

ROLE OF ARTIFICIAL INTELLIGENCE IN HUMAN RESOURCE MANAGEMENT

¹**Santhosh Kumar. Ananta**, obtained his Bachelor of Technology in Electrical and Electronics Engineering from Khammam institute of technology and sciences in the year 2017. He is pursuing Master in Business Administration - (HR) from St. Vincent PG college, Ghatkesar, Hyderabad.

²**Vakamurali Mohan, (Professor)**, Department of Computer Science & Engineering in Malla Reddy institute of technology and sciences, Hyderabad.

Mail.id: asanthoshkumar003@gmail.com, vakamuralimohan@gmail.com.

Abstract:-

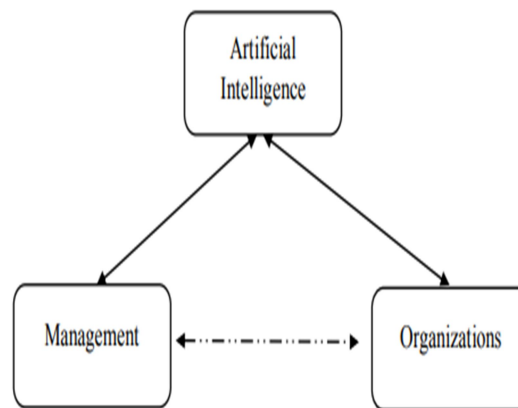
It is crucial for firms to get reliable data and evaluate it for the purpose of company development and day-to-day operations in the competitive world of industries. The use of AI has allowed businesses to function more efficiently and with less downtime. The fields of human resources, finance, marketing, and manufacturing are just a few that are seeing the introduction of AI. Existing performance and day-to-day operations may be informed by an organization's use of an AI technology. Tough managers saw the significance of AI in the workplace as corporate pressures rose. The study article provides a detailed account of the topic. Research papers, articles, websites, HR blogs, survey reports, and other secondary sources were consulted by the researcher. The study's overarching goal was to learn about the difficulties faced by HR departments and the function of AI within them. The study's findings suggest that AI will play an increasingly important role in HR processes, with robotics businesses taking over tasks such as recruiting, hiring, data analysis, data collection, workplace burden reduction, and efficiency enhancement. Human resource management, machine languages, and artificial intelligence are some of the keywords.

Introduction

When it comes to an industry, technology is a big deal. Robots have been displacing humans in manufacturing departments since the 1800s. The introduction of the internet and personal computers into the workplace in the 1970s sparked the third industrial revolution, which saw robots replace humans in many occupations. Nowadays, digital technologies such as machine language (ML) and artificial intelligence (AI) are becoming more integrated into everyday professional tasks, causing a shift in how businesses operate. An "ideal intelligent" machine is one that can "perceive its environment and take actions that maximize its chance of success at some goal." This kind of machine is known as an artificial intelligence (AI) agent. In contrast to human beings' inherent intelligence, machines may exhibit intelligence in the form of artificial intelligence. In 1956, the term "artificial intelligence" was first used in scholarly contexts. The use of AI has many practical applications in business, one of which is the

alleviation of employee stress and burden. Businesses need to be able to react quickly to changes. A company's current performance and day-to-day operations may be enriched by using an AI system. Tough managers saw the significance of AI in the workplace as corporate pressures rose. These days, AI is permeating every part of an organization. In the HR department, for example, it has largely supplanted human workers and is handling all HR-related tasks, such as screening candidates, recruiting, aligning HR activities, and managing performance.

Figure: 1



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

Example: 1 Using a framework, we can see how AI fits into the bigger picture of management and the company. Digital technology and artificial intelligence (Duchessi, O'Keefe, & O'Leary, 1993) affect organizational structure, workforce management, personnel shifts and downsizing, cost reduction and improved service, and responsibility and ownership of decision-making.

Literature Review

As stated by Kapoor in 2010 The function of business intelligence and its applications in HRM have been investigated. This article details the findings of an investigation on the HRM modules' business intelligence and data analytics capabilities by a top provider in the field of business intelligence. Per Jain (2018) Artificial intelligence's function in HRM was outlined in the study. Several HR processes, including recruiting, performance evaluation, and cloud-based HR systems, have been increasingly embracing contemporary technology, according to the study. (The Dirican, 2015) A researcher's study titled "The Impact of Robotics, Artificial Intelligence on Business and Economics" delves into the potential negative effects of AI and robotics on various organizational functions. These functions include production, sales, strategic planning, customer relationship management, banking, coaching, training, taxes, and performance management. Source: (Buzko, et al., 2016) Human resource development using AI technology is the title of the article. In their discussion of the challenges posed by AI in the HR field, the authors pointed out that AI is unable to determine the ROI of training expenses. The authors of the study pointed out that AI makes it easier for humans to quickly analyze data. In 2018, R&D Title of the research paper: A Conceptual Study on Recruitment using Artificial Intelligence. The researchers have shown the ways in which AI has become a key

part of the hiring process. Screening applicants, sending auto-generated messages to candidates, employee relations, interview scheduling, and many more tasks are all assisted by artificial intelligence. Per Jarrahi (2018) A.I. and the Future of Employment, the title of his study article, Joint Human-Artificial Intelligence Decision-Making in Organizations. The articles written by the researchers all focused on the benefits of AI for people. Organizational decision-making, including handling ambiguity and equivocation, has been aided by artificial intelligence. Humans still play a crucial part in many industries, and technology still rely on humans when making evaluations and facilitating judgments that rely on subconscious decisions.

