

## ARTIFICIAL INTELLIGENCE IN HRM

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**ABSTRACT:** In the competitive world industries, collect the accurate data and analysed the collected data for the use of company's growth and daily working is essential. The world is constantly becoming more prone to technology due to globalization which implies organizations have to stay up to date in order to be competitive. Human resource management (hrm) is more important than ever. With technological advances also comes the opportunity to streamline activities that previously have had to be carried out by humans. Therefore, it is of the highest importance to consider and evaluate the impact technology might have on the area of hrm and specifically talent acquisition, talent management, compensation & benefit and learning & development. The main purpose of the study is to analyses the lack of ai in hr. It aims to investigate where ai can be implemented in hr process and possibly make the process more effective, as well as that the implications would be of having ai.

**Keywords:** human resource, artificial intelligence

### INTRODUCTION

Artificial intelligence (ai) refers to technology used to do a task that requires some level of intelligence to accomplish — in other words, a tool trained to do what a human can do. Why is ai different than ordinary software? Three core components — high-speed computation, a huge amount of quality data and advanced algorithms differentiate ai from ordinary software. Core ai technologies provide better accuracy and stability to everyday processes using an algorithm that connects quality data with fast computation services.

Ai technologies offer significant opportunities to improve hr functions, such as self-service transactions, recruiting and talent acquisition, payroll, reporting, access policies and procedures. We are living in an era in which ai capabilities are reaching new heights and have a major impact on how we operate our business. Human resources executives have faith that merging ai into hr administration functions will benefit and improve the overall employee experience. This will provide more capacity, more time and budget, and more accurate information for decisive people management.

Humans and learning machines are working together to produce an ever-increasing amount of hr data in the cloud, and the use of artificial intelligence analyses offer better insight into how to execute and operate. The success of any organization depends on how effectively it combines people, process and technology intelligently to deliver transformational value at optimized cost.

Ai will help to efficiently automate many back-office functions for reliable hr transactions and service delivery.

In the competitive world industries, collect the accurate data and analyzed the collected data for the use of company's growth and daily working is essential. The world is constantly becoming more prone to technology due to globalization which implies organizations have to stay up to date in order to be competitive. Human resource management (hrm) is more important than ever. With technological advances also comes the opportunity to streamline activities that previously have had to be carried out by humans.

Therefore, it is of the highest importance to consider and evaluate the impact technology might have on the area of hrm and specifically talent acquisition,

Talent management, compensation & benefit and learning & development. The main purpose of the study is to analyses the lack of ai in hr. It aims to investigate where ai can be implemented in hr process and possibly make the process more effective, as well as what the implications would be of having ai.

#### **Area of industry:**

Artificial intelligence offers tremendous potential for industry. It's already making **production** more efficient, more flexible, and more reliable. Industry is becoming increasingly digitalized; the digital enterprise is already a reality. Data is continuously generated, processed, and analyzed.

#### **Type of industry:**

Human resource

#### **Industry profile:**

The staffing and personnel management industry locates temporary, contract, and permanent workers to meet the hiring needs of corporations, government agencies, non-profits, and other employers. These workers range from secretaries and office clerks; to doctors, engineers, and accountants; to ceos, cfos, and corporate board members.

The industry has three main sectors: staffing agencies; recruiting firms (which include general recruiting firms and executive recruiting firms); and personnel consulting companies.

General recruiting firms, also known as *contingency recruiters*, often focus on providing workers in a particular industry such as technology or health care. They are paid by a company only if the candidate they recommend is hired. Contingency recruiters typically focus on recruiting entry-level to mid-level workers.

Executive recruiting firms (also known as *head-hunters*, *retained*

*Recruiters*, and *retained search firms*) focus on recruiting for high-level positions such as ceos. They are paid whether the candidate is hired or not. In 2015, revenue in the u.s. Executive search and leadership industry was \$12 billion, which was a 2.4 percent increase over the previous year's revenue, according to the association of executive search consultants.

Personnel consulting companies provide human resources solutions (consulting and management, wage and salary administration, employee benefits planning and administration, etc.) To companies. Professional

employer organizations make up a large segment of this industry. According to the national association of professional employer organizations (napeo), a professional employer organization (peo) relationship “involves a contractual allocation and sharing of employer responsibilities between the peo and the client.” These firms typically provide services to small- and mid-sized businesses, although the number of large firms entering peo relationships is growing. Gross revenue in the peo industry currently averages between \$136 billion and \$156 billion, according to napeo.

