

## **Artificial Intelligence in Human Resource Management and Its Financial Implications: A Systematic Literature Review**

Neetu Rani, Research Scholar, Gurugram University  
Mohsin, Research Scholar, Gurugram University

### **Abstract**

The integration of financial management and Human Resource Management has emerged as a critical pathway for business growth and tactical decision-making. Driven by rapid development in Artificial Intelligence (AI), Organizations can significantly reduce operating cost/expenses and increase cost effectiveness through automated processes in all the HR functions as Talent acquisition, Training & Development, performance management, etc. This study investigates the relationship between financial implications of Artificial Intelligence in Human Resource Management. This systematic review explores the impact of AI technology in the transformation of HRM into strategic role in cost efficiency, budget allocation in operation and decision-making. It will also focus on the economies resulting from data analysis and decision-making, as well as problems encountered in this technology. Research results have shown that AI maximizes efficiency in HR activities by streamlining repetitive tasks, thereby reducing operational costs substantially. Predictive models have also allowed technology driven decision-making. Consequently, there has been effective synchronization of human capital with financial outcomes. Nonetheless, the sustainability of AI strategy in human capital development has posed some risks that need to be effectively mitigated. In the summing up, integration needs to be balanced, so that long-term organizational viability is assured as well as the ability to bargain the best way through the intricacies of the contemporary digital economy.

**Suggested Keywords- Artificial Intelligence, Human Resource Management (HRM), Financial Implications, Cost-Efficiency, Digital Transformation, Workforce Optimization.**

### **1. Introduction**

The Fourth Industrial Revolution has redefined contemporary society, characterized by innovative technologies that have been completed through the fusion of intellectual developments in the fields of robotics, the Internet of Things (IoT), genetics, quantum computing, and artificial intelligence (AI) and additional technologies. However, AI offerings various technologies and requests that have the ability to interact with surroundings that have relevant objects and instructions for the interaction and have the volume to process data in a technique that mimics intelligent behavior (Chilunjika, et al., 2022). Artificial Intelligence has a considerable impact on Human Resource Management, which has transported a transformative change in how associations manage their workforce. AI is redesigning key HR functions including staffing, performance management, employee growth and HR administration, etc. All these HR functions have developed automative just because of modern technologies which has complete recruitment and selection relaxed with help of software which achieve these functions without any biasness. Sideways with recruitment and selection, AI is providing modified training programs based on persons leaning aptitude, skill gap, and long-term career purposes. Furthermore, the integration of AI in HRM, suggestions substantial financial suggestions such as enhanced operational competence, reduced labour cost, and optimisation of budget distribution through accurate Return on Investment (ROI) forecasts for human capital (Gu, Y.). As encouraged by the digital cheap, the digitization of HR management is now nice-looking a critical route for improving initiative efficiency. AI greatly increases the competence and quality of employee management through application of automated processes and intelligent facilities (Zhang, J., & Chen, Z. (2024). In the future, the role of AI will also be vital in the promotion of the incorporation of financial attitudes and human resources, giving the enterprise management industry with innovative modes of integration. This is founded on the fact that the positive belongings of financial attitudes and the addition of human resources

in collaboration have been proven to improve the flexibility of an enterprise in a complex situation (Atmadja, et al, (2021).

This paper discovers the economic benefits of how AI-based systems assistance the organisations to enhance output, improve operational efficacy, and reduced generally cost of the unit. It also advances the accuracy of the workforce strategy, which reduces turnover and consequently reduces recruitment costs. Furthermore, by improving employee growth and retention through a custom-made learning approach, AI enables increased workforce output, then generating worthwhile revenues on investment in the HR purpose. On the other hand, the group would incur additional charges in the application of AI solutions. The study delivers a thorough examination of how artificial intelligence is combined with HRM and how this combination is beneficial in terms of financial and monetary terms for an organisation. This study also lectures the ethical and supervisory dimensions of AI integration in HRM, emphasizing the need for accountable adoption, implementation and organization.

#### Conceptual Framework: Artificial Intelligence in Human Resource Management and Its Financial Implications

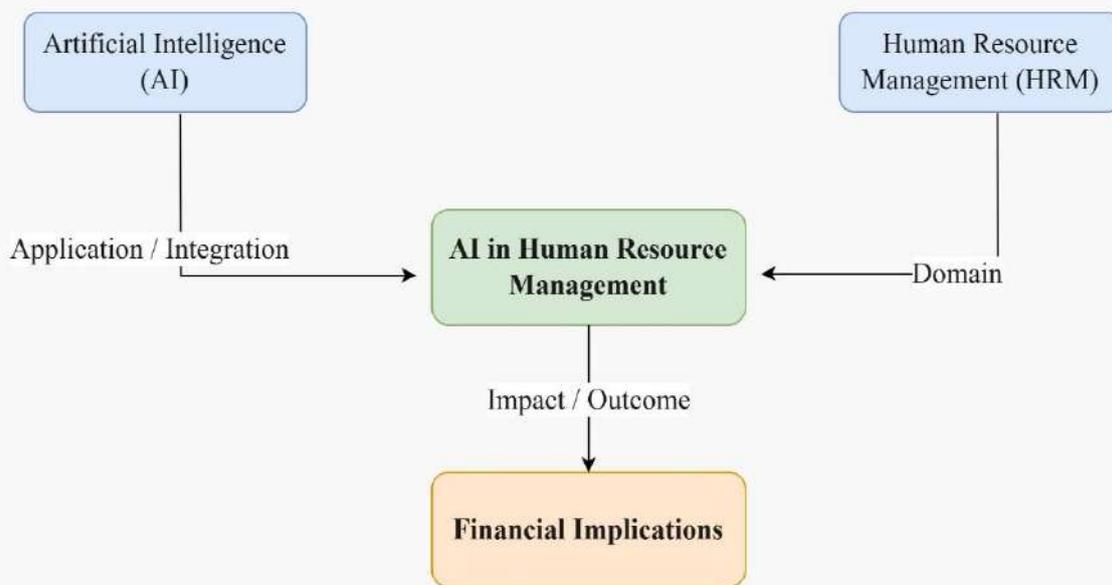


Figure-1

### 1.1 Artificial Intelligence

**John Mccharthy** is commonly known as “father of Artificial Intelligence” for inventing the term in 1956 at the Dartmouth workshop. **John Mccharthy defined AI as:** “Artificial intelligence is the science and engineering of generating intelligent machines, mainly intelligent computer programs.” Artificial Intelligence is the ground of computer science that primarily contracts with the development of intelligent structures that have the aptitude to carry out tasks which are generally considered to need total human intelligence. AI is not a solitary technology but a broad ground encompassing several key zones as Machine learning (ML), Deep learning (DL), Natural Language Processing (NPL), Computer Vision. Artificial Intelligence deliver benefits in all the sectors such Banking, Healthcare, Business, Education, etc. which decrease human errors, remove repetitive tasks, accelerated investigation and development, etc.

