



Artificial Intelligence's Impact on Human Resource Management

Harshita Pethe¹, Apeksha Jumle²

¹Student of Dr.Ambedkar Institute of management

²Studies & Research, Deekshabhoomi, Nagpur

ABSTRACT:

HR is an asset/input that is mandatory when it comes to improving organizational performance in this highly competitive business world. To succeed, organizations must strive for higher customer satisfaction, which is essential for their survival. For organizations to achieve these goals, they must adopt innovative human resources practices to improve their performance and stand out from their competitors. Soon, HR management will move from its foundation administrative functions like recruitment, selection, and appraisal to more advanced methods. Intelligence exhibited by computers is Artificial Intelligence (AI); it is based on a combination of autonomous knowledge and action-based capabilities. In the face of automation, augmented intelligence, robotics, and artificial intelligence, recruitment, selection, and an appraisal are becoming more advanced, completely reshaping the way employees and organizations interact with each other. To compete with AI and advanced machines, the real challenge lies in how well HR departments can train and re-transform their workforce to compete with these technologies.

KEYWORD: Human resource management, Artificial intelligence, Automation and Productivity.

INTRODUCTION:

Artificial intelligence is a tool that uses human intellect to increase performance in a variety of sectors. It is a new technology that is being utilised in all industries to boost productivity and performance (Brouwer 2015). AI has the incredible ability to operate like a human brain and provides maximum efficiency. It employs many inputs to produce outputs in human resource management. Robotics is an artificial intelligence that primarily deals with every part of the business. Artificial intelligence is simply intelligence performed by machines. It work in voice recognition, problem-solving, and so on (Margaret Rouse). Artificial intelligence employs algorithms and executes its activities following the algorithms. Alan Turing (computing machinery and intelligence in 1950) devises a test to see whether computers may demonstrate intelligent behaviour similar to humans. The Turing exam has three participants: a computer, a human interrogator, and a human foil. The interrogator poses various questions to the two participants (computer and human foil) in order to differentiate between (computer and human foil) to discern between the two. All of this communication is carried out via a displaykeyboard and all questions will be answered by the computer in such a way that incorrect identification occurs .The human foil will attempt to assist by providing replies to make the correct identifications. According to proponents of the Turing test, if a human interrogator is unable to discriminate between a computer and a human being, the machine is considered intelligent. Although the AI idea has been around for millennia, it only came to the forefront in the 1950s when its actual potential was examined. Many scientists, philosophers, and mathematicians have the AI notion but it was never highlighted until Alan Turing proposed the Turing test to separate machines (computers) from humans. This experiment was conducted with the notion that if people can store knowledge and solve issues, why can't robots (computers)? Computers could not store information until 1974, although they could execute orders, and money was also an issue during this time. After 1974, computers advanced significantly, becoming quicker and more capable of storing data. Some scientists, such as Allen Newell and Joseph Weizenbaum's ELIZA of problem, havemade contributionsresolving and interpreting spoken languages machines, but self-thinking and self-recognition were notdeveloped. In 1980, with vast resources and sophisticated algorithmic techniques, "Deep" was created by John Hopfield and David Rumelhart"learning" approaches that assisted robots in self-learning through means of experience, Edward Feigenbaum createdexpert systems that replicated the decision-making process, Christina Aguis, a human expert. AI is evolving todayquickly. Throughout history, technology has been frequently employed. It is utilised in practically every field. The internet has drastically altered our lives. In today's environment, we are considerably more reliant on technology to do our tasks simply, and hence we are closely related to technological advancement.

Human resource management is a method of keeping people in an organisation, and it is concerned with dealing with people and their attitudes inside the business and focuses on recruiting, selection, training, and development and is primarily concerned withcompensation management and their payrolls, performance appraisals, and it motivates staff to give their all in the organisation and to achieve successproductivity to ensure that the company's aims and objectives are met .Employees can help the vision and goal be realised and should recognise the significance of organisation. It is the reason for its existence in society. Accountability of each sub-department in the organisation in order to achieve organisational success, as well ashuman resource management mostly assists employeesperspectives on the organisation.

