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A Preliminary Review of Artificial Intelligence Adoption in Human Resource Management: Evidence from Asia

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ABSTRACT

Artificial intelligence (AI) integration into human resource management (HRM) has gained considerable momentum in Asia, driven by the region's rapid digital transformation and dynamic economic growth. Despite increasing scholarly attention, existing literature often adopts fragmented perspectives on AI applications across different HRM functions. This review paper aims to identify trends, challenges, and outcomes of AI adoption in HRM functions, considering the socio-cultural and economic diversity of Asian countries. It investigates the adoption of AI, its application, and its implications across key HRM functions, including recruitment, training and development, performance appraisal, and employee engagement. This paper adopts a systematic review methodology, synthesising peer-reviewed indexed journal articles published from 2020 to 2024. Thematic analysis reveals that AI technologies have enhanced operational efficiency, decision-making processes, and personalised employee experiences. However, critical concerns persist regarding data privacy, algorithmic bias, and employee acceptance. Additionally, the uneven pace of AI adoption across industries and countries highlights the influence of regulatory frameworks, organisational readiness, and technological infrastructure. This review contributes to the growing body of knowledge by offering a region-specific perspective on AI integration in HRM, addressing the unique complexities of the Asian context. The findings offer practical insights for HR practitioners and policymakers to navigate AI implementation while fostering ethical and inclusive AI adoption. The paper also identifies key research gaps, calling for future research to examine the long-term impacts of AI-driven HRM practices and their implications for workforce dynamics in the evolving digital landscape.

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1.0 INTRODUCTION

In the era of digital transformation, the rise of Artificial Intelligence (AI) has played a crucial role in transforming various operational functions across industries, including Human Resource Management (HRM) (Ekuma, 2023). AI is becoming increasingly significant, particularly in Asia, where technological advancement leads to more innovative opportunities to reshape traditional HRM practices (Agustono et al., 2023). AI not only automates the recruitment process, training and development, performance appraisal, and employee engagement but also changes the ultimate process of HRM. In the context of Asia, the integration of AI in HRM practices is still in its nascent stages and remains underutilised compared to its potential (Agustono et al., 2023). This highlights that it is significant to explore today's landscape and the future potential of AI in HRM.

While several studies have examined AI adoption in HRM, comprehensive reviews encompassing all HRM functions are scarce. Existing literature focuses on specific areas, such as recruitment (Batool et al., 2023; Cao & Nguyen, 2024; Tsiskaridze et al., 2023) or industry- and country-specific analyses (Goswami et al., 2023; Islam et al., 2022). Moreover, much of the discourse on AI in HRM has been shaped by Western perspectives, where AI adoption is significantly more advanced, with organisations leveraging AI-driven HR analytics, algorithmic decision-making, and predictive workforce planning to enhance efficiency and reduce biases (Jarrahi, 2018; Tambe et al., 2019). In contrast, Asian HRM systems face unique challenges, including regulatory constraints, cultural differences, and a slower rate of digital infrastructure development (Cheng & Hackett, 2020; Budhwar et al., 2023) These disparities between AI adoption trends in Western and Asian HRM settings further highlight the need to have a literature review on all HRM practices in the Asian context to provide invaluable insights to HR practitioners and researchers to chart a landscape for policymaking and research.

Although many studies have examined AI adoption in HRM practices, articles reviewing these practices are rare. Some reviews only focus on certain parts of HRM practices such as recruitment (Batool et al., 2023; Cao & Nguyen, 2024; Tsiskaridze et al., 2023), country or industry-specific (Goswami et al., 2023; Islam et al., 2022). It is essential to conduct a comprehensive literature review on all HRM practices in the Asian context to provide invaluable insights to HR practitioners and researchers and chart a landscape for policymaking and research. To address this gap, this review paper adopted a systematic literature review using the Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols (PRISMA-P) protocol (Sarkis-Onofre et al., 2021) to provide insights on current AI adoption, applications, and implications in the Asian context across key HRM functions, including recruitment, training and development, performance appraisal, and employee engagement.