### 1.2 Human Resource Management

**According to Gary Dessler:** “Human Resource Administration refers to the policies and performs one needs to carry out the persons or human resource aspects of organization position including employing, screening, training, rewarding and assessing.” HRM is a universal

procedure that is required in all kinds of organisations i.e. government, corporate, education, health, regeneration, or social, etc. It confirms the availability of capable and well-organized human resource to the administration. The scope of HRM is considerable wider which comprise Human Resource Planning, Job examination and Job Design, Employment & Selection, Training & Development, Performance assessment, Career Planning, Rewards and reward, etc. AI has strengthened the planned importance of Human Resource Management by systematizing routine HR tasks, modified training, AI-based response system, etc.

### 1.3 Financial implication of AI integration in HRM

Implementation of artificial intelligence in human resource management has many financial consequences for the firms that employment it. In this regard, the usage of AI technology in HRM consequences in lower operational costs, mainly because AI automation attains the goal of reducing the essential for HR department employees to achieve tasks such as screening restarts, processing payments, and recording attendance records. Still, the use of AI in HRM consequences in more exact recruitment procedures, which minimizes the expenditures associated with rehiring and re-education employees who leave companies for reasons such as dissatisfaction with particular parts of the office. The other financial implications of the acceptance of AI in HRM are the original costs incurred in the acceptance of the technology, which comprises the costs of the AI software, the exercise of employees in the usage of the AI technology, and the charges of enhancing the organizations' info systems to make room for AI operations. Despite these costs, the acceptance of AI in HRM has additional rewards in the extended term than the costs experienced in the process.

## 2. Literature Review

**Kasmuri et al. (2025)** investigated the financial suggestions of AI integration in Malaysia's industrial sector using a mixed-methods method. They employed quantitative surveys and SmartPLS 4.0 to examine a sample of 350 HR practitioners. The study accomplishes that AI acts as an influential moderator between HRM performs and an organization's financial presentation. Strategically, the findings propose that AI adoption leads to healthier resource allocation and long-standing organizational sustainability.

**Alkashami et al. (2025)** explored the past, present, and future suggestions of AI in HRM through a qualitative study design. The study reviewed indication on how machine knowledge algorithms analyze large datasets to classify top talent without human bias. It accomplishes that AI-based screening tools can accelerate the engagement process by 30% to 50%. Economically, the authors note that whereas AI reduces recruitment costs, high application costs may prevent SMEs from completely adopting these technologies.

**Iancu and Oprea (2025)** conducted a comprehensive semantic and bibliometric investigation of 12,121 publications from the Web of Science database. Using Python and R scripts, they functional Natural Language Processing (NLP) methods like topic modeling (LDA) to recognize thematic patterns. The study discloses a steady growth in AI-HR literature, mainly in neural systems and algorithm optimization. The assumption sheds light on the position of AI-driven HR plans in addressing administrative disorganizations within the public sector.

**Lutfi and Mohammadi (2025)** used a qualitative content examination of prior research to identify application challenges of AI in HR. The procedure synthesized existing literature to discover workforce, technical, and financial problems. The research highlights that skill breaches and "technological stress" are important barriers to adoption. The inference notes that while initial application costs are high, AI eventually decreases the long-term costs of HR processes.

**Li (2025)** examined AI applications in HRM through the examination of real-world circumstance studies and existing literature. The procedure involved developing an agenda for ethical and accountable AI deployment. The study highlights that AI-powered chatbots and extrapolative analytics can classify top candidates and forecast worker performance. The

conclusion highlights that AI must be used to augment human abilities rather than replace human decision to maintain organizational trust.

**Iyem and Erer (2025)** assumed a qualitative case study method, exactly "document analysis," to examine AI practices in positive global businesses like Unilever and Google. The methodologies elaborate careful examination of written reports and business webpages. The study recognizes that Unilever reduced employment time from four months to four weeks using AI-powered video examination. The authors accomplish that HRM has progressed into "Smart Talent Management," making strategic value through impartial decision-making mechanisms.

**Byambaa et al. (2025)** examined AI adoption in the Mongolian banking segment using an experimental quantitative study. They exploited the Technology Acceptance Model (TAM) and measured 487 valid customer responses. Using SmartPLS-4 for structural equation modeling (SEM), the study accomplishes that perceived usefulness and trust knowingly enhances AI adoption. Deliberately, the findings deliver a roadmap for banks to advance customer service and income generation through AI products.

**Pasupuleti and Thiyyagura (2025)** investigated customers' extension intention toward AI-driven mobile banking apps using a lengthy Expectation Confirmation Model (ECM). They collected 381 practical responses through a survey investigation method and analyzed the data using SEM. The study discloses that satisfaction is the strongest forecaster of continuance intention, monitored by usefulness and trust. The authors accomplish that human-like connections are essential for fostering an association between users and technology.

**Moharrak and Mogaji (2025)** provided experiential insights into Reproductive AI in banking through qualitative discussions with 36 bank managers worldwide. The data examination followed a six-phase thematic method to identify key adoption aspects. The study identifies five serious factors recognition, requirement, reliability, regulatory, and responsiveness that influence operational effectiveness. The authors accomplish that financial institutions must shape specialized human resources, such as data experts, to responsibly manage AI integration.

**Darmawati et al. (2025)** done a systematic literature review on AI's role in local government financial reporting. Using the Watase Uake tool, they examined 20 relevant articles to recognize thematic patterns. The study discloses the dominance of machine learning and skilled systems in fraud detection and reporting correctness. The authors conclude that boundaries in infrastructure and regulations continue the biggest hurdles to supportable AI utilization in the community sector.

