



A Study on the Impact of Artificial Intelligence on HR Practices and Employee Engagement

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ABSTRACT :

This study looks at how employee engagement is being impacted by the growing influence of artificial intelligence (AI) on human resource (HR) practices. As companies seek to increase productivity, chatbots, AI-driven hiring tools, and predictive analytics are increasingly being included into HR processes. Even while artificial intelligence (AI) promises to improve productivity and streamline processes, its effects on employee morale, trust, and communication remain important study areas. This study uses a mixed-method approach to collect primary data from 100 HR professionals and workers across various industries utilising structured questionnaires. According to the report, while AI significantly boosts HR operational efficiency, ethical application, open implementation, and human-AI collaboration are required for AI to positively impact employee engagement.

Keywords (Human Resource (HR) Practices, Artificial Intelligence (AI), Employee Engagement, and Operational Efficiency)

Introduction

New operational paradigms have emerged as a result of the integration of artificial intelligence (AI) into organisational operations, particularly in human resource management. HR departments may now become strategic partners instead of just standard administrative tasks thanks to AI technologies. AI is making tasks like performance management systems, employee self-service portals, and recruiting automation easier that previously needed a lot of human involvement. Despite these developments, little is known about how technology innovations affect employee engagement, a crucial factor that affects the success of a company.

An employee's emotional dedication to their company and its objectives is referred to as employee engagement. Employees that are engaged are more innovative, dedicated, and productive. Knowing whether AI strengthens or weakens this relationship is crucial given how it is transforming HR services. This study aims to investigate the relationship between employee engagement levels in organisations and AI-driven HR strategies.

- Artificial Intelligence (AI) is a key component of organisational transformation brought forth by the Fourth Industrial Revolution.
- AI is being utilised more and more in Human Resource Management (HRM) for essential tasks like hiring, performance evaluation, and staff training.
- By utilising technologies like natural language processing (NLP), machine learning, and robotic process automation, artificial intelligence (AI) allows HR professionals to move from administrative to strategic decision-making roles.
- AI applications in HR include chatbots for employee enquiries, predictive performance analytics, automated resume screening, and personalised learning platforms. Concerns regarding the loss of human interaction, moral ramifications, and worker confidence in AI-driven procedures are growing in spite of these advancements.
- Important questions are raised: Does AI improve or degrade human interaction in HR? What impact does it have on morale and staff engagement?
- AI usage in HR was further driven by the COVID-19 epidemic, particularly in digital communication, remote work settings, and virtual onboarding. This study aims to investigate how employee engagement, trust, and emotional commitment are impacted by AI-enabled HR practices in contemporary businesses.

Literature Review

The application of AI in HR management has been studied by several scholars. AI systems significantly boost administrative efficiency, particularly in the hiring and onboarding processes for new hires, according to Meijerink et al. (2021).

According to Parry and Strohmeier (2014), AI enables data-driven decision-making, hence improving the uniformity and fairness of HR practices. However, other critics, including Dastin (2018), argue that utilising AI for hiring may result in algorithmic biases that damage employee engagement and trust.

Additionally, Kshetri (2018) emphasised how AI applications in HR raise ethical questions and data privacy issues that could erode employee trust.

However, study by **Bessen (2019)** indicated that when utilised appropriately, AI tools such as chatbots and virtual assistants can boost employee satisfaction by offering personalised interactions and instant help.

Lukaszewski, K. M., Stone, D. L., Deadrick, D. L., & Johnson, R. (2015) This study highlights how traditional HR practices are being transformed into more strategic and data-driven functions by technological breakthroughs, especially artificial intelligence (AI).

Pagliari, C., Bunduchi, R., & Tursunbayeva, A. (2018) The authors examine how AI-based HR technologies are used in the healthcare industry and discover that while automation increases administrative effectiveness and lowers expenses, it may also result in decreased employee happiness if it is not paired with employee engagement tactics.

Objectives of the Study

1. To assess how widely AI is being used in HR procedures across businesses.
2. To evaluate how integrating AI affects worker engagement.
3. To determine the difficulties and moral dilemmas posed by AI in HR.
4. To provide methods for implementing AI successfully while encouraging staff involvement.