Artificial intelligence is crucial in human resource management. AI, mostly decreases the labour of human resource managers and uses a chatbot-agnostic solution and algorithms. The entire procedure is carried out using algorithmssuch as recruiting, selection, training, and development. The combination of artificial intelligence and human resources will be beneficial to improve the process and generate greater interest in theemployee's attitude towards work(Oliver Pickup 2018).It decreases the amount of manual and paper labour and makes it easier for the human resource manager to accomplish the job quickly, it aids in the sense of allowing leave toemployees based on the request for leave and it enables internet access to the permissions that were in place at the time. Details about the services provided to employees will be available there and every employee has access to it, as well as automatically the schedule will be completed, and the results will be published. Artificial intelligence is important in human resource management because of its enormous outcomes, and it will undoubtedly be important in the future to any organization's rising trendsto minimise the workload in the human resources department, the human resource manager gets help in the selection of candidates inside an organisation. Based on

their resume and the information included in the resume, so reducing the workload of human resource manager. As a result, AI is a growing trend in every industry.

Likewise, ALPHA GO:GO is a strategic board game for two players. The theme of the game in this case is to surround two players. The game was originated in China about 2,500 years ago and is the oldest board game still being played today. However, it is no longer only a human game. AlphaGo defeated 18-time champion Lee Sedol 4/1 in 2016. Unlike chess, it can be anticipated because there are 10^{170} movements.

It is feasible to go. However, later AlphaGo was beaten by Go Zero in 100 consecutive games. It figured out how to play with no human intervention. It is not limited to human expertise, no historical data was provided to it, and it just defeated AlphaGo in just 40 days of learning to become the top Go player in the world.

AlphaGo is new to the game and has no prior understanding of it. Only the fundamental rules are used as input. AlphaGo will reach zero in three days. It surpasses the powers of AlphaGo Lee's version.

Lee Sedol was the world champion in four of the five games he played in 2016. It gets the AlphaGo master level after 21 days that beat 60 of the world's finest online and offline professionals. In 2017, he won three games out of three. This AI figured out how to play Go without human interaction and devise your techniques, which implies there are more nonhumans. Narrow AI does facial recognition and has an understanding of Go.

Playing games such as chess and the most sophisticated games such as AsDoodle 2, for example, won the worldwide open champion title in 2017. OPENAI annihilated DENDI. Unlike AlphaGo, it learnt on its own ways to have fun. All of this occurred as a result of machine learning which enables computers to learn and think like humans. It is comparable to how new-borns learn. The most common approach to learning is by observation, interactions, and so forth. A neural network is a computer programme that can simulate the human brain. There are millions of neurons in the body, and each neuron contributes to the solution of a problem. The world is awash in data. It is most difficult to establish an opinion on sounds in a general form to do analysis for humans, so machine learning does more than just analyse the data sent to it. It not only learns from it but also adjusts its perspective on it. Alpha is an example. Within 40 days, go adjust and devise tactics. It's quite quick and has an excellent reaction time. Computers communicate data at the speed of light (299,792,458 m/s), therefore there is a significant disparity between the reactions of humans and computers.

Literature Review:

Anupam Jauhari's (2017) How AI and machine learning will affect HR practises today is the title of the study. AI is becoming increasingly essential and transforming the world.

How businesses employ and carry out every operation and the operators find it easier to work as a result of the usage of machine learning technologies. AI will screen the chatbot and proceed with all actions. Candidates can send the email confirming or rejecting their candidacy to the contenders. According to the India report's analysis, 5th annual global human capital trends report found that 53% of companies are prepared to employ digital technologies, while 22 per cent are not. They've already put their tools to use. AI and machine learning is now a popular buzzword. HR chatbots will help HR managers work more efficiently. They should be able to use it if they have a lot of things to perform and the most difficult challenge for an HR manager to face is performance evaluation, which is sometimes unreliable. The performance evaluation is based on the performance of the employees will be decided, and it may influence an employee's career path.

