

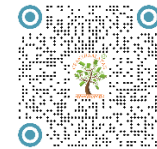
Original Article

ARTIFICIAL INTELLIGENCE IN TALENT ACQUISITION AND EMPLOYEE PERFORMANCE MANAGEMENT: EMERGING OPPORTUNITIES AND ORGANIZATIONAL CHALLENGES

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ABSTRACT

Artificial Intelligence has become one of the most important technological forces reshaping modern Human Resource Management. Among different HR functions, talent acquisition and employee performance management are two areas where AI-based tools are being used widely for screening applications, shortlisting candidates, scheduling interviews, analysing skill gaps, predicting employee potential, monitoring performance indicators, and supporting managerial decision-making. The present paper examines the role of Artificial Intelligence in talent acquisition and employee performance management with special reference to emerging opportunities and organizational challenges. A descriptive cum analytical survey design was adopted for the study. A sample of 120 HR professionals and managers working in selected private-sector organizations was taken through purposive sampling. Data were collected with the help of a self-constructed structured questionnaire covering three areas: AI adoption in recruitment, AI use in performance management, and organizational challenges related to AI implementation. The reliability of the tool was found to be 0.84 through Cronbach's alpha. Frequency, percentage, mean, and chi-square test were used for analysis. The findings revealed that the major opportunities of AI in talent acquisition were faster resume screening, reduction in manual workload, better candidate matching, improved recruitment planning, and data-based hiring decisions. In the area of performance management, AI helped in continuous feedback, identification of training needs, performance prediction, and objective tracking of employee contribution. At the same time, the major challenges were algorithmic bias, lack of transparency, data privacy concerns, high implementation cost, limited technical knowledge among HR staff, and employee fear regarding surveillance. The chi-square test confirmed a significant association between AI adoption and perceived improvement in talent acquisition, and also between AI-based performance management and perceived decision-making effectiveness. The paper concludes that AI can strengthen HR practices only when it is used as a supportive tool with human judgment, ethical governance, transparency, and employee trust.

Keywords: Artificial Intelligence, Talent Acquisition, Performance Management, Human Resource Management, Recruitment, HR Analytics, Algorithmic Bias, Organizational Challenges, Employee Performance

INTRODUCTION

Human Resource Management has always played a central role in the success of organizations because people are the most active and strategic resource of any institution. Earlier, HR practices were mostly administrative in nature and focused on recruitment records, salary processing, attendance, leave management, and basic employee welfare. With the growth of digital technology, the role of HR has shifted from traditional personnel management to strategic human capital management. In the present time, Artificial Intelligence has further changed the way organizations attract, select, develop, evaluate, and retain employees.

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Artificial Intelligence generally refers to the ability of computer systems to perform tasks that normally require human intelligence, such as learning, reasoning, prediction, decision support, language processing, and pattern recognition. In HRM, AI is used through tools such as machine learning, natural language processing, predictive analytics, automated screening systems, chatbots, digital assessment platforms, and performance analytics dashboards. These tools help HR departments to process large amounts of data quickly and support decisions that were earlier based mainly on manual judgment.

Talent acquisition is one of the most important areas where AI has shown visible influence. In large organizations, one vacancy may receive hundreds or even thousands of applications. Manual screening of all applications becomes time-consuming and may also involve unconscious human bias. AI-based recruitment tools can scan resumes, match candidates with job descriptions, rank applicants according to required skills, schedule interviews, and even conduct preliminary chatbot-based interactions. Research on AI-enabled HRM shows that AI is increasingly being applied in recruitment, hiring, training, performance management, compensation, and employee retention.

Employee performance management is another area where AI is transforming HR practices. Traditional performance appraisal usually takes place annually or half-yearly and often depends on the opinion of one supervisor. This may create problems such as recency effect, personal bias, lack of continuous feedback, and weak linkage between performance and development. AI-supported performance management systems can track performance indicators continuously, analyse work patterns, identify skill gaps, suggest training needs, and help managers take more informed decisions. AI-powered systems are also being used for employee engagement, onboarding, workforce planning, and decision support in HR.

However, the adoption of AI in HR is not free from challenges. HR decisions directly affect people's employment, income, career growth, dignity, and workplace identity. Therefore, the use of AI in recruitment and performance management raises serious questions of fairness, transparency, accountability, privacy, and ethics. If an AI system is trained on biased historical data, it may reproduce discrimination in hiring or promotion decisions. Studies on AI-enabled recruitment have pointed out that while AI can improve efficiency and recruitment quality, it can also create algorithmic discrimination on the basis of gender, race, personality traits, or other indirect indicators.

