The Future Of Human Resource (HR) With The Advent Of Artificial Intelligence (AI) In The Indian Bearing Industry: A Theoretical Investigation

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Abstract:
Artificial Intelligence (AI) is changing the way HR teams work - helping organizations hire better, support employees more personally, and make smarter decisions. From recruitment and onboarding to learning, talent management, and engagement, AI tools like machine learning and chatbots are making HR faster and more efficient. But while AI brings real benefits - like reducing routine work and offering useful insights - it also raises important questions around ethics, data privacy, and fairness. This review highlights that human oversight is still essential. AI should support, not replace, the human side of HR. In the end, a thoughtful, responsible approach - one that blends technology with empathy and human values - can help HR become more strategic, inclusive, and future-ready. The Rs. 12,000 crore Indian bearing industry is rapidly evolving with AI and Industry 4.0 adoption, driven by rising demand in Automotive, EVs, Industry, railways, and renewables, enhancing both manufacturing and HR efficiency.
KeyWords: Artificial intelligence, HR.

INTRODUCTION:

AI in HR in Indian Bearing Industry

The Indian bearing industry is a vital part of the country's automotive and industrial manufacturing ecosystem, valued at over Rs. 12,000 crores. Major players like SKF India, NRB Bearings, and NEI are adopting Industry 4.0 technologies, including AI, IoT, and robotics. The sector is witnessing steady growth due to rising demand in electric vehicles, railways, and renewable energy. Increasing use of AI in both manufacturing and HR is enhancing productivity, quality, and talent management. The use of technologies like machine learning (ML), predictive analytics, and natural language processing (NLP) to assist in automating and carrying out HR operations that normally call for human judgment is known as artificial intelligence (AI) in HR. AI can be used, for instance, by HR teams and practitioners to generate contracts and policy papers, expedite payroll and benefits administration, and offer employees real-time HR help. Additionally, it helps to lessen bias and enhance the experience for both candidates and workers by facilitating data-driven decision-making for workforce planning, training, and retention. AI has varying benefits and risk levels and can be used at different levels with individuals, the HR department, and the company overall. AI, for instance, can reduce time and enhance quality at a minimal risk on an individual basis. AI enhances current abilities at the team level, working together to enhance workflows and procedures with increasingly complicated but controllable risks. AI facilitates extensive decision-making that affects corporate strategy at the organisation level, but the dangers and stakes are far greater.

AI Types in HR used in Indian Bearing Industry:

AI can be used to do or assist with a variety of activities and comes in a variety of subsets and varieties, each having distinct uses. These are a few of the various forms of AI in HR along with their applications.

• **Generative AI:** Generative AI generates fresh text, image, and video content by utilising massive datasets. By offering insights into intricate data sets, HR professionals may utilise it to produce instructional materials, job descriptions, tailored candidate outreach, and workforce planning support. Perplexity, Copilot, and ChatGPT are popular generative AI tools.

• **Conversational AI**: HR teams may offer immediate, round-the-clock assistance to candidates and employees by utilising chatbots and virtual assistants driven by Natural Language Processing (NLP). By making HR more approachable, these AI technologies may provide personalised learning recommendations, assist staff members with benefits enrolment, respond to enquiries about HR policies, and increase employee engagement.

- **AI speech technology**: To improve overall response times and accessibility, virtual HR assistants such as Grace employ AI voice technology to manage enquiries, provide round-the-clock help, and escalate more critical concerns to a real person.
- **Machine learning**: AI can learn from data and get better over time thanks to machine learning. It can match applicants to positions, forecast which employees may quit, and suggest appropriate pay ranges in HR. To make predictions, such as whether an applicant is a good fit for a position, some machine learning models are trained using specific examples (supervised learning). Others use unsupervised learning, which identifies patterns in massive datasets without previous guidance, to assist HR in identifying trends like the reasons behind greater turnover rates among particular teams.
- **Natural Language Processing (NLP)**: Employee surveys, performance assessments, and even interview transcripts can be analysed by HR professionals using natural language processing (NLP), a sort of artificial intelligence that aids in the interpretation of spoken and written languages. HR professionals can proactively address workplace issues by identifying patterns in employee mood.
- **Automation AI**: This technology assists HR departments in outsourcing time-consuming administrative duties including payroll processing, compliance monitoring, and resume screening. This increases precision and efficiency while lowering the possibility of human error.
- **AI agents**: AI agents are a new class of AI in which self-governing algorithms may act, decide, and handle human resources duties with little assistance from humans. AI agents in HR can plan learning programs, make recommendations for career development possibilities, proactively monitor employee performance, and even assist new hires with the on-boarding process.

