

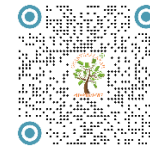
Original Article

ROLE OF ARTIFICIAL INTELLIGENCE IN TRANSFORMING EMPLOYEE ENGAGEMENT AND DECISION-MAKING IN HUMAN RESOURCE MANAGEMENT

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ABSTRACT

Artificial Intelligence is rapidly changing the nature of Human Resource Management by making employee-related decisions more data-driven, timely, and analytical. Earlier HR practices mainly depended on manual records, supervisor judgment, employee surveys, and periodic review systems. In the present digital workplace, AI-supported tools are being used to understand employee engagement, predict dissatisfaction, analyse employee feedback, recommend learning opportunities, identify workplace concerns, and support managerial decision-making. The present paper examines the role of Artificial Intelligence in transforming employee engagement and decision-making in Human Resource Management. A descriptive cum analytical survey design was adopted for the study. A sample of 120 HR professionals, team leaders, and employees working in selected private-sector organizations was selected through purposive sampling. Data were collected with the help of a self-constructed structured questionnaire covering three areas: AI-supported employee engagement, AI-based HR decision-making, and organizational challenges in AI implementation. The reliability of the tool was found to be 0.85 through Cronbach's alpha. Frequency, percentage, mean, and chi-square test were used for analysis. The findings revealed that AI contributes to employee engagement through real-time feedback systems, personalized learning suggestions, employee sentiment analysis, digital communication platforms, recognition tools, and predictive identification of disengagement. In HR decision-making, AI supports workforce planning, employee retention decisions, learning and development decisions, internal mobility, grievance analysis, and policy planning. However, the study also found important challenges such as data privacy concerns, employee fear of monitoring, lack of emotional understanding in AI systems, algorithmic bias, low trust, and overdependence on technology. The chi-square test confirmed a significant association between AI-supported engagement practices and perceived improvement in employee engagement. It also confirmed a significant association between AI-based analytics and effectiveness of HR decision-making. The paper concludes that AI can transform employee engagement and HR decision-making only when it is implemented with transparency, ethical safeguards, human supervision, and employee trust.

Keywords: Artificial Intelligence, Employee Engagement, HR Decision-Making, Human Resource Management, HR Analytics, Employee Experience, Predictive Analytics, Digital HR, Organizational Challenges, AI Ethics

INTRODUCTION

Human Resource Management has entered a new phase where technology is no longer limited to administrative support. In earlier organizations, HR departments mainly performed functions such as maintaining employee records, processing salaries, managing attendance, handling recruitment files, and preparing appraisal documents. These functions were important, but they

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were largely routine and reactive. In the modern workplace, HR is expected to play a strategic role in employee engagement, organizational culture, workforce planning, decision-making, leadership support, and employee experience.

Artificial Intelligence has become one of the strongest tools in this transformation. AI refers to computer-based systems that can analyse data, identify patterns, make predictions, provide recommendations, and support decision-making. In HRM, AI is used through HR analytics dashboards, employee sentiment analysis tools, chatbots, recommendation systems, predictive retention models, automated feedback platforms, and digital engagement systems. These tools help HR managers understand employees more deeply and make timely decisions.

Employee engagement is one of the most important concerns of modern organizations. It refers to the emotional, psychological, and behavioural connection of employees with their work and organization. Engaged employees show commitment, energy, responsibility, creativity, and willingness to contribute beyond minimum job requirements. Disengaged employees, on the other hand, may remain physically present but mentally disconnected from the organization. They may show low motivation, reduced productivity, weak participation, and higher intention to leave.

Traditional methods of measuring employee engagement were mostly based on annual surveys, supervisor observations, suggestion boxes, and occasional feedback meetings. These methods were useful but limited. They often captured employee feelings after problems had already developed. In contrast, AI-supported systems can collect and analyse employee feedback more frequently. They can identify trends in employee mood, communication behaviour, learning participation, absenteeism, grievance patterns, and work-related concerns. This helps organizations move from reactive engagement management to proactive engagement planning.

