

Assessing the Efficacy of Utilizing Artificial Intelligence for Human Resources Management in the Indian IT Industry

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The efficacy of utilizing Artificial Intelligence (AI) for Human Resources Management (HRM) in the Indian IT industry is a topic of significant interest, given the potential benefits and challenges associated with its implementation. The search results provide valuable insights into this subject, highlighting the positive impact of AI on various aspects of HR, such as recruitment, upskilling, and workforce management. In terms of recruitment, AI has been increasingly adopted by large-scale organizations in India, such as TCS, Deloitte, IBM, Accenture, and Tech Mahindra. AI-based tools have proven useful in candidate sourcing, screening, selection, and candidate experience, streamlining the recruitment process and reducing the time spent on manual tasks. For instance, InstaHyre, an AI-based hiring platform, uses proprietary technology to match candidates with suitable companies, ensuring a cultural fit. However, the implementation of AI in HRM also presents challenges. Data privacy and ethical use are significant concerns, with 85% of Indian organizations adopting AI cautiously. Companies must establish well-documented policies around the ethical use of AI to ensure compliance and maintain trust with their employees. Furthermore, AI requires a massive amount of data to understand human psychology and nature, which may lead to potential biases. Companies must intelligently adapt to AI and automation to leverage the benefits while ensuring that human judgment and decision-making are not compromised.

Keywords: Artificial Intelligence, Human Resources Management, HRM, Indian IT industry, recruitment, upskilling, workforce management, AI-based tools, candidate sourcing, screening.

1. Introduction

The term "Artificial Intelligence" has been much discussed and studied since the year 2000. It seemed like Artificial Intelligence (AI) was about to explode into the tech scene, but the sudden and unanticipated changes caused by the COVID-19 pandemic have made it clear that AI is here to stay[1][2]. The pandemic threat has increased the need for artificial intelligence

(AI) in almost every industry and sector[3].

No matter how much people try to educate themselves on artificial intelligence (AI), the very mention of the word strikes dread and uncertainty into the hearts of many. For many, the very mention of artificial intelligence conjures up terrifying visions of machines taking over the planet and people being rendered obsolete[4]. Artificial intelligence (AI) is only a technology; the morality of AI is still up for dispute. The inventor has complete control over any technology; it may be a tool for enhancement or a weapon; the choice is entirely up to the user. The power to enhance or harm oneself is entirely in the hands of the individual who employs any given technological advancement. The scope of artificial intelligence (AI) technology extends well beyond the realm of robots; in reality, robotics is only one of several forms of AI. We oversimplify the breadth, depth, and complexity of the term "artificial intelligence" (AI)[5]. The one certainty we have is that "AI is inevitable," regardless of how we feel about the implementation and impact of AI throughout all areas of our existence. All sorts of fields rely heavily on computers, laptops, sophisticated androids, and humanoids, including healthcare, commerce, manufacturing, education, finance, and countless more. Artificial intelligence (AI) is a concept that will shape the IT industry going forward. Artificial intelligence (AI) has permeated almost every industry and revolutionised them; it has done more than just alter computer systems. As stated in the 2017 Global Human Capital Trends Report, "Technology is advancing at an unprecedented rate, and has eventually changed the way people live, communicate and work[6][7]." This statement was made by Josh Bersin, Principal and Founder of Bersin by Deloitte, Deloitte Consulting LLP. In today's increasingly digital and intelligent environment, it is imperative that IT organisations stay up with the rapid pace of innovation while simultaneously reducing process complexity. International Data Corporation (IDC) predicts that by 2021, the total investment in artificial intelligence systems would reach \$57.6 billion. Companies and organisations throughout the globe are increasingly relying on AI and automation to enhance HR operations and management. Recruiting, onboarding, learning and development, performance management, social sharing, pay and benefits, and other HR operations have all undergone digital transformations in this age of AI. Innovations in human resources technology have, all things considered, revolutionised the way businesses handle their employees[8][9].