AI is being used in practice by HR in Indian Bearing Industries:

- **Hiring and recruiting**: Among the first industries to use AI to enhance procedures were recruiting and recruitment. From sourcing and pre-selection to interviewing and creating equitable compensation, artificial intelligence has since been integrated into many aspects of the hiring process. AI-powered applicant tracking systems (ATS), for instance, can be used to match applicants with job descriptions and scan resumes for essential qualifications.
- **Both onboarding and offboarding**: An outstanding onboarding procedure might result in an 82% boost in retention. AI-driven onboarding solutions may help companies and HR provide their employees a positive experience by ensuring that the necessary documentation is completed, relevant regulations are reviewed, and training sessions are scheduled. For instance, Levity uses AI to assist businesses automate their whole onboarding process. Offboarding is no exception. An AI-powered solution can, for instance, send out emails to revoke an employee's access to various systems, documentation pertaining to the return of company assets, and an exit survey when an employee departs the company. Personalised communication, exit interview scheduling, and notifications are all part of Introist's automated employee offboarding process.
- **Planning for the workforce:** AI can help with workforce planning as well. Massive amounts of people data may be analysed by AI-enabled analytics tools to look for trends, predict attrition, and spot potential talent shortages. Human resources managers may then develop targeted training programs and strong plans for succession to ensure their workforce is ready to meet future company demands. Quinix, for example, has created a forecasting and automation system driven by AI that lets companies analyse millions of data points to anticipate fluctuations in demand and autonomously schedule the exact amount of employees they need.
- **Virtual assistants and HR chatbots**: Chatbots and virtual assistants are two of the most well-known applications of AI in human resources. An HR advisor chatbot may respond to worker enquiries on leave policies and perks at any time of day. These user-friendly solutions may improve a business's overall employee experience in addition to saving HR personnel time when answering commonly asked questions and providing information that is regularly sought. Conversational, AI-powered agents created by DRUID may assist HR teams with a range of duties, such as administrative work, pay & benefits, and hiring and onboarding.
- **Learning and development:** AI is also used in learning and development in a variety of ways. AI, for instance, can make it possible for every employee to have a customised learning experience. AI systems are able to evaluate students' performance and modify the course material to suit their interests and requirements.

Predictive analytics, intelligent tutoring systems, and automated learning content production are more examples. Novoed has developed an artificial intelligence system that can customise team learning. It provides employees with personalised course recommendations based on their individual requirements and interests after analysing the profiles, interests, and activities of learners. Additionally, the tool features AI-powered chatbots that provide learning assistance.

• **AI in human resource analytics**: AI in HR analytics assists companies in identifying critical areas for improvement by gathering and analysing enormous volumes of data regarding staff satisfaction, enthusiasm, turnover, and and culture. This enables companies to manage their workforces more intelligently through data-driven decision-making. For example, by examining performance patterns, sentiment data, and previous departures, AI might assist HR in forecasting turnover. HR can improve its retention strategy by implementing formal mentorship programs or career progression plans if trends show that employees without guidance are more likely to depart. By examining internal pay structures and industry salary data, AI can also assist with compensation benchmarking, ensuring fair and competitive remuneration. In this manner, by providing better compensation packages, HR teams can close pay disparities and increase employee retention.

• **Using AI in talent management**: Through more accurate and data-driven performance tracking, career development, succession planning, and retention tactics, artificial intelligence is enhancing talent management.

AI, for instance, can measure key performance indicators (KPIs) such as reaction times, task completion rates, and peer feedback to give real-time information about an employee's areas of strength and growth. Internal mobility and career advancement are also excellent AI use cases in HR. Based on a person's background and goals, platforms like as Gloat and Eightfold AI suggest internal job openings, mentorship pairs, or upskilling courses. This aids HR in matching workers with chances for advancement that complement their individual professional aspirations and the demands of the business. HR departments can discover potential leaders, track performance with real-time data, personalise career development, and proactively address retention issues by incorporating AI into personnel management. This results in a workforce that is more engaged and strategically managed.

