

# AI's Emerging Hand in Shaping India's HR Landscape

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## Abstract

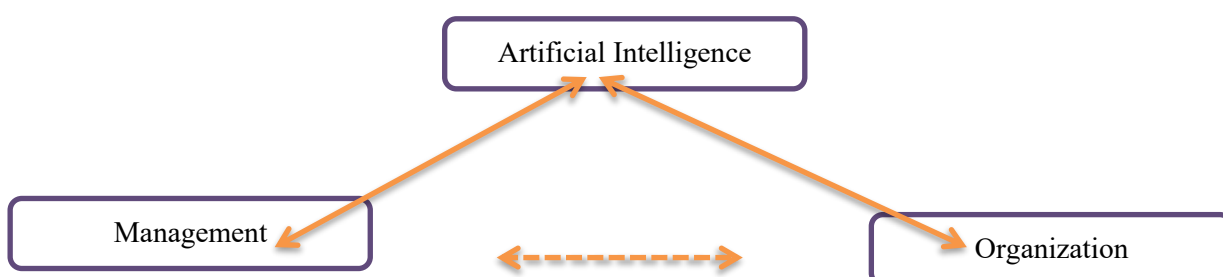
In India, the use of data has become crucial in the planning and operations of business organizations. The analytics is powering critical decision-making in marketing, sales, production, finance, and human resources. In strategic decisions for human resources, data analytics plays an important role in recruiting, selecting, growing and motivating employees. Artificial intelligence is an ideal intelligent machine that is a flexible rational agent that perceives its environment and takes actions that maximise its chance of success at some goal of the recruitment process. Artificial intelligence (AI) is used to group, analyse and represent the data in a form that is easily accessible and understood and can be acted upon by the human resource managers. The main purpose of this paper is to study the role of AI in the recruitment process. It also highlights the techniques used in the recruitment process. This being a conceptual paper, only secondary sources is used to gather the information. Various books, journals, articles and websites are used to gather the information related to this study. Also, various literatures are reviewed to understand the concept of AI in HRM systems.

**Keywords:** Artificial Intelligence, Human Resource Management, HRIS, Recruitment and Performance, Time Management

## Introduction

Human resources, or HR, powered by artificial intelligence (AI) is the new driver of business growth today. According to Techopedia, an accurate definition of Artificial Intelligence is “the creation of intelligent machines that work and react like humans.” This means they might understand speech, learn and plan, and solve problems on their own. Elaine Rich defines AI as “Artificial Intelligence is the study of how to make computers do things at which, at the moment, people are better” **Rich (1983)**. With the development of Artificial Intelligence (AI) technology, a new generation of labor, such as the human intelligence of artificial intelligence, has become the key factor for enterprises to survive and transform in a changing environment **Ertel (2018)**. AI is an innovative technology emerging trend that can be witnessed in the Human Resource Information System, especially can be very effective and beneficial in the area of recruitment. It facilitates in reducing the time-consuming activities, streamlining and automating the screening of job seekers resume, matching the job requirements and available skills of the candidates more efficiently and effectively which enables in timely decision making by the HR professionals. A framework for the relationship between the management and organization with artificial intelligence shown in Figure 1. **Duchessi, O'Keefe, & O'Leary (1993)** have discussed that artificial intelligence and digital technology has impact on the ownership and responsibility for decision making, cost reduction and enhanced service, personnel shifts and downsizing, has impact on organizational structure, workforce management.

**Figure 1. Relationship between the Management and Organization with AI**



Source: - (Duchessi, O'Keefe, & O'Leary, 1993)

In Table 1, **Jarrahi, (2018)** talked about the usefulness of AI for humans. Artificial intelligence has been supporting decision-making, dealing with uncertainty, and especially equivocality of decision-making in an organization. Still in an industry, the role of humans is essential and technologies have to depend on humans when subconscious decisions are essential to evaluate and facilitate the outcomes of decisions.

**Table 1: Human and AI Decision making in Organization**

Factors	Human Mind	Artificial Intelligence
Uncertainty	Makes swift intuitive decisions in the face unknown.	Provide access to “real-time” information.
Complexity	Decide where to seek, and gather data. Choose among options with equal data support.	Collect, accurate, process, and analyze data.
Equivocality	Negotiate, build consensus and rally support.	Analyze sentiments, and represent diverse interpretations.