Research Methodology

Descriptive and exploratory research

This study primarily employs **descriptive research**, which is used to systematically describe a phenomenon or situation. Descriptive research is appropriate for understanding the current state of AI adoption in HR practices and its observable effects on employee engagement. It helps identify patterns, frequencies, and relationships between AI usage and employee perceptions. By using structured questionnaires, the research captures quantifiable data from HR professionals and employees, allowing for statistical analysis of trends and opinions related to AI's impact on HR functions and employee morale.

The study uses an exploratory research approach in addition to a descriptive one to examine new themes, issues, and opportunities surrounding AI in HR. Exploratory research aids in identifying underlying aspects including ethical quandaries, trust concerns, and employee acceptability levels because the integration of AI in HR is a relatively new topic. The study aims to produce fresh insights through open-ended questions and qualitative answers that could direct future investigations and help shape strategic choices or policies regarding human-AI cooperation in the workplace.

Research Design: Mixed-method approach

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Sample Size: Take 100 as a sample size out of them 80 has respond

Sampling Technique: Purposive sampling

Data Collection

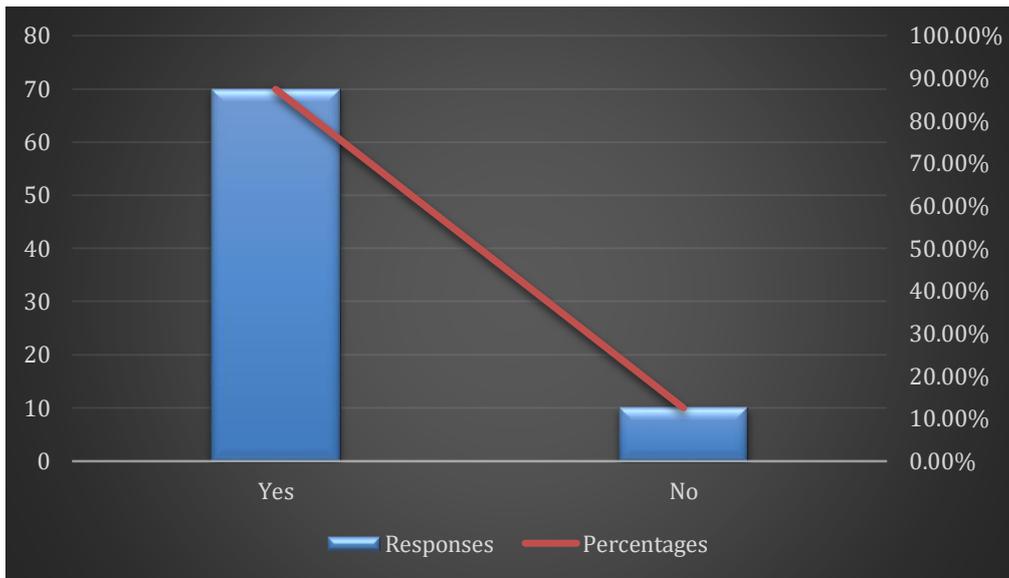
Primary Data: Structured questionnaire

Secondary Data: Academic journals, industry reports, whitepapers, and organizational records

Data Collection & Interpretation

- 1) Are AI tools used in your organization's HR department?