• **AI-powered tutoring**: AI-based coaching is a technology-assisted coaching method that gives employees individualised feedback, direction, and growth support through the use of artificial intelligence. AI-supported coaching makes use of AI-driven tools that give the real-life coach information to enhance the mentoring connection and AI-based tests to evaluate knowledge and abilities. As a result, coaching sessions are of higher quality and the coach is more effective. By allowing coaches to use AI-based tools in between sessions with a human coach, AI-augmented coaching encourages continued growth, provides ongoing coaching, and makes the coaching process more scalable than traditional methods. Coaches who use the AI-as-the-coach approach communicate with AI exclusively; they rarely or never interact with a human coach. This procedure increases the scalability and accessibility of coaching.

• **AI for corporate collaboration in HR**: HR practitioners will be able to successfully match HR goals with the business's strategic objectives as generative AI develops. Though AI has mostly been used to automate routine HR operations, its potential to help more intricate, strategic HR functions goes far beyond simple automation.
HR professionals must acquire the analytical and digital skills necessary to decipher AI-driven insights and incorporate them into business discussions if they want to optimise AI's impact. While AI improves decision-making, human resources (HR) is still essential to making sure that plans are people-centered and in line with company objectives. When AI is used effectively, HR can transform into a true business partner, directly influencing workforce initiatives that lead to success.

Examples of AI in Human Resources in India bearing Industry:
AI is already being used in HR within the Indian bearing industry, particularly among major players like NRB Bearings and SKF India. Here's the current picture:

National Engineering Industries (NBC/NEI):
• Integrates IoT sensors and AI-driven analytics to enable real-time performance monitoring, predictive maintenance, and enhanced manufacturing efficiency.

NRB Bearings Ltd:
• Publicly reported exploration of AI/ML in HR processes like CV screening and candidate matching. AI aids in predicting fit and reducing bias in hiring.

• Their internal systems leverage AI to create meritocratic recruitment, streamlining and standardizing application reviews.

SKF India:
• While SKF primarily emphasizes AI in manufacturing, there is evident HR transformation:
o Their CHRO highlights a "Future Workforce" strategy focused on reskilling, talent acquisition, and internal mobility.
o Independent analysis recommends that "SKF A" (a reference to SKF's HR function) can benefit from AI in recruitment, candidate-job matching, and performance prediction.
o Globally, SKF is building AI Centers of Excellence that support generative AI and operational AI solutions, hinting at broader enterprise use, including HR.

REVIEW OF LITERATURE

• **Shahiduzzaman M. 2025**. The digital maturity of human resource management (HRM) is one of the most significant variables affecting an organization's success in the present digital era. This study aims to contribute to the little amount of research on the "digital maturity" of HRM by emphasising new topics and success criteria for HRM in the digital era. Relying on data from 190 journal publications from 2017 to 2024, this analysis identifies three key concepts that shape contemporary HRM: (3) COVID-19 Adaptive Human Resource Management; (2) Digital Transformation and Competition; and (3) Innovation and Performance Management. These findings show how HR digital maturity has several facets, from promoting innovation and crisis management to placing a strong emphasis on people and technology. HR strategy and governance; talent management, diversity, and safety; employee adoption and competencies; stakeholder engagement and conflict resolution; and the capabilities of HR practitioners are some of the topics that must be taken into account in order to raise HR's level of digital maturity. In order to support organisational adaptation to digital transformation and to capitalise on the benefits of new technologies to promote innovation and long-term success, strategic investment in these pillars is crucial in the post-COVID era.

• **Gupta R 2024,** One of the main factors influencing modern workplaces is the integration of artificial intelligence (AI) with human resource management (HRM). From its fundamental ideas to its real-world applications, benefits, drawbacks, ethical issues, legal repercussions, projected trends, and practical suggestions, this article thoroughly investigates AI's impact on HRM. After providing an overview, The paper explores the intricate dimensions of AI in HRM, elucidating its many components and potential. It extensively examines AI's specific roles in hiring, training, performance management, and employee engagement while highlighting the technology's transformative potential. The several benefits AI provides are also covered in the paper. HRM, including process optimisation, better decision-making, and increased employee engagement, in contrast to the inherent drawbacks, which include biases, algorithmic transparency issues, data integrity, and privacy concerns. In addressing the ethical and legal aspects of AI in HRM, the article emphasises how important it is to integrate and govern AI responsibly. Additionally, it forecasts future developments in AI and provides strategic advice for businesses negotiating this dynamic environment. The study concludes by highlighting AI's significant influence on HRM procedures and workplace dynamics and arguing for moral, open, and human-centered approaches to its implementation

