



Content is available at: CRDEEP Journals  
Journal homepage: <http://www.crdeepjournal.org/category/journals/ijrem/>

**International Journal of Research in  
Engineering and Management** (ISSN: 2456-1029)  
A Peer Reviewed UGC Approved Quarterly Journal



SJIF: 4.45

**Research Paper**

**Role of Human Resource Manager in Artificial Intelligence Adoption.**

**Sudha Shukla; Shubhra Chakravarty and Sowmya N\***

*Assistant Professor, Aditya Institute of Management Studies, India.*

**ARTICLE DETAILS**

**Corresponding Author:**  
Sowmya N.

**Key words:**  
Artificial Intelligence  
Human Resource  
Management,  
digitalization of Human  
Resource , Future of  
Human Resource .

**ABSTRACT**

Artificial Intelligence is a broad term that encompasses several types of technologies applied in every field of business. Human resource is a blood of any business and there is a paradigm shift in the recruitment and selection process. The discussion on Artificial Intelligence as Boon or Bane has gained prominence in a recent scenario however it is unlikely to replace Human Resource professionals completely. Instead, Human Resource roles are empowered by allowing them to focus more on strategic roles and contribute to the organizational decision making. The present Human Resource manager role is more of a strategic planner and altering the entire process of the Human Resource department is challenging. Introduction and adoption of Artificial Intelligence have sparked the debate of replacing human resources in the organization and it is even more challenging for those who manage the human resource of the organization. Human Resource Managers are experiencing the constant fear of being replaced by machines/robots/smart business machines in the presence of Artificial Intelligence in the organizations. This study explores/elucidates the benefits and challenges encountered by Human Resource managers in Artificial Intelligence adoption and its influence on organizational performance and frames the suggestions to stay informed and adapt to the changing landscape.

**1. Introduction**

Artificial Intelligence mimics human intelligence, it is a broad field of research which involves computers and building machines that learn acts and reasons, it is used in Business Optimization, Healthcare, Data Analytics, Human Resource Management Practices and Problem solving. Artificial Intelligence (Artificial Intelligence) day by day has been transforming in various sectors, including Human Resource Management (Human Resource M). As organizations amalgamate Artificial Intelligence technologies to intensify efficiency, well organized processes, and pave the path for technological development, the role of Human Resource managers becomes pivotal in ensuring success in adopting Artificial Intelligence. Human Resource managers are not only responsible for supervising the technical implementation of Artificial Intelligence but also for addressing and accepting the challenges that occur due to this transformation.

**1.1 Artificial Intelligence Functions**

**1. Machine Learning**

It is a subset of AI using data ,algorithms and statistical models to perform data analysis.This includes three types

- Supervised learning
- Unsupervised learning
- Semi Supervised learning

**2. Robotics**

It is designing and operating of machines which assists humans in performing more complex tasks. This includes

\*Author can be contacted at: Assistant Professor, Aditya Institute of Management Studies, India.

Received: 18-04-2025; Sent for Review on: 27-04- 2024; Draft sent to Author for corrections: 10-05-2025; Accepted on: 18-05-2025; Online Available from 30-05-2025

DOI: [10.13140/RG.2.2.15109.67043](https://doi.org/10.13140/RG.2.2.15109.67043)

IJREM: -8817/© 2025 CRDEEP Journals. All Rights Reserved.

- Articulated Robots
- Industrial Robots
- Humanoids

### 3. Natural Language Processing

In this AI allows computers to understand, interpret and manipulate human language. It is used to analyze data from different sources Example: Email, Social media, videos etc.

### 4. Neural Network

In this method AI instructs computers to process the data, similar to the human brain. This includes

- Recurrent Neural network
- Convolutional Neural network
- Radial basis functions networks
- Multilayer perceptrons
- Self organizing Maps

## 2. Introduction of Artificial Intelligence in Human Resource Management

Introduction of Artificial Intelligence in Human Resource Management practices provides adequate solutions and continues to transform the workplace from non manual repetitive tests to improve Human Resource processes with neutral biases. Organizations are acknowledging the need to update their Human Resource practices through Artificial into various Human Resource functions such as recruitment and on boarding to employee training and development and performance management. Human Resource managers tend to understand these technologies and for the succession lead their implementation and should approach Artificial Intelligence adoption with careful planning, considering the barriers and implementing strategies for successful integration. As Artificial Intelligence is advancing the role of Human Resource is reshaping to develop and manage the talent. Human Resource Management Practices is a strategic approach which deals with various activities and components such as Recruitment, selection, training, placement, development, induction, attrition, retention associated with the employees and helps create a positive work culture within the organization. As the Human Resource M is responsible for the entire life cycle of an employee's term, Human Resource Management plays a vital role in reinforcing, developing, integrating and changing the culture of an organization.