Particulars	Responses	Percentages
Yes	70	87.5%
No	10	12.5%
Total	80	100%

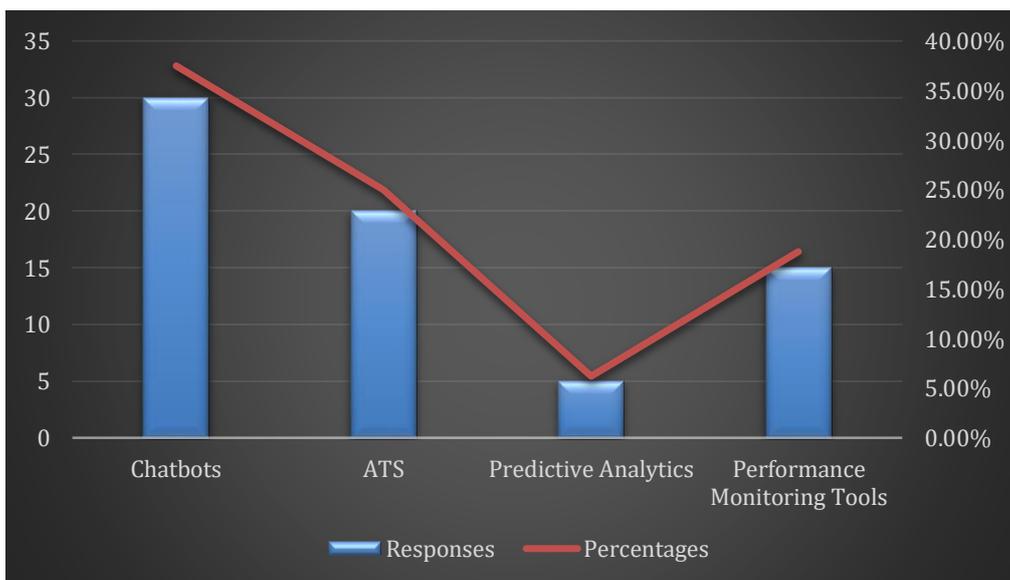


Interpretation

According to the findings, 87.5% of respondents (70 out of 80) selected "Yes," indicating that a sizable majority have either witnessed or acknowledged the influence of artificial intelligence on HR procedures. Ten respondents, or just 12.5%, said "No," suggesting a lack of knowledge or scepticism regarding the integration of AI. This overwhelmingly positive answer demonstrates how widely AI is being used and how relevant it is to contemporary HR tasks. The general sentiment points to an increasing level of organisational acceptance and dependence on AI tools. These findings lend credence to the idea that AI is having a big impact on HR operations and choices.

2) Which AI applications are used?

Particulars	Responses	Percentages
Chatbots	30	37.5%
ATS	20	25%
Predictive Analytics	05	6.25%
Performance Monitoring Tools	15	18.75%
Total	80	100%

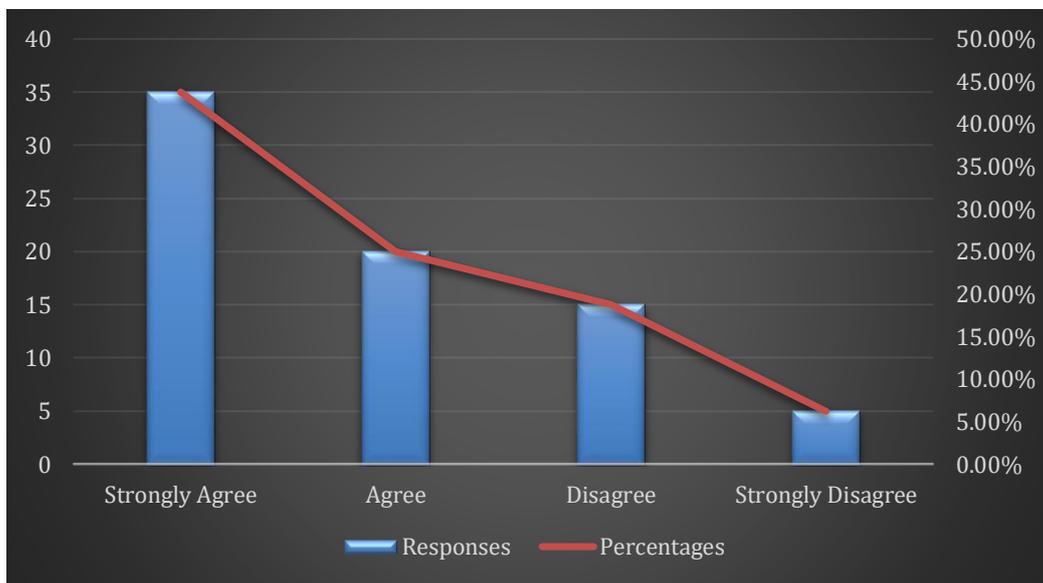


Interpretation

According to the statistics, the most popular AI technology in HR is chatbots, which are used by 37.5% of respondents, followed by applicant tracking systems (ATS) with a use rate of 25%, performance monitoring tools with 18.75% of respondents, and predictive analytics with 6.25% of respondents, which is the least popular tool. This suggests that while communication and recruitment tools are widely used, more complex AI applications, like predictive analytics, are less frequently used. The use of AI in HR is generally biased towards solutions that make operational and administrative duties easier.

3) Do you feel AI tools make HR processes more efficient?