A wide variety of permanent employees work in the staffing and personnel management industry, including recruitment, placement, and employment specialists and consultants; sales workers; job analysts, employer liaisons, and managers; and support staff such as secretaries, office clerks, researchers, information technology specialists, and accountants.

The staffing industry provides great opportunities for people who are seeking flexible work arrangements and schedules. It also provides them with the opportunity to “try out” various employers and get a “foot in the door” before eventually landing a full- time job. In fact, about 90 percent of staffing employees surveyed by the asa report that working for staffing firms made them more employable.

The staffing and personnel management industry will continue to grow as demand for temporary and contract workers increases and more companies and other organizations utilize the services of recruiters to help them find the most qualified candidates.

### **Company Profile**

The various sub-fields of ai research are centred around particular goals and the use of particular tools. The traditional goals of ai research include reasoning, knowledge representation, planning, learning, natural language processing, perception, and the ability to move and manipulate objects.

General intelligence (the ability to solve an arbitrary problem) is among the field's long-term goals. To solve these problems, ai researchers have adapted and integrated a wide range of problem-solving techniques— including search and mathematical optimization, formal logic, artificial neural networks, and methods based on statistics, probability and economics. Ai also draws upon computer science, psychology, linguistics, philosophy, and many other fields.

Ai research has tried and discarded many different approaches since its founding, including simulating the brain, modelling human problem solving, formal logic, large databases of knowledge and imitating animal behaviour. In the first decades of the 21st century, highly mathematical statistical machine learning has dominated the field, and this technique has proved highly successful, helping to solve many challenging problems throughout industry and academia.

### objectives of the study

- To understand the role of ai in today's human resource management.
- To identify where ai is lacking in human resource management.
- To study the kind of problem faced to develop ai in human resource.

### Primary objective

- To study the industry perspectives of artificial intelligence in human resource.
- The basic objective of ai (also called heuristic programming, machine intelligence, or the simulation of cognitive behavior) is to enable computers to perform such intellectual tasks as decision making, problem solving, perception, understanding human communication (in any language, and translate among them), and the like.

### NEED OF THE STUDY

Artificial intelligence is the simulation of the human process by machines (computer systems). These processes include the learning, reasoning, and self-correction. We need artificial intelligence (ai) **because the work that we need to do is increasing day-to-day**. So, it's a good idea to automate the routine work.

The goal of a research proposal is to present and justify the **need to study** a research problem and to present the practical ways in which this research should be conducted. They must provide persuasive evidence that a need exists for the proposed study.

Artificial intelligence presents an opportunity for hr to automate repetitive, low- value tasks and to increase focus on more strategic work. In general hr services include a large amount of time spent on standard onboarding processes for new employees, triaging common questions and employee requests, and basic benefits management. Artificial intelligence has been gradually applied to enterprise management decision making, taking on and helping managers to speed up their tedious and repetitive daily work. It provides powerful database and analytical support, allowing managers to get out of mechanical work and engage in more valuable work.

The need of this study is to find the possibilities and requirements of artificial intelligence can be introduced to make the process of hr more efficient.

### Research objective

It is of the highest importance to consider and evaluate the impact technology might have on the area of hrm and specifically **talent acquisition, talent management, compensation & benefit and learning & development**.

The main purpose of the study is to analyses the lack of ai in hr. It aims to investigate where ai can be

implemented in hr process and possibly make the process more effective, as well as what the implications would be of having ai.

### About the topic

Ai has been gradually applied to enterprise management decision making, taking on and helping managers to speed up their tedious and repetitive daily work. It provides powerful database and analytical support, allowing managers to get out of mechanical work and engage in more valuable work (partridge & hussain, 1992).

According to the accenture strategic report, for coordination and governance, problem solving and collaboration, employee and community, strategy and innovation work, the utility and impact of intelligent systems can change the manager's work contents. Artificial intelligence can undertake and help managers speed up their daily tedious and repetitive work. It can also provide powerful database and analytical support, so that managers can get away from the repetitive work and get devoted to more valuable work.

Human resource management refers to a series of human resources policies and corresponding management activities of enterprises. These activities mainly include the formulation of corporate human resources strategies, recruitment and selection of employees, training and development, performance management, compensation management, employee mobility management, employee relationship management, employee safety and health management (noe et al., 2006).

