AI in HRM (Gülten & Baraçlı, 2024). Ethnographic studies, case research, and interpretivist approaches remain underutilized despite their relevance in capturing the complexities of AI-HRM interactions.

To strengthen the methodological base of AI-HRM research, the following steps are recommended. For a better understanding of the various facets of deploying AI technologies in HR, it would help to have a variety of studies, including employing mixed-method designs to combine statistical validity with rich contextual narratives, increased use of longitudinal studies to understand evolving AI integration, clearly report data sources, validation procedures, and analytical tools, and encourage replication studies and cross-industry datasets for comparison.

In the analysis of the research reviewed in this paper, the authors proposed a conceptual model.

The proposed conceptual model explores the relationship between the various antecedents that could impact the implementation of Artificial Intelligence in organizations and the outcomes of HR processes towards organizational effectiveness. A detailed study conducted across the sample industry with high, moderate, and low adoption of AI in HRM could provide direction towards developing workplaces for the future.

See Figure 5



4. CONCLUSION

The SLR has provided an understanding of the present scenario of the intersection between Artificial Intelligence technology and Human Resource Management functional practices. While the research publications included in the study demonstrate the application of some of the theoretical frameworks, there are some theories that could find applications in various other contexts. The Technology Acceptance Model (TAM), developed by Davis (1989), is one of the most widely used models for predicting the adoption of new technologies. The socio-technical Systems (STS) theory, introduced by Emery & Trist (1960), emphasizes the interdependence between social and technical systems within organizations. The TAM and STS together could serve as the basis for identifying future application technology in HRM..

REFERENCES

1. Abasaheb, S. A., & Subashini, R. (2024). Enhancing HR Efficiency Through the Integration of Artificial Intelligence and Internet of Things: A Study on AI Implementation in Human Resource Management. EAI endorsed transactions on scalable information systems, 11(2).