2.0 LITERATURE REVIEW

In recent years, the seamless adoption of AI into HRM across Asia has been a growing trend focusing on enhancing operational efficiency, strategic decision making and employee engagement (Mendy et al., 2024). As a result, Asia's organisations are increasingly integrating AI-powered tools to optimise HRM functions: recruitment and selection, training and development, performance appraisal and employee engagement (Sundari et al., 2024). AI in HRM consists of many technologies, including machine learning algorithms, natural language processing, and predictive analytics (Rasheed et al., 2024). Furthermore, AI adoption in HRM transforms from routine administrative tasks to strategic initiatives, ensuring that HRM functions align with organisational goals (Aulia & Lin, 2024). Data-driven decision-making has been given importance, as it can provide actionable insights by analysing HRM metrics, which assist organisations in making informed decisions that enhance productivity. Adopting AI enables HRM to leverage predictive analytics for workforce planning, attrition prediction and employee satisfaction analysis. This section highlights insights on AI adoption in recruitment and selection, training and development, performance appraisal and employee engagement.

The Technology Acceptance Model (TAM) serves as the theoretical framework for this review paper. From the psychological field, TAM suggests that the key factors influencing technology acceptance are its perceived usefulness and ease of use (Davis, 1989). This model is relevant for examining how HR professionals and employees in Asia perceive and adopt AI technologies within HRM functions such as recruitment, training, performance appraisal, and employee engagement.

Firstly, recruitment and selection are crucial components of HRM, including attracting, identifying and hiring a suitable candidate for the position (Nikolaou, 2021). As the game changer, AI plays a transformative role in optimising these functions by focusing on data-driven technologies to enhance efficiency and reduce biases, leading to improved decision-making (Rasheed et al., 2024). For example, AI tools enhance recruitment efficiency by automating curriculum vitae screening and candidate matching according to the job specification, significantly reducing hiring time. AI tools also reduce unconscious bias in hiring by anonymising candidate information and focusing solely on qualifications and skills (Ramli & Wahab, 2023). Therefore, this practice ensures a fairer selection process, making recruitment and selection more inclusive.

Next, training and development are crucial functions in HRM, focusing on employees' competencies, skills, and knowledge through upskilling and reskilling. According to Miah et al. (2024), there are critical skill gaps in the context of Industry 4.0 technologies, which mentioned a lack of digital, technical and social skills as the key barriers to employability. Therefore, AI-powered tools enable organisations to conduct personalised training experiences based on individual employees' needs and learning preferences to address these gaps. The personalised learning platform uses the machine learning algorithm to assess skills gaps and recommend suitable training modules (Khan et al., 2024). Additionally, AI tools monitor employees' progress during live training sessions and provide real-time feedback to trainers and trainees. Data analytics tracks the trainee's engagement, improves content delivery, and enhances retention and course effectiveness (Aulia & Lin, 2024).

Moreover, performance appraisal systematically evaluates employee performance concerning job responsibilities and organisation objectives. In this context, AI has revolutionised performance appraisal by addressing limitations inherent in traditional methods. AI algorithms analyse quantitative data from multiple sources, reducing human biases and subjectivity in evaluations. This leads to more equitable assessments of employee performance based on factual information rather than personal opinions (Tambe et al., 2019). Furthermore, AI can predict future performance trends by analysing historical data, helping organisations proactively manage talent and succession planning. This foresight aids in identifying high-potential employees and addressing potential performance issues early on.