In the process of human resource management, the use of artificial intelligence technology can bring greater economic benefits. Improving the efficiency of human resource management through the application of ai technology has become an important trend in the future development of human resource management. This study is used to analyses the lack of ai in the area of human resource so that the problems and issues faced by hrs. Can be minimized.

### REVIEW OF LITERATURE

**1. Anupam jauhari (2017):**in the paper title **how ai and machine learning will impact hr practices today** .ai has becoming more and more important and reshaping the way companies hire and do each and every activity recruitment becomes easy for for the practitioners because machine learning technology will make use of chatbot and proceed all the activities ,ai will screen candidates and send the confirmation or rejection email to the candidates .according to the analysis of india report of deloitte 5th annual global human capital trends 53% of companies are ready to deploy digital tools while 22% have already deployed there tools. Ai and machine learning are the current buzzwords in present days hr chatbots to work efficiently, actually hr managers will have many tasks to do they should be capable of using chatbot to get solutions. The major challenge hr manager face is about performance appraisal that means basing upon employee's performance the performance appraisal will be decided and it can decide employees career path.

**2. Barbara van pay (sep 30, 2018)** in this article **how ai is reinventing hr** it was clearly stated that all the

organizations mostly looking for ai solutions for their business and they are scared of letting a non human entity handle the procedures of business. By using the ai in organization, it can reduce the time consumed for filling and hiring the candidates who applied for the job, through screening multiple candidates, gathers data they rank the candidates by considering other information like experience, skill set etc., to find right person. After finding the perfect fit for the role next main part is interviewing, now adays ai interviewing software such as hike vue, mya are used mostly. Ai technology takes care from sourcing to interview which drastically reduces the recruitment timeline and help to hire right candidates with ability to perform in specific roles and make placements much easier and at faster rate.

**3. Buzko et al. (2016)** found that the main factor for influencing the amount of training in the company is the net income of the company for the previous year and the transition from discrete paradigm of information processing to continuous paradigm allow faster and more accurate adapting to environment requirements.

The authors have concluded that in the modern business conditions, it becomes more relevant to use artificial intelligence technologies for decision making.

**4. Dianna I. Stone (2015).** Technology has fundamentally changed the way work is accomplished, and has revolutionized the field of human resource management. A recent survey suggested that nearly all organizations are utilizing technology to support core hr practices and this technology is transforming the way that organizations recruit, select, motivate, train and retain employees.

**5. Edge admin (2017):** now the present world is ruled by the advanced technologies, which is intimidating the global workforce. Out of all the technologies, we can say ai is the most groundbreaking one. As importance in the application of ai almost in each and every sector may it be banking, health care insurance etc., but the results achieved are remarkable.

As most of the companies across the globe are adopting ai, india is also not an exception that new firms especially(start-up's) are now integrating their business with ai to stay more visible and to be competitive. Some of the start-up's that have integrated its business with ai in india are: arya.ai, boxx.ai, cuddle.ai, imbibe, edgenetworks, and haptik to name a few.

**6. Eva wislow (2017):** in the title of **top ways to use ai in hr** it was clearly stated that ai is reshaping the way that companies manage their work force and make the plans which increases productivity and employee engagement in general. Talent acquisition is main important thing, we can remove tons of stressful and monotonous work from hr managers namely talent acquisition software can scan, read and evaluate applicants and quickly eliminates 75% of them from the recruiting process .ai can plan, organize and can give so many training programs to the newly joined employees through online courses and digital class rooms. Ai can predict the requirements of employees then retention will be more for the employees in the organization it plays a very important role in the organization because work cannot be done manually so with the help of artificial intelligence

the work will be done easily.

### **Aim and scope of the present investigation**

#### **types of research**

Research method is descriptive quantitative research. Quantitative research is the systematic empirical investigation of observable phenomena via statistical, mathematical, or computational techniques. The objective of quantitative research is to develop and employ mathematical models, theories, and hypotheses pertaining to phenomena. The process of measurement is central to quantitative research because it provides the fundamental connection between empirical observation and mathematical expression of quantitative relationships.