• **Rana T, 2023.** The use of artificial intelligence (AI) in HRM's many activities and the ongoing discussion about the predicted loss in the usability of human resources in businesses are covered in this article. As AI becomes more prevalent in businesses, human resources professionals are constantly afraid of being supplanted by robots, computers, or smart business devices. The study aims to clarify importance of artificial intelligence (AI) in enhancing organisational decision-making and to promote greater acceptance and integration of AI in the HRM division. Even if a lot of scholars are interested in the combination of AI and HRM, there are still a lot of unexplored aspects in the subject. By emphasising HRM's complementary role in the efficient use of AI, the current study adds to the body of literature and advocates for a collaborative approach. Given their mutual reliance, organisations should prioritise integrating AI as a supplementary tool for HR rather than replacing HR's function. The smart business machinery and business systems should be set up such that HR contributions are necessary for them to produce outcomes.

- **Ganatra J N, Pandya D J, 2023.** This review research looks at the substantial impacts of artificial intelligence (AI) on HR practices and employee experience. Due to the rapid advancement of AI technology, organisations are rapidly integrating AI-driven solutions into a variety of HR functions. This article looks closely at the current state of AI adoption in HR and how it affects employee engagement, performance management, training, and hiring. In the context of the full employee experience, it also looks into how AI impacts job happiness, wellbeing, and work-life balance. The evaluation emphasises the benefits, challenges, and ethical quandaries associated with integrating AI into HR practices. Finally, recommendations and future directions are provided for companies and human resources professionals trying to navigate the evolving landscape of artificial intelligence in the workplace.

- **Vishwanath B, Vaddepalli S, 2023**. A new era in the workplace has begun with the incorporation of Artificial Intelligence (AI) into Human Resources (HR) practices. This study aims that how AI-driven advancements are changing employee engagement, talent management, recruiting, and the HR function as a whole. It addresses the ethical dilemmas and worries that come with this significant shift while also looking at AI's potential to reduce bias, boost productivity, and improve HR decision-making. It is impossible to overstate how crucial AI and machine learning (ML) are becoming to changing HR procedures. A favourable atmosphere for innovative AI solutions has been established by the emergence of "Big Data" and the Internet of Things (IoT). Businesses are using AI more and more to automate HR tasks. Therefore, by enabling HR professionals to base their judgements on reliable data patterns rather than hypotheses, AI has the potential to lessen the administrative load on them. This discussion delves into the advantages, challenges, and future directions of AI integration in HR. Using AI and machine learning is essential for accurate decision-making and efficient personnel administration. In order to deal with these challenges, HR personnel must get over their concerns. In order to guide businesses towards a future where artificial intelligence and human intelligence coexist in the workplace, this paper attempts to give a thorough understanding of the developing HR landscape in the era of AI.

- **Sadok H, et al, 2022**. This study looks at the integration of artificial intelligence (AI) into the human resource management (HRM) function in three different ways. The prospective benefits of AI-assisted decision-making is mapped out in the first prong of the research. This will undoubtedly free up human resources (HR) staff from repetitive tasks so they can focus more selectively on strategic ones. The second pillar is on how human resources are changing in the commercial world. Because AI may help organisations shift from an anticipatory to a proactive approach to problem-solving, HR departments will unavoidably become centres for strategic decision-making. The third pillar summarises the legal concerns pertaining to regulatory policy and anti-discrimination considerations, as well as the financial impacts of adopting AI (because cost-benefit analysis is being employed more and more in decision-making). AI has a great deal of promise for improving organisational performance, but only if it is implemented accurately. Employing the appropriate individuals, retraining HR staff to act as effective mediators between human stakeholders and machine-generated evaluations, and putting in place an internal transparency policy are all necessary to ensure AI doesn't become a tool of control but rather fosters dedication and trust in the workplace.