Edge Administrator (2017):

The modern world is governed by technologies, which scares the global workforce. We may claim that AI is the most revolutionary technology out of all of them. As important as the use of AI in practically in every industry, whether banking, health care insurance, etc., the results produced are outstanding. As most organisations around the world use AI, India is no exception. New enterprises, particularly start-ups, are now integrating their company with AI to stay visible and competitive. In India, some of the start-ups that have integrated AI into their businesses include: ARYA.ai, BOXX.ai, cuddle.ai, Imbibe, Edgenetworks, and Haptik, to mention a few.

Eva Wislow (2017):

It was mentioned in the headline of the top methods to apply AI in HR that AI is transforming the way that firms manage their workforce and set plans, which boosts productivity and employee engagement in general. We can remove heaps of tedious work from HR managers by using talent acquisition software, which can scan, read, and analyse candidates and swiftly eliminates 75% of them from the recruitment process. AI can develop, arrange, and deliver a plethora of training programmes to newly hired staff via online courses and virtual classrooms. If AI can foresee employee requirements, then employee retention will be higher in the company. AI plays a very essential function in the organisation since work cannot be done manually, this work can be done quickly with the assistance of artificial intelligence.

Lorenzo Milani, Dario Rahmati, Risky Nur A K Barianti (2017):

The title of the research explores the influence of AI on HRM. AI was first presented in 1950, and after a period of stagnation owing to over-expectation from 1970 to 1990, a new generation of AI emerged in 2012. It employs several algorithms and notions. It is automation in the company. AI is a blend of psychology, mathematics, and philosophy. It provides better services to customers without incurring unnecessary expenditures. At the moment, several firms are utilising AI and reaping numerous benefits as a result of this technology, like Google and IBM. Customers get simple access to information thanks to this AI. Because AI helps in recruitment and selection as well as granting leaves to employees in the organisation, it reduces the workload and time for HR managers. If it is manual, the person has to check all the records to see if anyone applied for leave on that day, but if it is AI, it gives clear cut information and updates all the information regarding employees every time. As a result, there will be approved access. AI has been applied in a variety of applications, including self-driving automobiles. It has an influence on HRM, and HR managers' job load will be decreased, and requirements will be met in a variety of ways.

Severin Lemaignan (2017):

Human-robot interaction (HRI) is a difficult task for AI. Despite the fact that any physical task performed by humans can be performed by AI. However, AI does not have emotional intelligence. As this is the primary disadvantage of human-robot contact, it becomes crucial. Robots can only perform what is pre-programmed into them. Because they are governed by people, they are unable to modify their activities on their own. Imposing separate software modules is a challenging undertaking, especially because it is both a technical and an architectural problem.

Barbara van pay (Sep 30, 2018):

It was clearly mentioned in this article on how AI is redefining HR that all firms are seeking AI solutions for their business and are afraid of allowing a nonhuman entity to handle corporate operations. By utilising AI in organisations, it is possible to reduce the time spent filling and hiring the candidates who applied for the job, by screening multiple candidates, gathering data, and ranking the candidates by considering other information such as experience, skillset, and so on, in order to find the right person. After discovering the best match for the post, the next major step is interviewing; nowadays, AI interviewing software such as Hikevue and Mya are commonly employed. AI technology handles everything from sourcing to interviewing, substantially shortening the recruiting schedule and assisting in hiring the appropriate individuals with the potential to perform in certain

jobs, making placements easier and faster.

FaiyazMd.iqbal (2018):

According to the paper's title, artificial intelligence (AI) has the potential to alter the way firms recruit, train, develop, and manage human resources in the workplace. AI is already important in HR management, but there is a need to improve this technology in every business so that it makes the work of HR managers or superiors easier. For example, Under Armour is an American company that develops footwear. Therefore it receives about 30,000 resumes, making it tough for the superiors to shortlist and choose the applicants, so they employed this AI-enabled tool called HireVue to make the work easy by employing this technology. Managers in the organisation can conduct interviews with applicants using pre-recorded questions so that candidates will attend interviews, and there will be algorithms that are already coded to the system suit see how to select the candidates, and on what basis they have to select according to the requirements of an organisation. This AI technology can be used to reduce employee turnover in companies, and it will undoubtedly be a key era for managers.

