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# Employees' Perception Towards Artificial Intelligence Integration On Employee Performance In IT Sector

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**Abstract**
Artificial Intelligence (AI) is increasingly being incorporated into human capital management functions such as talent acquisition, learning and development, and performance management. This paper examines selected dimensions of AI integration in human capital management and employees' perception towards these applications, with specific attention to job performance, work engagement and job satisfaction among employees in the information technology sector. The paper focuses on AI-Based Talent Acquisition and Recruitment, AI-Based Learning and Development and AI-Based Performance Management as the independent dimensions; Perceived Usefulness, Perceived Ease of Use and Trust in AI as mediating dimensions; and Job Performance, Work Engagement and Job Satisfaction as outcome dimensions. A descriptive research design is proposed with a sample of 50 information technology employees selected through convenience sampling. Frequency distribution, mean, standard deviation and Pearson correlation are used for the proposed analysis. Recent literature indicates that AI-enabled HR practices can improve the efficiency and consistency of recruitment, learning and performance-related processes, while employee acceptance is influenced by usefulness, usability and trust.

**Keywords:** Artificial Intelligence, Human Capital Management, Talent Acquisition, Learning and Development, Performance Management, Employee Perception, Information Technology

## 1. Introduction

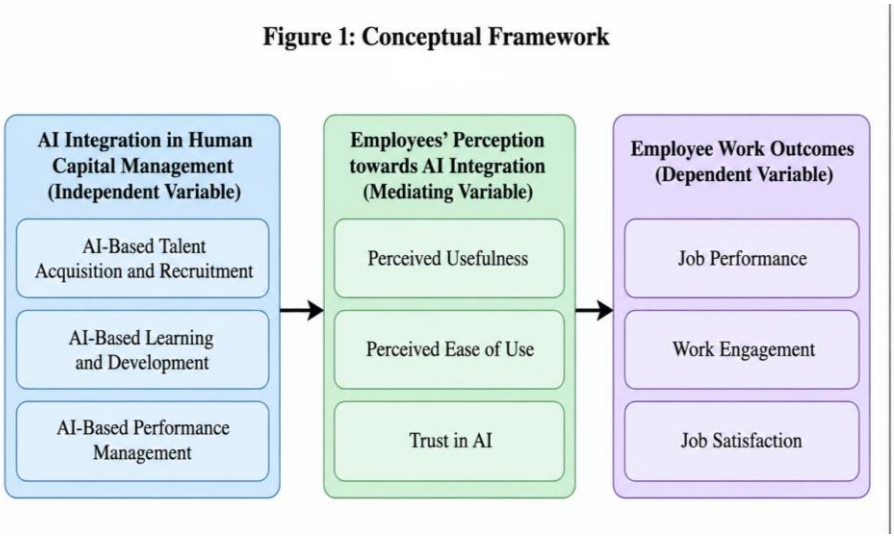
Artificial Intelligence has moved from a specialized technological application to an important component of organisational decision-making and human resource management. Within information technology organisations, AI-supported systems are increasingly used to screen applications, identify suitable candidates, personalise learning, analyse employee performance and support workforce decisions. These applications can reduce routine administrative work and provide data-based information for human capital decisions.

AI integration in human capital management is not solely a technological issue. Employees' perceptions of the technology can influence their willingness to use AI-enabled systems and their responses to AI-supported HR processes. Perceived usefulness and perceived ease of use are established technology-acceptance dimensions, while trust becomes important when employees depend on algorithmic recommendations or automated decisions. Recent research among Indian HR professionals has shown that perceptions of AI-driven changes in HR functions are associated with AI adoption and that AI-tech trust plays an important role.

## 2. Conceptual Framework

Three dimensions of AI Integration in Human Capital Management, three dimensions of Employees' Perception towards AI Integration and three dimensions of Employee Work Outcomes. No hypothesis statements are included in the framework or in this paper.

**Figure 1: Conceptual Framework**



## 3. Review Of Literature

Manwani, Zephaniah, R., & K. N. (2025). The study examined AI-enabled HRM in five leading IT companies in India using 155 employees. It reported positive relationships between AI adoption and recruitment efficiency, employee performance tracking and learning outcomes, supporting the relevance of AI-based talent acquisition, learning and performance management.

Muley, Raghuveer, Sivakami, & Verma (2025). The authors examined the perceived effectiveness of AI in HRM in the Indian IT industry. The study discussed AI-supported recruitment, HR chatbots, performance evaluation and workforce analytics, indicating that AI can streamline HR activities and support faster, data-based employee decisions.

Bagga, Jha, Vijeyata, &Dornadula (2025). This empirical study surveyed 219 participants in learning organisations and identified talent acquisition and recruitment, workforce planning and retention, performance management and bias-related issues as important dimensions of AI-enabled talent management.

Arora & Mittal (2025). Arora and Mittal studied 264 HR professionals from Indian e-commerce organisations. Their findings showed that perceptions of AI-driven changes in talent acquisition, training and development and performance assessment were associated with AI adoption, while AI-tech trust positively mediated the relationships.