The issue becomes more serious because many AI systems work as black boxes. HR managers, applicants, and employees may not fully understand how a particular score, ranking, or recommendation has been generated. This lack of explainability may reduce trust and increase resistance among employees. In this situation, responsible use of AI becomes necessary for maintaining fairness and credibility in HR practices.

In the Indian organizational context, AI adoption in HR is growing steadily, especially in IT, banking, consulting, e-commerce, education technology, manufacturing, and service-sector organizations. Yet many organizations are still at the early stage of AI integration. Some companies use AI only for resume screening or interview scheduling, while others have moved towards AI-based analytics, performance dashboards, and workforce planning. Therefore, it becomes important to study both the opportunities and challenges of AI in talent acquisition and employee performance management.

The present paper attempts to examine how AI is influencing these two major HR functions. The paper focuses not only on the benefits of AI but also on the organizational challenges that may arise during its implementation. The study is useful for HR professionals, management researchers, policy makers, and organizational leaders who wish to adopt AI in a responsible, fair, and employee-centred manner.

REVIEW OF LITERATURE

The studies discussed in this section have been arranged from broader AI-HRM literature to specific studies related to recruitment, talent acquisition, employee performance management, and ethical challenges.

[Bersin \(2018\)](#) observed that digital transformation has changed the traditional role of HR departments. According to him, HR technology has shifted from record-keeping systems to intelligent platforms that support recruitment, learning, employee engagement, and workforce planning. This study is useful in understanding the background of AI adoption in HRM.

[Upadhyay and Khandelwal \(2018\)](#) examined the application of Artificial Intelligence in recruitment and selection. They found that AI-based recruitment tools can reduce time-to-hire, improve candidate sourcing, and make the initial screening process more efficient. However, they also warned that organizations must maintain transparency and fairness in AI-supported selection.

[Tambe et al. \(2019\)](#) discussed the role of AI and data analytics in Human Resource Management. They argued that AI can improve HR decision-making only when the quality of data is strong and the organizational context is properly understood. They also noted that HR data are often complex and sensitive because they are connected with human behaviour and employment outcomes.

[Black and van Esch \(2020\)](#) studied AI-enabled recruitment and found that candidates' trust in AI-based hiring systems depends on perceived fairness, transparency, and communication. The study showed that applicants may accept AI screening if they believe the system is objective and if the organization explains how the process works.

[Ore and Sposato \(2021\)](#) examined AI adoption in HR and found that many organizations use AI for repetitive tasks such as resume scanning, chatbot communication, and employee-data analysis. Their study suggested that AI helps HR professionals save time, but it cannot replace emotional intelligence, empathy, and contextual judgment.

[Vrontis et al. \(2022\)](#) reviewed the relationship between Artificial Intelligence, HRM, and digital transformation. The authors highlighted that AI can support strategic HR activities such as workforce planning, employee development, and performance analysis. At the same time, they pointed out the need for ethical governance and digital capability-building among HR professionals.

[Budhwar et al. \(2022\)](#) studied the implications of AI for HRM and employee experience. Their work emphasized that AI should be aligned with organizational values and should not be implemented only for cost-cutting. They argued that responsible AI in HR must protect employee dignity, privacy, and fairness.

[Murugesan et al. \(2023\)](#) examined the impact of AI on HRM in the context of digitization and Industry 4.0. The study indicated that AI-powered systems are being used in recruitment, onboarding, performance management, and employee engagement. It also showed that AI can increase organizational agility when combined with proper leadership and change management.

[Chen \(2023\)](#) analysed ethics and discrimination in AI-enabled recruitment. The study found that AI recruitment tools may improve efficiency and recruitment quality, but they may also produce discriminatory outcomes if trained on biased data. The study suggested technical and managerial solutions to reduce algorithmic discrimination.

[Filetti \(2023\)](#) examined the barriers to implementation of AI in Human Resource Management. The study noted that lack of technical knowledge, fear of job replacement, employee resistance, cost of implementation, and weak data infrastructure are major barriers in organizations.