AI and its impact on various occupations:

AI enables human resource workers to accomplish their jobs more efficiently. This AI has had a good influence on several elements, including enhancing the hiring and orientation process: One of the most essential functions of AI in HR is talent sourcing. AI helps HR teams by allowing them to review and analyse a greater quantity of resumes in order to select the finest among them. By utilising this AI, the organisation saves time and is able to select the best suitable candidate for the job by assessing elements such as values, skills, experience, and so on. Each newly joined employee has different learning preferences, so by analysing employee behaviour, personalization or customization of employee training/coaching is implemented, and this is considered one of the impacts of AI. Retention of talent and ongoing employee satisfaction: Because employee retention is the most important and also the most difficult task, AI assists human resource professionals in focusing on employee performance, work-life balance, and trying to create a sense of belonging in the organisation regardless of the benefits provided by the organisation. Prediction: anticipating future turnover is critical. AI should utilise historical data to forecast the future more precisely than ever before. The data gathered can be utilised to advise the organisation on future improvements.

AI impact on different occupations in future:

1. Education (Kristin Houser, December 11th, 2017):

According to the United Nations Educational, Scientific, and Cultural Organization, artificial intelligence plays a critical role in the teaching profession; pupils learn differently with the assistance of AI. Because the number of primary and secondary school students who do not attend school is large, digital instructors can use artificial intelligence to entice youngsters to learn something.

2. Drivers (Vishal Marria, 2019):

Artificial intelligence will replace drivers by the mid-2020s, using specific algorithms for driving a car and preventing dangers and accidents. Although autonomous cars now exist, they will emerge and change by 30 per cent within a few decades.

3. Blue-collar and white-collar jobs (Clalum McClelland 2018):

Blue-collar and white-collar employment will be abolished, with almost 20 to 30 million jobs lost by 2030, eclipsing 30 per cent of labour jobs and displacing 800 million people.

4. Doctors (Vinod Khosla, Silicon Valley investor):

He claims that robots will replace doctors by 2035, and that AI will replace 50 per cent of jobs in the next decade. He even claims that machines will replace 80 per cent of doctors in the future by healthcare seen entrepreneurs but not medical professionals.

5. Attorneys (McKinsey Global Institute):

AI can anticipate better legal results than humans. It is apparent that AI and machine learning are growing and altering at the moment, and by 2036, 1 lakh legal tasks will be automated, reducing the job of lawyers and the way cases are handled. According to the McKinsey Global Institute, 23% of employment might be automated in the future.

Integrated AI companies:

1. Health-Tech:

It is a firm based in Chicago, Illinois that analyses vast pools of clinical data using AI to give health aid to each individual. It also evaluates a patient's prior history and diagnoses them based on it. It also focuses on cancer research.

2. AEye:

It is a firm based in Pleasanton, California that develops visual algorithms that serve as the foundation for autonomous cars, such as giving precedence to animals on the road and humans over the sky, among other things.

3. Captricity:

It is a firm based in Oakland, California that receives data from many sources, including handwritten documents, transitions from manual to digital workflow, and leads organisations and enterprises such as MetLife and MassMutual.

4. Google:

Google is a global search engine, it is one of the world's top AI firms, and it has founded 12 AI startups in the last four years. Google's core AI efforts are focused on services, and it has big software projects in TensorFlow as well as its TensorFlow chip project.

5. IBM

IBM has been a leader in artificial intelligence since 1950. IBM provides cognitive-based services, AI software as a service that is used for cloud-based analytics, and it has recently bought three AI companies.

Source: These artificial intelligence businesses are developing this nascent technology through a variety of AI system advances, by Andy Patrizio (May 24th, 2019).