2. Abdeldayem, M. M., & Aldulaimi, S. H. (2020). Trends and opportunities of artificial intelligence in human resource management: Aspirations for the public sector in Bahrain. International journal of scientific and technology research, 9(1), 3867-3871.
3. Adepu, K., Agarwal, K., Chitranshi, J., Nagendra, A., & Islam, T. (2020). Study of usage of artificial intelligence in human resource in it industry. Indian Journal of Ecology, 47(spl), 132-134.
4. Agarwal, A. (2023). AI adoption by human resource management: a study of its antecedents and impact on HR system effectiveness. foresight, 25(1), 67-81.
5. Aguinis, H., Beltran, J. R., & Cope, A. (2024). How to use generative AI as a human resource management assistant. Organizational Dynamics, 53(1), 101029.
6. Alam, M. S., Munira, K. S., Rahman, M. S., Uddin, M. A., & Akter, A. (2022). Artificial intelligence (AI) for talent acquisition: human resource professionals' perspective. International Journal of Human Capital and Information Technology Professionals (IJHCITP), 13(1), 1-18.
7. Aldulaimi, S. H., Abdeldayem, M. M., Mowafak, B. M., & Abdulaziz, M. M. (2021). Experimental perspective of artificial intelligence technology in human resources management. In Applications of artificial intelligence in business, education and healthcare (pp. 487-511). Cham: Springer International Publishing.
8. Almaraghi, Q., & Mofleh, D. (2024). Artificial Intelligence and the Future of Human Resource Management: Data Analysis and Decision Guidance to Enhance Work Productivity and Employee Motivation. Pakistan Journal of Life & Social Sciences, 22(2).
9. Alnsour, A. S., Kanaan, O. A., Salah, M., Alfayyad, L., Hijazi, Y., & Alsharif, D. (2024). The impact of implementing AI in recruitment on human resource management efficiency and organizational development effectiveness. Journal of Infrastructure Policy and Development, 8(8), 6186.
10. Al-Qahtani, H., & Alshehri, M. (2023). AI Adoption in Middle Eastern Public Sector HRM. Journal of Strategic HR.
11. Amazian M.; Nouira Z.; Filali M. (2024). Human resources management in the age of artificial intelligence. Data and Metadata. DOI: 10.56294/dm2024.347
12. Andrieux, P., Johnson, R. D., Sarabadani, J., & Van Slyke, C. (2024). Ethical considerations of generative AI-enabled human resource management. Organizational Dynamics, 53(1), 101032.
13. Arora, M., & Mittal, A. (2024). Employees' change in perception when artificial intelligence integrates with human resource management: a mediating role of AI-tech trust. Benchmarking: An International Journal, (ahead-of-print).
14. Aydın, E., & Turan, M. (2023). An AI-based shortlisting model for sustainability of human resource management. Sustainability, 15(3), 2737.
15. Baldegger, R., Caon, M., & Sadiku, K. (2020). Correlation between entrepreneurial orientation and implementation of AI in human resources management (HRM). Technology innovation management review.
16. Band G.; Bapat S.; Sonkul D.; Chavan N.; Nandurkar P.; Ahmad M.I.(2024). Assessing the Efficacy of Utilizing Artificial Intelligence for Human Resources Management in the Indian IT Industry. Nanotechnology Perceptions, 20(S5):499 - 506
17. Bankins, S. (2021). The ethical use of artificial intelligence in human resource management: a decision-making framework. Ethics and Information Technology, 23(4), 841-854.
18. Bankins, S., Formosa, P., Griep, Y., & Richards, D. (2022). AI decision making with dignity? Contrasting workers' justice perceptions of human and AI decision making in a human resource management context. Information Systems Frontiers, 24(3), 857-875.
19. Berhil, S., Benlahmar, H., & Labani, N. (2020). A review paper on artificial intelligence at the service of human resources management. Indonesian Journal of Electrical Engineering and Computer Science, 18(1), 32-40.
20. Bettayeb, A., & Balbaa, M. E. (2023). Success Factors in Adopting AI in Human Resource Management in UAE Firms: Neutrosophic Analysis. International Journal of Neutrosophic Science (IJNS), 21(3).
21. Bhardwaj, P., & Kalro, A. D. (2024). Consumer well-being—A systematic literature review and research agenda using the TCCM framework. International Journal of Consumer Studies, 48(1), e12991.
22. Budhwar, P., Chowdhury, S., Wood, G., Aguinis, H., Bamber, G. J., Beltran, J. R., ... & Varma, A. (2023). Human resource management in the age of generative artificial intelligence: Perspectives and research directions on ChatGPT. Human Resource Management Journal, 33(3), 606-659.
23. Cai, F., Zhang, J., & Zhang, L. (2024). The impact of artificial intelligence replacing humans in making human resource management decisions on fairness: A case of resume screening. Sustainability, 16(9), 3840.
24. Chakraborty, S., Giri, A., Aich, A., & Biswas, S. (2020). Evaluating influence of artificial intelligence on human resource management using PLS-SEM (Partial least squares-structural equation modeling). International Journal of Scientific and Technology Research, 9(3), 5876-5880.
25. Chan, C. K. Y., & Hu, W. (2023). Students' voices on generative AI: Perceptions, benefits, and challenges in higher education. International Journal of Educational Technology in Higher Education, 20(1), 43.
26. Chowdhury, S., Budhwar, P., & Wood, G. (2024). Generative artificial intelligence in business: towards a strategic human resource management framework. British Journal of Management, 35(4), 1680-1691.
27. Dai, W., Hu, Y., Zhu, Z., & Liao, X. (2021). Human resource Petri net allocation model based on artificial intelligence and neural network. Mobile