Source: Jarrahi (2018)

### Review of related research papers

**Brooks, (1991)** the status quo of artificial intelligence technology can be analyzed from three levels, the basic support layer, the platform framework layer and the domain technology layer.

**Kapoor (2010)** has examined the role of business intelligence and its use for human resource management. In this research article, a researcher investigated the leading business intelligence vendor to look into the business intelligence and data analytics features incorporated in human resource management modules.

**Dirican (2015)** has studied that use of Robotics and Artificial intelligence in business may have negative impact on the overall functions of an organization like production, performance management, sales, strategic planning, customer relationship management, banking system, coaching, training, taxes etc.

**Buzko, et al., (2016)** noted that AI is not able to identify the effectiveness of training costs and also artificial intelligence technologies facilitate the prompt analysis of data by humans.





**Kolbjørnsrud et al. (2016)** reviewed the fact that artificial intelligence will soon be able to do the administrative tasks that consume much of managers’ time faster, better and at lower cost.

**Jain (2018)** has quoted that most companies have been adopting modern technology in various HR processes like recruitment processes, performance appraisal processes, and cloud-based HR systems.

**R & D (2018)** have narrated the role of AI in recruitment where artificial intelligence plays an integral role in the recruitment process. Artificial intelligence helps in screening the candidates, auto-generated messages to candidates, employee relations, scheduling the interviews etc.

**Merlin & Jayam (2018)** have concluded that AI is useful in the workplace and helps HR professionals to understand their work and to identify the problems and trends in advance.

### Objectives of the study

-  To study the concept of Artificial Intelligence
-  To understand the role of Artificial Intelligence in the recruitment
-  To understand the benefits of using AI in recruitment
-  To understand the challenges of using AI in recruitment

## Research Methodology

In the research study, I have used secondary data. The secondary data has been collected from research papers, published materials, online websites, HR blogs, and survey reports published by various research organizations.

## Six Dimensions of Human Resource Management

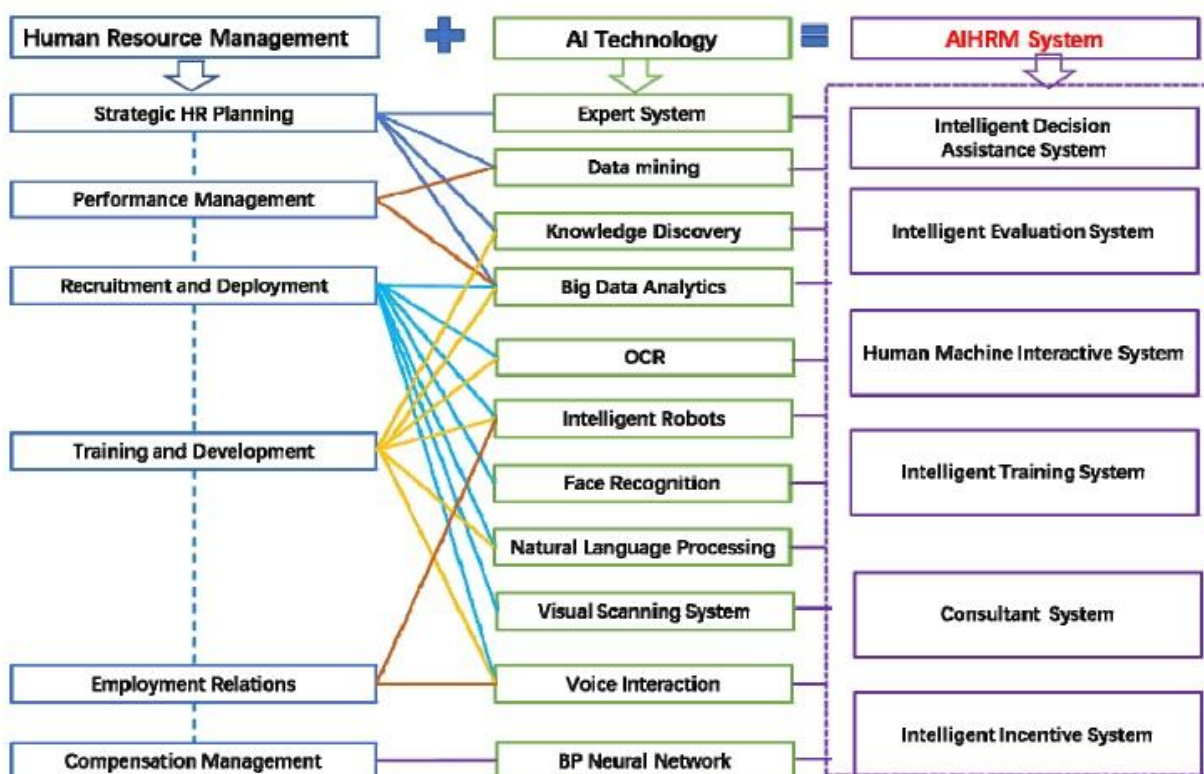
The six dimensions of human resource management are interconnected and interact to form an effective human resource management system, as shown in Figure 2. Among them,

