



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

Role Of Artificial Intelligence On Human Resource Management In It Sector With Reference To Coimbatore City

Dr. S. SUGUNA¹

Professor, Department of Commerce with Professional Accounting
Dr. N. G. P Arts and Science College, Coimbatore, Tamil Nadu, India

TAMILARASAN S²

Department of commerce with Professional Accounting
Dr. N. G. P Arts and Science college, Coimbatore, Tamil Nadu, India.

ABSTRACT

With the ever-changing IT scenario, Artificial Intelligence (AI) is now a revolutionary force in Human Resource Management (HRM). The present research attempts to explore the extent of AI implementation by IT firms in Coimbatore City into HR practices. It also intends to study how AI is currently implemented in talent management, employee engagement, and labour planning and identify the advantages and disadvantages associated. The research is intended to quantify the level of knowledge of professionals towards AI instruments and provide insights into the effective use of AI in HRM processes.

Keywords: Artificial Intelligence, Human Resource Management, Talent Acquisition, Coimbatore IT Sector, HR Technology

INTRODUCTION

Artificial Intelligence (AI) in Human Resource Management (HRM) is transforming organizational talent management. In the information technology (IT) industry, with technology being the prime driver, AI-based solutions are being widely used in all HR processes such as recruitment, induction, performance management, and employee retention. AI-based applications such as chatbots, machine learning projects, and predictive analytics are enabling HR professionals to make better decisions and improve operational efficiency.

In Tamil Nadu's emerging IT hub, Coimbatore, integrating AI with HRM is an opportunity and a threat. While it adds efficiency and strategic value to HR processes, there are threats of resistance to change, such as a lack of skills and ethics.

STATEMENT OF THE PROBLEM

IT companies in Coimbatore are evolving with digital transformation, and artificial intelligence plays a major role in the HR process. However, the rate of adoption, awareness level of HR managers, and encountered challenges are not documented. With the motivation for such a study, an effort is being made here. The study seeks to investigate:

1. To what extent are AI-based tools being adopted in HRM by IT companies in Coimbatore?
2. What are the advantages and limitations faced while applying AI-based HR technologies?

SCOPE OF THE STUDY

The research is limited to IT companies in Coimbatore City. It is dedicated to small, medium, and large-scale IT organizations and takes into account the opinions of HR professionals, employees, and managers regarding the application of AI in HRM.

OBJECTIVES OF THE STUDY

- To analyze the existing situation of AI implementation in HRM in the IT sector of Coimbatore.
- To explain the advantages and limitations of AI-based HRM.
- To examine how AI influences the hiring process, motivation of workers, and employee performance management.

RESEARCH METHODOLOGY

- **Research Design:** Mixed research design using qualitative as well as quantitative data.
- **Sample Size:** 110 respondents.
- **Sampling Technique:** Purposive Sampling and Stratified Random Sampling.
- **Primary Data:** Gathered with the help of a structured questionnaire.
- **Secondary Data:** Books, Journals, Reports, and Electronic Publications.
- **Statistical Tools:** Chi-Square Test and Simple Percentage Analysis.

LIMITATIONS OF THE STUDY

- The research is geographically confined to Coimbatore City.
- Findings cannot be applied to other cities or industries.
- The rate of technological change can curtail the timelessness of the research.

FINDING AND INTERPRETATION

SIMPLE PERCENTAGE ANALYSIS:

$$\text{PERCENTAGE} = \frac{\text{NUMBER OF RESPONDENTS}}{\text{TOTAL NUMBER OF RESPONDENT}} * 100$$

INTERROGATION	RESPONSE	FREQUENCY	PERCENTAGE
Job Role	Project Manager	22	20.00
	HR Manager	17	15.45
	IT Manager	19	17.27
	Software Developer	18	16.36
	Data Analyst	17	15.45
	Others	17	15.45
	Total	110	100
Size of Organization	Startup (<50 employees)	10	9.09
	Small (50–200 employees)	20	18.18
	Medium (201–500 employees)	34	30.91
	Large (>500 employees)	46	41.82
	Total	110	100