Information Systems, 2021(1), 5988742.
28. Davis, F. D. (1989). Technology acceptance model: TAM. Al-Suqri, MN, Al-Aufi, AS: Information Seeking Behavior and Technology Adoption, 205(219), 5.
29. Delecraz, S., Eltarr, L., Becuwe, M., Bouxin, H., Boutin, N., & Oullier, O. (2022). Responsible Artificial Intelligence in Human Resources Technology: An innovative inclusive and fair by design matching algorithm for job recruitment purposes. Journal of Responsible Technology, 11, 100041.
30. Deviprasad, S., Madhumithaa, N., Vikas, I. W., Yadav, A., & Manoharan, G. (2023). The machine learning-based task automation framework for human resource management in MNC companies. Engineering Proceedings, 59(1), 63.
31. Dhamija, P., & Bag, S. (2020). Role of artificial intelligence in operations environment: A review and bibliometric analysis. The TQM Journal, 32(4), 887–909.
32. Dima, J., Gilbert, M. H., Dextras-Gauthier, J., & Giraud, L. (2024). The effects of artificial intelligence on human resource activities and the roles of the human resource triad: opportunities and challenges. Frontiers in Psychology, 15, 1360401.
33. Emery, F. E., & Trist, E. L. (1960). Socio-technical systems. Management science, models and techniques, 2, 83-97.
34.
35. Ercik, C., & Kardaş, K. (2024). Reflections of digital technologies on human resources management in the tourism sector. Worldwide Hospitality and Tourism Themes, 16(5), 646-663.
36. Gartner.(2024). AI in HR. How AI is transforming the future of HR. Retrieved September 27 from AI in HR: How AI Is Transforming the Future of HR | Gartner
37. Góes, A. S. D. O., & De Oliveira, R. C. L. (2020). A process for human resource performance evaluation using computational intelligence: an approach using a combination of rule-based classifiers and supervised learning algorithms. IEEE Access, 8, 39403-39419.
38. Gong, Y., Zhao, M., Wang, Q., & Lv, Z. (2022). Design and interactive performance of human resource management system based on artificial intelligence. PloS one, 17(1), e0262398.
39. Guggemos, J. (2024). To fear or not to fear–Human resource development professionals' positioning towards artificial intelligence with a focus on augmentation. Computers and Education: Artificial Intelligence, 7, 100260.
40. Gülten, H., & Baraçlı, H. (2024). A Machine Learning-Based Forecast Model for Career Planning in Human Resource Management: A Case Study of the Turkish Post Corporation. Applied Sciences, 14(15), 6679.
41. Gupta, M., Yadav, R., & Goyal, P. (2021). AI in HR in Indian Enterprises. Management Review Quarterly, 71(4), 537-558.
42. Hmoud, B. (2021). The adoption of artificial intelligence in human resource management and the role of human resources. In Forum Scientiae Oeconomia (Vol. 9, No. 1, pp. 105-118). Wydawnictwo Naukowe Akademii WSB.
43. Hu, J., Zhang, L., & Wang, Y. (2023). Leveraging artificial intelligence to promote fairness and equity in human resource decisions. Journal of Business Ethics, 182(4), 987–1005.
44. Hu, Y. (2022). Risk Prediction of Digital Human Resource Management Based on Artificial Intelligence. Journal of computing and information technology, 30(1), 23-33.
45. Huang, X., Yang, F., Zheng, J., Feng, C., & Zhang, L. (2023). Personalized human resource management via HR analytics and artificial intelligence: Theory and implications. Asia Pacific Management Review, 28(4), 598-610.
46. Islam, M. A., Aldaihani, F. M. F., & Saatchi, S. G. (2023). Artificial intelligence adoption among human resource professionals: Does market turbulence play a role?. Global Business and Organizational Excellence, 42(6), 59-74.
47. Islam, M., Mamun, A. A., Afrin, S., Ali Quaosar, G. A., & Uddin, M. A. (2022). Technology adoption and human resource management practices: the use of artificial intelligence for recruitment in Bangladesh. South Asian Journal of Human Resources Management, 9(2), 324-349.
48. Jain, A., Mathur, S., & Khera, R. (2020). AI Adoption in HRM: An Empirical Study. Indian Journal of HRM.
49. Jain, R., Garg, N., & Khera, S. N. (2022). Adoption of AI-enabled tools in social development organizations in India: An extension of UTAUT model. Frontiers in Psychology, 13, 893691.
50. Jain, S., Sharma, D. K., & Sharma, M. (2024). Mapping Green Supply Chain Practices: An Extensive Bibliometric Review with the SPAR-4-SLR and TCCM Framework. NMIMS Management Review, 32(2), 118-136.
51. Kaartemo, V., & Helkkula, A. (2025). Human–AI resource relations in value cocreation in service ecosystems. Journal of Service Management, 36(2), 291-306.
52. Kaartemo, V., & Helkkula, A. (2025). Human–AI resource relations in value cocreation in service ecosystems. Journal of Service Management, 36(2), 291-306.
53. Khalifa, M., Al Baz, M., & Muttar, A. K. (2022). The impact of applying artificial intelligence on human resources crisis management: an analytical study on covid19. Information Sciences Letters, 11(1), 269-276.
54. Khan, A., Sheikh, A., & Khan, M. (2022). Institutional Influences on AI Implementation in Public HR. Government and Policy Journal.
55. Konovalova, V., Mitrofanova, E., Mitrofanova, A., & Gevorgyan, R. (2022). The impact of artificial intelligence on human resources management strategy: Opportunities for humanisation and risks. Wisdom, (1S (2)), 88-96.
56. Kshetri, N. (2021). Evolving uses of artificial intelligence in human resource management in emerging economies in the global South: some

