

The Impact of Artificial Intelligence on Human Resource Management

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Abstract

This research paper focuses on the impact of Artificial Intelligence on Human Resource Management, ways to deal with its challenges, and the way forward, the study is based on secondary data and the design employed for the study is of descriptive type. The roles and responsibilities of the HR leaders have changed over the past few years. The majority of the automated work has been done by computer systems while the creative aspects have human involvement. AI is assisting in complex HR functions like recruitment, employee engagement and retention, and training and development. It has been said that AI and HR are combined as the HR managers decide the quantity in which AI will be used to influence these processes. Challenges arise when certain ethical boundaries are not determined and there is no human involvement. As this field deals primarily with humans, their involvement is essential for smooth functioning. The study also explains how the use of AI will increase among several big companies in the future as everyone is focused on increasing productivity and cutting costs. Overall the paper gives us an idea of how AI in HR has a positive as well as negative impact however at the moment the pros outweigh the cons.

Keywords: Artificial Intelligence, Human Resource Management, Impact, Challenges, Probable Solutions.

1. Introduction

In today's world, data and technology are of immense value. Artificial Intelligence is one such thing that has helped humans in doing their mundane tasks as well as driving innovation and growth. With the introduction of AI in the corporate sector, companies have changed their ways of functioning on a large scale. The amount of power AI holds, it has the potential to transform industries and create change which will be followed for decades to come (Accenture, 2023). Some people view AI as a threat to human society, however, it must be seen as a supporting tool. At this stage, AI has been having difficulties in completing certain common sense tasks in the real world, it functions at a speed that is much faster than any human brain. With its speed it can game out possible consequences and help in streamlining the decision-making process (Adam Uzialko, Business News Daily, 2023).

Due to its flexibility, AI can fit easily with any business strategy. The most common type of AI today for business purposes is machine learning which helps us process large amounts of data quickly (Wharton, 2019). Although AI is being used by thousands of companies all over the world, the real big opportunities have not been tapped yet. The major effects of AI will be seen in several important industries in the coming decade. AI, like any other technology, has also generated unreal expectations with reference to machine learning and other forms of technology with little connection to its real capabilities (Harvard, 2022). Artificial Intelligence will reduce costs of cognition just as the Internet lowered costs of information transmission. In the near future AI-enhanced experiences will be expected by everyone, therefore, the leaders must focus on developing AI for everyone rather than just a particular department. (Karim Lakhani, 2023).

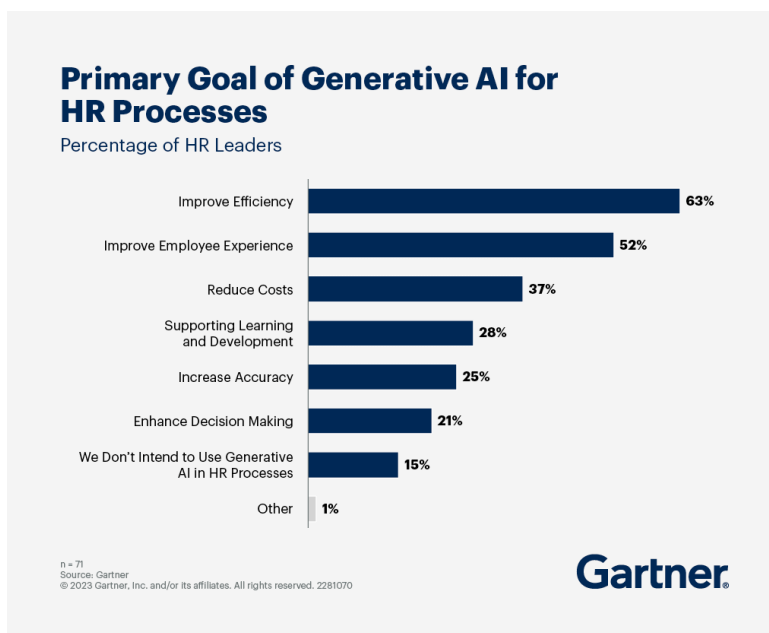


FIGURE 1. Primary goal of generative AI for HR processes. Source: gartner.com

According to Gartner (2023),

Assessing the advantages and drawbacks associated with the integration of AI within your HR operations (Figure 1). The incorporation of AI technology is inevitably impacting various facets of HR functions throughout the employee life cycle, encompassing HR operations, service delivery, recruitment processes, learning and development initiatives, and talent management endeavors. Initially, the introduction of AI is setting new expectations regarding employee interactions with HR and HR technologies, prompting a gradual evolution in the roles and structures within the HR domain.