AI is also changing HR decision-making. Traditional HR decisions often depended on experience, intuition, hierarchy, and incomplete information. While human experience remains valuable, decision-making based only on personal judgment can be affected by bias, delay, and inconsistency. AI-based HR analytics can support managers by providing evidence from employee data. For example, AI can help identify which employees may need training, which departments may face higher attrition, which engagement practices are working, and which policies need revision.

In the area of employee engagement, AI can support continuous listening. Instead of waiting for annual surveys, organizations can use pulse surveys, employee mood analytics, chatbot conversations, feedback portals, and communication analysis to understand employee experience. AI can classify employee responses, detect repeated concerns, and alert HR teams about dissatisfaction, stress, or disengagement. However, this also raises concerns because employees may feel that their behaviour is being constantly watched.

Decision-making in HR is sensitive because it affects people's work life, growth, dignity, and future. AI may help HR managers make faster and more systematic decisions, but it cannot fully understand emotions, family situations, workplace relationships, informal pressures, or personal struggles. Therefore, AI-based HR decisions must always include human review. The present paper focuses on these two connected areas: employee engagement and HR decision-making. The central argument of the paper is that AI can make HR more analytical and responsive, but it should not make HR less human. Employee engagement depends on trust, communication, fairness, recognition, and belonging. These elements cannot be created by technology alone.

REVIEW OF LITERATURE

[Davenport and Ronanki \(2018\)](#) explained that Artificial Intelligence is useful in organizations because it can automate routine work, generate insights from data, and support decision-making. Their study is important because it shows that AI should be used not only for automation but also for better managerial intelligence.

[Tambe et al. \(2019\)](#) examined Artificial Intelligence in Human Resource Management and highlighted both its possibilities and limitations. They argued that AI can improve HR decisions only when data quality is strong and when managers understand the limits of algorithmic recommendations. Their work is relevant for the present study because employee engagement and HR decision-making both depend on accurate and meaningful data.

[Strohmeier \(2020\)](#) discussed digital HRM and explained that technology has changed the structure and delivery of HR practices. According to him, digital HR systems allow organizations to collect employee data, manage HR services, and support strategic decisions more effectively. This study provides a base for understanding AI-supported employee engagement systems.

[Malik et al. \(2020\)](#) examined AI-enabled HRM and employee experience. They found that AI tools can help organizations provide individualized employee services, reduce HR cost, and improve employee interaction with HR systems. Their study is useful because employee engagement improves when employees receive timely support and personalized responses.

[Ore and Sposato \(2021\)](#) studied the opportunities and risks of AI in HR practices. They observed that AI can reduce routine workload and improve analysis, but it cannot replace emotional intelligence, empathy, and human understanding. This is highly relevant because employee engagement is not only a technical issue but also an emotional and relational issue.

[Budhwar et al. \(2022\)](#) reviewed the role of AI in HRM and noted that AI can influence employee experience, workforce planning, performance analysis, and HR decision-making. They emphasized that organizations must develop ethical frameworks to prevent unfairness and protect employee dignity.

[Vrontis et al. \(2022\)](#) conducted a systematic review of Artificial Intelligence, robotics, advanced technologies, and HRM. Their study showed that AI is transforming HR functions by making them more analytical and strategic. They also highlighted the need for future research on employee outcomes, organizational readiness, and responsible AI use.

[Murugesan et al. \(2023\)](#) studied the impact of AI on HRM and found that AI is used in recruitment, onboarding, employee engagement, performance management, and decision-making. Their study indicated that AI can improve organizational agility when combined with leadership support and digital readiness.

[Chen \(2023\)](#) examined ethics and discrimination in AI-enabled HR practices. The study found that AI systems may create unfair outcomes if they are trained on biased data or if their decisions are not transparent. This study is useful for understanding the risks of AI-based decision-making in HR.

[Kelan \(2024\)](#) discussed algorithmic inclusion in the workplace and argued that organizations must actively design AI systems for equality. According to the study, AI cannot be assumed to be automatically neutral. This is important for HR decision-making because decisions related to development, promotion, retention, and engagement can affect different employee groups differently.