preliminary evidence. Management Research Review, 44(7), 970-990.
57. Kumar, N., Patel, H., & Rane, S. (2020). Resistance to AI in HR: A Behavioral Perspective. Journal of HR Studies.
58. Laksana, E. A. (2021). The Integration of Artificial Intelligence Education into Various Human Resource Management Functions and Their Impact on Education Industry and Environment. Rigeo, 11(3).
59. Li, P., Bastone, A., Mohamad, T. A., & Schiavone, F. (2023). How does artificial intelligence impact human resources performance. evidence from a healthcare institution in the United Arab Emirates. Journal of Innovation & Knowledge, 8(2), 100340.
60. Li, S. (2024). Optimization of human resources in automated factories based on artificial intelligence in the context of Industry 4.0. The International Journal of Advanced Manufacturing Technology, 1-12.
61. Lin, C., & Hsu, M. L. (2010). Holistic decision system for human resource capability identification. Industrial Management & Data Systems, 110(2), 230-248.
62. Liu, G. (2017). 71. Research on Human Resource Intelligence System Based on Knowledge. Boletín Técnico, ISSN: 0376-723X, 55(19).
63. Liu, Y. (2025). The Law of Data-driven on Employee Growth in Enterprise Human Resource Management in the Era of Digital Transformation. Journal of Information & Knowledge Management, 24(01), 2450103.
64. Lukaszewski, K. M., & Stone, D. L. (2024). Will the use of AI in human resources create a digital Frankenstein?. Organizational Dynamics, 53(1), 101033.
65. Madanchian, M., Hussein, N., Noordin, F., & Taherdoost, H. (2024). From recruitment to retention: AI tools for human resource decision-making. Applied Sciences, 14(24), 11750.
66. Majumdarr, S., Dasgupta, S. A., & Farooq, R. (2023). Open innovation and firm performance in emerging economies: a bibliometric and TCCM analysis review. Management Decision. https://doi.org/10.1108/MD-10-2022-1484
67. Majumder, S., & Mondal, A. (2021). Are chatbots really useful for human resource management?. International Journal of Speech Technology, 24(4), 969-977.
68. Mathur A, Swarup K, Agnihotri D, Chaturvedi P, Tripathi V (2025;), "Investigating employee acceptance of smart technologies through UTAUT model with self-efficacy as a mediator". International Journal of Innovation Science, Vol. ahead-of-print No. ahead-of-print.
69. McGuire, N. (2022). Artificial intelligence for real-world mechanical systems. Tribology & Lubrication Technology, 78(2), 32-43.
70. Mehrabad, M. S., & Brojeny, M. F. (2007). The development of an expert system for effective selection and appointment of the jobs applicants in human resource management. Computers & Industrial Engineering, 53(2), 306-312.
71. Mehta, P., & Sharma, R. (2021). Surveying AI Readiness in HRM. Indian Journal of Management.
72. Mukherjee, A., & Bandyopadhyay, A. (2022). HR Analytics and Strategic Value. Journal of HR Intelligence.
73. Murugesan, U., Subramanian, P., Srivastava, S., & Dwivedi, A. (2023). A study of artificial intelligence impacts on human resource digitalization in industry 4.0. Decision Analytics Journal, 7, 100249.
74. Nain, V., & Shyam, H. S. (2024). Empirical analysis of the role of artificial intelligence in human resources recruitment and selection. Proceedings on Engineering Sciences, 6(2), 817-826.
75. Nair, R., & Joshi, V. (2022). Data Analytics in HR: Issues of Reliability. Analytics Review.
76. Nankervis, Alan R., and Roslyn Cameron. "Capabilities and competencies for digitised human resource management: perspectives from Australian HR professionals." Asia Pacific Journal of Human Resources 61, no. 1 (2023): 232-251.
77. Nawaz, N. (2021). Is the revolution of technologies transforming human resources?. Available at SSRN 3883921.
78. Nawaz, N., Arunachalam, H., Pathi, B. K., & Gajenderan, V. (2024). The adoption of artificial intelligence in human resources management practices. International Journal of Information Management Data Insights, 4(1), 100208.
79. Nie, Q. (2024). Application of artificial intelligence in enterprise human resource management and employee performance evaluation. International Journal of Computer Applications in Technology, 74(3), 186-196.
80. Niehueser, W., & Boak, G. (2020). Introducing artificial intelligence into a human resources function. Industrial and commercial training, 52(2), 121-130.
81. Ooi, K. B., Tan, C. L., & Lee, V. H. (2022). Artificial intelligence models and employee lifecycle management: A systematic literature review. Journal of Organizational Change Management, 55(3), 181–198.
82. Orosoo, M. Y. A. G. M. A. R. S. U. R. E. N., Raash, N. A. M. J. I. L. D. A. G. V. A., Santosh, K. A. T. H. A. R. I., Kaur, C., Bani-Younis, J. M. A., & Rengarajan, M. (2023). Exploring the influence of artificial intelligence technology in managing human resource management. Journal of Theoretical and Applied Information Technology, 101(23), 7847-7855.
83. Paigude, S., Pangarkar, S. C., Hundekari, S., Mali, M., Wanjale, K., & Dongre, Y. (2023). Potential of artificial intelligence in boosting employee retention in the human resource industry. International Journal on Recent and Innovation Trends in Computing and Communication, 11(3s), 01-10.
84. Pampouktsi, P., Avdimiotis, S., Maragoudakis, M., Avlonitis, M., Samantha, N., Hoogar, P., … Ruhago, G. M. (2022/2023) Techniques of Applied Machine Learning Being Utilized for the Purpose of Selecting and Placing Human Resources within the Public Sector. Journal of Soft Computing Exploration, 1(1), 1–16
85. Pampouktsi, P., Kermanidis, K. L., & Avlonitis, M.