[Kassir et al. \(2023\)](#) discussed AI for hiring and highlighted the importance of understanding employment research while designing AI hiring tools. They noted that AI recruitment systems should be tested carefully to reduce the risk of disparate impact and unfair exclusion of candidates.

[Kelan \(2024\)](#) examined algorithmic inclusion and argued that organizations must actively shape AI systems to support inclusion rather than assume that AI will automatically be neutral. This work is important because it shows that AI can reproduce existing workplace inequalities if not properly monitored.

[Safshekan \(2026\)](#) studied the application of AI in HRM systems and focused on recruitment, hiring, training, performance management, compensation, and retention. The study confirms that AI has become a growing force in HRM and is no longer limited to only recruitment automation.

[Soleimani \(2025\)](#) studied bias reduction in AI recruitment systems through interviews with HR professionals and AI developers. The study found that bias in AI recruitment can enter through historical data, job descriptions, model design, and human interpretation. It suggested that bias reduction requires both technical auditing and organizational responsibility.

[Sony \(2025\)](#) examined bias in AI-driven HRM systems and noted that algorithmic discrimination can affect marginalized groups in recruitment, HR analytics, and career advancement. The study emphasized that legal, ethical, and policy frameworks are necessary for fair AI use in HR.

The above literature shows that Artificial Intelligence has the potential to improve talent acquisition and performance management, but its success depends on the quality of data, ethical safeguards, transparency, and the readiness of HR professionals.

RESEARCH GAP

From the review of literature, three major gaps can be identified. First, many studies discuss the general impact of Artificial Intelligence on HRM, but fewer studies focus specifically on the combined area of talent acquisition and employee performance management. These two areas are deeply connected because the quality of hiring directly affects later performance outcomes. Therefore, studying them together gives a more complete understanding of AI in HR practices. [Kang \(2024\)](#)

Second, existing studies often highlight the benefits of AI, such as speed, efficiency, and data-based decisions. However, comparatively less attention is given to organizational-level challenges such as employee resistance, privacy concerns, lack of AI literacy among HR staff, implementation cost, and difficulty in explaining AI-based decisions to employees.

Third, in the Indian organizational context, many companies have started using AI-based HR tools, but empirical studies based on HR professionals' perceptions are still limited. There is a need to understand how HR managers and professionals actually perceive AI opportunities and challenges in real organizational settings.

The present study attempts to address these gaps by examining the emerging opportunities and organizational challenges of AI in talent acquisition and employee performance management.

SIGNIFICANCE OF THE STUDY

The present study is significant for several reasons. For HR professionals, the study provides a clear understanding of how AI can be used in recruitment and performance management without ignoring human judgment. It helps HR departments identify the areas where AI can reduce workload and improve decision-making.

For organizational leaders, the study highlights that AI implementation is not only a technical decision but also a human and ethical decision. Successful AI adoption requires employee trust, transparent policies, proper training, and responsible governance.

For employees and job applicants, the study indirectly supports the need for fairness, privacy, and explainability in AI-based HR decisions. Since recruitment and performance appraisal directly affect career opportunities, AI systems must be designed carefully.

For researchers, the study contributes to the growing academic discussion on AI-enabled HRM. It connects the technological benefits of AI with organizational challenges and human concerns.

For policy makers and institutions, the study highlights the need for guidelines regarding AI use in hiring, employee monitoring, performance appraisal, and data protection.

OBJECTIVES OF THE STUDY

- 1) To examine the role of Artificial Intelligence in talent acquisition practices of selected organizations.
- 2) To analyse the role of Artificial Intelligence in employee performance management.
- 3) To identify the emerging opportunities created by AI in recruitment and performance-related HR decisions.
- 4) To examine the organizational challenges faced in implementing AI-based HR practices.
- 5) To study the association between AI adoption and perceived improvement in talent acquisition.
- 6) To study the association between AI-based performance management and perceived effectiveness of HR decision-making.

HYPOTHESES OF THE STUDY

H1: There is a significant association between AI adoption and perceived improvement in talent acquisition practices.

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

H3: There is a significant association between organizational readiness and successful implementation of AI in 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 present use of AI in talent acquisition and employee performance management. The analytical part was used to test the association between AI adoption and perceived improvement in HR practices.