[Úbeda-García et al. \(2025\)](#) conducted a bibliometric analysis of AI and HRM research and identified strategic themes such as automation, predictive analysis, and personalization of employee experience. Their study shows that employee experience has become a major research area within AI-HRM.

[Sony \(2025\)](#) analysed bias in AI-driven HRM systems and observed that algorithmic discrimination can affect recruitment, HR analytics, and career advancement. This study is important because AI-based HR decision-making can influence employee growth, recognition, and future opportunities.

[Soleimani \(2025\)](#) studied bias reduction in AI recruitment and selection systems. Although the study focused on recruitment, its findings are also relevant to employee decision-making because bias can enter any AI system through historical data, model design, or human interpretation.

[Noordeen \(2026\)](#) examined AI in human resource decision-making and reported that AI can improve decision accuracy, reduce administrative workload, and provide data-driven insights. At the same time, the study identified algorithmic bias, lack of transparency, privacy concerns, and erosion of human judgment as important risks.

[Safshekan \(2026\)](#) studied AI in HRM systems and confirmed that AI is being used across HR functions such as recruitment, training, performance management, compensation, retention, and employee engagement. This study supports the idea that AI is becoming a broad HR transformation tool rather than a narrow automation device.

RESEARCH GAP

The review of literature shows that Artificial Intelligence has been widely discussed in relation to recruitment, performance management, automation, and HR analytics. However, many studies discuss AI in HRM in a general way, while fewer studies focus specifically on the role of AI in employee engagement. Employee engagement is not only about productivity; it includes belongingness, motivation, recognition, trust, communication, emotional connection, and workplace satisfaction. Therefore, a focused study on AI-supported employee engagement is needed. [Dubey \(2024\)](#)

Existing research often discusses AI decision-making in terms of efficiency and accuracy, but less attention is given to how HR professionals perceive AI-supported decisions in real organizational settings. HR decision-making involves sensitive matters such as retention, training, grievance handling, internal mobility, promotion support, and policy planning. These areas require both data and human judgment. [Tsai and Wang \(2024\)](#)

Most studies highlight the benefits of AI but do not equally examine employee-related challenges such as privacy concerns, fear of surveillance, lack of trust, reduced human interaction, and emotional limitations of AI systems. These challenges are especially important in employee engagement because engagement cannot be improved through technology alone. The present study has been planned to address these gaps by examining the role of AI in transforming employee engagement and HR decision-making, along with the opportunities and organizational challenges involved. [Prabhuraj \(2025\)](#)

SIGNIFICANCE OF THE STUDY

The present study is significant for HR professionals, managers, employees, researchers, and policy makers. For HR professionals, the study provides an understanding of how AI can be used to improve engagement practices through real-time feedback, sentiment analysis, personalized learning suggestions, recognition platforms, and predictive alerts.

For managers, the study explains how AI can support better decision-making by providing timely employee data, identifying engagement gaps, predicting attrition risk, and suggesting suitable HR interventions. For employees, the study highlights the need for transparent and ethical AI use. Since AI-based HR systems may collect and analyse employee data, employees must be protected from unfair monitoring, privacy violation, and biased decisions.

For organizational leaders, the study shows that AI adoption in HR is not only a technological change but also a cultural change. Successful implementation requires communication, trust, training, and ethical governance. For researchers, the study contributes to the academic discussion on AI-enabled HRM by connecting employee engagement with decision-making effectiveness. For policy makers, the study points towards the need for clear guidelines on AI use in HR decisions, especially in relation to privacy, fairness, accountability, and employee rights.

OBJECTIVES OF THE STUDY

- 1) To examine the role of Artificial Intelligence in improving employee engagement practices in Human Resource Management.
- 2) To analyse the contribution of Artificial Intelligence in HR decision-making.
- 3) To identify the major AI-supported tools and practices used for employee engagement.
- 4) To examine the perceived benefits of AI in HR decision-making.
- 5) To identify the organizational challenges related to AI-based employee engagement and decision-making.
- 6) To study the association between AI-supported engagement practices and perceived improvement in employee engagement.
- 7) To study the association between AI-based HR analytics and perceived effectiveness of HR decision-making.