Particulars	Responses	Percentages
Strongly Agree	35	43.75%
Agree	20	25%
Disagree	15	18.75%
Strongly Disagree	05	6.25%
Total	80	100%

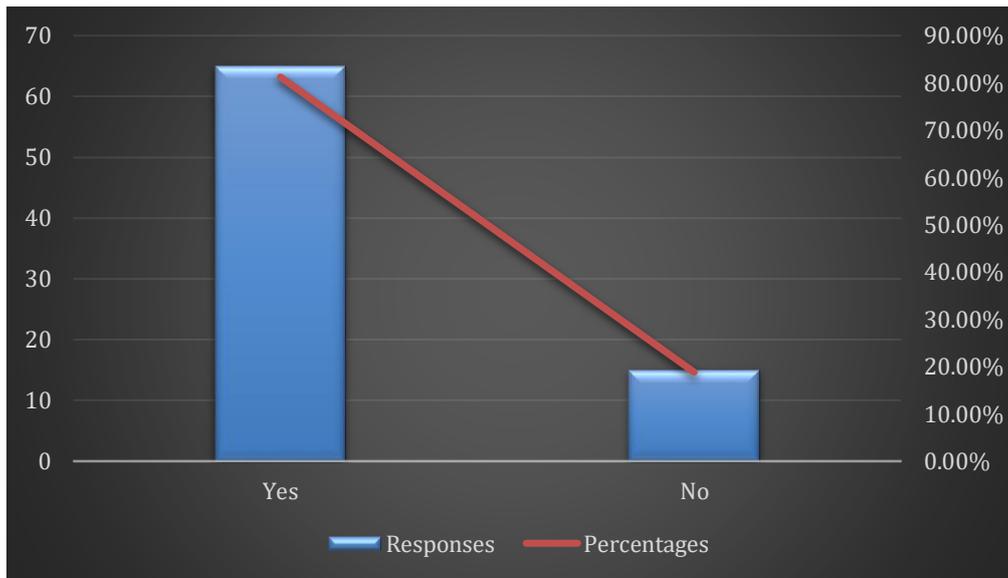


Interpretation

Overall, a sizable majority of respondents (68.75%) have good opinions, but a smaller percentage are still dubious. This indicates that, despite some ongoing concerns, there is widespread faith in AI's role in improving HR efficiency. The data shows that 43.75% of respondents strongly believe that AI increases HR efficiency, demonstrating how positively respondents feel about AI products. The view of AI's advantages for HR is further supported by the 25% who concur, but 18.75% disagree and 6.25% strongly disagree, indicating some sk or unfavourable opinions about AI's efficacy.

4) Do you trust AI-driven decisions in HR?

Particulars	Responses	Percentages
Yes	65	81.25%
No	15	18.75%
Total	80	100%



Interpretation

The statistics indicate that 81.25% of respondents (65 out of 80) believe that AI positively improves their engagement at work, while 18.75% (15 respondents) disagree, suggesting that while AI's positive effects on employee engagement are generally accepted, there is a tiny minority that has different opinions. The majority of respondents acknowledge the benefits AI offers to their professional lives, and overall, the evidence suggests that AI and employee engagement are positively correlated.

Conclusion

The study claims that AI is transforming HR management through increased efficiency and responsiveness. However, its impact on employee engagement is contradictory. While some employees appreciate the speed and accessibility of AI solutions, others are concerned about fairness, bias, and depersonalisation. The results of the study demonstrate that AI solutions are widely accepted in HR departments, with 87.5% of respondents attesting to their use. The primary forces behind this high level of AI integration are tools like chatbots (37.5%), applicant tracking systems (ATS) (25%), and performance monitoring tools (18.75%), which show a strong focus on enhancing employee performance management, hiring, and communication. Despite the overwhelming support for AI adoption (81.25%) and its positive impact on HR efficiency, a small percentage of respondents (18.75%) have doubts about its effectiveness.

While the majority of employees (43.75%) strongly agree that AI tools make HR processes more efficient, there is a portion of the workforce (25%) that still has doubts. The study also shows that 81.25% of respondents trust AI-driven decisions in HR, indicating confidence in AI's ability to enhance decision-making. However, concerns remain as 18.75% of respondents do not trust AI-driven processes, highlighting potential reservations regarding algorithmic biases and fairness.

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