- ♣ **Human resource planning** is the starting point of human resource management. It mainly helps the organization to predict the future needs of personnel and the basic qualities of personnel through the plan.
- ♣ **Recruitment and deployment**, with human resource planning as input, is equivalent to the organization's blood, providing nutrition to the organization, solving organizational staffing and staff matching issues.
- ♣ **Training and development**, the theme is "education";
- ♣ **Performance management** is the core of the six dimensions. It is also the main input for other dimensions.
- ♣ **Compensation management** aims to motivate employees to solve problems in the company.
- ♣ **Employee relationship management** aims to manage personnel and help the company form an effective cycle of rational allocation of human resources. Noe et al., (2006).

## Conceptual AI Application Model for HRM

The design of the "AI+HRM" model framework is mainly to assist the human resource managers to make better decisions more efficiently facing large amount of information. The framework answers how the AI can be combined with Human Resource Management. The corresponding relations among the human resource management, AI detailed technology, and the formed Intelligent System are described and explained, as shown in Figure.2

Figure 2: A conceptual model for AI application in HRM



## The Uses of Artificial Intelligence in Recruiting

- ❖ Empowering virtual assistants through data collection and distribution
- ❖ Organizing statistics based on different stakeholder needs
- ❖ The chance of error will be less and accuracy in task can be achieved.
- ❖ It can handle responsibilities and can be programmed to manage them.
- ❖ Reduce the burden on administrative staff in company.
- ❖ It will help in talent acquisition and identify the right candidates for the job.
- ❖ AI helps to predict the rate of employee retention at workplace.
- ❖ It can overcome the limitations of human and work accordingly.
- ❖ It will maintain the workflow in various departments.
- ❖ Through AI companies can able to get accurate results.
- ❖ It will increase the employee engagement at workplace.
- ❖ Sometimes manager's start thinking emotionally which create a hindrance in making decisions. Sentiments and emotions are not lacking in the AI system that's why they will able to think logically and take the right decision.

## The role of Artificial Intelligence in the recruitment process of HRM

Now a days HR department heading towards the digital revolution and using various method to simplify the resources by using big data analysis, artificial intelligence, and cloud computing. **Amla & Malhotra (2017)** Most of the organization has been using artificial intelligence or digital technologies in HR like chatbot, machines learning, and robot process automation in human resource management which support in recruitment, screening, onboarding, and interviewing etc. Following are the role of artificial intelligence in human resource management;

- ◆ **Recruitment:** **Amla & Malhotra (2017)** defined that only 40 percentages of companies and industries are using artificial intelligence. Organizations like SAT, Facebook, Linkedin, GE are using digital technologies in screening, interview, and identify the new talent for the recruitment process in an organizational. Through AI recruitment manager can examine the application and candidate can get quick response. Chat box system or automated answering machine plays essential role to solve the quires and problems regarding the process of recruitment in an organization.
- ◆ **Screening and Interviewing Process:** Artificial intelligence is helpful in automating the interview process by examining them with word or speech patterns exams. Through Ay software digital interview can take place and AI also helps to improve the candidate experience. Tools like Amy and Clara are used to scheduling interviews, working meetings.
- ◆ **Reduce Administrative burden:** In an organization HR have to play multitasking roles where using technology and Artificial intelligence companies try to reduce workload. AI provides solutions of problems and it helps to increase the efficiency of HR in an organization.
- ◆ **Selecting:** **Rajesh, Kandaswamy, & Rakesh (2018)** has examined that through AI human resource manager can able to trace right candidate in short time of span and technology will helps out to identify the suitable candidates as per required skills sets.
- ◆ **Reduce Discriminations:** **Rathi (2018)** has explained Nowadays, AI is being used to reduce the favoritism and will help to increase the transparency at workplace. In such a way organization can able to select the resume. AI applications can be used to analyze job descriptions.