Finally, employee engagement refers to employees' emotional connection and commitment toward their work and organisation. It is a critical factor influencing job satisfaction, motivation, and an employee's willingness to contribute toward organisational success. As highlighted by Setiawan and Hastuti (2022), employee engagement strongly correlates with increased productivity, improved quality of work, and higher retention rates. So, how does AI assist in ensuring employee engagement? AI analyses employees' feedback from surveys and other data to understand morale and engagement trends (Singh & Pandey, 2024). In Asian companies, HRM leaders are adopting AI for better employee interaction, and AI tools are used for real-time sentiment analysis to address employee concerns effectively (Baruah et al., 2024). AI-powered tools such as natural language processing (NLP) and sentiment analysis algorithms assess employees through feedback forms, email communication and workplace interactions. This tool also enables personalised communication, such as AI chatbots like HR assistants, providing instant, customised answers to employees' queries, reducing frustration and improving the overall experience (Ganatra & Pandya, 2023).

3.0 METHODOLOGY

This review paper adopted the Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols (PRISMA-P) protocol (Sarkis-Onofre et al., 2021). Such a protocol is perceived to be rigorous, transparent and reliable for literature review. It sets out procedures and the conditions for article identification, screening, selection and analysis. The Scopus database was chosen for the literature search due to its high-quality journal collection. It is common for literature review papers to use a single database if it gives a high-quality journal collection (See examples, Alsaif & Sabih Aksoy, 2023; Menzies et al., 2024).

3.1. Identification

The keywords of this review paper were chosen, followed by a search for related terms using dictionaries, thesauri, and previous research. All relevant terms were identified after creating search strings for the Scopus databases (see Table 1). In the initial phase of the research, 215 articles were found.

Table 1. The search string

Database: Scopus	TITLE-ABS-KEY ("AI" AND ("adoption" OR "application" OR "implementation") AND "HRM") AND (LIMIT-TO (SUBJAREA , "BUSI")) AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (PUBSTAGE , "final")) AND (LIMIT-TO (SRCTYPE , "j")) AND (LIMIT-TO (LANGUAGE , "English")) Date of Access: January 2025

3.2 Screening

During the screening phase, relevant research materials undergo evaluation to determine their alignment with predetermined research inquiries. Criteria pertaining to content, such as AI adoption, AI application or AI implementation were typically employed during this phase. Initially, 169 publications were excluded during the first screening stage. At the same time, 46 papers underwent scrutiny in the subsequent stage based on various inclusion and exclusion criteria specific to this review paper (refer to Table 2). The principal criterion applied was journal articles, serving as the primary source of practical recommendations. Furthermore, the review was confined to English publications and focused on 2020-2025. In addition, since the focus is on human resource management, the refinement was confined to business, management, and accounting subjects.

Table 2. The selection criteria from the search

Criterion	Inclusion	Exclusion
Language	English	Non-English
Timeline	2020 – 2025	< 2020
Literature type	Journal (Article)	Conference, Book, Review
Publication Stage	Final	In Press
Subject	Business, management and accounting	Besides Business, management and accounting

3.3 Eligibility

During the third phase, the eligibility assessment, a set of 46 articles was compiled. At this stage, a thorough review of the titles and main content of all articles was carried out to verify their compliance with the inclusion criteria and their pertinence to the research goals of the ongoing review paper. Consequently,

32 articles were excluded due to being out of scope, and reviews, conceptual papers, or research were not in the Asian context. Consequently, 14 articles were retained for the forthcoming review and analysis.

3.4 Data Abstraction and Analysis

At this stage, the 14 articles were classified based on their journal position in Scopus, e.g. Q1, Q2, etc. This is to determine the quality and reliability of the articles. Further, the content of the articles was analysed thematically. Figure 2 shows how the authors meticulously analysed a compilation of 14 publications for assertions or material relevant to the topics of the review paper. The authors then evaluated significant studies on AI adoption in human resource functions. Next, the authors collaborated to develop themes based on the evidence in this review paper context. Finally, the authors compared the results to see if any inconsistencies in the theme were found. If there are any disagreements on the themes, the authors discuss them amongst themselves. The agreed-upon themes will then be compared with past literature to ensure consistency.