HYPOTHESES OF THE STUDY

H1: There is a significant association between AI-supported engagement practices and perceived improvement in employee engagement.

H2: There is a significant association between AI-based HR analytics and effectiveness of HR decision-making.

H3: There is a significant association between employee trust in AI systems and acceptance of AI-based HR practices.

METHODOLOGY

RESEARCH DESIGN

A descriptive cum analytical survey design was adopted for the present study. The descriptive part was used to describe the use of AI in employee engagement and HR decision-making. The analytical part was used to test the association between AI-supported practices and perceived improvement in HR outcomes.

POPULATION OF THE STUDY

The population of the study consisted of HR professionals, team leaders, managers, and employees working in selected private-sector organizations where digital HR systems, AI-supported HR tools, or HR analytics platforms were being used either fully or partially.

SAMPLE AND SAMPLING TECHNIQUE

The total sample size of the study was 120 respondents. The sample included 45 HR professionals, 35 team leaders or managers, and 40 employees from selected organizations. A purposive sampling technique was used because the study required respondents who had exposure to digital HR practices or AI-supported engagement systems.

The respondents were selected from organizations belonging to information technology, banking and financial services, education technology, consulting, manufacturing, and service-sector industries. These sectors were selected because they are more likely to use digital HR platforms, employee feedback systems, and HR analytics dashboards.

OPERATIONAL DEFINITIONS OF KEY TERMS

Artificial Intelligence refers to computer-based systems that analyse employee data, identify patterns, generate insights, and support HR decisions. Employee engagement refers to the emotional, psychological, and behavioural involvement of employees in their work and organization. HR decision-making refers to decisions related to employee development, retention, training, internal mobility, engagement planning, grievance handling, and workforce policy.

AI-supported engagement practices refer to AI-based tools and systems used for pulse surveys, sentiment analysis, employee feedback, chatbot support, recognition, learning recommendations, and disengagement prediction. AI-based HR analytics refers to the use of data and intelligent systems to support HR decisions by analysing employee trends, risks, performance patterns, engagement levels, and workforce needs. Employee trust in AI refers to the belief that AI-based HR systems are fair, transparent, secure, and used for employee development rather than unfair monitoring.

TOOL USED

A self-constructed structured questionnaire was prepared by the researcher. The questionnaire consisted of four parts: personal and organizational information, AI in employee engagement, AI in HR decision-making, and challenges and trust factors.

Part A included designation, years of experience, type of organization, level of exposure to AI tools, and use of digital HR platforms. Part B included items related to pulse surveys, sentiment analysis, employee feedback, digital recognition, chatbot-based HR support, personalized learning suggestions, and employee experience platforms. Part C included items related to workforce planning, retention decisions, training needs identification, internal mobility, grievance analysis, employee development, and policy decisions. Part D included items related to data privacy, fear of surveillance, lack of transparency, algorithmic bias, low trust, overdependence on technology, and need for human supervision.

The responses were collected on a five-point Likert scale ranging from Strongly Agree to Strongly Disagree. The questionnaire was reviewed by five experts from HRM, management, and information technology. Their suggestions were incorporated. The tool was pilot tested on 20 respondents who were not included in the final sample. The Cronbach's alpha value of the tool was found to be 0.85, which indicates acceptable reliability.

PROCEDURE OF DATA COLLECTION

Data were collected through online and offline modes. HR professionals, managers, and employees were contacted through professional networks and organizational references. The purpose of the study was explained in simple language. Respondents were informed that the study was only for academic purposes and that their identity would remain confidential.

A total of 138 responses were received. After checking completeness and consistency, 120 responses were selected for final analysis. Data collection took approximately six weeks. The responses were coded and entered into a spreadsheet for statistical analysis.