**Khanna and Rani (2025)** provided a theoretical viewpoint on AI application in HRM from employment to retention. The research deliberates how AI turns HRM into a planned, analytics-based occupation through the automation of routine work. The study concludes that AI-facilitated employing uses NLP and machine knowledge to match candidate profiles with 90% correctness. Strategically, the authors climax that AI helps bridge skills gaps by pursuing performance, absenteeism, and revenue data.

**Gupta (2024)** examined the transformative possible of AI in HRM by reviewing initial concepts and practical requests. The methodology involved an inclusive analysis of the ethical and permissible dimensions of AI addition. The paper highlights that although AI facilitates extrapolative hiring analytics and personalized training, it familiarizes risks of job displacement and data confidentiality breaches. The conclusion highlights that for AI to be successful, it essential be human-centric and governed by vigorous accountability standards.

**Mestikou et al. (2024)** provided a expressive analysis of AI and machine learning in financial services. The study focused on use cases like credit recording, fraud detection, and capital optimization. While the paper is not an outdated HRM study, it concludes that AI permits for an accurate analysis of enormous datasets, which improves overall executive and reduces operational time. Deliberately, the authors highlight that AI is a "double-edged sword" concerning data privacy and transparency.

**Fundira et al. (2024)** investigated the connection between digital capabilities and AI ethics in banking through professional interviews. Using a qualitative method, they sampled 7 AI specialists to gather nuanced insights. The thematic examination reveals that a "void of human trace" in AI systems can lead to faith issues among users. The study accomplishes that stakeholders must capitalize in digital literacy and education to safeguard the ethical and supportable adoption of AI.

**Mettrick (2024)** authored a manual style report exploring the application of GenAI in financial facilities. The paper categorizes AI requests into four pillars: predictive, anomaly detection, classification, and generative AI. The procedure provides actionable insights founded on industry best performs for risk management and fraud deterrence. The author accomplishes that banks must master AI and exclusive data-driven insights to uphold a competitive advantage in the subsequent period.

**Ekuma (2024)** conducted a systematic evaluation following PRISMA guidelines to produce literature on AI and computerization in Human Resource Development (HRD). The procedure used the CIMO outline (Context, Intervention, Mechanism, Outcome) to analyze 93 selected articles. The study concludes that AI-driven personalization significantly enhances learning outcomes and optimizes knowledge management. Strategically, the author identifies five key mechanisms efficiency, cost-effectiveness, personalization, adaptability, and data-driven decision-making that advance HRD interventions.

**Saha (2024)** conducted an analytical and experiential study focusing on the insights of HR professionals in India. Using a organized questionnaire treated via MS Excel, the study sampled 50 HR specialists across IT, industrial, and healthcare sectors. The results indicate that 80% of organizations use AI for talent gaining, while 64% have combined AI to some degree. The paper accomplishes that AI significantly recovers recruitment effectiveness and efficiency, though it suggests that high application costs remain a barrier for slighter firms.

**Madanchian et al. (2023)** showed a systematic literature review using the Scopus database to examine the connection of AI and workforce management. By cleaning 117 papers down to 17 primary studies published between 2018 and 2023, the authors exploited methodological consistency to evaluate statistical indication of AI's impact on recruitment. The study accomplishes that AI-driven tools optimize candidate screening and real-time presentation valuation, though it notes that acceptance rates vary by sector. Deliberately, the paper highlights that while AI grows decision-making efficiency, organizations must tool transparent evaluation outlines to mitigate algorithmic bias.

**Howcroft and Taylor (2023)** applied the "Social Shaping of Technology" (SST) approach to scrutinize automation and the upcoming of work. Their examination is based on how knowledge is shaped by social relatives, gender, and the state. The study accomplishes that AI and machine knowledge does not obviate human activity but will likely work together with human colleagues for the predictable future. Deliberately, the authors contend that digitalization deserves more than insincere attention and must be watched through sociotechnical networks.

**Sinha and Sinha (2023)** analyzed the combination of AI in the Indian banking segment using statistical tackles like the F-Test and Kruskal-Wallis Test. They tested four major Indian banks (SBI, PNB, HDFC, ICICI) to associate performance before and after AI application. The study accomplishes that there is an important positive impact on the remaining profit and overall output of banks after adopting AI. Economically, the authors state that AI has replaced as a "game changer" in terms of income enhancement.

**Noreen et al. (2023)** analyzed the shopper perspective on "Banking 4.0" and AI adoption in Asian countries. The procedure used a survey method with 799 useable responses from Pakistan, China, Saudi Arabia, and Thailand. The study accomplishes that knowledge of AI knowledge and perceived usefulness have a important positive association with adoption

purpose. Financially, the authors note that AI in investment can save USD 416 billion by 2023 by dipping paperwork and printing costs.

**Bujold et al. (2023)** conducted a systematic review concentrating specifically on "Responsible AI" in HRM. They examined 107 empirical studies published among 2004 and 2022 following PRISMA strategies. The study accomplishes that most experiential research relies on new designs rather than real-life surroundings. Strategically, the authors highlight a key gap between conceptual outlines of responsibility and their applied application in AI systems.

**Meijerink and Bondarouk (2023)** analyzed the dichotomy of algorithmic management in HRM. The procedure developed a conceptualization of how AI procedures afford talent organization and workforce planning. The study accomplishes that AI redefines performance management through unceasing feedback loops and complete performance profiles. Deliberately, the research notes that AI tools serve as "connective tissue" among organizations and gifted workers, increasing matching correctness.

**Chilunjika et al. (2022)** explored the chances and challenges of AI in the South African public subdivision through secondary data examination. They decisively selected journal articles and accounts to conduct a thematic content examination on human resource rearrangements. The study accomplishes that AI can meaningfully reduce paperwork and rationalize service delivery in government sections. Financially, the research proposes that implementing AI could assistance reduce hefty public sector salary bills by automating routine managerial tasks and reducing recruitment-related exploitation.