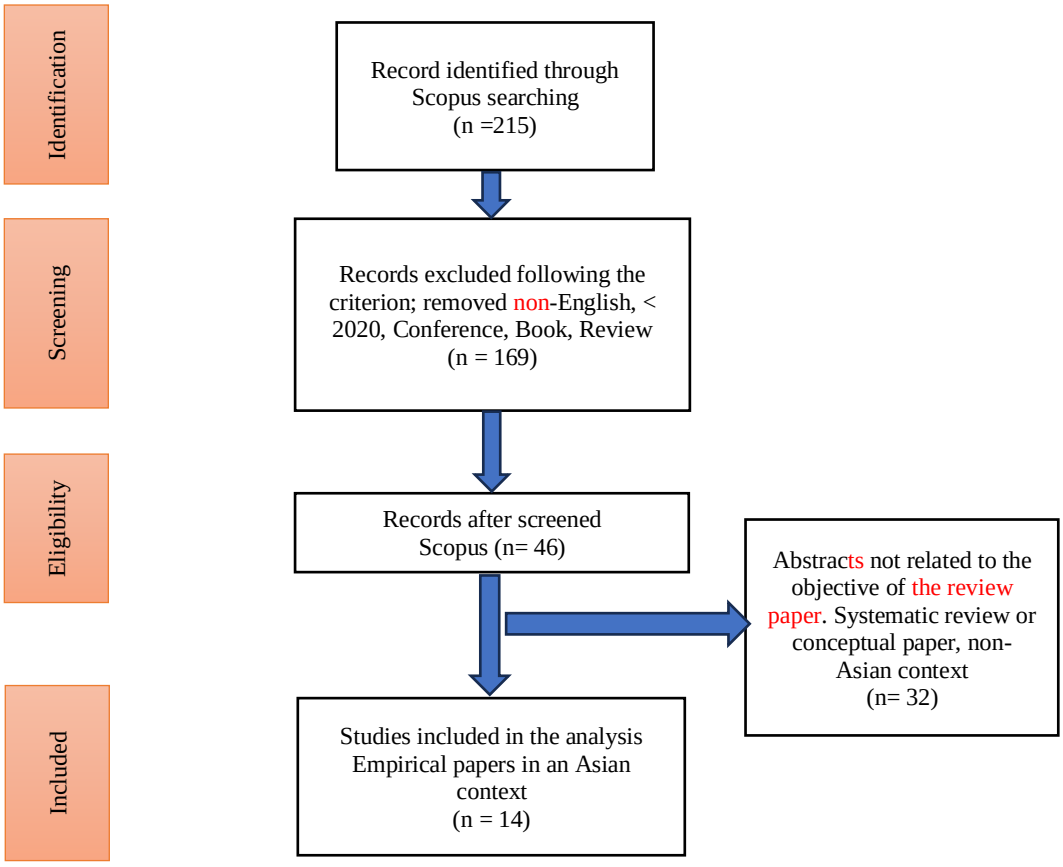

Fig. 1. Flow diagram of the proposed searching review paper

4.0 FINDINGS AND DISCUSSION

Table 3 below shows the key information of the 14 articles selected for the analysis. These articles were from high-impact journals, with 71% (10/14) in Scopus Q1, with others in Q2, 3 and 4. The ranking signifies the quality and reliability of the articles selected and the outcome of the analysis.