POPULATION OF THE STUDY

The population of the study consisted of HR professionals, HR managers, talent acquisition executives, performance management officers, and department managers working in selected private-sector organizations where digital HR tools or AI-based HR applications were being used either fully or partially. [Huang \(2024\)](#)

SAMPLE AND SAMPLING TECHNIQUE

The total sample size of the study was 120 respondents. The sample included HR executives, HR managers, recruitment professionals, and line managers involved in employee performance evaluation. A purposive sampling technique was used because the study required respondents who had direct knowledge of HR practices and AI-based systems.

The sample was selected from organizations belonging to IT, education technology, banking and financial services, manufacturing, consulting, and service-sector industries. Out of 120 respondents, 65 were HR professionals, 30 were talent acquisition executives, and 25 were managers involved in performance evaluation.

OPERATIONAL DEFINITIONS OF KEY TERMS

Artificial Intelligence: In the present study, Artificial Intelligence refers to computer-based systems and tools that support HR functions through automation, data analysis, prediction, natural language processing, machine learning, and decision support.

Talent Acquisition: Talent acquisition refers to the process of attracting, screening, selecting, and onboarding suitable candidates for organizational roles.

Employee Performance Management: Employee performance management refers to the systematic process of planning, monitoring, evaluating, and improving employee performance.

AI Adoption: AI adoption refers to the use of AI-based tools or applications in HR practices such as resume screening, candidate matching, chatbot communication, performance tracking, and analytics.

Organizational Challenges: Organizational challenges refer to barriers faced by organizations while implementing AI in HR, such as cost, lack of technical skills, data privacy issues, employee resistance, bias, and lack of transparency.

TOOL USED

A self-constructed structured questionnaire was prepared by the researcher. The questionnaire consisted of four parts: Part A included personal and organizational information; Part B included AI in talent acquisition; Part C included AI in employee performance management; and Part D included organizational opportunities and challenges.

The responses were collected on a five-point Likert scale ranging from Strongly Agree to Strongly Disagree. The tool was reviewed by five experts from the fields of HRM, management, and information technology. After expert review, necessary corrections were made. The questionnaire 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 0.84, which indicates acceptable reliability.

PROCEDURE OF DATA COLLECTION

Data were collected through both online and offline modes. First, HR professionals and managers were contacted through professional networks and organizational contacts. The purpose of the study was explained to them clearly. After obtaining consent, the questionnaire was shared with the respondents. Respondents were requested to answer honestly on the basis of their experience with AI-based HR tools.

The data collection process took approximately six weeks. Incomplete responses were removed before final analysis. Out of 135 responses received, 120 complete responses were selected for final analysis.

ETHICAL CONSIDERATIONS

The study followed basic ethical principles of social science research. Participation was voluntary. Respondents were informed that their responses would be used only for academic purposes. No personal name, organization name, employee ID, or confidential company information was collected. Anonymity and confidentiality were maintained throughout the study. Respondents were free to withdraw from the study at any stage.

STATISTICAL TECHNIQUES

After data collection, responses were coded and entered into a spreadsheet. Frequency, percentage, mean, and chi-square test were used for analysis. The level of significance was fixed at 0.05.

ANALYSIS AND INTERPRETATION OF DATA

The analysis has been presented in three parts. First, the level of AI use in talent acquisition and performance management has been shown. Second, the major opportunities and challenges have been presented. Third, chi-square test results have been used to test the hypotheses.

Table 1

Table 1 Use of Artificial Intelligence in Talent Acquisition and Employee Performance Management (N = 120)			
S. No.	Area of AI Use	Frequency	Percentage
1	Resume screening and shortlisting	96	80.00%
2	Candidate-job matching	88	73.33%

3	Interview scheduling and chatbot communication	82	68.33%
4	Recruitment analytics and hiring prediction	76	63.33%
5	Employee performance tracking	72	60.00%
6	Continuous feedback support	64	53.33%
7	Identification of training needs	70	58.33%
8	Performance prediction and promotion support	55	45.83%

Interpretation of Table 1

Table 1 shows that AI is used most commonly in resume screening and shortlisting, reported by 80% of respondents. This indicates that organizations are using AI mainly to reduce the manual burden of screening a large number of applications. Candidate-job matching was reported by 73.33% of respondents, which shows that AI is being used to compare candidate skills with job requirements. Interview scheduling and chatbot communication were reported by 68.33% of respondents, suggesting that AI is also used to improve candidate communication and reduce administrative delay.