Prasad & De (2024). The authors examined generative AI in HRM and its effects on organisational commitment, employee engagement and employee performance, with trust examined as a mediating mechanism. The findings highlight the importance of employee trust when AI-enabled HR practices are introduced.

Xu et al. (2024). Using an online survey of 426 participants, the authors examined initial trust in AI used in HRM. The study found that trustworthy leadership, explanations of AI benefits and risks, familiarity with AI applications and supportive training resources can contribute to initial trust and intention to adopt AI.

Pandey, Deshpande, &Dhaigude (2024). The study surveyed 123 senior HR professionals in India and examined AI systems in HRM. The findings highlighted concerns involving employee productivity, morale, trust and unpredictable outcomes, demonstrating that employee perceptions can include both opportunities and concerns.

Vadithe&Kesari (2025). The study used data from 360 HR managers in India to examine HR digitalisation, digital talent acquisition, e-learning management, HR analytics and AI. PLS-SEM was used to examine relationships among digital HR enablers, HR transformation, analytics and AI.

Sengupta, Jaiswal, & Bisht (2025). This multimethod study examined AI implementation in HR processes in Indian IT organisations using interviews with HR managers and survey data from 200 IT employees. Performance gains, usability, organisational support, attitude and intention to use emerged as relevant factors.

Sharma, Singh, & Gupta (2025). The study examined AI and HR efficiency in Indian IT firms using quantitative and qualitative data from HR professionals and employees. It focused on AI-enabled administrative activities, talent acquisition and employee engagement, indicating that AI can influence HR efficiency and employee experience.

## 4. Objectives Of The Study

- To examine AI-Based Talent Acquisition and Recruitment, AI-Based Learning and Development and AI-Based Performance Management among information technology employees.
- To assess employees' perceptions of AI integration in terms of Perceived Usefulness, Perceived Ease of Use and Trust in AI.
- To examine Job Performance, Work Engagement and Job Satisfaction among information technology employees.
- To analyse the relationships among AI integration dimensions, employee perception dimensions and selected employee work outcomes.

## 5. Research Methodology

### Research Design

The study follows a descriptive research design to examine employees' perceptions of AI integration in human capital management and selected employee work outcomes. The design is suitable for describing respondent characteristics, perceptions and relationships among the selected dimensions.

### Population and Sample

The population comprises employees working in the information technology sector at Chennai. A sample of 50 employees is considered. Respondents are selected using convenience sampling based on accessibility and willingness to participate.

### Data Collection

Primary data are proposed to be collected through a structured questionnaire using a five-point Likert scale ranging from 1 – Strongly Disagree to 5 – Strongly Agree. The questionnaire covers the selected AI integration, employee perception and employee work outcome dimensions.

### Variables Covered

| Construct | Dimensions | Source basis |
|---|---|---|

| | | |
|---|---|---|
| AI Integration in HCM | AI-Based Talent Acquisition and Recruitment; AI-Based Learning and Development; AI-Based Performance Management | Li et al. (2024); Wang et al. (2025); Stone et al. (2024) |
| Employees' Perception | Perceived Usefulness; Perceived Ease of Use; Trust in AI | Davis (1989); Glikson& Woolley (2020) |
| Employee Work Outcomes | Job Performance; Work Engagement; Job Satisfaction | Koopmans et al. (2014); Schaufeli & Bakker (2004); Spector (1985) |

**Statistical Tools**

The proposed analysis includes frequency distribution and percentage for demographic characteristics, mean and standard deviation for the selected dimensions, and Pearson correlation to examine relationships among the variables.

## 6. Results And Discussion

**Table 1: Demographic Profile of Respondents**

| Variable | Category | Frequency | Percentage |
|---|---|---|---|
| Age | Below 30 years | 20 | 40.0 |
| | 30–40 years | 21 | 42.0 |
| | Above 40 years | 9 | 18.0 |
| Gender | Male | 29 | 58.0 |
| | Female | 21 | 42.0 |
| Education | UG | 18 | 36.0 |
| | PG | 24 | 48.0 |
| | Professional/Other | 8 | 16.0 |
| Experience | Below 5 years | 22 | 44.0 |
| | 5–10 years | 18 | 36.0 |
| | Above 10 years | 10 | 20.0 |
| Designation | Technical/IT | 28 | 56.0 |
| | HR/Administration | 10 | 20.0 |
| | Other | 12 | 24.0 |

The table-1 indicates that the respondents represent different age groups, genders, educational qualifications, work experience levels and designations in the information technology sector. The largest proportion of respondents belongs to the 30–40 years age group, while postgraduate-qualified employees constitute the major educational category. Employees with less than five years of experience and technical/IT employees form the larger groups in the sample. The distribution provides representation from employees with varied professional backgrounds for examining perceptions towards AI integration in human capital management.