Table 3. Key details of the 14 selected journal articles

Author	Year	Title	Journal Name	Journal rank	Country
Dutta D., & Kannan Poyil A.	2024	The machine/human agentic impact on practices in learning and development: a study across MSME, NGO and MNC organisations	Personnel Review	Q1	India
Dutta D., & Mishra S.K.	2024	Bots for mental health: the boundaries of human and technology agencies for enabling mental well-being within organisations	Personnel Review	Q1	India
Prasad K.D.V., & De T.	2024	Generative AI as a catalyst for HRM practices: mediating effects of trust	Humanities and Social Sciences Communications	Q1	India
Xu Y., Huang Y., Wang J., & Zhou D.	2024	How do employees form initial trust in artificial intelligence: hard to explain but leaders help	Asia Pacific Journal of Human Resources	Q1	China
Zhang H.	2024	Exploring the Impact of AI on Human Resource Management: A Case Study of Organisational Adaptation and Employee Dynamics	IEEE Transactions on Engineering Management	Q1	China
Dutta D., Mishra S.K., & Tyagi D.	2023	Augmented employee voice and employee engagement using artificial intelligence-enabled chatbots: a field study	International Journal of Human Resource Management	Q1	India
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 and Knowledge	Q1	UAE
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	Q1	Malaysia
Malik A., Budhwar P., Patel C., & Srikanth N.R.	2020	May the bots be with you! Delivering HR cost-effectiveness and individualised employee experiences in an MNE	International Journal of Human Resource Management	Q1	India
Pan Y., Froese F., Liu N., Hu Y., & Ye M.	2022	The adoption of artificial intelligence in employee recruitment: The influence of contextual factors	International Journal of Human Resource Management	Q1	China

Table 4. Key details of the 14 selected journal articles (continued)

Author	Year	Title	Journal Name	Journal rank	Country
Kot S., Hussain H.I., Bilan S., Haseeb M., & Mihardjo L.W.W.	2021	The role of artificial intelligence recruitment and quality to explain the phenomenon of employer reputation	Journal of Business Economics and Management	Q2	Indonesia
Khan S., Faisal S., & Thomas G.	2024	Exploring the nexus of artificial intelligence in talent acquisition: Unravelling cost-benefit dynamics, seizing opportunities, and mitigating risks	Problems and Perspectives in Management	Q3	Saudi Arabia
AL Qahtani E.H., & Alsmairat M.A.K.	2023	Assisting artificial intelligence adoption drivers in human resources management: a mediation model	Acta Logistica	Q3	Saudi Arabia
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	Q4	India

4.1 Drivers and Barriers of AI Adoption in HRM

Adopting artificial intelligence (AI) in human resource management (HRM) is significantly influenced by its perceived usefulness, as the Technology Acceptance Model depicts. Organisations increasingly recognise the potential of AI to streamline HR operations, enhance decision-making processes, and improve overall efficiency (Murugesan et al., 2023). Yadav et al. (2023) emphasise the ability of AI to automate repetitive tasks, such as resume screening and employee scheduling, allowing HR professionals to focus on more strategic activities. Furthermore, AI-driven analytics can provide deeper insights into employee performance, engagement, and retention, enabling data-driven decision-making. These tangible benefits contribute to a positive perception of the utility of AI, thus encouraging its adoption. In addition to perceived usefulness, technological competence within organisations plays a pivotal role in facilitating AI integration into HRM. As highlighted by Pan et al. (2022), organisations with strong technological infrastructure and skilled personnel are better equipped to implement AI solutions, particularly in recruitment processes. For instance, AI-powered tools can efficiently assess candidate profiles, predict job fit, and reduce hiring biases when supported by robust technological capabilities. Regulatory backing further reinforces AI adoption by providing a structured framework that ensures ethical and lawful deployment. Clear regulations addressing data privacy, algorithmic transparency, and fairness reduce uncertainties and build organisational confidence in AI technologies. For example, regulatory guidelines can mitigate concerns over discriminatory outcomes in AI-driven recruitment, enhancing stakeholder trust. These factors create a conducive environment for AI adoption, with organisations recognising its immediate operational benefits and alignment with long-term strategic goals (Khan et al., 2024). However, these factors may vary depending on the countries' culture and regulatory environment (Xiang et al., 2023). By addressing both technological and regulatory enablers, organisations can unlock the transformative potential of AI in HRM, fostering innovation and competitive advantage in managing human capital (Kot et al., 2021).