- **Kumandang C, et al, 2022**. Improving human resources (HR) procedures is essential to promoting organisational excellence in the quickly changing field of artificial intelligence (AI). This qualitative study aims to explore the ways in which AI and HR practices work together to enhance organisational performance. In-depth interviews with HR specialists, AI specialists, and organisational executives are conducted as part of the study's qualitative approach. Two sampling techniques that ensure a variety of perspectives are documented are purposeful and snowball sampling. Finding general trends in qualitative evidence is made feasible by the data analysis technique known as thematic analysis. Preliminary data indicates that companies are increasingly using AI to increase talent acquisition, foster employee engagement, and expedite HR processes. The report also emphasises the significance of ethical concerns and human oversight in AI-driven HR practices. This report adds to the expanding conversation around AI integration in HR and offers guidance to businesses looking to manage the AI-driven environment while promoting HR excellence.

- **Susilo Y K 2022**. A game-changing trend that is transforming workforce management and strategic upskilling techniques is the incorporation of artificial intelligence (AI) into human resource management (HRM). The research landscape of AI in HRM is examined in this bibliometric analysis, with an emphasis on implementation trends, opportunities, and obstacles. To find important themes, authors, journals,

and geographic contributions, 160 articles published between 2020 and 2024 were examined using VOS viewer and data from Scopus. According to the findings, advancements in AI technology and their applications in workforce analytics, performance management, and recruiting are driving an increase in research output, with a notable spike in 2024. Even though the United States leads the world in research contributions, the worldwide distribution emphasises the topic's international and multidisciplinary character. Concerns about upskilling HR staff and tackling moral dilemmas like algorithmic prejudice and data privacy remain paramount. This article provides helpful advice for researchers and practitioners navigating the implementation of AI in HRM, fostering innovation and addressing workforce concerns in a data-driven, inclusive, and ethical manner.

• **Singh A, Shaurya A, 2021**. Information technology and societal trends are forcing organisations to update and reinvent themselves. The use of AI technologies is growing in popularity as a result. This study aims to analyse and explore the ways in which Artificial Intelligence (AI) impacts Human Resources (HR) practices in UAE businesses using a mixed-method approach. Using a mixed-method approach, the study issues were examined and tested. Surveys and semi-structured interviews were conducted for each research design. AI and HR employees were approached as sample participants for this study. A thematic approach and partial least squares path modelling, or PLS-SEM, were used to examine the data. Positive and significant outcomes were shown by the planned training and development process (0.231→0.021), tactical performance evaluation and AI integration (0.719→0.000), and AI and effective HR practices integration (0.204→0.131). The integration of AI and efficient HR practices is negatively moderated by ease of use, which has a minimal effect. Artificial intelligence is essential for HR operations as they move into the digital world. Some businesses and skill sets must participate in training and development initiatives due to the increasing usage of technology.

• **Dr. Rathi R, 2018.** The fact that artificial intelligence, or AI, is set to penetrate every sector of the economy—including finance, healthcare, law, education, logistics, and human resources—is no longer shocking. Since the advent of technology a decade ago, the role of human resources has experienced significant changes. Advanced data-driven technology is rapidly making its way into the HR industry as businesses place a greater emphasis on creating a corporate culture that is focused on its employees. HRM practices are significantly impacted by the contemporary technical ideas of machine learning (ML) and artificial intelligence (AI). The Internet of Things' (IoT) growth and the collection of "Big Data" have made it possible to develop new AI services and applications in the perfect environment.AI is becoming more and more common in businesses today to assist with HR tasks since it may reduce the administrative burden on HR workers and help them make choices based on data patterns rather than just intuition. The article's primary subjects include the application of AI in HR, its advantages, challenges associated with deployment, and potential future prospects. AI and ML are two essential technology advancements that must be applied to support perfect decision-making and effective people administration. To overcome the obstacles, HR personnel should be urged to lessen their worries.

Research Gap:
After reviewing the literature, it has been found that AI adoption in the Indian bearing industry is still in its early stages, with only limited work being done. This paper identifies small-scale AI implementations primarily in National Engineering Industries (NBC/NEI), NRB Bearings Ltd., and SKF India.

CONCLUSION:
AI is gradually transforming HR functions in the Indian bearing industry, with early adoption seen in companies like National Engineering Industries (NBC/NEI), NRB Bearings, and SKF India. These organizations are leveraging AI for recruitment, workforce planning, and employee development, signalling a shift toward data-driven, efficient, and strategic HR practices. While AI enhances productivity and employee experience, its success depends on ethical implementation, human oversight, and continuous upskilling of HR professionals. AI is not a replacement for human input but a powerful tool to complement and elevate HR's role in driving business success.