**Palos-Sánchez et al. (2022)** performed a bibliometric examination using the Bibliometrix tool to assess scientific literature on AI in HRM. They designated 73 valid articles from Web of Science and Scopus for thorough analysis. The study accomplishes that the field is in an emerging stage, with most investigation focused narrowly on employment and selection. Strategically, the authors contend that AI application helps improve a company's lowness by reducing labor costs and automating boring tasks.

**Sakka et al. (2022)** assumed a three-pronged overview of AI in HRM, charting AI-assisted decision-making and expected skill sets. The methodology comprised a cost-benefit analysis (CBA) of AI application forms like robotics and machine learning. The study accomplishes that AI increases HRM competence in recruitment and presentation management by minimizing mistake and enhancing productivity. Monetarily, the authors note that though AI requires high original investment, it eventually brands HRM more amenable to strict monetary calculations.

**Bhatt and Muduli (2022)** performed a systematic literature review on AI in knowledge and development. The procedure evaluated 81 screened workings published between 1996 and 2021. The research classifies that AI innovations like usual language processing recover process efficiency and track knowledge progress. The authors accomplish that AI can serve as a toolkit to study and deliberate futures for learning, thus shaping the future of work.

**Thite (2022)** discussed the upcoming of digital HRD and where investigation should head. The research classifies that providing clear clarifications for AI-driven decisions is vital for fostering trust amongst employees. The methodology highlights the need for transparency and justice as non-negotiable components of AI application. The author concludes that organizations necessity stay updated on the developing regulatory landscape nearby AI usage.

**Strohmeier (2022)** providing a conceptual impress of "HR Natural Language Processing" and informal agents. The research classifies that AI digital technologies pretend perception, learning, and reasoning to addition human tasks. The procedure examined the state of the art in chatbots supplementary applicants in the recruitment procedure. The author concludes that AI offers important benefits in reducing humanoid error and improving overall presentation.

**Votto et al. (2021)** performed an widespread systematic literature appraisal to explore AI's role in "Tactical HRM" crossways four major records (EBSCO, AIS, WOS, ABI). Using a two-

phase separation process, they analyzed 33 main studies published from 2014 to 2020 to map strategic HRIS components. The research classifies a significant research gap, noticing that technical, data-driven HRIS mechanisms are overrepresented in works compared to managerial, human-centric ones. The authors accomplish that future research necessity address the "emotional intelligence" void in AI tools to healthier support employee satisfaction and holding.

**Margherita (2021)** systematized research themes and directions for future investigation in human resources analytics. The procedure processed data from expert biographies and performance pasts to create more effective interferences. The study concludes that AI delivers the processing "muscle" to analyze vast datasets, subsequent in more fitting occasions for development. The author highlights that AI should be used as a planned instrument for attractive legitimacy and public appointment.

**Bencsik (2021)** proposed a outline for using AI to forecast future innovation success in information management. The research classifies that AI is transforming KM procedures into new strategic chances for organizations. The procedure suggests that organizations necessity foster cultures that enable human-machine interaction know-how. The author accomplishes that AI is essential for governments seeking a competitive benefit in a digital knowledge economy.

**Rabbani (2021)** lead a systematic literature evaluation on Fintech innovations in Islamic Finance using the PICOC policy. The study recovered relevant articles from databases similar Scopus and Web of Science to inspect the state of art in AI and Blockchain. The investigation concludes that AI increase investments for banks by up to 25% and recovers customer retention through modified products. Strategically, the author contends that AI and automation are unavoidable for Islamic banks to contest with their conventional counterparts.

**Osetskiy et al. (2020)** examined the financial inferences of AI in education using methods like contented analysis and synthesis. The research finds that the market for intelligent education systems is rising rapidly, particularly in the Asia-Pacific area. The study concludes that AI use in education can alleviate social drawbacks via better accessibility and individual cheapness. Financially, the authors highlight that investments in AI packages remain a priority for long-term financial growth.

**Bhardwaj et al. (2020)** conducted an experiential study on the influence of AI on HR functions, focusing on presentation appraisals. The procedure used empirical evidence to demonstration how AI-driven response loops Supplant traditional yearly reviews. The study accomplishes that AI improves the rapidity and accuracy of applicant screening and performance assessment. Strategically, the authors propose that re-skilling the workforce necessity be a high priority for organizations to challenge the transition caused by AI.

**Arner et al. (2020)** examined sustainability, Fintech, and financial enclosure through a theoretical lens. The procedure involved scoping Fintech's character in providing spread and ease for unbanked people. The study accomplishes that Fintech's cost-effective qualities are crucial for overcoming financial prohibiting barriers. Strategically, the investigation emphasizes the need for controlling environments to adapt quickly to uphold global financial stability in an automatic age.

**Pwc (2020)** provided a worldwide report on the actual value of AI for trades and capitalization. The practice evaluated total global savings in AI-based learning companies, attainment over \$1.78 billion for 102 American businesses alone. The report accomplishes that AI can create extra value of up to USD 1 trillion yearly for the banking industry. Deliberately, the report highlights that establishments must focus on output gains and unbiased decision-making to attain high performance.

**Saling and Do (2020)** examine leveraging persons analytics for adaptive aptitude management schemes. The methodology used mechanism learning procedures to identify employee

achievement patterns and suggest modified development plans. The research accomplishes that AI-driven analytics professionally recognize skill gaps and anticipate future training requirements. Strategically, the authors argue that this modified approach significantly improves employee engagement and overall productivity.

**Tewari and Pant (2020)** reviewed how AI is redesigning HRM through data-driven correctness and automation. The procedure synthesized the work of numerous authors to identify key welfares like instant problem determination via chatbots. The study accomplishes that AI enables machines to healthier recognize human working designs and predict behaviors. Deliberately, the authors suggest that AI acceptance leads to strategic drivers of business performance by shortening HR department work.

**Biswas et al. (2019)** consumed a cross-sectional survey design to amount the perceived impact of AI on HR purposes. The study sampled HR specialists and employees, finding that 81% of defendants believe AI advances HR process presentation. The methodology used expressive and inferential statistics to associate AI adoption with worker engagement. The authors accomplish that while AI optimizes monotonous tasks, 100% of contributors still believe human communication is vital for organizational achievement.