Enhancing operational efficiency and facilitating the utilization of AI across HR scenarios. Some HR leaders may perceive AI-powered text generation tools, such as ChatGPT, as a means to streamline tasks and reduce workload for HR teams. The potential applications of AI are extending across the entire spectrum of HR functions, including talent acquisition, employee feedback mechanisms, career advancement initiatives, learning programs, and HR service administration.

A significant proportion of HR leaders, amounting to 63%, are expressing intentions to leverage generative AI for optimizing efficiency and enhancing the overall employee experience, among other strategic objectives. However, concerns regarding accuracy and data privacy are persisting among HR professionals. Despite the enthusiasm surrounding AI, a considerable portion of HR leaders, approximately 77%, are harboring apprehensions regarding issues such as accuracy and verbosity when applying AI technologies for business purposes. Furthermore, uncertainties are prevailing regarding data privacy and confidentiality, with a lack of explicit assurances in this regard.

Acknowledging the potential limitations of nascent generative AI solutions, HR leaders are recognizing that initial implementations may not be fully harnessing the capabilities of mature AI solutions. Consequently, organizations must proactively address concerns surrounding the use of generative AI. HR guidance should emphasize the importance of refraining from disclosing sensitive or confidential information in interactions with AI models, prioritizing caution to mitigate potential risks associated with data privacy and confidentiality breaches.

AI is poised to change the future of Human Resource Management forever disrupting the views of talent, skill, roles, and work. Many HR leaders have felt a sense of urgency in moving forward with AI. However, it is a big myth that AI will eventually replace humans. Instead, it will be helpful in delegating tasks and becoming cost-effective. (Gartner, 2022). The next era of HRM will benefit greatly from AI since data analytics, machine learning, and automation can collaborate to support HRM tasks including hiring, training, and employee retention (IBM, 2023).

2. Objectives

1. To understand Artificial Intelligence and its impact on Human Resource Management.
2. To understand the challenges posed by AI on Human Resources and their probable solutions.

3. Need of Study

Artificial Intelligence is essential in Human Resource Management. It can revolutionize various aspects such as recruitment, employee engagement, and workforce planning. AI can streamline the operations which in turn will help in decision making and provide better insights for talent management. It helps professionals adapt to the evolving computer technological landscape ensuring they remain competitive and efficient in their roles. In today's world, there are many myths among the employees that AI will replace them in the near future, however, AI is just another technological invention like the internet. People will eventually adapt to it and make the best use to stay ahead in the market. The study helps us bust the myths surrounding AI in HR and how its proper use can cut costs and change the working culture of the company.

4. Research Methodology

The descriptive research design is employed in the research study. Secondary data has been extracted from research papers and published articles, as well as from online websites, human resources blogs, and surveys published by different research organizations.

5. Literature Review

Artificial Intelligence has made organized and precise solutions for HR in recent years as it has assisted in complex processes like talent development, employee selection and engagement, feedback, and many others. Indian writers such as Mr. Anshul Kapoor (2023) has clearly mentioned that AI will soon replace the jobs in the HR sector as it provides more error-free and quick responses while decision making.

It is often believed by many individuals that one must wait for the dust to settle before starting to implement AI tools into the organization. However, studies from Harvard Business Review (2023) have shown that AI is quickly evolving as new practical cases are being solved on a daily basis. The most important thing is to start adapting to AI and remember that it is a learning process.

This is the time for HR leaders to finally wake up and integrate AI successfully into the workforce while understanding its capabilities and limitations. Studies from Boston Consultancy Group (2023) have proven that implementing AI is not just a technological shift but also a cultural and organizational transformation. The delicate balance between the power of AI and irreplaceable qualities of humans such as empathy and creativity is absolutely necessary.