ETHICAL CONSIDERATIONS

Ethical care was taken during the study. Participation was voluntary. Respondents were not forced to answer any question. No personal name, employee ID, organization name, phone number, or confidential workplace information was collected. The data were used only for academic purposes. Anonymity and confidentiality were maintained. Respondents were informed that they could withdraw from the study at any stage.

Since the study dealt with employee perceptions, special care was taken to avoid any question that could directly expose the respondent's organization or manager. The study followed the broad ethical principles of informed consent, privacy, confidentiality, and academic honesty.

STATISTICAL TECHNIQUES

After data collection, the responses were coded and analysed. Frequency, percentage, and mean were used for descriptive analysis. The chi-square test of independence was used to test the hypotheses. The level of significance was fixed at 0.05.

ANALYSIS AND INTERPRETATION OF DATA

The findings of the study are presented in four parts. First, the use of AI-supported employee engagement practices is shown. Second, the role of AI in HR decision-making is presented. Third, the organizational challenges are shown. Fourth, chi-square test results are presented for testing the hypotheses.

Table 1

Table 1 Use of AI-Supported Employee Engagement Practices (N = 120)			
S. No.	AI-Supported Employee Engagement Practice	Frequency	Percentage
1	Pulse surveys and real-time feedback systems	94	78.33%
2	Employee sentiment analysis	82	68.33%
3	AI chatbot for HR support	76	63.33%
4	Personalized learning recommendations	72	60.00%
5	Digital recognition and reward suggestions	68	56.67%
6	Prediction of disengagement or attrition risk	64	53.33%

7	Employee wellness and stress alerts	58	48.33%
8	AI-based analysis of grievance trends	54	45.00%

Interpretation of Table 1.

Table 1 shows the use of AI-supported employee engagement practices among selected organizations. The most commonly reported practice was pulse surveys and real-time feedback systems, reported by 78.33% of respondents. This shows that organizations are increasingly moving away from only annual engagement surveys and are adopting continuous feedback systems. Employee sentiment analysis was reported by 68.33% of respondents. This indicates that AI is being used to analyse employee responses, comments, and feedback patterns. Sentiment analysis helps HR departments understand whether employees are satisfied, dissatisfied, stressed, confused, or disconnected.

AI chatbot support was reported by 63.33% of respondents. This shows that organizations are using digital assistants to answer employee queries related to leave, policies, payroll, benefits, and HR procedures. Chatbots can improve engagement by providing quick responses and reducing dependency on manual HR communication. Personalized learning recommendations were reported by 60% of respondents. Such personalization can improve engagement because employees feel that the organization is investing in their growth. Overall, Table 1 shows that AI is becoming an important tool for continuous listening, personalized support, and proactive engagement planning.

Table 2

Table 2 Role of AI in HR Decision-Making (N = 120)			
S. No.	Area of HR Decision-Making Supported by AI	Frequency	Percentage
1	Identification of training and development needs	88	73.33%
2	Employee retention and attrition prediction	84	70.00%
3	Workforce planning and manpower allocation	78	65.00%
4	Internal mobility and career path suggestions	72	60.00%
5	Engagement strategy planning	70	58.33%
6	Grievance pattern analysis	62	51.67%
7	HR policy review and revision	58	48.33%
8	Leadership development decision support	54	45.00%

Interpretation of Table 2.

Table 2 presents the role of AI in HR decision-making. The most reported area was identification of training and development needs, reported by 73.33% of respondents. This shows that AI is useful in analysing skill gaps and recommending learning interventions. Employee retention and attrition prediction was reported by 70% of respondents. AI can analyse patterns related to attendance, engagement scores, feedback, career movement, workload, and performance to identify possible retention risks. However, such predictions must be handled carefully because employees should not be labelled unfairly.

Workforce planning and manpower allocation were reported by 65% of respondents. Internal mobility and career path suggestions were reported by 60%, indicating that AI can help match employee skills with internal opportunities. Engagement strategy planning was reported by 58.33% of respondents, while grievance pattern analysis was reported by 51.67%. Overall, Table 2 indicates that AI supports HR decision-making by providing timely data and predictive insights.