In performance management, 60% of respondents reported the use of AI for employee performance tracking, while 58.33% reported its use in identifying training needs. Continuous feedback support was reported by 53.33% of respondents. However, only 45.83% reported the use of AI in performance prediction and promotion support. This shows that organizations are more comfortable using AI for operational support and less comfortable using it for sensitive decisions such as promotion and career advancement.

The table clearly indicates that AI adoption is stronger in talent acquisition than in performance management. This may be because recruitment tasks are more structured and easier to automate, whereas performance management involves complex human behaviour, team context, leadership style, motivation, and qualitative judgment.

Table 2

Table 2 Emerging Opportunities of AI in Talent Acquisition and Performance Management (N = 120)			
S. No.	Opportunity	Frequency	Percentage
1	Faster screening of candidates	102	85.00%
2	Reduction in manual HR workload	98	81.67%
3	Better matching of skills with job roles	91	75.83%
4	Improved recruitment planning	84	70.00%
5	Data-based HR decision-making	80	66.67%
6	Continuous performance monitoring	74	61.67%
7	Identification of employee training needs	71	59.17%
8	Better employee productivity analysis	68	56.67%

Interpretation of Table 2

Table 2 presents the major opportunities created by Artificial Intelligence in talent acquisition and employee performance management. The most reported opportunity was faster screening of candidates, reported by 85% of respondents. This finding shows that AI is highly useful where organizations receive large numbers of job applications. AI can scan resumes quickly and help HR professionals focus on the most relevant candidates.

Reduction in manual HR workload was reported by 81.67% of respondents. This suggests that AI helps HR departments save time by automating repetitive tasks such as resume sorting, interview scheduling, sending reminders, and maintaining recruitment records. Better matching of skills with job roles was reported by 75.83% of respondents, indicating that AI can improve the quality of shortlisting by comparing candidate profiles with job requirements.

Improved recruitment planning was reported by 70% of respondents. This shows that AI can help organizations understand hiring needs, talent availability, and recruitment timelines. Data-based HR decision-making was reported by 66.67% of respondents, showing that AI supports evidence-based HR practices.

In the area of performance management, 61.67% of respondents reported continuous performance monitoring as an opportunity. Identification of training needs was reported by 59.17%, and employee productivity analysis was reported by 56.67%. These findings indicate that AI can help organizations move from annual appraisal systems to continuous performance development systems.

Overall, [Table 2](#) shows that AI creates strong opportunities for efficiency, accuracy, planning, and performance improvement. However, these opportunities can be fully achieved only when organizations use AI responsibly and combine it with human judgment.

Table 3

Table 3 Organizational Challenges in AI-Based HR Practices (N = 120)			
S. No.	Organizational Challenge	Frequency	Percentage
1	Lack of transparency in AI decisions	86	71.67%
2	Risk of algorithmic bias	82	68.33%
3	Data privacy concerns	79	65.83%
4	Limited technical knowledge among HR staff	74	61.67%
5	High implementation cost	70	58.33%
6	Employee fear of surveillance	66	55.00%
7	Resistance to technological change	62	51.67%
8	Difficulty in integrating AI with existing HR systems	58	48.33%

Interpretation of [Table 3](#)

[Table 3](#) highlights the major organizational challenges faced in implementing AI-based HR practices. The most reported challenge was lack of transparency in AI decisions, reported by 71.67% of respondents. This means that HR professionals and employees often do not fully understand how AI systems generate candidate scores, performance ratings, or recommendations. Lack of explainability can reduce trust in AI-based decisions.

Risk of algorithmic bias was reported by 68.33% of respondents. This is an important finding because AI systems are trained on data. If past organizational data contain bias, AI may repeat or strengthen that bias. For example, if historical recruitment data favoured certain educational backgrounds, genders, regions, or institutions, AI may learn similar patterns and create unfair outcomes.

Data privacy concerns were reported by 65.83% of respondents. In performance management especially, AI systems may collect sensitive data related to productivity, communication behaviour, attendance, task completion, and employee engagement. If employees feel that they are being constantly monitored, it may create stress and mistrust.

Limited technical knowledge among HR staff was reported by 61.67% of respondents. This shows that many HR professionals are expected to use AI tools without proper training. High implementation cost was reported by 58.33%, indicating that AI adoption requires investment in software, data systems, training, and maintenance.