AI adoption in human resource management (HRM) faces several notable barriers. A significant challenge lies in the complexity of AI systems, which can discourage organisations from integrating these technologies. This complexity often manifests in intricate algorithms and opaque interfaces that are difficult for non-technical users to navigate, emphasising the importance of user-friendly designs. As Pan et al. (2022) assert, simplifying AI interfaces and enhancing usability can alleviate integration hesitations, particularly in smaller organisations or those with limited technological infrastructure. Additionally, organisational resistance to change remains a pervasive barrier. Resistance often stems from employee scepticism about the reliability of AI and a general apprehension regarding technological disruption. Coupled with insufficient training programs, this resistance can stymie efforts to implement AI solutions effectively (AL Qahtani & Alsmairat, 2023). Furthermore, cultural factors within organisations, such as hierarchical structures and legacy practices, exacerbate the reluctance to embrace technological advancements. Past studies also demonstrated that industrial and national cultural factors could influence AI adoption in HRM functions (Goswami et al., 2023; Li, 2024). Overcoming these barriers necessitates targeted strategies, including education and incremental implementation approaches that allow organisations to adapt gradually while gaining confidence in the potential of AI (Xu et al., 2024).

Trust plays a pivotal role in mediating AI adoption within HRM functions. As AL Qahtani and Alsmairat (2023) highlighted, trust mediates the relationship between employees' perceptions of the usefulness of AI and their willingness to embrace it. When employees perceive AI technologies as beneficial yet lack trust, adoption rates tend to falter. Building trust requires consistent communication and the demonstration of the effectiveness of AI through pilot programs. Moreover, transparent processes are instrumental in fostering trust. Xu et al. (2024) emphasise that transparent AI systems, characterised by explainable algorithms and data handling practices, significantly enhance employees' initial trust. Leader support further strengthens trust by modelling a positive attitude toward AI and addressing employees' concerns proactively. For example, involving employees in decision-making about AI integration can mitigate apprehensions. Embedding trust into the adoption process accelerates integration and establishes a foundation for long-term acceptance and utilisation of AI technologies in HRM.

4.2 Applications of AI in HR Functions

As AI has become the opportunity for continuous improvement in HRM functions, it is necessary to explore how AI can contribute to this field. Recruitment and selection are crucial processes in HRM. To maximise the utilisation of AI tools in HRM, this research has reviewed previous studies and identified the second theme: the application of AI in HRM functions. According to Khan et al. (2024), AI tools assist HRM in improving recruitment efficiency by identifying the best candidates based on specific criteria. Advanced algorithms can assess candidates' qualifications, skills, and cultural fit, ultimately reducing time-to-hire while improving the quality of hires (Khan et al., 2024). Recruitment efficiency is enhanced by automating the screening process, enabling HR teams to focus on high-value tasks. Also, AI promotes employee engagement using AI-enabled chatbots, contributing to higher engagement and satisfaction (Dutta et al., 2022). These tools foster a trust-based climate, enabling employees and organisations to connect more (Zhang, 2024). Employees will be able to voice concerns safely and efficiently. This tool will promote a sense of inclusivity and openness within the working environment, which positively impacts the overall engagement level of employees. AI also plays a role in talent management through predictive analytics and personalised learning programs, which assist in addressing skills gaps efficiently by suggesting tailored development plans (Sithambaram & Tajudeen, 2023). Predictive analytics assist organisations in preparing for future needs, ensuring they have the right talent to meet evolving demands. Organisations using AI tools for talent management can gain beneficial outcomes, enabling them to align employee growth with organisations' goals (Malik et al., 2020). The improvisation of adapting AI-based talent management fosters a collaborative environment where employees feel valued and motivated to contribute their best (Malik et al., 2020). These AI adoptions enable an organisation to be more efficient and effective in managing the resources for organisational performance.