Therefore, the purpose of this research is to examine the advantages and disadvantages of AI technologies, the effects of integrating AI into HRM, and the possible results of this effort. The research study takes two things into account: the capabilities of artificial intelligence and the use of AI technology in human resources management[10]. While AI capabilities itself are unrelated to HRM practices, the latter are reliant on the former. Ten variables, including both independent and dependent factors, have been found under these.

2. Artificial Intelligence

In Human Resource Management The Global Institute Model by McKinsey estimates that by 2030, approximately 70% of enterprises will use AI in some way, and that only nations that can become leaders in AI would reap up to 25% greater financial benefits[11]. The development of AI has also had a profound impact on human resources. Human resources professionals and company executives are of the opinion that AI integration into HR processes

would boost employee satisfaction and productivity. Human resources tasks like as hiring, training, and performance evaluations may be guided and handled by AI. Worldwide, HR budgets are being swelled with investments in AI and allied technologies. Sixty percent of businesses want to increase their use of workplace automation in 2020, with 59% of American businesses and 55% of Chinese businesses doing so. People think that marketing and sales were ahead of HR in terms of response time. "As technology, AI, and robotics transform business models, and work, the organisation should start to rethink their management practices and business models," said Brett Walsh of Deloitte Global, who is in charge of human capital worldwide. Additionally, he has said that a new set of rules that companies must follow in order to be competitive is being driven by the future of work[12]. Organisations run the danger of falling behind if they don't change their mindset and act in a way that allows them to lead, organise, inspire, and engage the workforce of the 21st century.

3. Research Model

Changes in almost every facet of life and the workplace have resulted from technological progress. Currently, there are academics who believe that artificial intelligence (AI) in its current state poses a danger to humanity, and that in the next decades, AI will drastically cut down on the need for human resources throughout the world. But there are those who think AI is only a tool to help people and will never be able to fully replace human workers[13].

While some are quick to tout the benefits of AI, others are more cautious and warn of potential drawbacks. The researcher felt compelled to conduct the study in light of the aforementioned factors. Human resource management is just one more area that has benefited from artificial intelligence (AI) applications[14]. Other successful examples include the medical, construction, manufacturing, marketing, and other similar fields. Extensive literature study makes it very evident that this field has seen relatively little investigation despite the fact that technological improvement is almost upon us. It is important to understand the present status and future impact of artificial intelligence (AI) on human resource management practices since global digitalization and automation are happening in almost every industry. The overarching goal of this research is to illuminate the relationship between artificial intelligence (AI) and human resource management (HRM) by adding to the existing body of knowledge on the topic. Human resource management practices must be studied to determine the impact of AI technologies. The research aims to address the persistent and convincing worry that AI may one day replace humans in the workplace, which is a growing concern among HR professionals and workers of organisations[15]. Here, it's crucial to assess the capabilities of cutting-edge AI systems, how they're put to use in HRM practices, and the possible results of this analysis accurately, without making assumptions or oversimplifications. The possible results of human-machine cooperation in HRM are also highlighted in this research, as is the perceived efficiency of AI technology in HRM activities. The effects of AI on HRM are the subject of this research, which aims to provide light on the matter[16].

4. Objectives

- a) To follow the evolution of AI and its effects on HRM strategies

- b) We need to identify the AI variables that make AI efficient and the HRM aspects that explain how AI affects HRM practices.(HRM factors).
- c) To determine how HRM-related factors, such as workers' perceptions of AI technology, are affected by organisational details

The researcher acquired relevant secondary data since the study field is focused on Artificial Intelligence technologies and how they affect human resources management practices. Included in this chapter are the overall history of AI technologies, their development and expansion through time, and the perspective of human-machine cooperation in HRM systems. The advantages and disadvantages that artificial intelligence (AI) technology may bring to HRM procedures[12]. Rich data on the historical, present, and potential future use of different AI technologies in HRM practices inside IT firms. Artificial intelligence's (AI) possible negative effects on workers. Finally, the chapter concludes with a theoretical review of AI technology used in HRM practices inside IT organisations.