Table: 1

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

Source: (Jarrahi, 2018)

As stated by Merlin and Jayam (2018) This study delves into the function of AI in HRM (Artificial Intelligence in Human Resource Management). An author has come to the conclusion that AI has practical applications in the workplace, particularly for human resources professionals who need to comprehend their processes and anticipate issues and trends.

Research Objectives

- For the purpose of researching AI.
- So that we can learn more about how AI may help with HRM.
- The goal is to learn how HR can reap the advantages of AI.
- The goal is to learn about the difficulties of AI in HR.

Research Methodology

A descriptive research design was used in the research investigation. The researcher has relied on secondary sources for the research. Primary sources for the secondary data include scholarly articles, books, websites, HR blogs, and survey results released by different research groups.

Role of Artificial Intelligence in HR

These days, HR departments are leading the charge into the digital age by implementing strategies to streamline operations via the use of cloud computing, artificial intelligence, and big data analysis. As stated by Amla and

Malhotra in 2017. When it comes to human resource management, the majority of companies have begun to use digital technologies such as chatbots, machine learning, and robotic process automation to aid with tasks like interviewing, screening, onboarding, and recruiting. In human resource management, AI plays a function such as these: 1. Hiring: According to the study's author (Amla & Malhotra, 2017), only 40% of businesses and sectors are making use of AI. The recruiting process for companies like SAT, Facebook, and GE is increasingly reliant on digital tools for screening, interviewing, and identifying fresh talent. With the help of AI, hiring managers can quickly review applications and respond to candidates. An organization's chat box system, often known as an automated response machine, is crucial for handling inquiries and difficulties related to the hiring process.

2. The Screening and Interview Process: -By analyzing their word or voice patterns, artificial intelligence may automate the interview process. Digital interviews are now possible with the assistance of AI software, and AI is also enhancing the application process. Interviews and productive meetings are scheduled using tools such as Amy and Clara. Human resources departments often have to juggle several responsibilities, but with the help of technology and AI, businesses are able to cut down on administrative tasks. Artificial intelligence (AI) helps businesses solve challenges and improve HR efficiency.

4. Choosing:-A study by Rajesh, Kandaswamy, and Rakesh (2018) found that HR managers can find the correct applicants quickly with the use of AI, and the technology can also help them find candidates with the proper set of talents.

5. Lessen Discrimination: - At present, AI is being used to lessen favoritism and will contribute to enhancing workplace openness. This will allow the company to choose the resume. It is possible to utilize AI programs to examine job postings (Rathi, 2018). 6. Boost Productivity: - AI may assist cut down on staff duplication in the office. In order to boost productivity at work, a number of robotic tasks have been implemented. Data collection, report filing, data copying, data identification, processing, data collection for HR and payroll systems, and so on are all examples of robotic tasks. 7. Enhance learning in the workplace: - Computers and digital technologies can now do the nitty-gritty labor in business. In today's technologically advanced world, businesses are able to handle data analysis, provide immediate feedback during training, and adjust their strategies according on the results and comments they received (Riebli, 2018). Businesses have begun to utilize Microsoft 365, which aids workers in their job and increases workplace productivity, in an effort to save time. Amla and Malhotra (2017) list many AI technologies that are employed, including Engazify for feedback, Obie and Niles for knowledge exchange, Wade and Wendy for career growth, and Duolingo for learning domain.

Benefits of Artificial Intelligence in HR

- Lighten the load on the company's administrative personnel.
- The process of finding qualified individuals for open positions will be facilitated by this.
- The use of AI in the workplace allows for the prediction of staff retention rates.
- It is able to function appropriately despite human limitations.

- There will be less room for mistake.
It will keep the many departments' workflows running smoothly.
- Businesses may now receive precise outcomes with the help of AI.
- The level of involvement among employees in the workplace will be enhanced.
- As a result, decision-making bias will be reduced.

Challenges of Artificial Intelligence in HR

Due to the integration of AI into HR departments, a certain set of competencies is now essential for workers. When it comes to digital technology, it's not uncommon for staff to struggle with learning and using AI solutions (Jain S., 2017). An organization's most valuable asset is its people, and the introduction of AI has the potential to change managerial mindsets and inspire bravery among workers. One fundamental difficulty facing the business is finding the correct candidates to manage AI technologies, which may be a headache for the HR department. As technology increasingly supersedes HR's authority and involvement in organizational decision-making, another restriction and problem is the increasing reliance on HR to handle day-to-day operations.