(2021). A 3-in-1 framework for human resources' selection and positioning based on machine learning tools. International Journal of Data Analysis Techniques and Strategies, 13(4), 317-335.
86. Pandey, R., Chitranshi, J., Nagendra, A., & Lawande, N. (2020). Human resource practices in the Indian Army and suggest implementation of artificial intelligence for HRM. Indian Journal of Ecology, 47(spl), 22-26.
87. Paul, J., Khatri, P., & Kaur Duggal, H. (2024). Frameworks for developing impactful systematic literature reviews and theory building: What, Why and How? Journal of Decision Systems, 33(4), 537-550.
88. Paul, J., Lim, W. M., O'Cass, A., Hao, A. W., & Bresciani, S. (2021). Scientific procedures and rationales for systematic literature reviews (SPAR-4-SLR). International Journal of Consumer Studies, 45(4), 1–16.
89. Poisat, P., Cullen, M., & Calitz, A. P. (2024). Human resource managers' perceptions on the impact of Al on the South African workforce. SA Journal of Human Resource Management, 22, 1-13.
90. Qahtani, E. H. A., & Alsmairat, M. A. (2023). Assisting artificial intelligence adoption drivers in human resources management: a mediation model. Acta logistica, 10(1), 141-150.
91. Rasheed, M. H., Khalid, J., Ali, A., Rasheed, M. S., & Ali, K. (2024). Human resource analytics in the era of artificial intelligence: Leveraging knowledge towards organizational success in Pakistan. J Chin Hum Resour Manag, 15(3), 3-20.
92. Rath, M., Mishra, N., & Jayasuria, J.G (2024). A Smart Human Resource Approach using Artificial Intelligence with Improved Employee Satisfaction for Better Sustainability in Organisation. Evergreen, 10 (4):2476-2482.
93. Samara, H. H., Haidar, Z. S., El-Den, J., & Almarzooq, Z. (2024). The interdisciplinary nature of AI and human resource management. Human Systems Management, 43(3), 379–393.
94. Samuel, O. W., Omisore, M. O., & Atajeromavwo, E. J. (2014). Online fuzzy based decision support system for human resource performance appraisal. Measurement, 55, 452-461.
95. Shahzad, M. F., Xu, S., Naveed, W., Nusrat, S., & Zahid, I. (2023). Investigating the impact of artificial intelligence on human resource functions in the health sector of China: A mediated moderation model. Heliyon, 9(11).
96. Sharma, A., Tyagi, R., Verma, A., & Paul, A. (2022). Review on digitalisation and artificial intelligence in human resource function of energy sector. Water and Energy International, 65(2), 38-46.
97. Sithambaram, R. A., & Tajudeen, F. P. (2023). Impact of artificial intelligence in human resource management: a qualitative study in the Malaysian context. Asia Pacific Journal of Human Resources, 61(4), 821-844.
98. Song, Y., & Wu, R. (2021). Analysing human-computer interaction behaviour in human resource management system based on artificial intelligence technology. Knowledge Management Research & Practice, 1-10.
99. Stone, D. L., Lukaszewski, K. M., & Johnson, R. D. (2024). Will artificial intelligence radically change human resource management processes?. Organizational Dynamics, 53(1), 101034.
100. Suseno, Y., Chang, C., Hudik, M., & Fang, E. S. (2023). Beliefs, anxiety and change readiness for artificial intelligence adoption among human resource managers: The moderating role of high-performance work systems. In Artificial intelligence and international hrm (pp. 144-171). Routledge.
101. Tambe, P., Cappelli, P., & Yakubovich, V. (2019). Artificial intelligence in human resources management: Challenges and a path forward. California management review, 61(4), 15-42.
102. Tanantong, T., & Wongras, P. (2024). A UTAUT-based framework for analyzing users' intention to adopt artificial intelligence in human resource recruitment: a case study of Thailand. Systems, 12(1), 28.
103. Tian, X., Pavur, R., Han, H., & Zhang, L. (2023). A machine learning-based human resources recruitment system for business process management: using LSA, BERT and SVM. Business Process Management Journal, 29(1), 202-222.
104. Tinguely, P. N., Lee, J., & He, V. F. (2023). Designing human resource management systems in the age of AI. Journal of Organization Design, 12(4), 263-269.
105. Uppal, A., Awasthi, Y., & Srivastava, A. (2024). Machine learning-based approaches for enhancing human resource management using automated employee performance prediction systems. International Journal of Organizational Analysis. 10.1108/IJOA-07-2024-4643.
106. Votto, A. M., Valecha, R., Najafirad, P., & Rao, H. R. (2021). Artificial intelligence in tactical human resource management: A systematic literature review. International Journal of Information Management Data Insights, 1(2), 100047.
107. Walker, D. O., & Larson, M. (2025). Leveraging Generative Artificial Intelligence (AI) for Human Resource Management: The AI Job Description Assignment. Journal of Management Education, 49(1), 113-141.
108. Weber, P. (2023). Unrealistic optimism regarding artificial intelligence opportunities in human resource management. International Journal of Knowledge Management (IJKM), 19(1), 1-19.
109. Wu, Min. (2024). Human Resource Management Optimization Strategies for Diverse Work Environments Based on Artificial Intelligence. Applied Mathematics and Nonlinear Sciences. 9. 10.2478/amns-2024-2556.
110. Wuisan, D. S. S., Sunardjo, R. A., Aini, Q., Yusuf, N. A., & Rahardja, U. (2023). Integrating artificial intelligence in human resource management: A smartpls approach for entrepreneurial success. Aptisi Transactions on Technopreneurship (ATT), 5(3), 334-345.
111. Xie, F. (2022). [Retracted] Human Resource Data Integration System Based on Artificial Intelligence Environment. Journal of environmental and public