5. Noteworthy Ai-Driven Tools Used In Organisations

According to projections, 77% of HR departments will be using AI for recruiting by 2023, up from 64% in 2020. A few examples of AI-powered HR technologies utilised by companies are listed below.

Textio is an enhanced writing platform that uses text analytics and Natural Language Processing (NLP) to identify typos and grammatical mistakes as they happen. On top of that, the platform can identify racist or abusive words and provide alternatives. Using this information, recruiters may enhance the quality of their job ads. From top FMCG companies to IT organisations and beyond, Textio is already in use by a diverse range of businesses[7].

Using criteria like gender, race/ethnicity, and veteran status, Entelo helps recruiters locate candidates from diverse backgrounds. Useful for luring in passive talent, this technology primarily employs predictive analytics and natural language processing. Among the other features is a job posting option that lets users post openings and have applicants apply either from inside the app or via the business website. Lyft, PayPal, and Target are just a few of the famous brands who utilise Entelo to build teams.

With the aid of Hiretual, an AI-driven candidate sourcing and engagement platform, companies can find top talent more quickly. An advanced AI engine that the corporation uses to store data about people and locations is available. Using 45 distinct open online sites, including GitHub, AngelList, RateMDs, and Upwork, Hiretual AI searches over 750 million profiles to build a reliable pipeline for present and future possibilities. In addition, it provides market data that hiring managers may utilise, such as an in-depth analysis of the market for a company's available positions, so they can make informed decisions. Data from the Applicant Tracking System is always being renewed by the platform to provide maximum visibility and expedited optimisation. The number of recruiters using Hiretual exceeds 100,000. Some of the firms who use Hiretual include PWC, IBM, Philips, Deloitte, and PayPal.

Hireabby is a sourcing tool that helps businesses discover top talent by combining 200+ public sources, resume data, and live chats. To find, evaluate, and contact potential customers, it

employs a machine learning system.

Shortlisting resumes and matching skills are two of Pomato's main functions. The approach they provide makes use of methods from machine learning and pattern recognition. Candidates are evaluated according to their job scores after their profiles are matched using contextual analysis that takes into account skills needed for the post, degree of knowledge, and position itself.

To help business teams make better, more efficient, and equitable personnel decisions, IDEAL uses artificial intelligence to screen and match candidates. With their programme, thousands of candidates may be accurately and instantly screened.

Intelligent chatbots: Some of the best chatbots developed using natural language processing and artificial intelligence include Mya, Olivia, and Jobpal. They have the ability to initiate interaction with prospects and screen them. By providing frequent updates, these chatbots may also enhance the candidate's experience throughout the recruiting process. Mya is a conversational AI recruitment platform that will assist businesses enhance the hiring process overall, reduce hiring expenses, and speed up the recruiting process. It automates the communication and engagement with candidates at a large scale. It does this by processing applications and talent pools from visitors. These chatbots use their natural language processing capabilities to glean information and insights from conversations with job applicants. Afterwards, candidate profiles are updated, direct comparisons are made, and actionable conversation analytics are presented using the information gathered from both structured and unstructured replies. The website boasts that Mya can automate the interaction of applicants for over twelve sectors and hundreds of opportunities. L'Oréal Paris is one of more than 300 corporate brands that use it.

Tech recruiters and HR managers may use HackerRank to conduct impartial evaluations of candidates at every level of the recruitment process. It is used by more than a thousand companies worldwide. What makes HackerRank unique is that, on average, someone in the globe completes one of the platform's assessments every 8 seconds. Utilising Harvard's AI-driven preemployment evaluation platform, a number of the most renowned companies on the planet have found success. Its proprietary AI system uses data and science to predict the quality of recruiting by measuring a candidate's aptitude, cultural fit, soft skills, and potential to flourish throughout their career. The system enables fully personalised recruiting experiences with a variety of evaluation types.