Employee fear of surveillance was reported by 55% of respondents, while resistance to technological change was reported by 51.67%. These findings show that AI implementation is not only a technical issue but also a human issue. Organizations must build trust and communicate clearly before introducing AI-based HR systems.

Table 4

Table 4 Chi-Square Test for the Hypotheses (N = 120)					
S. No.	Variables Compared	Chi-Square Value	df	p-value	Result
1	AI adoption × Improvement in talent acquisition	21.48	6	0.001	Significant
2	AI-based performance management × HR decision-making effectiveness	17.62	6	0.007	Significant
3	Organizational readiness × Successful AI implementation	19.34	8	0.013	Significant

Interpretation of [Table 4](#)

[Table 4](#) presents the chi-square test results for the three hypotheses. For Hypothesis 1, the calculated chi-square value is 21.48 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 adoption and perceived improvement in talent acquisition practices. Respondents working in organizations with higher AI adoption reported better resume screening, faster recruitment, improved candidate matching, and more systematic hiring decisions.

For Hypothesis 2, the chi-square value is 17.62 with 6 degrees of freedom and a p-value of 0.007. Since the p-value is below 0.05, the result is significant. Therefore, Hypothesis 2 is accepted. This indicates that AI-based performance management is significantly associated with perceived effectiveness of HR decision-making. Organizations using AI for performance tracking, feedback, training needs analysis, and productivity review reported more data-based performance decisions.

For Hypothesis 3, the chi-square value is 19.34 with 8 degrees of freedom and a p-value of 0.013. Since the p-value is below 0.05, the result is significant. Therefore, Hypothesis 3 is accepted. This shows that organizational readiness is significantly associated with successful AI implementation in HR practices. Organizations with better data quality, trained HR staff, employee communication, and ethical guidelines were more successful in using AI.

The acceptance of all three hypotheses supports the central argument of the study: AI can improve HR practices, but its success depends on proper adoption, readiness, transparency, and responsible implementation.

DISCUSSION

The findings of the present study show that Artificial Intelligence is becoming an important part of talent acquisition and employee performance management. The highest use of AI was found in resume screening, candidate-job matching, and interview scheduling. This finding is consistent with earlier studies which observed that recruitment is one of the earliest and most common areas of AI adoption in HRM. AI is especially useful in recruitment because it can handle large volumes of applications, reduce repetitive work, and support faster decision-making.

The finding that AI improves recruitment planning and candidate matching supports the view that AI can make HR more data-driven. In traditional recruitment, HR professionals may depend heavily on manual screening and personal judgment. AI can support them by identifying patterns in candidate profiles, predicting job fit, and reducing time-to-hire. However, AI should not become the only basis of selection because human qualities such as attitude, adaptability, communication, and cultural fit require human evaluation.

In employee performance management, AI was found useful for performance tracking, continuous feedback, training needs identification, and productivity analysis. This suggests that AI can help organizations move beyond annual appraisal systems. Traditional appraisal systems often suffer from subjectivity and delay. AI-supported systems can provide continuous data and help managers identify performance issues early. This can make performance management more developmental rather than only evaluative.

At the same time, the study found serious organizational challenges. Lack of transparency was the most reported challenge. This is important because employees and applicants have the right to understand how decisions affecting their careers are made. If AI systems give a score or recommendation without explanation, it may create suspicion and resistance. Therefore, explainable AI is essential in HR.

Algorithmic bias was another major challenge. This finding supports earlier research that AI recruitment tools can create discriminatory results if they are trained on biased data. AI does not automatically become fair simply because it is technological. It learns from existing data, and if that data contain social or organizational bias, AI may reproduce the same bias. Therefore, organizations must regularly audit AI systems.

Data privacy concerns also emerged strongly. Performance management involves sensitive employee information. If AI tools are used to monitor every action of employees, it may create a feeling of surveillance. Employees may feel that the organization does not trust them. This can harm morale, creativity, and organizational commitment. Therefore, organizations must clearly define what data will be collected, why it will be used, and how privacy will be protected.

The chi-square results confirmed that AI adoption is significantly associated with improvement in talent acquisition and decision-making effectiveness. However, the significant association between organizational readiness and AI implementation shows that technology alone cannot bring success. AI works well only when the organization has proper infrastructure, trained users, leadership support, ethical guidelines, and employee acceptance.