Table 3

Table 3 Perceived Benefits of AI in Employee Engagement and HR Decision-Making (N = 120)			
S. No.	Perceived Benefit	Frequency	Percentage
1	Faster identification of employee concerns	96	80.00%
2	Better understanding of employee feedback	90	75.00%
3	Timely HR decision-making	86	71.67%
4	Personalized employee development support	82	68.33%
5	Improved retention planning	78	65.00%
6	More evidence-based HR policies	72	60.00%

7	Reduction in repetitive HR workload	70	58.33%
8	Improved employee communication support	66	55.00%

Interpretation of Table 3.

Table 3 shows the perceived benefits of AI in employee engagement and HR decision-making. The most reported benefit was faster identification of employee concerns, reported by 80% of respondents. This indicates that AI helps HR departments detect problems earlier through feedback analysis, pulse surveys, grievance data, and engagement scores. Better understanding of employee feedback was reported by 75% of respondents. Traditional feedback methods often produce large amounts of unstructured comments that are difficult to analyse manually. AI can group responses, identify common themes, and highlight repeated concerns.

Timely HR decision-making was reported by 71.67% of respondents. Personalized employee development support was reported by 68.33%, showing that AI can improve learning and development by recommending suitable courses, mentors, or career paths. Improved retention planning was reported by 65% of respondents. The table shows that AI's biggest contribution is not merely automation. Its real value lies in early identification, better understanding, timely action, and personalized support.

Table 4

Table 4 Organizational Challenges in AI-Based Engagement and Decision-Making (N = 120)			
S. No.	Organizational Challenge	Frequency	Percentage
1	Data privacy concerns among employees	88	73.33%
2	Fear of continuous monitoring or surveillance	82	68.33%
3	Lack of transparency in AI-based decisions	80	66.67%
4	Limited emotional understanding of AI systems	76	63.33%
5	Risk of algorithmic bias	72	60.00%
6	Low employee trust in AI recommendations	68	56.67%
7	Lack of AI skills among HR professionals	64	53.33%
8	Overdependence on technology in people decisions	60	50.00%

Interpretation of Table 4.

Table 4 presents the major organizational challenges in AI-based employee engagement and HR decision-making. The most reported challenge was data privacy concerns among employees, reported by 73.33% of respondents. This is a serious issue because AI-supported engagement systems often collect employee feedback, behavioural data, communication patterns, and performance-related information. If employees are not sure how their data will be used, they may avoid honest feedback.

Fear of continuous monitoring or surveillance was reported by 68.33% of respondents. Lack of transparency in AI-based decisions was reported by 66.67%. Limited emotional understanding of AI systems was reported by 63.33% of respondents. AI may detect patterns, but it may not fully understand personal stress, family problems, workplace relationships, emotional fatigue, or silent dissatisfaction. Overall, Table 4 shows that the challenges of AI in HR are not only technical. They are ethical, emotional, psychological, and organizational.

Table 5

Table 5 Chi-Square Test for the Hypotheses (N = 120)					
S. No.	Variables Compared	Chi-Square Value	df	p-value	Result
1	AI-supported engagement practices x Improvement in employee engagement	22.36	6	0.001	Significant
2	AI-based HR analytics x Effectiveness of HR decision-making	19.72	6	0.003	Significant
3	Employee trust in AI systems x Acceptance of AI-based HR practices	24.18	8	0.002	Significant

Interpretation of Table 5.

Table 5 presents the chi-square test results for the three hypotheses. For Hypothesis 1, the chi-square value is 22.36 with 6 degrees of freedom and a p-value of 0.001. Since the p-value is below 0.05, the result is significant. Therefore, Hypothesis 1 is

accepted. This means that there is a significant association between AI-supported engagement practices and perceived improvement in employee engagement.

For Hypothesis 2, the chi-square value is 19.72 with 6 degrees of freedom and a p-value of 0.003. Since the p-value is below 0.05, the result is significant. Therefore, Hypothesis 2 is accepted. This indicates that AI-based HR analytics is significantly associated with effectiveness of HR decision-making. For Hypothesis 3, the chi-square value is 24.18 with 8 degrees of freedom and a p-value of 0.002. Since the p-value is below 0.05, the result is significant. Therefore, Hypothesis 3 is accepted. This shows that employee trust in AI systems is significantly associated with acceptance of AI-based HR practices.