The hiring process is simplified and expedited using Skillate, a smart decision-making engine. It offers smart recruiting solutions driven by AI, along with enhanced applicant experiences and insights on human resources. Using Skillate, businesses may conceal applicants' identities so they can make fair hiring decisions. Skillate leverages JD assistants powered by artificial intelligence and deep learning to glean information from resumes.

Advances in AI have also had a profound impact on human resources. Human resources professionals and executives are of the opinion that incorporating AI into HR processes would boost morale and productivity. AI has the potential to revolutionise several HR processes, including recruiting, training and development, employee performance analysis, and more[9]. Human resources departments throughout the globe are pouring more and more money into

artificial intelligence and related technologies. Human resource management techniques that have seen significant use of AI include the following.

Any company worth its salt will participate in workforce planning, since it is both a fundamental procedure and a successful activity. Balancing the supply and demand for labour is what it's all about. Among its many components are assessments of the current workforce, projections of future labour demands, identification of the gap between the two, and, lastly, the implementation of solutions[10][11]. Organisations may achieve long-term success with the help of workforce planning, which facilitates smart decision-making on the ideal staffing levels for each company. Human resources professionals are now equipped with AI, ML, and Advanced Analytics, which have replaced traditional methods of workforce management like headcounting and intuitive decision-making. These tools are meant to enhance both corporate results and employee satisfaction.

According to IBM's study, leading firms are using AI to provide practical insights and HR strategies; workforce planning is one area where HR effectiveness varies significantly.

6. Potential Outcomes Of Using Artificial Intelligence In Human Resources Management Practices

The assertion that AI technologies favourably influence several areas of human resource management is based on an examination of the many papers discussing the effects of AI on HRM as well as the views of numerous professionals in the field. Now is the time to investigate the potential results of incorporating AI into HRM procedures.

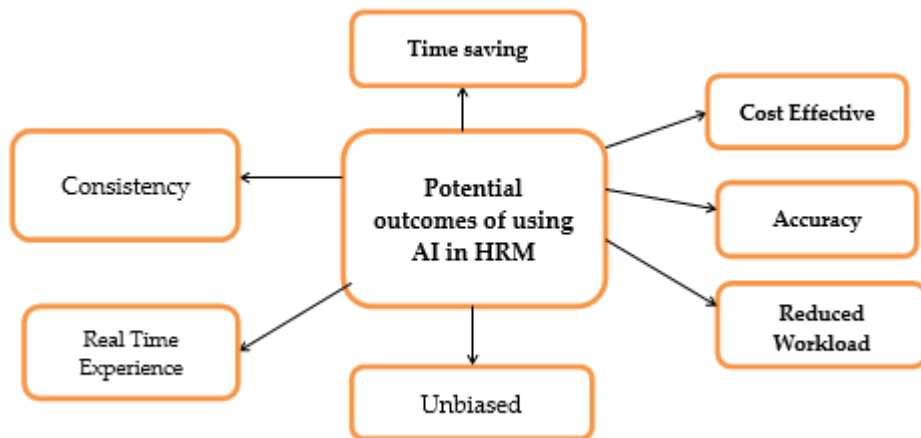


Figure 1. Potential Outcomes of using AI in HRM

7. Conclusion

According to the sources given, the use of AI for HRM in the Indian IT sector describes a complicated but promising scenario. Companies' levels of AI implementation in HRM differ,

but all agree that HR departments may benefit from better data generation and analytics tools. Artificial intelligence (AI) has the ability to revolutionise human resource management in India's IT sector by improving decision-making, streamlining procedures, and elevating employee experiences. Although AI has many advantages, organisations still face obstacles when trying to integrate technology, such as concerns about data privacy, ethical use, and biases. Human resource managers can better use technology to achieve their goals, assist in employee growth, and optimise HR procedures in the ever-changing digital world if they take the time to learn about the pros and cons of AI adoption.

Conflicts of Interest

The authors declare that they have no competing interests.

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