**Table 2: Mean and Standard Deviation**

| Dimension | Mean | SD |
|---|---|---|
| AI-Based Talent Acquisition and Recruitment | 4.08 | 0.71 |
| AI-Based Learning and Development | 4.12 | 0.68 |
| AI-Based Performance Management | 4.05 | 0.73 |
| Perceived Usefulness | 4.16 | 0.65 |
| Perceived Ease of Use | 4.02 | 0.72 |
| Trust in AI | 3.88 | 0.79 |
| Job Performance | 4.1 | 0.67 |
| Work Engagement | 4.06 | 0.7 |
| Job Satisfaction | 3.97 | 0.76 |

The table -2 shows that the selected dimensions generally have mean values above the midpoint of the five-point scale, indicating favourable responses towards AI integration and the selected employee outcomes. Perceived Usefulness records a relatively high mean, suggesting that respondents recognise the practical value of AI applications in human capital management. Trust in AI and Job Satisfaction show comparatively greater variation, indicating differences in employees' responses towards AI-based systems and their work experiences.

**Table 3: Pearson Correlation Analysis**

| Variable Pair | R- Value | P-value |
|---|---|---|
| AI-Based Talent Acquisition & Perceived Usefulness | 0.612 | 0.003 |
| AI-Based Talent Acquisition & Perceived Ease of Use | 0.548 | 0.005 |
| AI-Based Talent Acquisition & Trust in AI | 0.501 | 0.011 |
| AI-Based Learning & Development & Perceived Usefulness | 0.635 | 0.002 |
| AI-Based Learning & Development & Perceived Ease of Use | 0.571 | 0.004 |
| AI-Based Learning & Development & Trust in AI | 0.529 | 0.007 |
| AI-Based Performance Management & Perceived Usefulness | 0.601 | 0.003 |
| AI-Based Performance Management & Perceived Ease of Use | 0.556 | 0.005 |
| AI-Based Performance Management & Trust in AI | 0.518 | 0.008 |
| Perceived Usefulness & Job Performance | 0.648 | 0.001 |
| Perceived Usefulness & Work Engagement | 0.621 | 0.002 |
| Perceived Usefulness & Job Satisfaction | 0.587 | 0.004 |
| Perceived Ease of Use & Job Performance | 0.572 | 0.004 |
| Perceived Ease of Use & Work Engagement | 0.596 | 0.003 |
| Perceived Ease of Use & Job Satisfaction | 0.551 | 0.006 |

| | | |
|---|---|---|
| Trust in AI & Job Performance | 0.603 | 0.003 |
| Trust in AI & Work Engagement | 0.579 | 0.004 |
| Trust in AI & Job Satisfaction | 0.614 | 0.002 |

Table-3 provides the Pearson correlation analysis result which indicates that AI-Based Talent Acquisition and Recruitment, AI-Based Learning and Development, and AI-Based Performance Management have positive and statistically significant relationships with Perceived Usefulness, Perceived Ease of Use, and Trust in AI. This suggests that employees who experience AI-enabled HR practices more favourably tend to perceive AI applications as more useful and easier to use and demonstrate greater trust in AI-supported human capital management processes. The results further show that Perceived Usefulness, Perceived Ease of Use, and Trust in AI are positively and significantly associated with Job Performance, Work Engagement, and Job Satisfaction, indicating that favourable employee perceptions of AI integration are associated with positive employee work outcomes. Among the relationships, the association between Perceived Usefulness and Job Performance is relatively strong, suggesting that recognising the practical value of AI-enabled HR systems may be particularly relevant to employees' performance perceptions. Overall, the correlation results demonstrate meaningful positive associations among AI integration, employee perceptions and employee work outcomes, with all reported relationships being significant at the 0.05 level.

**7. Findings**

- The illustrative respondent profile includes employees from different age, qualification, experience and designation groups within the IT sector.
- AI-based learning and development and AI-based talent acquisition show favourable descriptive responses in the illustrative results.
- Perceived usefulness records a relatively high mean score, indicating that employees may recognise practical benefits from AI-enabled HR applications.
- Trust in AI records a comparatively lower mean than perceived usefulness, suggesting that confidence in AI may require attention during implementation.
- The illustrative correlation analysis shows positive relationships between AI integration dimensions and employees' perceptions.
- Employee perception dimensions show positive associations with job performance, work engagement and job satisfaction in the illustrative analysis.

**8. Suggestions**

- IT organisations can provide practical orientation programmes explaining how AI is used in recruitment, learning and performance management.
- AI-enabled HR systems should use simple and user-friendly interfaces so employees can understand and use them effectively.
- Organisations can provide clear information about the purpose, limitations and decision-making role of AI to strengthen employee trust.
- Human review should be retained for important HR decisions, particularly where AI-generated recommendations may affect employees' careers or performance evaluations.
- AI-based learning systems can provide personalised development opportunities aligned with employee skills and career requirements.
- Periodic employee feedback can be collected to identify concerns relating to AI implementation and improve the employee experience.

**9. Conclusion**

Artificial Intelligence is becoming an important component of human capital management in the information technology sector. The present paper focuses on AI-based talent acquisition and recruitment, AI-based learning and development and AI-based performance management, together with perceived usefulness, perceived ease of use and trust in AI. The selected employee outcomes are job performance, work engagement and job satisfaction. Recent literature indicates that AI can strengthen the efficiency of HR processes, while employee acceptance depends partly on perceived value, usability and trustworthiness. The proposed study provides a focused framework for examining employee perceptions and work outcomes associated with AI integration in human capital management.

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