Quantitative research is often contrasted with qualitative research, which purports to be focused more on discovering underlying meanings and patterns of relationships, including classifications of types of phenomena and entities, in a manner that does not involve mathematical models. Approaches to quantitative psychology were first modeled on quantitative approaches in the physical sciences by gustav fechner in his work on psychophysics, which built on the work of ernst heinrich weber. Although a distinction is commonly drawn between qualitative and quantitative aspects of scientific investigation, it has been argued that the two go hand in hand. For example, based on analysis of the history of science, kuhn concludes that “large amounts of qualitative work have usually been prerequisite to fruitful quantification in the physical sciences”.

#### **sampling plan**

##### **Population and sampling unit**

Population is hr professionals from various areas like talent acquisition, talent management, compensation & benefit and learning & development. And the sampling unit is individual hr.

##### **Sample size**

We have approached 200 hr professionals across various industries. We have approached employees, trainees and interns across various industries

Sample size determination is the act of choosing the number of observations or replicates to include in a statistical sample. The sample size is an important feature of any empirical study in which the goal is to make inferences about a population from a sample. It is a group of subjects that are selected from the general population and is considered a representative of the real population for the study. I have approached 75 hr professional across various industries

##### **sampling procedure**

Sampling is a process or technique of choosing a sub-group from a population to participate in the study; it is the process of selecting a number of individuals for a study in such a way that the individual selected represent the



large group from which they were selected. The technique of selecting a sample is classified as:

- Non probability sampling
- Probability sampling

The sampling method used is non probability sampling and it is convenient sampling.

**source of data**

Sample method is used for data collection. The type of data collected was-

- Primary data

Primary data: the primary data was collected through questionnaire& it was interpreted. The questions were framed so as to gain maximum firsthand knowledge, which were analyzed in order to arrive at suitable conclusion. The data was collected through phone calls and taking online surveys through linkedin. The questionnaire was given to hr professionals from various industries across india.

It was given to-

- Chro's
- Vice & assistant vice presidents
- Directors
- Managers and
- Recruiters

**DATA ANALYSIS AND INTERPRETATION**

The following consist of the data analysis and interpretation of my questionnaire:

**4.1 PERCENTAGE ANALYSIS**

**TABLE NO 4.1**

Age wise classification of the respondents:

AGE	NO OF RESPONDENT	PERCENTAGE
18-25	82	80.40%
26-35	13	12.70%
35-45	5	4.90%
ABOVE 45	2	2%
TOTAL	102	100%

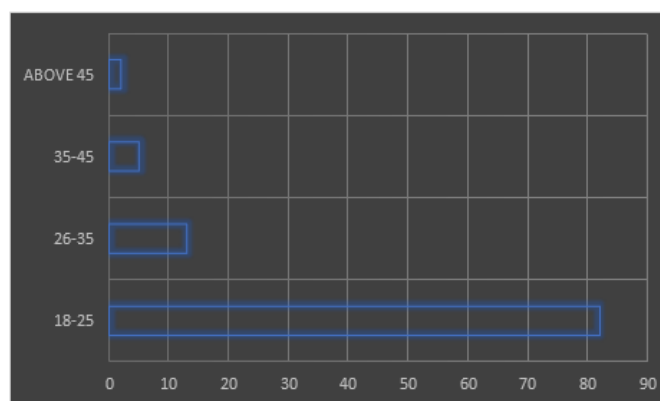


**Interpretation:**

From the above table, it is interpreted that 80.40% of Respondents are of age group 18-25, 12.70% of them belong to age group 26-35 and 4.90% belong to the Age group 36-45 and 2% belong to age group more than 45.

**Chart No. 4.1:**

Chart representing Age wise classification of the respondents



**Fig 4.1: Age of the respondents**

**Inference:**

Majority (80.40%) of the respondents of my questionnaire belong to the age group 18-25.

**Table No. 4.2:**

Gender wise classification of respondents

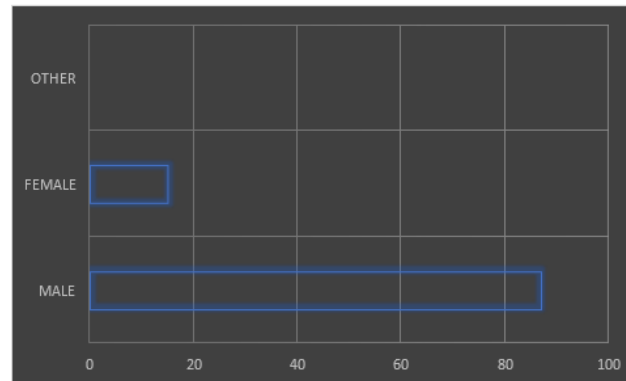
GENDER	NO. OF RESPONDENCE	PERCENTAGE
MALE	87	85.30%
FEMALE	15	14.70%
OTHER	0	0
TOTAL	102	100%

**Interpretation:**

From the above table, it is interpreted that 85.30% of respondents are of male category and 14.70% of them belong to female category. It is also to be noted that none of them have opted for the option prefer not to say.