4.3 The Impact of AI on Employee Engagement

AI tools have revolutionised HR practices by enabling personalised experiences that enhance employee satisfaction. Malik et al. (2020) highlight that AI-driven platforms offer tailored training programs and self-service HR portals, allowing employees to access resources aligned with their needs and career aspirations. This personalisation fosters a sense of empowerment and satisfaction among employees. Furthermore, integrating AI with traditional HR practices has reduced employee turnover and improved retention rates. Zhang (2024) emphasises that the predictive analytics of AI can identify employees at risk of leaving, enabling timely interventions to address their concerns and enhance job satisfaction. Additionally, AI facilitates efficient recruitment by matching candidates' skills and experiences with job requirements, leading to better job fit and increased employee satisfaction (Chakraborty et al., 2020). However, addressing potential challenges, such as data privacy concerns and transparency in AI-driven decisions, is crucial to maintaining trust and ensuring ethical AI implementation in HR practices (Khan et al., 2024; Prasad & De, 2024).

Integrating AI technologies, particularly chatbots, has significantly enhanced organisational employee engagement. Dutta et al. (2022) discuss how AI chatbots are effective communication bridges, providing real-time feedback and fostering continuous engagement between employees and HR departments. These chatbots can handle routine inquiries, allowing HR professionals to focus on more strategic tasks. Malik et al. (2022) further note that AI technologies enhance collaboration by reducing response times for employee queries, creating a more dynamic and responsive workplace environment. Moreover, AI-driven platforms facilitate seamless communication and collaboration among team members, regardless of geographical location, thereby promoting inclusivity and teamwork (Chakraborty et al., 2020). However, it is essential to ensure that AI systems are user-friendly and culturally sensitive to cater to Asia's diverse workforce effectively.

AI tools, such as virtual assistants, play a pivotal role in addressing mental health challenges in the workplace. Dutta and Mishra (2024) highlight that AI-driven virtual assistants can provide personalised support to employees, offering resources and interventions tailored to individual mental health needs. Organisations leveraging AI for mental health support have observed improved productivity and reduced absenteeism, as employees receive timely assistance that helps them manage stress and maintain well-being. Additionally, AI-powered platforms can monitor employee well-being by analysing behavioural patterns and providing early alerts for potential mental health issues, enabling proactive support (Mer, 2023). However, it is important to address concerns related to data privacy and ensure that AI interventions are designed to complement, not replace, human support systems in the workplace.

4.4 Ethical and Trust Considerations in AI for HRM

AI, the leading technology in digital transformation, has been widely used and highly promoted in Asia. However, ethical use and trust considerations remain a concern. While AI adoption and implementation have come to the forefront, it is significant to be enlightened on ethical considerations (Khan et al., 2024). Based on previous studies, AI-based HRM manages sensitive employee data, decision-making processes, and workplace interactions (Arslan et al., 2021; Figueroa-Armijos et al., 2022). This usage raises critical concerns about privacy, reliability and accountability. Concerns must be addressed to ensure the legal and regulatory standards are complied with, enabling a trust-based environment fostering an inclusive and ethical workplace culture. Previous research has highlighted that ethical dilemmas arise because AI tools collect and process vast amounts of sensitive employee data, creating a data privacy concern (Khan et al., 2024). Organisations risk damaging employee trust and facing legal consequences without a robust data protection framework. Therefore, the organisation must adopt a transparent data usage policy and implement strict access control to ensure a secure platform and maintain employees' trust. Also, an employee consent mechanism and audits can assure compliance with data privacy regulations (Xu et al., 2024). The research also highlights the possibility of bias and fairness concerns in using AI in HRM (Pan et al., 2022). Although AI is a powerful technology, it can unintentionally mirror human biases if trained

on biased data. This can result in unfair hiring and appraisal practices, jeopardising the principles of diversity and inclusion. To ensure equal opportunities, AI algorithms must be carefully designed, regularly updated and continuously evaluated to minimise bias. Engaging diverse stakeholders in the design, planning, and implementation phases of AI-based HRM can help promote fairness and integrity throughout the process (Sithambaram & Tajudeen, 2023). Leadership is critical in encouraging ethical AI practices by establishing clear guidelines and demonstrating accountability (Xu et al., 2024). The successful adoption of ethical AI-based HRM depends mainly on leadership commitment. To reinforce fairness and transparency, leaders can advocate investment in training programmes that raise awareness of AI's potential and limitations, empowering employees to make informed decisions and use AI responsibly.