### 2.1 Recruitment

Recruitment is the process which takes place in all the organizations which is mandatory for the business to grow and develop. This practice attracts and stimulates the potential and prospective candidates to apply for the jobs. It is considered as the positive approach and a continuous process as it creates a pool of qualified candidates and involves a series of activities to meet the present and future demands of the organization.

### 2.2 Sources of Recruitment

Source of recruitment in human resources management that depicts the recruitment medium that assists job seekers and organizations to link for filling the unoccupied jobs. There are majorly two sources of recruitment that are internal and external recruitment sources. This majorly helps the job seekers to find suitable jobs according to their qualification and eligibility.

### 2.3 Internal sources of recruitment

Internal recruitment sources are the prevailing working employees of the organization. The types of internal recruitment includes

- Promotion: The organization that selects the qualified employees for higher rank positions with increased pay and responsibility.
- Transfer: The organization rotates employees from one department to another within or outside the organization.
- Freelance and former employees: The organization might provide the offers to freelancers for full time employment and concentrates on retired employees
- Employee referral scheme: This is the source where the majority of the organizations depend and it is dependent on present employees for referencing from known sources.

### 2.4 External recruitment sources

External recruitment sources refer to hiring from outside sources.

- Advertisements: Advertisements are posted on its website, social media platforms, professional networking sites, job sites and newspapers for different levels of employees.
- Employment sites: Many organizations are associated with agencies for candidates and they work behalf of them.
- Campus selections: Campus and organization in the present scenario go hand in hand and both will have a mutual understanding on the requirements of the candidates.
- Walk-in interviews: Big organizations might have walk-in interview policies that allow talented candidates to apply without a formal interview appointment.

- Trade shows: An organization might participate in trade shows to inform the public about its products and services and attract recruits.
- Data of past applicants: Organizations may maintain records of past applicants and contact them during any job opportunity available.

## 2.5 Selection

Selection is the process of screening and filtering the job applications from the most suitable candidates for hiring. The selection methods determine whether the skills, qualifications, experiences and attributes are meeting the required job demands.

### Selection Methods

The various methods used in Selection process are- Interviews, Background checks, screening, reference checks, job analysis, personality questionnaire, medical examination, internship and final selection.

- Interviews - Interviews are the most common methods used in the selection process, it assesses the skills, communication, knowledge, confidence and eligibility of the filtered candidates and it determines if candidates are good fit for the job role.
- Background checks - Employers tend to make wise decisions about who to hire, as it provides information about the past experiences of the employees.
- Job Analysis - Job analysis is the process of selecting a suitable candidate for performing certain roles and responsibilities related to the job description and job specifications.
- Personality questionnaire- It determines the kind of qualities and personality a candidate has to fit in the role of the specific job.
- Medical Examination- It is the process of checking the physical strength and fitness of the job seeker.
- Final Selection- This is the final stage in the selection methods as it selects the best candidate for a job

## 2.6 Training

Training is considered as the most important function of Human Resource Management as it attempts to enhance the specific skills, knowledge, attitudes and desired behaviors of the employees.

### 2.6.1 Training Methods

The major methods of Training used in all the work place and organization are-

On the job Training Methods- On the job training methods teaches the practical applications to specific tools, devices and equipment required for performing certain tasks, roles and responsibilities. This kind of Training helps in assessing the capability and potentiality of an employee and those will be filtered and are motivated to retain in the same organization. On The job training includes- Job Instruction Training, Mentoring, Job Rotation.