**Lusardi (2019)** presented a important address based on cross-country contrasts of financial literacy and knowledge adoption. By the "Big Three" financial literacy queries, the study analyzed facts from over 15 countries. The investigation concludes that digital know-how users, particularly Millennials, often exhibition lower financial literacy notwithstanding high adoption charges of Fintech apps. The author highlights that financial education necessity be a fundamental right and a importance for policymakers to exploit the benefits of AI-driven financial tools.

**Duan et al. (2019)** discussed AI for decision-making in the age of Big Data. The research classifies that machine learning allows processors to function without recursive writings by interpreting inputs straight. The methodology delivers an evolutionary viewpoint on AI's ability to learn from knowledge and adjust to new contributions. The authors conclude that AI is transformative for classifying patterns indicative of abrasion, allowing for proactive interferences.

**Colombo et al. (2019)** explored the connection between automation and services in the labor market. The investigation identifies that AI-powered tools permit HRD professionals to forestall future workforce needs and work trends. The methodology used prognostic analytics to analyze how organizations can acquaint their talent acquisition plans. The authors conclude that while mechanization presents risks, it also generates new strategic chances for organizations to leverage information.

**Guenole and Feinzig (2018)** explored the commercial case for AI in HR through references from the IBM Smarter Workforce Organization. The methodology providing insights into how chatbots validation interviews speed up the overall signing cycle. The study achieves that AI-powered tools saving the HR squad 30-40% of its time. Deliberately, the authors supporter for a "human in the loop" method to fine-tune AI tools for high-stakes choices.

**Manyika et al. (2017)** investigated how AI and mechanization impact employment and output across 60 countries. The procedure performed a meticulous valuation of technological substructures and workforce capabilities. The study concludes that making a conducive environment for AI is an all-inclusive organizational alteration rather than a mere upgrade. Financially, the investigation notes that AI can lead to important cost savings by release up resources for strategic creativities.

**Alalwan (2016)** explored customer acceptance of mobile banking, investigative the role of perceived threat and self-efficacy. The practice utilized structural equation demonstrating to analyze how usefulness and ease of use inspiration adoption intentions. The study accomplishes that perceived risk destructively influences banking intentions, needful banks to build trust.

Deliberately, the research suggests that dispersal awareness is the most effective way to decrease hesitation in technology adoption.

**Houston et al. (2014)** explored the financial inferences of supply chain credit proceedings, specifically how a client's bankruptcy affects its key providers. Using a hand-collected dataset of over 2,000 loan agreements (1990-2009), the methodology associated borrowing costs before and after insolvency. The study finds that regular loan spreads increase by unevenly 20% following a key customer's insolvency. The conclusion highlights that source chain interconnections are vital for decisive debt financing costs and administrative stability.

**Armstrong (2014)** outlined the planned and coherent approach to management in a milestone handbook. The methodology focuses on handling people individually and together to contribute to structural objectives. The book concludes that persons are the most valued possessions of an organization and must be achieved through a coherent agenda. Strategically, this work delivers the foundational definition of HRM that contemporary AI tools seek to optimize.

**Hunt (2011)** examined the change of performance management from paper-based approaches to dynamic online schemes. The research identifies that these new schemes enhance elasticity and user-friendliness in structural settings. The methodology used a model that integrates multilevel elements and worker perceptions. The author accomplishes that AI enables real-time response, sup-planting traditional annual appraisals for better effectiveness.

**Hertz et al. (2008)** examined inter-firm connections and the wealth effects of monetary distress along the source chain. The methodology used five-day gaps surrounding bankruptcy shavings to measure average irregular returns for suppliers. The study discoveries that a portfolio of suppliers involvements an average -1.9% reappearance when a key customer fails. The authors accomplish that these equity value suggestions demonstrate how financial risk is spread throughout the supply chain.

### 3. Problem Statement

Even with rapid adoption of Artificial Intelligence (AI) in Human Resource Management (HRM), current literature remains fragmented and mostly descriptive. Most studies focus whichever on the technical competence of AI-driven HR procedures (e.g., recruitment automation, performance analytics) or on the macro-financial influence of AI in banking and financial facilities. There is limited experiential evidence examining how AI-enabled HRM structures directly influence measurable organizational financial consequences such as Return on Investment (ROI), effectiveness, cost-efficiency, and operating margins. Also, the moderating role of AI in consolidation the relationship between planned HRM practices and financial performance leftovers under-theorized and under-tested. The nonappearance of integrated, data-driven models linking AI, HRM, and financial presentation creates a significant theoretical and experiential gap. Addressing this gap is vital to reposition AI from a technical tool to a strategic financial enabler.

### 4. Research Gap

Analysis of the existing literature reveals that research has continued predominantly segmented, focusing whichever on the technical scopes of AI within HRM or on the comprehensive economic impact of AI in the financial segment. A critical research gap is the plain lack of integrated triadic studies that concurrently evaluate the association between Artificial Intelligence, Human Resource Administration, and Financial Implications inside a single research model. Maximum scholars either measure the practical efficiency of specific HR procedures such as automated employment or personalized training or emphasis on the general macro-financial constancy implications of AI in the banking industry. Though, there is very little concrete, primary data-driven quantitative sign showing how AI-driven HR interferences directly impact precise organizational financial metrics, such as Return on Investment (ROI), net profit enhancement, or operating cost decreases. Finally, this research

gap is maximum profound in the context of the public sector and developing economies. Whereas private sector financial organizations are rapidly mixing AI to maintain a competitive advantage, there is a distinct lack of experiential work linking AI in public sector HRM with following financial savings, such as the deterrence of administrative corruption or the splitting of hefty public sector wage bills. Forthcoming research must prioritize this three-way relationship (AI-HRM-Finance) to start that AI is not merely a tool for making procedures "fast," but is a strategic organizer that creates real, measurable impacts on organizational viability and the bottommost line.

### 5. Research questions

1. Does HRM influence the financial performance of the organization?
2. Does Artificial Intelligence moderate the relationship between Human Resource Management and financial performance of the organization?

### Research objectives

1. To examine the extent to which strategic human resource Management influence the financial performance of the organization.
2. To analyze whether Artificial Intelligence moderate the relationship between HRM practices and organizational financial performance.