The findings also show that HR professionals need new competencies. Earlier, HR roles required knowledge of recruitment, labour laws, training, compensation, and employee relations. Now HR professionals also need digital literacy, data interpretation ability, understanding of AI tools, ethical awareness, and change-management skills.

Overall, the discussion indicates that AI should be treated as a decision-support system, not a decision-replacement system. The best HR model is not AI instead of humans but AI with humans. Human judgment, empathy, fairness, and contextual understanding must remain central in talent acquisition and performance management.

CONCLUSION

The present study examined the role of Artificial Intelligence in talent acquisition and employee performance management with special reference to emerging opportunities and organizational challenges. The findings show that AI has strong potential to improve

HR practices by reducing manual workload, speeding up recruitment, improving candidate-job matching, supporting continuous performance monitoring, identifying training needs, and strengthening data-based decision-making.

In talent acquisition, AI is most useful in resume screening, candidate matching, recruitment analytics, interview scheduling, and chatbot-based communication. These functions help organizations save time and improve recruitment efficiency. In performance management, AI supports continuous tracking, feedback, productivity analysis, and employee development planning. This makes performance management more systematic and evidence-based.

However, the study also clearly shows that AI implementation in HR is not free from problems. The major challenges include lack of transparency, risk of algorithmic bias, data privacy concerns, limited technical knowledge among HR staff, high cost, employee resistance, and fear of surveillance. These challenges are serious because HR decisions affect people directly.

The statistical analysis confirmed that AI adoption is significantly associated with improvement in talent acquisition. It also confirmed that AI-based performance management is significantly associated with effective HR decision-making. Further, organizational readiness was found to be significantly associated with successful AI implementation.

The main conclusion of the study is that Artificial Intelligence can transform HR practices, but it must be implemented carefully. AI should support HR professionals, not replace human judgment completely. Organizations must develop ethical guidelines, ensure transparency, protect employee data, train HR staff, and regularly audit AI systems. When used responsibly, AI can become a powerful tool for fair, efficient, and strategic Human Resource Management.

MANAGERIAL IMPLICATIONS

The findings of the study have several managerial implications. First, AI should be used as a supportive HR tool. Managers should not depend completely on AI-generated scores or recommendations. Final decisions should include human judgment, interviews, context, and organizational values.

Second, HR professionals need AI training. Organizations should conduct regular training programmes for HR staff on AI tools, data interpretation, ethical issues, bias detection, and privacy protection. Third, recruitment systems should be audited regularly so that AI-based hiring tools do not discriminate against any group of candidates.

Fourth, performance management should remain developmental. AI should not be used only to monitor employees. It should also be used to identify training needs, support career development, and improve employee growth. Fifth, transparency should be maintained. Employees and applicants should be informed when AI is used in recruitment or performance evaluation.

Sixth, employee trust is essential. Before introducing AI-based performance systems, organizations should explain the benefits, address fears, and involve employees in the change process. Seventh, data privacy must be protected. Organizations should collect only necessary data and should use secure systems to protect employee information. Eighth, every organization using AI in HR should prepare a written policy covering fairness, privacy, accountability, transparency, and human review.

SUGGESTIONS

On the basis of the findings, the following suggestions are offered. Organizations should adopt AI gradually, starting with low-risk HR functions such as resume sorting and interview scheduling. AI should not be used as the only basis for hiring, promotion, termination, or performance rating. HR departments should conduct bias audits of AI systems at regular intervals.

Job descriptions and recruitment data should be reviewed carefully before being used in AI systems. Employees should be informed about what type of performance data is being collected and how it will be used. Organizations should create grievance mechanisms where candidates or employees can question AI-based decisions.

AI tools should be selected from reliable vendors who provide explainable and legally compliant systems. HR professionals should be trained in both technology and ethics. Organizations should maintain a balance between efficiency and humanity in HR practices. Future researchers should conduct larger studies across different industries and compare AI adoption in small, medium, and large organizations.

LIMITATIONS OF THE STUDY

Like every study, the present study also 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 the perceptions of HR professionals and managers, so some responses may be influenced by personal experience or organizational culture.

The study focused mainly on talent acquisition and employee performance management and did not cover all HR functions such as compensation, employee relations, learning management, and retention in detail. The study used a cross-sectional design, so it captured the situation at one point in time. Future studies may use longitudinal designs to examine how AI adoption changes HR outcomes over time.

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