AI implementation in HR- Related functions:

Recruitment:

Predicting the ideal hiring for the future is critical in every firm. The usage of AI integrated systems assists the recruiting team in analysing received resumes, comparing them to already existing employees in the same job function, and then selecting the best applicant based on the results. As a result, there will be no human bias since there will be no human interference. The adoption of AI-enabled tools will aid in the recruitment process. Because of the costs involved with integration, the majority of firms are currently trailing in integrating AI into their HR-Practices. AI has now been effectively incorporated. Previously, recruiters would spend a significant amount of time screening resumes and selecting the finest among them. However, the use of AI in recruiting has totally changed the process of picking applicants with the required skill set. If we look at the present world of AI recruiting, we can divide it into two categories: - (1) Chatbot Functionality; (2) Machine Learning (J.Strange).

Because of the integration of AI in HR/HCM, the organisation gains by going into Automation and producing better outcomes. As a result, AI in HR is the next most interesting thing to happen in the future years. It is well known that AI is fully entering the workplace, and AI has now taken on a new form as a recruiting manager. At the moment, AI is mostly associated with the function of recruiting as compared to other HR operations. Companies profited from the effective integration of AI into HR in recruiting by employing the right personnel. Fama Technologies, a California-based firm (A-Tech Firm), has developed AI-based software that searches candidates' profiles and matches them to the interests of hiring managers. Another example is Param.ai, a Hyderabad-based start-up that uses AI to automatically pre-screen resumes for various companies and tells if the candidate is a good, bad (or) average based on past hiring patterns (Smitha Verma).

Training:

Firms construct their training programmes without any pre-defined limits, and most organisations do not know how to teach their personnel correctly. The majority of learning professionals stated that at least half of what learners learn during training programmes is squandered. (JOSH – BERSIN).

However, the use of AI in training has now become a powerful avenue in organisations, and T&D programmes are more effective as a result of the application of AI-based Algorithms that monitor and study the skills, behaviours, and attitudes of employees working at various levels. Because different people learn in various ways, AI may be used to customise training programmes. Following the training, the participants' input is gathered in order to make any necessary changes to the curriculum. The AI informs both the company and the employee about any gaps in their abilities, performance, personality, knowledge, and so on, allowing them to develop and offer their all at work.

Performance Management:

Because of the development and use of AI, traditional methods of judging employee performance are becoming obsolete. Most employees said that while performing appraisals, most supervisors displayed prejudice and that the mistake rate was also quite high. (Shaw. S) The main question now is whether incorporating AI into a company's performance management systems would actually boost employee performance or not. However, the answer is yes, since several of the best firms such as Microsoft, Adobe Accenture, and Deloitte have had success using AI-based tools in analysing performance. Andrea, P. At the moment, AI integration is mostly tied to recruiting procedures; however, AI will soon be incorporated into all aspects of human resource practice via chatbots and AI-based applications. Dom NSicastro (Dom Nicastro).

According to IBM's most recent study of over 6000 executives, "Extending Expertise": How Cognitive Computing Will Transform HR, the primary findings of the survey are as follows: Dom Nicastro (Dom Nicastro). When it comes to AI deployment, the majority of companies are hesitant due to the hefty cost. However, the majority of experts believed that AI can really quantify the worth of personnel, and to illustrate this, a study of 800 organisational decision-makers yielded the following significant results: Chris Nerney (Chris Nerney).

CONCLUSION:

Integration of HR processes with AI-based applications will undoubtedly have a greater influence on improving organisational performance. Even though AI apps lack the emotional and cognitive powers of people, these sophisticated AI-based HR tools can evaluate, anticipate, and diagnose, making them a valuable resource for any type of business.

The major concern for the global workforce, though, is how AI is affecting job cuts in numerous areas throughout the world. However, the fact is that it is not advanced technology that is replacing humans, but rather how people should evolve and approach these technologies in order to create wealth and success. In reality, some employees will be impacted by AI-based operations, hence it is the responsibility of HR executives and businesses to focus on employee requirements and potential results. Finally, according to our research, most firms are effectively integrating AI-based solutions in recruiting, but in the near future, AI will be everywhere in HR: recruitment, training, onboarding, performance analysis, retention, and so on. However, the majority of organisations are still trailing in incorporating AI into their HR practices due to the expense of integration. To summarise, AI implementation should be considered an optimistic opportunity since AI improves people's lives and provides a better future if it is fully understood and used properly.

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