One must not always believe that AI will make the correct decisions at all times. The HR managers must check the algorithms and logic from time to time before making important decisions. As per a research paper from Dr. Priya (2021) at first several employees may struggle because of the introduction of this new technology. However, in order to survive in this industry they must try and work with AI rather than against it.

According to a recent study by the Society of Human Resource Management (2023) , almost one in four organizations employ artificial intelligence (AI) to help with HR-related tasks. Automation when used correctly adds value to companies, especially when it comes to acquiring top talent. But utmost care needs to be taken as the AI tools do not lead to biases in the process. Therefore, proper utilization of AI is crucial or else the result can swing both ways.

Biases are something that cannot be removed from humans, it is nearly impossible. Therefore, recruiters are shifting towards AI for their recruitment process as the systems are based on logic and reasoning. With the help of simple algorithms biases can be completely nullified as shown by a recent study from Upgrad (2024). This helps in diversity of selection and decisions are taken on the basis of data and not emotions.

6. The Rise of Artificial Intelligence

The word 'Artificial Intelligence' has been in the news in recent years for positive as well as negative reasons. However, its development over the last decade has significantly impacted our lives. From Siri and Alexa to self-driving cars, AI has expanded rapidly and is taking over a wide range of industries. The governments of various countries have understood the power it holds and how it can be used to tackle the most pressuring challenges our society faces such as climate change and healthcare. Matters related to national security and crimes could be solved at a quicker pace with the help of AI. However, it is a double-edged sword. Elon Musk has recently stated in one of his interviews that in the coming years, AI is going to be a far greater threat than nuclear weapons. However, at the moment the pros outweigh the cons.

AI has caused a sudden change in the corporate industry as well where the roles and responsibilities have taken a shift, where automated routine and repetitive tasks are done with the help of AI tools and techniques. This has led to certain jobs becoming absolutely obsolete and certain ones being transformed. Many industrialists and tech giants have publicly stated that AI is the new giant and the biggest asset for humanity in the next century. The workforce will however have to upskill themselves and adapt to the changing landscape. Historical evidence has suggested that automation has led to job creation and results in a positive impact on employment. Newer jobs will be established where the primary functions of human beings would be to bring creativity, empathy, and critical thinking to complex problem solving.

All artificial intelligence-related activities have suddenly increased during the last several years, mostly as a result of the development of the internet of things (IOT) and other associated technologies like big data and cloud computing. While AI has achieved a critical mass where research and application occur simultaneously, it would be accurate to argue that AI is still in its infancy. Whether we like it or not, artificial intelligence is driving a revolution, and there's no denying that things have changed. The next 10–15 years will decide how Artificial Intelligence will be used on a long-term basis and all the developing countries will be in the race to make the maximum and best use of this technology.

7. AI and Human Resource Management

Artificial intelligence (AI) has become a crucial component of human resource management in today's corporate environment as organizations aim to maintain efficiency and competitiveness. AI covers a wide range of activities right from identifying top talent to effective training programs. Companies have started to get used to advanced technologies such as machine learning and natural language processing that help them stay ahead of the competition in today's competitive environment. Here are some of the ways in which AI helps in performing HRM functions:

1. Recruitment

Experts today have proved that recruitment is one of the most important step in management as it decides the direction in which the company will go in the coming years. The time spent by recruiters is nearly 15 hours a week to hire for a single position. When we bring AI into this, recruiters can scan multiple CV's using technologies such as Applicant Tracking Systems (ATS). This system has revolutionized recruitment as it helps in speeding up the process as well as screen and select candidates more accurately. Amazon and Unilever have used this system in the last few years as this has helped them hire a diverse set of talent and the skill assessment is also being done accurately. Delta Airlines has benefited significantly from the introduction of AI-powered chatbot that answer personalized queries and feedback. Companies like Siemens AG have collaborated with Microsoft in preparing an AI-powered assistant which promises to boost productivity across the industrial life cycle.