5.0 CONCLUSION AND FUTURE RESEARCH

This review paper summarised the empirical studies on AI adoption in human resource functions in Asia from 2020 to 2024. AI has been implemented in various human resources functions, making human resources management more efficient and effective. This outcome has helped improve the overall performance of the organisations. In addition to the major human resource functions, AI has improved employee engagement and working experience. These improvements need to be measured and quantified. For example, reducing time-to-hire, employee retention analysis and correct employee training programs. Despite its usefulness, organisations face numerous challenges in implementing AI in human resource functions. Its systems' ease of use and integration are factors affecting AI adoption. The current digital infrastructure must be reviewed and upgraded to ensure it supports for AI technologies. For example, robust data storage solutions and high-speed internet connectivity. Furthermore, data security over AI functions is one of the major trust issues in using AI. Organisations must implement controls to ensure the ethical use of AI with good security over its data. This includes creating a framework for the ethical use of AI in HR, focusing on fairness, accountability, and transparency.

Adopting AI in HRM presents significant opportunities and challenges for HR practitioners, policymakers, and researchers. HR professionals must embrace continuous learning to enhance their digital skills and adopt a data-driven mindset in decision-making. This transformation demands technical proficiency and a cultural shift towards leveraging AI tools to improve efficiency and employee experience. Policymakers are crucial in creating supportive regulatory frameworks encouraging AI adoption while safeguarding ethical standards and data privacy. They must design policies that promote innovation, provide organisational incentives, and mitigate potential job displacement risks. Researchers can contribute by exploring the long-term impacts of AI on workforce dynamics, employee satisfaction, and organisational performance.

A comprehensive comparative analysis across industries and Asian countries is essential to understand the diverse pace of AI adoption. Rapid AI integration is evident in the technology and financial sectors, while traditional industries like manufacturing and agriculture lag behind. Moreover, countries with advanced digital infrastructure, such as Singapore and South Korea, are at the forefront of AI adoption, whereas others are still nascent. Gaining insights into these disparities will enable more targeted AI implementation strategies tailored to the unique needs of specific industries and regional contexts.

This review paper only used articles from Scopus. Future research could use multiple databases to broaden the scope of the search. Such an approach might provide more perspectives on the topic. The power of AI is broad and underexplored, especially in the Asian context. Future research on AI adoption in human resource functions could include how AI can be used as predictive analytics (Saraswathi et al., 2023), for instance, to prepare dynamic employee training modules. Organisations can leverage generative AI for advanced decision-making, driving innovation in HR practices (Zhang, 2024). Furthermore, future research could examine how AI helps organisations adapt to changing workforce needs by providing insights, through AI analytics, into employee behaviour and trends (Chakraborty et al., 2020; Sithambaram & Tajudeen, 2023). Proactive use of AI in workforce planning could ensure organisational agility and

resilience (Zhang, 2024). Hence, studies that deploy multi-methods could shed light on this aspect of human resource functions. In short, this review paper points to future studies to explore the long-term implications of AI-driven HRM in a rapidly evolving digital landscape.

6.0 CONTRIBUTION OF AUTHORS

Fung conceptualised the research, designed the methods, and completed the literature search. Tiwari wrote the introduction and the literature review. Both contributed equally to the result analysis and discussions. Fung checked, reviewed and edited the manuscript. Voon and Fung wrote the conclusion and future research and checked the reference list's pagination, formatting and completeness. All jointly checked and edited the final version for submission.

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8.0 CONFLICT OF INTEREST STATEMENT

The authors agree that this review paper was conducted without any self-benefits, commercial or financial conflicts and declare the absence of conflicting interests with the funders.

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