### 6. Methodology

#### 6.1 Search Strategy

This study employs a systematic literature review (SLR) methodology to scrutinize the financial implications of artificial intelligence adoption in Human Resource Management (HRM). A structured search approach was established to capture high-quality and appropriate academic literature at the connection of AI, HRM, and financial management. Two extensively recognized academic databases **Scopus** and **Google Scholar** were used to confirm comprehensive coverage of peer-reviewed journals and interdisciplinary research.

The search was conducted using the keywords "*Artificial Intelligence*", "*Human Resource Management*", "*Financial Implications*", "*Cost Efficiency*", "*Return on Investment*", "*Predictive Analytics*", and "*Workforce Optimization*". These keywords were systematically combined using Boolean operators (**AND**, **OR**, **NOT**) to refine relevance. The search was limited to studies published between **2000 and 2025**, reflecting the period of accelerated digital transformation in HR and financial decision-making.

#### 6.2 Study Selection Process

The study selection followed the **Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)** framework to ensure transparency and methodological rigor. The initial database search yielded **120 records**, of which **22 duplicates** were removed. The remaining **98 studies** were screened based on titles and abstracts, resulting in the exclusion of **22 articles** that did not align with the research objectives. Full-text assessment was conducted for **76 articles**; however, **10 studies were inaccessible**, and **16 were excluded due to insufficient focus on AI-driven HRM or financial outcomes**. Ultimately, **50 studies** were retained for final analysis, as they explicitly examined the role of AI in HRM and its implications for cost-efficiency, return on investment, productivity, and strategic decision-making. Only **English-language studies** employing **systematic or narrative review approaches** were included to ensure analytical depth and conceptual clarity. **Figure-2** presents the PRISMA flow diagram illustrating the identification, screening, eligibility, and inclusion stages of the review process.

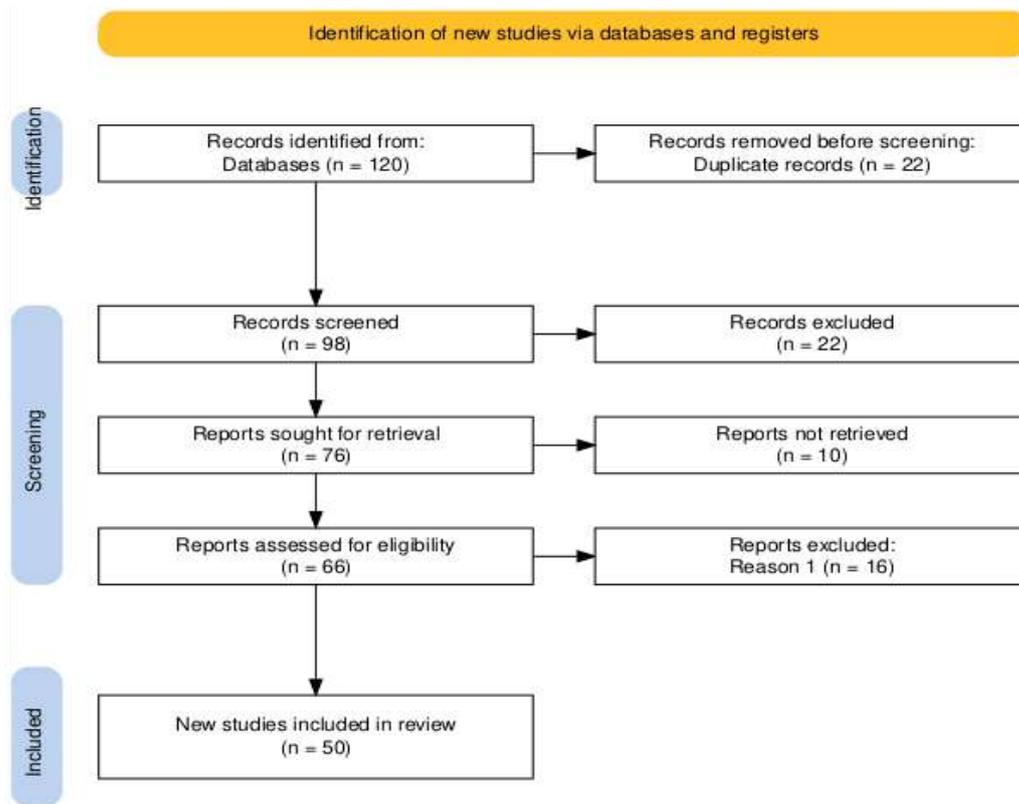


Figure-2

### Data Extraction and Synthesis

Following the final addition of 50 studies, a structured data abstraction process was conducted to safeguard systematic analysis. For each certain article, relevant information was documented, including publication details, research procedure, sectoral context, AI request area within HRM (e.g., recruitment, performance management, learning and development), and stated financial implications such as cost competence, productivity improvement, or return on investment.

The extracted data were consequently synthesized using a thematic method aligned with the purposes of the study. Studies were gathered under key dimensions: AI-driven HR operative efficiency, strategic and theoretical viewpoints, financial performance consequences, and ethical or governance contemplations. This thematic synthesis permitted the identification of recurrent patterns, areas of convergence, and prevailing gaps particularly the limited experiential evidence linking AI-enabled HR performs with measurable organizational financial pointers.

## 7. Discussion

### 7.1 Synthesis of Key Findings

The integration of **Artificial Intelligence (AI)** into **Human Resource Management (HRM)** is essentially reshaping how organizations accomplish their human capital by mechanizing traditional, time-intensive responsibilities. Research conducted by *Madanchian et al. (2023)* specifies that AI tools such as automatic resume parsing and intelligent candidate showing significantly optimize employment processes by reducing human bias and administrative time. Experiential findings from *Saha (2024)* settle this impact, with **82% of HR professionals reporting enhanced recruitment effectiveness** and **80% noticing an increase in decision-making rapidity** following AI adoption. However, *Votto et al. (2021)* highpoint a "glaring gap" in present practices: while technical, data-driven HRIS mechanisms are saturated in literature, **executive, human-centric components** like correction management and employee fulfillment lack sufficient AI integration. From a financial viewpoint, *Kasmuri et al. (2025)*

validate that AI integration acts as a **powerful mediator** that enhances the association between HRM practices and an organization's complete financial performance. Also, *Sakka et al. (2022)* observe that AI-assisted decision-making permits HR practitioners to transition from operational labor to concentrating on value-creating activities like **productivity and presentation enhancement**.