Familiar with AI HR Tools	Yes	62	56.36
	No	48	43.64
	Total	110	100
Type of IT Organization	IT Services	27	24.55
	Software Development	25	22.73
	Consulting & Outsourcing	24	21.82
	E-commerce	18	16.36
	Cloud/Cybersecurity	16	14.55
	Total	110	100

INTERPRETATION:

- Project Managers form the largest group (20%), followed closely by IT Managers and Developers. Responses are spread across diverse roles, ensuring well-rounded insights..
- A majority (41.82%) work in large IT companies. Only 9.09% are from startups, indicating lower AI-HRM adoption in early-stage firms.
- More than half (56.36%) of respondents are familiar with AI-powered HR tools. A substantial 43.64% are not, indicating scope for awareness and training programs.
- Respondents are mainly from IT services (24.55%) and software development (22.73%).The sample includes representation from varied IT domains, strengthening the study's relevance.

CHI SQUARE TEST**TABLE SHOWING RELATIONSHIP BETWEEN ORGANIZATION SIZE AND AI ADOPTION MOTIVATION**

Organization Size	Cost Savings	Better Employee Experience	Improved Efficiency	Competitive Advantage	Enhanced Decision-Making	TOTAL
Startup (< 50 employees)	4	2	1	2	1	10
Small (50 – 200employees)	4	8	6	1	1	20
Medium (201– 500employees)	8	8	6	8	4	34
Large (> 500 employees)	10	8	7	12	9	46
TOTAL	26	26	20	23	15	110

	VALUE	DF	ASYMP. SIG. (2-SIDED)
Pearson Chi-Square	5.419 ^a	12	.943
Likelihood Ratio	5.241	12	.949
Linear-by-Linear Association	.013	1	.909
N of Valid Cases	110		

INTERPRETATION

The Chi-Square test was conducted to analyze the association between two categorical variables. The Pearson Chi-Square value is 5.419 with 12 degrees of freedom and a p-value of 0.943, indicating no statistically significant relationship. The Likelihood Ratio test also supports this with a value of 5.241 and a p-value of 0.949. Additionally, the Linear-by-Linear Association shows a value of 0.013 with a p-value of 0.909. Since all p-values are well above the 0.05 significance level, it can be concluded that the variables are independent, and any observed differences are likely due to random variation rather than a real association.

SUGGESTION

To drive adoption and commentary on AI from HRM, IT companies in Coimbatore can reskill their HR professionals via AI-specific workshops and training. Embedding the right mix of human approaches is essential in a way that promotes the human aspect of decision-making without compromising on the power of automation for productivity. Companies must invest in developing open and fair AI systems that have resistance to bias and empower unbiased hiring. Organizationally designing for the needs of AI technologies and having clearly outlined policy frameworks will also guarantee smooth integration and value generation in the long term of HR processes.

CONCLUSION

The study discovers that Artificial Intelligence is influencing HRM practices in Coimbatore's IT sector increasingly through efficiency, decision-making, and employee inspiration. Challenges such as shortages of skills, ethics, and resistance to change need to be brought under control for effective implementation. With well-planned implementation and monitoring persistently, AI can help considerably in creating a more responsive, adaptable, and employee-centric HR climate towards organizational development and innovation.

REFERENCE

1. Udayanan, A., Rooshma, A., Bargavi, N., Awasthi, S., Deshmukh, S. V., & Jadhav, D. Y. (2023). Effective Human Resource Management and AI Adoption in the IT Sector. *Journal of Informatics Education and Research*.
2. Patrizi, P., Seri, S., & Vernuccio, M. (2023). The impact of voice-based AI systems on brand trust and customer brand engagement: The moderating role of perceived privacy risk. *Journal of Consumer Research*, 50(2), 123–140.
3. Jayashree, R., & Sabarinathan, K. (2023). The impact of training programs on organizational growth in the IT sector: A study of Coimbatore. *Journal of Human Resource Development*, 15(2), 112–130.

4. Prasad Babu, P., & Vasumathi, A. (2023). Artificial intelligence in project management: Enhancing efficiency and organizational support in the Indian IT sector. *Journal of Technology and Innovation*, 8(1), 45.
5. Bhakuni, S. (2023). The Role of Artificial Intelligence in Human Resource Management in India's IT Industry.