Many HR leaders have suggested that AI might help employees find new jobs rather than replacing them. Turing is an AI tool that has helped recruiters in recent times connect to developers all over the world. One can select the skills required for the job and the machine learning algorithm helps us find the suitable candidate for our project. The speciality of this tool is that it learns from its past experiences and becomes more effective and accurate. Companies like Coinbase and Pepsi have relied on this tool for some time now. Activities which required days earlier could be solved in minutes for a fraction of the cost.

Paradox is another tool which helps both recruiters and job seekers. It provides us with an assistant named 'Olivia' (just like Siri or Alexa) which helps us connect with the right talent once we have communicated our requirements to her. Job seekers can chat with her regarding new job opportunities and she will provide solutions in literally seconds. Olivia acts as a personal assistant helping us in scheduling our meetings and re-doing our calendar. People generally prefer this tool because of its conversational nature and user-friendly access.

2. Learning and Development

Artificial Intelligence assists in analyzing large amounts of data from many business domains to pinpoint knowledge gaps within the organization and among individuals.

HR managers can use learning and development methods in a targeted manner to close these gaps by recognizing them. In addition to facilitating performance assessments and tracking subpar work within a team, HR technology and performance tools also enable managers to identify knowledge and ability gaps and fill them rather than providing haphazard training. This helps in saving costs as training is provided only where required and improves the company's culture as the employees are given personalized treatment. With the help of AI chatbots around the clock assistance can be provided to learners and they can move at their own pace. Real-time interaction and access to relevant information help in deeper interest and understanding. Experts have suggested that learners receiving immediate feedback are more likely to no longer commit that same mistake.

EdApp is the top pick by many HR leaders for revolutionizing learning and development in the workplace. It helps build micro-courses for learning that are interactive and packed with relevant information. An option to build material from scratch is also possible with the help of AI, where a course can be generated within a matter of seconds. This tool mainly focuses on small and medium-scale industries, however, Coca-Cola and Shell are some of the big names that have benefitted from this flexible service.

3. Employee Engagement and Retention

In today's day and age, with the increasing levels of competition and opportunities, engagement and retention of employees is the most difficult part. Companies must take special measures to keep their employees satisfied as recent surveys suggest that an engaged employee is more likely to be productive and high-performing which will eventually lead to their retention. AI tools have the power to analyze employees based on their strengths, weaknesses, and preferences, even predicting their future performances. Therefore, personalized engagement is key to keeping employees engaged in their work. The office vibe is an AI tool that is used by small to medium companies to collect surveys for employee feedback that helps them stay on top of employee concerns in real-time and take action quickly to solve them. This also helps in collecting a more unbiased and data-driven approach to performance evaluation.

IBM has started using AI-powered programs that recommend the employees to courses and learning material based on their current projects, roles, and career aspirations. Thus, it upskills them and prepares them for future roles within the company. On the other hand, Walmart used an AI app that could detect the employees who may be at risk of leaving, this helped them improve the work experience for their associates. Companies like Heineken launched an AI-driven interview and mentorship program called Go Places which helped them identify the candidates' strengths for matching them with career development opportunities.

8. Challenges faced by HR due to AI

- As companies focus on data collection for their evaluation in HR, they must comply with a wide range of rules and regulations of the data protection laws. Compliance is not

just from a legal standpoint but it is also critical to maintain trust within the employees and stakeholders. Data usage must stay within the company's ethical boundaries. Companies must assure their employees while collecting their information that privacy will be maintained and data will be safeguarded.

- As AI systems are heavily involved in employee interaction and decision-making, the ethical ramifications become a point of concern. Computer systems are being used to make decisions that impact the lives of workers. Amazon used algorithms a while back to track their employees which led to automatic firing. Later it suggested that an ethics council must be set up to look at these kinds of issues. The logic of AI-generated decisions as well as the underlying rationale of the human decision must be understood.
- Another major problem that HR faces due to AI is a lack of emotional and psychological understanding. Companies make a personality assessment of any new job seeker to see if that person will fit well with the existing team and company culture. AI often neglects the complex human emotions while hiring new talent. Although AI is being incorporated into business models, it is not ready for face-to-face responsibilities. It can be helpful in the process of resume screenings however, it needs to be monitored closely and cannot replace evaluators.
- AI can help hire a diverse range of talent with its recruitment tools and eliminate biases however, it is not a perfect solution as it relies on humans for its data it is likely that recruiting tools will take advantage of biases that are prevalent in human-generated data. An example of this is when the type of data does not reflect real-world make up which is called Sampling Bias. To tackle this issue the companies must improve the quality of data they feed AI. This strategy was adopted by Unilever when they noticed that their AI tool was only hiring candidates from a fixed bunch of universities.