## 7.2 Theoretical and Practical Implications

**7.2.1 Theoretical Implications**-The integration of AI challenges conventional HRM theories, needing **new models that account for the communication between automated technology and human agency**. *Bujold et al. (2023)* augment the theoretical landscape by classifying five key mechanisms for "Responsible AI" in HRM: **prejudice detection, perceived justice, privacy, explainability, and the preservation of the human role** in high-stakes choices. Additionally, *Kasmuri et al. (2025)* propose that theories such as the **Technology Acceptance Model (TAM)** and the **Resource-Based View (RBV)** are vital for measuring how AI becomes a planned asset that influences a firm's modest edge.

**7.2.2 Practical Implications**-For HR experts, AI provides a roadmap for **dropping operational costs and managerial burdens**. In the public sector, *Chilunjika et al. (2022)* contend that AI adoption can possibly **halve hefty wage bills** by mechanizing routine administrative purposes and mitigating recruitment-related dishonesty. *Moharrak and Mogaji (2025)* note that managers must arrange **managerial preparedness** to stability technological invention with the unique supervisory and data privacy tests of the financial sector. *Sakka et al. (2022)* additional emphasize that AI increases employee appointment and trust, provided that organizations grow **new skill sets** geared to human-AI interaction.

## 7.3 Conclusion and Future Directions

**7.3.1 Conclusion**-The combination of AI in HRM has transitioned from a hypothetical concept to a **strategic organizer of organizational growth and financial feasibility**. While AI significantly enhances recruitment and workforce preparation, its sustainable adoption is frequently hampered by **ethical problems, algorithmic bias, and worries over data privacy**. Current research remains split, with a heavy focus on technical tools somewhat than integrated triadic models that syndicate AI, HRM, and precise financial metrics. Ultimately, the union of AI and HR is inevitable, but it must be ruled by **robust ethical frameworks** that arrange transparency and a human-centric approach.

**7.3.2 Future Directions**- Future research must move beyond cross-sectional designs to longitudinal field studies that scrutinize the sustained impact of AI integration on organizational culture, employee well-being, and planned HR transformation. Superior attention must be directed toward geographic disparities, particularly in the Worldwide South, where digital structure gaps may shape AI-HRM acceptance outcomes otherwise (Iancu & Oprea, 2025). Scholars should empirically test the "missing triad" by quantifying how AI-driven HR interferences influence objective financial pointers such as return on investment (ROI), net profit margins, and working cost efficiency. Furthermore, future review should investigate workforce flexibility, algorithmic governance, and the growth of standardized regulatory outlines to ensure transparency, legal obedience, and ethical accountability in automatic HR decision-making (Li, 2025; Gupta, 2024).

## Reference List (APA 7th Edition)

1. Agarwal, A. (2022). AI adoption by human resource management. *Foresight*, 25(1), 67-81.
2. Alalwan, A. A. (2016). Consumer adoption of mobile banking in Jordan. *Journal of Enterprise Information Management*, 29(1), 118-139.
3. Alkashami, M., Abbas, S. I., & Labib, E. (2025). The integration of AI in HRM: Exploring its past, present, and future implications. *Pakistan Journal of Life and Social Sciences*, 23(1), 6732-6747.

4. Armstrong, M. (2014). *Armstrong's handbook of human resource management practice*. Kogan Page.
5. Arner, D. W., Buckley, R. P., Zetsche, D. A., & Veidt, R. (2020). Sustainability, FinTech and financial inclusion. *European Business Organization Law Review*, 21(1), 7-35.
6. Atmadja, A. T., Saputra, K. A. K., Tama, G. M., & Paranoan, S. (2021). Influence of human resources, financial attitudes, and coordination on cooperative financial management. *The Journal of Asian Finance, Economics and Business*, 8(2), 563-570.
7. Bencsik, A. (2021). The sixth generation of knowledge management. *Journal of International Studies*, 14(2), 84-101.
8. Bhardwaj, G., Singh, S. V., & Kumar, V. (2020). An empirical study of artificial intelligence and its impact on human resource functions. In *2020 International Conference on Computation, Automation and Knowledge Management (ICCAKM)* (pp. 47-51). IEEE.
9. Bhatt, P. K., & Muduli, A. (2022). Artificial intelligence in learning and development: A systematic literature review. *European Journal of Training and Development*, 47(7/8), 677-694.
10. Buck, B. R., & Morrow, J. (2018). AI, performance management and engagement. *Strategic HR Review*.
11. Bujold, A., Roberge-Maltais, I., Parent-Rochelleau, X., Boasen, J., Sénécal, S., & Léger, P.-M. (2023). Responsible artificial intelligence in human resources management: A review of the empirical literature. *AI and Ethics*, 4, 1185-1200.
12. Byambaa, O., Yondon, C., Rentsen, E., Darkhijav, B., & Rahman, M. (2025). An empirical examination of the adoption of artificial intelligence in banking services: The case of Mongolia. *Future Business Journal*, 11, 76.
13. Chilunjika, A., Intauno, K., & Chilunjika, S. R. (2022). Artificial intelligence and public sector human resource management in South Africa: Opportunities, challenges and prospects. *SA Journal of Human Resource Management*, 20(0), a1972.
14. Chilunjika, A., Intauno, K., & Chilunjika, S. R. (2022). Artificial intelligence and public sector human resource management in South Africa: Opportunities, challenges and prospects. *SA Journal of Human Resource Management*, 20, 1972.
15. Colombo, E., Mercurio, F., & Mezzanzanica, M. (2019). AI meets labour market. *Information Economics and Policy*, 47(4), 27-37.
16. Darmawati, D., Jaafar, N. I., HS, R., Baja, H. K., Purisamya, A. J., Yolanda, A. M. W., Amir, B., & Juanda, M. R. P. (2025). The role of artificial intelligence in improving the efficiency and accuracy of local government financial reporting: A systematic literature review. *Journal of Risk and Financial Management*, 18(11), 601.
17. Duan, Y., Edwards, J. S., & Dwivedi, Y. K. (2019). AI for decision making in the era of Big Data. *International Journal of Information Management*, 48, 63-71.
18. Ekuma, K. (2024). Artificial intelligence and automation in human resource development: A systematic review. *Human Resource Development Review*, 23(2), 199-229.
19. Fundira, M., Edoun, E. I., & Pradhan, A. (2024). Evaluating end-users' digital competencies and ethical perceptions of AI systems in the context of sustainable digital banking. *Sustainable Development*, 32(5), 4866-4878.
20. Gu, Y. (2024). AI-driven financial and human resource analysis. *Modern Economics & Management Forum*, 5(6).
21. Gu, Y. AI-Driven Financial and Human Resource Analysis: Trends in Future Enterprise Decision-Making Integration.
22. Guenole, N., & Feinzig, S. (2018). The business case for AI in HR. *IBM Smarter Workforce Institute*.