- ◆ **Increase Efficiency:** Artificial Intelligence will helpful to reduce the redundancy of employees at workplace. Various robotic tasks have been carried out to increase the efficiency at workplace. Robotic task includes collecting data, filing reports, copying data, identifying required data from available data, processing, collecting data for HR and payroll systems etc.
- ◆ **Enrich workplace learning:** Now a days, computers and digital technology can do the behind the scenes role in industry. Through computers and modern technology industries can able to manage data analysis and provide real-time feedback during training, alteration of course of actions based on progress and responses which industries got **Riebli (2018)**. To save a time companies used Microsoft 365 which helps employees to work and increase the efficiency at workplace. AI tools like Engazify (To Provide feedback), Obie and Niles (For knowledge sharing), Wade&Wendy (For Career advancement), and Duolingo (Learning domain) are used. **Amla & Malhotra (2017)**.

### Future Study and Practical Implications

#### ➤ **The Collaboration of Human and Machine**

The future trend of the AI for HRM is still the collaboration of human and machine with the existence of confliction. The McKinsey Global Institute believes that “more than 30% of activities in 60% of occupations can be replaced by artificial intelligence” **Chui & Francisco (2017)**.

#### ➤ **Data Driven HRM analytics and Information System**

To maintain the competitive advantages, enterprises can make strategic plan for the AI transforming by gradually building the internal data analytical system and improving information system. This will provide foundation for embedding with AI system. For each dimension of the HRM, the new AI technology can be attempted. Recruiting and Training can be the starting points as shown by cases analysis. The machine learning techniques for the employees' performance prediction can also be applied for practice and research. The analytics of AI can also be applied for understanding organizational behaviors with data input.

#### ➤ **Real Application Process, Advantages, and Risks**

AI and HR combination has been un-denied trend in the HR revolutions. The current mature application is for recruiting, using Chabot and machine learning. Machine learning and augment learning algorithms are being developed to provide smart solutions for human resource management **Jill (2018)**. However, most enterprises now are still not ready for AI application in HR. This process is not only technology diffusion, but also a merge with strategy, organizational behaviors, and enterprise culture and management process in the enterprise. So how to design and implement the AI technology into HR practice gradually is still worth exploring. Except for the advantages of AI brings to HR, there are also risks may exist, such as data exposure and inadvertent misuse **Josh (2018)**. Nowadays, necessary skillset for employees are required due to involvement of artificial intelligence into human resource department. Most of the times it is difficult for employees to adopt and learn the AI tools and has a proficiency in the field of digital technologies **Jain S (2017)**. How to avoid such risks or difficulties is also an interesting topic in the upcoming days.

### Some of the Popular HR Management Software Solutions

- BambooHR
- Zoho People
- Gusto HR
- SmartRecruiters
- Freshteam
- Recruiterbox
- Reviewsnap



- 🌱 Zoho Recruit
- 🌱 ClearCompany
- 🌱 Workday
- 🌱 ADP Workforce Now
- 🌱 Trakstar
- 🌱 OnPay
- 🌱 BizMerlin
- 🌱 UltiPro

## Conclusion

In competitive and digital era there is massive growth for industrial sector in India. Supervising continuous improvement is one challenge in front of business organization and its management system. To enhance the speed and for routine work most of the industries adopting modern technologies. Most of the researchers and experts also recommending industries to make a use of artificial intelligence tools, digital technologies. Artificial Intelligence and machine language has been used by many companies in the field of human resource department where AI plays an important role in recruitment, selection, hiring, analyzing performance, collecting data regarding employees, providing real time information and providing accurate information.

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