9. Probable Solutions

- Recruitment software is a beneficial tool in the modern business world and it should be adopted by companies looking to increase their efficiency and cut costs however, complete control must not be given to AI. Humans must from time to time see that proper quality of data is being provided to the AI tool. Otherwise, it could lead to the same biases caused by humans.
- Companies must inform employees about the data that is being taken from them and ensure that it is safeguarded at all times. Protection of privacy is a must and to have ethical boundaries while collecting information should be maintained. This will help increase the trust of employees on AI.
- During the selection process, AI must be used for screen testing candidates and reviewing resumes and even predicting the cultural fit. One must ensure that AI is not the only tool that is used, certain human factors in the hiring process must be involved as it is helpful in understanding complex human emotions such as empathy and creativity.
- HR leaders must not overuse AI tools as this will lead to monotonous work and creativity and out-of-the-box thinking will perish. A conscious effort must be made to make

the human factor and AI tools complementary. Decision-making will benefit from this due to the combination of logical reasoning and human emotions.

- Employees having doubts about their jobs due to the development of AI tools must understand that these tools cannot function to the fullest without a human brain behind them. They must upskill themselves and adapt as quickly as possible to these new technologies. This will help them grow in their profession as well as acquire higher positions in the company.

10. Findings

- The HR industry has revolutionized after the introduction of Artificial Intelligence and its tools. The big companies have slowly started using AI in their HR departments however, it has not completely taken over this field. Human intervention is still necessary to regulate the data which is fed to the computer systems which will in turn provide quick solutions for decision-making and problem-solving.
- The aspects of recruitment, learning and development, and employee engagement and retention have significantly developed with the introduction of AI. Big companies like Amazon, Coca Cola, and Walmart have slowly introduced AI into their day-to-day work and this is expected to rise in the future with more development and increased accuracy of AI.
- Although it may seem that AI has developed HR which it has, there are certain issues such as privacy, no understanding of complex human emotions, and biased working algorithms which can create problems for companies. At the present moment, the involvement of AI is perfect and just as much as, however, there is a risk that it might increase in the future giving rise to the risk of unemployment and predictive work.

11. Further Research Scope

Examine the effects that AI will have on other HR functions such as onboarding, talent management, safety and wellbeing, payroll processing, and performance management. To monitor the changing nature of Artificial Intelligence in the human resource sector and conduct a detailed primary research. Examine the changing roles of HR leaders and employees and how AI takes over the corporate world in the coming decade.

12. Conclusion

In the ever-evolving landscape of business, Human Resources play a pivotal role in shaping an organization's success. AI and automation are revolutionizing HR in several ways. AI-powered tools can scan resumes and analyze candidate profiles which makes the hiring process faster and more efficient. Employee engagement and retention have improved significantly with the introduction of AI. Chatbots and virtual assistants conduct interviews and solve queries of the employee enhancing the overall experience.

Employees can upskill themselves with the opportunities that AI provides such as courses and development programs which align with their preferential career path.

There is no doubt that AI will be concrete and sustainable in the future. On a more general level, Machine Learning will facilitate the easy detection of trends, the identification of patterns, and the use of data to make correct decisions. Algorithms, whether deliberately or inadvertently, can quickly transform the system from a neutral and well-thought-out system to a tool for creating inequality and prejudice in the workplace. This is something to keep in mind. In the future AI will take care of all the monotonous HR jobs and the creativity aspect will be taken over by humans. The emerging HR software and technologies focus on creating a best-in-class workplace and fostering a people-centric culture. The latest technology puts humans first and inserts humanity into applications, processes, and systems.

Conflicts of Interest Statement

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