**Chart No. 4.2:**

Chart representing Gender wise classification of respondents



**Fig 4.2: Gender of the respondents**

**Inference:**

Majority (85.30%) of the respondents of my questionnaire are male.

**Table No. 4.3:**

Q. Marital status wise classification of the respondent.

OPTIONS	NO. OF RESPONDENCE	PERCENTAGE
MARRIED	16	15.70%
UNMARRIED	86	84.30%
TOTAL	102	100%

**Interpretation:**

From the above table, it can be interpreted that out of the option given 15.70% of respondents are married, 84.30% of respondents are unmarried.

Chart No. 4.3:

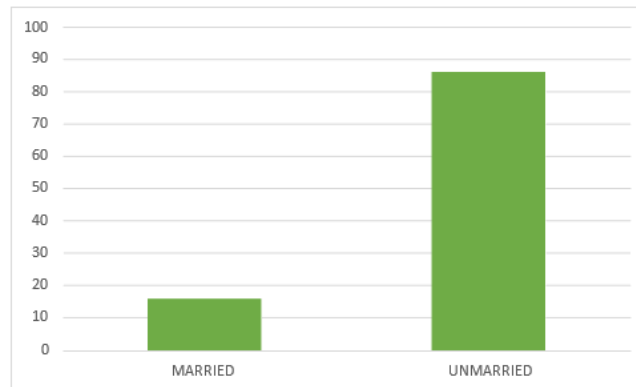


Fig 4.3: Marital status of the respondents.

**Inference:**

Majority (84.30%) of respondents are unmarried.

**Alternative hypothesis;**

It is regarding the assumption that there is no anomaly pattern or believing according to the assumption made. Alternate hypothesis: contrary to the null hypothesis, it shows that observation is the result of real effect.

**FINDINGS SUGGESTIONS AND CONCLUSION**

Based on the analysis and discussion on primary data in the previous chapter findings, suggestions and conclusion on the study in logical manner.

**Finding of the study**

- Majority (80.40%) of the respondents of my questionnaire belong to the age group 18-25.
- Majority (85.30%) of the respondents of my questionnaire are male.
- Majority (84.30%) of respondents are unmarried.
- Majority (51.00%) of respondents are employees
- Majority (56.90%) of respondent strongly agree that their organization embrace ai tech in hr functions.
- Majority percentage (54.90%) of the respondents of my questionnaire are answering queries manually.
- Majority (78.40%) of the respondent tell ‘yes’, their organization use chatbots.
- Majority (40.20%) of the respondents say that their company use chart bots.
- Majority (50%) of the respondents already knows about artificial intelligence.

### Suggestions:

- ❖ Even though artificial intelligence entered in many hr functions in organizations there is still a lag. Organizations should look into this lag so that they can meet the future demands.
- ❖ Most of the employees still prefer their queries should be solved manually. So, the researchers suggest even though ai takes part in solving queries, human intervention should be taken part.
- ❖ The researchers suggests that the basic talent acquisition that is screening can the entirely done through ai so that time can saved effectively.
- ❖ To standardized the training and development, ai can be used as a tool for training the employees so that the company can enjoy cost reduction.

### Limitations of the study

- Since it was difficult to get information's from hrs of various organizations since their company's policies were not allowing them to give information.
- The topic is very vast hence it was difficult to cover every part in short period of time
- Since the period to complete the study was short, i was only able to collect from small sample.

### Conclusion:

The world is constantly becoming more prone to technology due to globalization which implies organization have to stay up to date in order to be competitive. Human resource management (hrm) is more important than ever. With technological advances also comes the opportunity to streamline activities that previously have had to be carried out by humans. It is of the highest importance to consider and evaluate the impact technology might have on the area of hrm and specifically talent acquisition, talent management, compensation & benefits and learning & development. Hence ai is still a work in process and even though human is more required in hr functions to get that technological advances ai should be brought in the functions of hr.

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