Conclusion

The industrial sector is seeing considerable expansion in this competitive period. One problem that industries face is managing ongoing improvement. Most sectors are embracing contemporary technology to improve speed and streamline mundane tasks. The majority of academics and industry professionals also advise businesses to adopt digital technology and artificial intelligence tools. Many businesses have begun to use machine learning and artificial intelligence in their HR departments. AI is becoming more important in many HR processes, including candidate screening, hiring, performance evaluation, data collection, and the provision of accurate, real-time information.

References

- [1]. Amla, M., & Malhotra, P. M. (2017). *Digital Transformation in HR. International Journal of Interdisciplinary and Multidisciplinary Studies (IJIMS)*, 4(3), 536-544. Retrieved from <http://www.ijims.com>
- [2]. Buzko, I., Dyachenko, Y., Petrova, M., Nenkov, N., Tulenina, D., & Koeva, K. (2016). *Artificial Intelligence technologies in human resource development. COMPUTER MODELLING & NEW TECHNOLOGIES*, 26-29.
- [3]. Dirican, C. (2015). *The Impacts of Robotics, Artificial Intelligence On Business and Economics. Procedia - Social and Behavioral Sciences*, 564-573.
- [4]. Duchessi, P., O'Keefe, R., & O'Leary, D. (1993). *A Research Perspective: Artificial Intelligence Management and Organizations. INTELLIGENT SYSTEMS IN ACCOUNTING, FINANCE AND MANAGEMENT*, 151-159.
- [5]. HRP. (n.d.). *A NEW AGE OF OPPORTUNITIES : WHAT DOES ARTIFICIAL INTELLIGENCE MEAN FOR HR PROFESSIONALS?* Toronto: Human resource professional association .
- [6]. Jain, D. S. (2018, March). *Human Resource Management and Artificial Intelligence. International Journal of Management and Social Sciences Research (IJMSSR)*, 7(3), 56-59.

- [7]. Jain, S. (2017). *IS ARTIFICIAL INTELLIGENCE –THE NEXT BIG THING IN HR ? International Conference on Innovation Research in Science, Technology and Management* (pp. 220-224). Rajasthan : Modi Institute of Management & Technology .
- [8]. Jarrahi, M. H. (2018). *Artificial Intelligence and the Future of Work: Human-AI Symbiosis in Organizational Decision Making. Business Horizons*, 61(4), 1-10. doi:10.1016/j.bushor.2018.03.007
- [9]. Kapoor, B. (2010, December). *Business Intelligence and Its Use for Human Resource Management. The Journal of Human Resource and Adult Learning*, 6(2), 21-30.
- [10]. Merlin.P, R., & Jayam.R. (2018). *Artificial Intelligence in Human Resource Management. International Journal of Pure and Applied Mathematics*, 119(14), 1891-1895. Retrieved from <http://www.acadpubl.eu/hub/>
- [11]. Murgai, D. A. (2018). *Role of Artificial Intelligence in Transforming Role of Artificial Intelligence in Transforming. International Journal of Trend in Scientific Research and Development (IJTSRD)* , 2(3), 877-881. Retrieved from www.ijtsrd.com
- [12]. R, G., & D, B. S. (2018, July). *RECRUITMENT THROUGH ARTIFICIAL INTELLIGENCE: A CONCEPTUAL STUDY. International Journal of Mechanical Engineering and Technology (IJMET)*, 9(7), 63-70. Retrieved from <http://www.iaeme.com/ijmet/issues.asp?JType=IJMET&VType=9&IType=7>
- [13]. Rajesh, D. S., Kandaswamy, M. U., & Rakesh, M. A. (2018). *The impact of Artificial Intelligence in Talent Acquisition Lifecycle of organizations. International Journal of Engineering Development and Research*, 6(2), 709-717. Retrieved from www.ijedr.org
- [14]. Rathi, D. R. (2018). *Artificial intelligence and the future of hr practices. International Journal of Applied Research*, 4(6), 113-116. Retrieved from www.allresearchjournal.com
- [15]. Riebli, J. (2018, January 25). *bthechange*. Retrieved from bthechange website : <https://bthechange.com/3-ways-artificial-intelligence-can-improve-workplace-learning40b1185bc0d3>

Authors



Mr. A. Santhosh Kumar obtained his Bachelor of Technology in Electrical and Electronics Engineering from Khammam institute of technology and sciences in the year 2017. He is pursuing Master in Business Administration - (HR) from St. Vincent PG college, Ghatkesar, Hyderabad.



Dr. Vakamurali Mohan, Associate Professor, Department of Computer Science & Engineering in
Malla Reddy institute of technology and sciences, Hyderabad.

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