23. Gupta, R. (2024). Impact of artificial intelligence (AI) on human resource management (HRM). *International Journal for Multidisciplinary Research*, 6(1).
24. Hertzfel, M., Li, Z., Officer, M., & Rodgers, K. (2008). Inter-firm linkages and wealth effects. *Journal of Financial Economics*, 87, 374-387.
25. Houston, J. F., Lin, C., & Zhu, Z. (2014). The financial implications of supply chain changes. *SSRN*.
26. Howcroft, D., & Taylor, P. (2023). Automation and the future of work: A social shaping of technology approach. *New Technology, Work and Employment*, 38, 351-370.
27. Hunt, S. T. (2011). Technology is transforming the nature of performance management. *Industrial and Organizational Psychology*, 4(2), 188-189.
28. Iancu, C., & Oprea, S.-V. (2025). AI and human resources in a literature-driven investigation into emerging trends. *IEEE Access*, 13, 3568338.
29. İyem, C., & Erer, B. (2025). Artificial intelligence applications in human resource management. *Uluslararası Yönetim Akademisi Dergisi*, 8(2), 335-343.
30. Kasmuri, F., Zaghlol, A. K., Ahmad, N. N., & Razali, M. Z. M. (2025). The financial implications of artificial intelligence integration in human resource management: A study of Malaysia's manufacturing sector. *International Journal of Innovation and Industrial Revolution*, 7(22), 793-800.
31. Khanna, F., & Rani, N. (2025). AI application in HRM: From recruitment to retention. *Gurugram University Research Journal*.
32. Lusardi, A. (2019). Financial literacy and the need for financial education: Evidence and implications. *Swiss Journal of Economics and Statistics*, 155, 1.
33. Lutfi, L., & Mohammadi, A. (2025). Challenges of implementation artificial intelligence in HRM. *International Journal of Academic Research in Business and Social Sciences*, 15(4).
34. Madanchian, M., Taherdoost, H., & Mohamed, N. (2023). AI-based human resource management tools and techniques; a systematic literature review. *Procedia Computer Science*, 229, 367-377.
35. Manyika, J., et al. (2017). *A future that works: AI, automation, employment, and productivity*. McKinsey Global Institute.
36. Meijerink, J., & Bondarouk, T. (2023). The duality of algorithmic management. *Human Resource Management Review*, 33(1).
37. Mestikou, M. A., et al. (2024). AI and machine learning in financial services. *LEGI Ecole Polytechnique de Tunisie*.
38. Mettrick, G. (2024). The AI handbook for financial services leaders: Tips and tactics for mastering AI in banking and finance. *Journal of Securities Operations & Custody*, 16(3), 286-296.
39. Moharrak, M., & Mogaji, E. (2025). Generative AI in banking: Empirical insights on integration, challenges and opportunities in a regulated industry. *International Journal of Bank Marketing*, 43(4), 871-896.
40. Noreen, U., Shafique, A., Ahmed, Z., & Ashfaq, M. (2023). Banking 4.0: Artificial intelligence (AI) in banking industry & consumer's perspective. *Sustainability*, 15, 3682.
41. Nusair, R. E. (2025). The impact of artificial intelligence on recruitment and employee engagement in human resources. *International Journal of Academic Publishing in Educational Sciences and Humanities (IJAPESH)*, 1(1), 30-42.
42. Osetskyi, V., Vitrenko, A., Tatomyr, I., Bilan, S., & Hirnyk, Y. (2020). Artificial intelligence application in education: Financial implications and prospects. *Financial and Credit Activity: Problems of Theory and Practice*, 2(33), 574-584.
43. Palos-Sánchez, P. R., Baena-Luna, P., Badicu, A., & Infante-Moro, J. C. (2022). Artificial intelligence and human resources management: A bibliometric analysis. *Applied*

*Artificial Intelligence*, 36(1), 2145631.

44. Pasupuleti, R. S., & Thiyyagura, D. (2025). Customers' continuance intention toward AI-driven mobile banking apps. *The IUP Journal of Marketing Management*, 24(1), 55-76.
45. Pwc. (2020). *Sizing the prize: What's the real value of AI for your business*.
46. Rabbani, M. R. (2021). Fintech innovations, scope, challenges, and implications in Islamic Finance: A systematic analysis. *International Journal of Computing and Digital Systems*.
47. Saha, S. (2024). Artificial intelligence in human resource management: Opportunities and challenges. *Emerging Trends in Commerce and Management*, 1, 21-36.
48. Sakka, F., El Maknouzi, M. E., & Sadok, H. (2022). Human resource management in the era of artificial intelligence: Future HR work practices, anticipated skill set, financial and legal implications. *Academy of Strategic Management Journal*, 21(S1), 1-14.
49. Saling, K. C., & Do, M. D. (2020). Leveraging people analytics. *Procedia Computer Science*, 168, 105-111.
50. Sinha, A. B., & Sinha, A. (2023). Blending of AI in financial sector. *Globsyn Management Journal*, 17(1-2).
51. Thite, M. (2022). Digital human resource development. *Human Resource Development International*, 25(1).
52. Van Esch, P., et al. (2019). Marketing AI recruitment. *Computers in Human Behavior*, 90, 215-222.
53. 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, 100047.
54. Zhang, J., & Chen, Z. (2024). Exploring human resource management digital transformation in the digital age. *Journal of the Knowledge Economy*, 15(1), 1482-1498.