DISCUSSION

The findings of the present study show that AI is becoming a useful tool for employee engagement and HR decision-making. The highest use of AI-supported engagement practices was found in pulse surveys and real-time feedback systems. This indicates that organizations are moving towards continuous listening. Earlier, employee engagement was measured once or twice a year through lengthy surveys. This approach often failed to capture immediate employee concerns. AI-supported systems allow HR teams to collect feedback more frequently and identify emerging issues before they become serious.

Employee sentiment analysis also emerged as an important AI-supported practice. This finding suggests that organizations want to understand not only what employees say, but also the tone and emotion behind their responses. AI can classify large volumes of employee comments into categories such as satisfaction, dissatisfaction, confusion, stress, or concern. This helps HR departments identify common issues across teams and locations.

AI chatbots were also found to be useful in employee engagement. Chatbots can answer routine HR questions quickly and reduce delays. Employees may feel more supported when they receive immediate answers about leave, benefits, payroll, or policy matters. However, chatbot support should not replace human HR interaction in sensitive matters such as harassment, conflict, mental stress, grievance, or career insecurity.

The findings also show that AI supports personalized learning and development. Personalized learning recommendations can improve engagement because employees feel that the organization is paying attention to their growth. When employees receive training suggestions based on their role, skills, and career path, they may feel more valued and motivated.

In HR decision-making, AI was most commonly used for identifying training needs and predicting retention risks. This shows that AI is useful in developmental and planning-related decisions. AI can help HR managers understand which employees need upskilling, which teams are facing disengagement, and where retention efforts should be focused. This can make HR decisions more timely and evidence-based.

However, the study also reveals that AI in HR creates serious concerns. Data privacy was the strongest challenge. Employee engagement data is sensitive because it may include opinions about managers, workplace stress, dissatisfaction, personal concerns, and emotional responses. If employees fear that such data may be used against them, they may stop giving honest feedback. Therefore, privacy protection is necessary for genuine engagement.

Fear of surveillance was another major challenge. This finding is important because engagement cannot grow in an atmosphere of fear. If employees believe that AI is constantly watching them, they may become defensive rather than engaged. Engagement requires psychological safety, not only digital measurement.

The limited emotional understanding of AI systems is also a major issue. AI may identify patterns, but it cannot fully understand the emotional meaning behind every behaviour. For example, a decline in communication may be interpreted as disengagement, but it may actually be due to workload, health issues, family responsibility, or temporary stress. Human managers are needed to interpret AI signals with empathy.

The study also found a significant association between employee trust and acceptance of AI-based HR practices. This is one of the most important findings. It shows that technology will not succeed only because it is advanced. Employees must believe that AI is being used fairly and transparently. If employees trust the system, they are more likely to participate in feedback platforms and accept AI-supported HR decisions.

Overall, the discussion shows that AI should be seen as an engagement-support and decision-support tool. It should not become a substitute for leadership, empathy, communication, and human responsibility. HRM is fundamentally about people. Therefore, AI must be used in a way that strengthens human connection rather than weakens it.

CONCLUSION

The present study examined the role of Artificial Intelligence in transforming employee engagement and decision-making in Human Resource Management. The findings show that AI has significant potential to improve HR practices by making them more responsive, analytical, personalized, and evidence-based.

In the area of employee engagement, AI helps organizations through pulse surveys, real-time feedback systems, sentiment analysis, chatbot support, personalized learning recommendations, digital recognition, disengagement prediction, and grievance trend analysis. These tools help HR departments understand employee concerns more quickly and design timely interventions.

In the area of HR decision-making, AI supports training and development decisions, retention planning, workforce allocation, internal mobility, engagement strategy, grievance analysis, policy review, and leadership development. AI-based HR analytics helps managers move from assumption-based decisions to data-supported decisions.