health, 2022(1), 1650583.

112. Xin, O. K., Wider, W., & Ling, L. K. (2022). Human resource artificial intelligence implementation and organizational performance in malaysia. Asia-Pacific Social Science Review, 22(3), 3.
113. Yang, Y. (2022). Artificial intelligence-based organizational human resource management and operation system. Frontiers in psychology, 13, 962291.
114. Yue, H. (2024). Study of enterprise human resource management strategy based on hybrid deep learning models. Journal of Logistics, Informatics and Service Science, 11(2), 419-432
115. Zhai, Y., Zhang, L., & Yu, M. (2023). AI in human resource management: Literature review and research implications. Journal of the Knowledge Economy, 15(3), 1125–1146.
116. Zhang, D., & Pan, J. (2022). An intelligent scheduling model of computer human resources in complex scenarios based on artificial intelligence. Wireless Communications and Mobile Computing, 2022(1), 8546634.
117. Zhang, H. (2024). Exploring the Impact of AI on Human Resource Management: A Case Study of Organizational Adaptation and Employee Dynamics. IEEE Transactions on Engineering Management.
118. Zhang, J., & Yuan, Y. (2022). Multi-Dimensional Post Competency Evaluation Model in Human Resource Management under the Background of Artificial Intelligence. Mathematical Problems in Engineering, 2022(1), 9730127

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