- Job Instructed Training- This kind of Training programme includes instructions and demonstration to carry out the various tasks, job responsibilities where employees gain knowledge to fulfill the goals and objectives of the organization.
- Mentoring- Mentoring is the process of guiding the employees by a senior professional in the organization.
- Job Rotation- Job Rotation Training programmes includes transitioning of employees from one department to another so that they get exposure to different work culture and patterns.
- Off the Job Training Programme- Off the job training programme provides a learning platform to the employees in an external environment. As this kind of Training programmes are held outside the workplace the chances of distraction and stress are less and tend to earn maximum knowledge and skills required to perform certain jobs. Off the job training programmes includes- Classroom lectures, Role plays, Case studies.
- Classroom lectures- Classroom lectures training programmes are held in the classroom type environment which teaches administrative and management job roles, gives opportunities to the trainees to learn and get assessed.
- Role Plays- Through the Role play Training methods the trainees are provided with certain situations to be solved in real life where acting and playing a role teaches and solves the issues related to conflicts.

## 2.7 Performance Management

Performance management is the systematic and continuous process of enhancing the overall performance of an organization by improving the performance of the individual employee for getting better results. The employees activities should contribute to the organizational goals and objectives, in order to achieve this various activities such as employee development programme, joint goal setting, rewards for accomplishments, continuous progress review, feedback and coaching for greater performance are included.

## 3. Modern methods of performance appraisal.

There are some modern methods which are practically in use in the companies.

- Self-evaluation: In this method of self-evaluation assessment employees will evaluate themselves against the checklist provided by the organization.
- Behavioral checklist: It is called a Yes or No checklist and is given against a series of traits. It is shared with the supervisor and based on the attributes the concerned authority will mark.
- 360-degree feedback: This type of review includes feedback from all including Manager, employee, peers etc
- Ratings scale: A ratings scale is one of the appraisal method, which use predetermined criteria that a manager uses to evaluate an employee against set criteria and measured score will be calculated at the end.
- Management by objectives: In this method both come together to achieve a common set goal over a period of time.
- Compensation Structure: Compensation is the process of rewarding and providing the benefits to the employees for the work done which includes base pay, fringe benefits, incentives, bonus, financial and nonmonetary benefits. A well designed Compensation structure motivates the employees and Artificial Intelligence ns them in the organization for a longer period of time and it also eliminates the inequitable pay practices in the organization.
- Onboarding : Onboarding is one of the most important functions of Human Resource Management Practices as it includes the welcoming of the new employees and getting them familiarized with the organizational cultures, values, practices and roles and responsibilities, which plays a crucial role in the life of employees.

#### **4. Application of Artificial Intelligence in Human Resource functions.**

Artificial Intelligence is a computer based system to solve problems almost like humans, here systems are Artificial Intelligence based on huge amounts of information and to carry out different patterns for example human-like conversations called as Chatbot and sales assistance by visualizing the buying pattern of the customer. In border terms it is called intelligence exhibited by machines. KPMG believes in an Artificial Intelligence -powered future. The company is aware of the opportunities and ready for any disruptions happening while doing basic changes in the business models and Artificial Intelligence is widely applied in all the areas of business and in finance, all the financial institutions should put trust in bringing changes in the banking, insurance, capital aspects etc. The major role in adopting Artificial Intelligence relies on the Managers of the organization, this study explores the role of Human Resource manager in adoption of Artificial Intelligence using the software's like KEKA, Peoples Work, GRID Human Resource, Saral pay back, Spark.

##### *4.1 Artificial Intelligence in Recruitment*

Recruitment starts with posting of Job description in the portals like LinkedIn, Monster, Naukri etc, with the use of Artificial Intelligence with Artificial Intelligence n criteria's matching and profiles are trifurcated into 3 ratings -1<sup>st</sup> rating with high fit are considered as a suitable profile and followed by second and third ratings. This process of Artificial Intelligence helps the Human Resource manager to shortlist the large numbers of candidates with final virtual interview and update all the information of hiring process in a short period of time.

##### *4.2 Artificial Intelligence in onboarding*

Traditional onboarding Artificial Intelligence meant introducing and welcoming the new employees into the organization and making them get familiarized with the environment and a lot of paperwork was required. Artificial Intelligence enabled onboarding empowered with predefined instructions for helping new employees understand the process and upload the documents into the systems and minimizes the paperwork by interconnecting the systems with all the concerned departments. Artificial Intelligence simplifies the onboarding process by automating tasks and providing real time feedback about a candidate's performance during the screening sessions

##### *4.3 Artificial Intelligence in Training and Development*

Key Risk Indicators (KRIs) and Key Performance Indicators (KPIs) are the metrics used in a business having different purposes. KRIs is the metric dealing with anticipated risks associated with organizational objectives. KPIs measure the organization's development towards achievement of goals and objectives by monitoring and suggesting the key areas for improvement. It keeps a record in the systems of all the employees and reminds Human Resource pop ups regarding the anticipated Artificial Intelligence session.