The statistical analysis confirmed that AI-supported engagement practices are significantly associated with perceived improvement in employee engagement. It also confirmed that AI-based HR analytics is significantly associated with effectiveness of HR decision-making. Further, employee trust in AI systems was found to be significantly associated with acceptance of AI-based HR practices.

However, the study also found important challenges. These include data privacy concerns, fear of surveillance, lack of transparency, limited emotional understanding of AI, algorithmic bias, low employee trust, lack of AI skills among HR professionals, and overdependence on technology. These challenges show that AI implementation in HR must be handled carefully.

The main conclusion of the study is that AI can transform employee engagement and HR decision-making only when it is used responsibly. AI should support HR professionals, not replace them. Human judgment, empathy, fairness, and ethical responsibility must remain central. Organizations should use AI to listen better, decide better, and support employees better. They should not use AI merely to monitor, control, or classify employees. Therefore, the future of HRM should not be fully automated HR. It should be human-centred digital HR, where Artificial Intelligence and human intelligence work together.

MANAGERIAL IMPLICATIONS

- 1) AI should be used for continuous listening. Managers should use AI-supported pulse surveys and feedback systems to understand employee concerns regularly.
- 2) Employee engagement should not become employee surveillance. AI should be used to support employees, not to create fear or excessive monitoring.
- 3) HR decisions should combine data and empathy. AI can provide insights, but final decisions should include human judgment and emotional understanding.
- 4) Employee data privacy must be protected. Organizations should clearly explain what data is collected, why it is collected, and how it will be used.
- 5) AI systems should be transparent. Employees should be informed when AI is used in engagement analysis or HR decision-making.
- 6) HR professionals need AI literacy. HR staff should be trained in HR analytics, data interpretation, ethical AI, and bias awareness.
- 7) AI should support personalized development. Organizations should use AI to recommend learning, mentoring, and career-growth opportunities.
- 8) Trust-building is essential. Employees will accept AI-based HR systems only when they believe that the systems are fair, secure, and development-oriented.
- 9) Human review should be compulsory. No sensitive HR decision should be made only by AI without human review.
- 10) AI governance policy should be developed. Organizations should create written guidelines for responsible AI use in HR.

SUGGESTIONS

- 1) Organizations should introduce AI in employee engagement gradually and transparently.
- 2) Employees should be informed about the purpose and limits of AI-based engagement tools.
- 3) AI should be used to identify employee concerns early, not to punish employees.
- 4) Organizations should conduct regular audits of AI systems to check bias and unfair outcomes.
- 5) HR departments should ensure that sensitive employee feedback remains confidential.
- 6) AI chatbots should be used for routine HR queries, but human support should remain available for sensitive issues.
- 7) AI-based engagement data should be discussed with managers in a constructive way.
- 8) Employees should be given the right to question or appeal AI-supported HR decisions.
- 9) Organizations should create employee-friendly dashboards that show development opportunities rather than only performance gaps.

- 10) Future researchers may conduct comparative studies between organizations using AI-supported engagement systems and organizations using traditional engagement methods.
- 11) Larger studies may be conducted across public and private-sector organizations.
- 12) Future studies may include employee interviews to understand emotional reactions to AI-based HR systems.

LIMITATIONS OF THE STUDY

The present study has some limitations. The sample was limited to 120 respondents from selected private-sector organizations. Therefore, the findings cannot be generalized to all organizations. The study was based on perceptions of HR professionals, managers, and employees, so responses may be influenced by individual experience, organizational culture, or level of exposure to AI systems.

The study focused mainly on employee engagement and HR decision-making. It did not examine all HR functions such as compensation, industrial relations, employee welfare, statutory compliance, and labour relations in detail. The study used a cross-sectional design, which captured responses at one point in time. Future studies may use longitudinal designs to understand how AI-supported engagement and decision-making change over time.

Another limitation is that the study did not compare different AI platforms or software tools. It focused on general AI-supported practices rather than specific vendor-based systems. Despite these limitations, the study provides useful insights into the role of AI in transforming employee engagement and HR decision-making.

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