##### *4.4 Artificial Intelligence in Compensation*

The basic components and the salary structure, incentives, bonus etc will be predefined for different grades of employees and advanced excel is still widely used before hand of salary computation by Artificial Intelligence. Artificial Intelligence examines the compensation data to identify any pay incongruity based on demographic attributes and assist the managers in generating unbiased reports based on promotion, bonuses, incentives etc.

##### *4.5 Artificial Intelligence in Performance appraisal*

In performance appraisal usually monthly and quaterly basis goals are set and immediate reporting managers will share the feedback to the next level head of the department, here the performance of the employees are decided based on the rating scale from 1(one) to 10(Ten) and the same will be uploaded in the system further the hike form the employees are decided and Artificial Intelligence has the potential to create higher feedback.

### 5. Opportunities for Human Resource Managers in Artificial Intelligence adoption

1. Artificial Intelligence adoption in Human Resource helps managers in processing large amounts of data quickly.
2. It provides real time feedback to Human Resource Managers, helping them in decision making.
3. It saves the Human Resource Manager time by performing maximum administrative tasks.
4. Artificial Intelligence helps the organization in reducing the manpower by performing a huge amount of tasks.
5. Artificial Intelligence plays an important role in retaining the dissatisfied employees by providing the various remedies by HR Managers.
6. It provides customized training programmes for the newly recruited employees for their development and growth in the organization.
7. It tends to provide quick data related to Recruitment of candidates as it pools up and screens the qualified and potential talent within no time.

### 6. Challenges for Human Resource Managers in Artificial Intelligence adoption

1. Artificial Intelligence cannot operate by itself and Human touch is required.
2. Resistance to change due to adoption of the latest technology.
3. New ideas cannot be generated as the usage of the brain is less.
4. Finding the source of errors is burdensome.
5. Artificial Intelligence is not secure as it has issues with protection and safeguarding the sensitive information, if leaks can create disaster on the part of employees.
6. Most of the staff members are not aware of the AI driven Technology which leads to lack of knowledge.
7. It creates discrimination, inequality and injustice, in such cases personnel attention is needed to make decisions.
8. Maintaining Artificial Tools and equipment are relatively high and many small scale sectors may not be able to afford it.

### 7. Conclusion

This study explores the challenges and opportunities of adopting Artificial Intelligence in Human Resource management. It highlights the benefits of AI in recruitment, training, payroll, performance evaluation, onboarding, and predicting employee needs. AI saves time and improves efficiency by sourcing resumes and identifying best candidates, but it also makes it difficult to identify skill gaps. It also helps in payroll computation, reducing inequalities based on compensation structures and benefits. Additionally, AI helps in predicting employee needs and providing necessary resources, while reducing time-consuming tasks like creating profiles.

### Reference

- Artificial intelligence. (n.d.). In *Encyclopedia Britannica*. Retrieved November 17, 2018, from
- Hmoud, B. (2021). Assessing human resource leaders' attitude toward the adoption of artificial intelligence in recruitment. *Journal of EcoAgriTourism*, 17(1).
- Hmoud, B. I., & Várallyi, L. (2020). Artificial intelligence in human resources information systems: Investigating its trust and adoption determinants. *International Journal of Engineering and Management Sciences*, 5(1), 749–765.
- KPMG. (n.d.). Revolutionizing financial services with generative artificial intelligence. Retrieved from Rana, D. T. (2018). The future of human resource in the presence of artificial intelligence: A conceptual study. *SSRN*.
- Tuffaha, M. (2022). *Adoption factors of artificial intelligence in human resource management* (Doctoral dissertation, Universitat Politècnica de València).
- Tuffaha, M., & Perello-Marin, M. R. (2023). Artificial intelligence definition, applications and adoption in human resource management: A systematic literature review. *International Journal of Business Innovation and Research*, 32(3), 293–322.
- Valamis. (n.d.). Performance appraisal.
- Verma, R., & Bandi, S. (2019). Artificial intelligence & human resource management in the Indian IT sector. In *Proceedings of 10th international conference on digital strategies for organizational success*.