THE IMPACT OF MACHINE LEARNING ON HUMAN RESOURCE MANAGEMENT PRACTICE

Dr. Neshat Qamar,
Assistant Professor, Department of Human Resource Management,
International School of Management, Patna, Bihar

Abstract

Human Resources (HR) have been slow to adopt new technologies in the market for machine learning and machine learning relative to other sectors. Machine learning has become very important in human resources, as it can help with staff constraints or learning neural networks that can move away from transparent reasoning in showing that certain conclusions were made. The paper, which discusses machine learning, focuses on how this technology helped fuel the Fourth Industrial Revolution and became a hotbed of global commercial capital competition. Machine learning (ML) will have a significant impact on the development of society as a whole, but it will also have a significant impact on the development of human resource management sectors. HR sectors will be restructured, and labor supply side will need structural reforms to keep up with the increasing intelligence of HR services. Machine learning is used in depth in six modules of Human Resource Management. As an HR practitioner, it is essential to open your mind and learn how to work with machine collaboration to improve the efficiency and quality of HR services. Additionally, machine learning technology can be used to help improve the accuracy and precision of human resource data. Machine learning and machine learning will allow enterprises to discover and use more humane and valuable human resources more effectively.

Keywords: Machine learning, Human Resource, Manpower and Technology,

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I. INTRODUCTION

The fifth industrial revolution certainly plays a major role in human resource management. Technology can be trusted to deliver on its promises. Internet of Things (IoT), big data, cloud computing, robotics and machine learning are some of the technologies that are making this revolution a reality. Only those employees who are satisfied with their jobs can be productive. This is a relatively high retention rate for such employees. When employees are satisfied with their jobs, they are more likely to identify factors that can help improve their work environment. There is a machine learning algorithm that helps me succeed. Machine learning algorithms can be used to analyze data and provide effective predictions. This paper discusses the impact of Artificial Intelligence (AI) on Human Resource Management in a business. Machine learning is a technology that allows computers to learn aggregated data and make action or recommendations based on learning. Machine learning is being streamlined to improve the efficiency of various methods. We humans see the information and conclusions in front of you and take your advice, and use it. Machines are not intelligent, but we have them with the right information and technology. (Uwe Hedge, 2020).

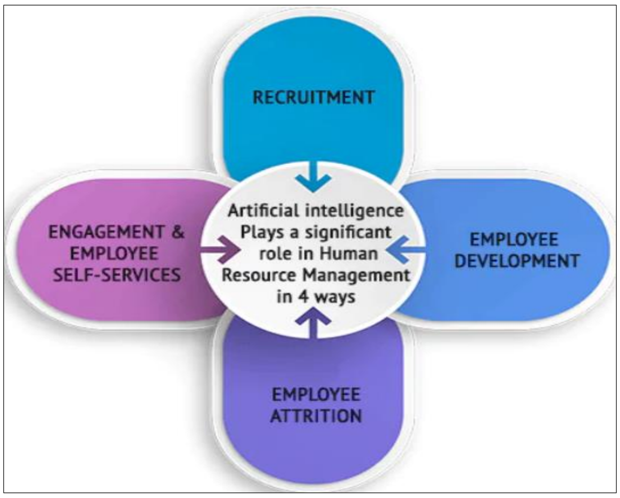

Figure 1.1 AI / ML in HR

The field of machine learning is the study of intelligent agents, which are any device that recognizes its environment and takes steps to increase its chances of successfully achieving its goals. Machine learning is a process of learning by doing. There are many people looking for a job in HR, so chances are good that you will be the next candidate. Today's HR professional is primarily used at the work site to accomplish simple, seamless and flexible tasks in an environment that is easy to integrate with other parts of the company. Machine learning algorithms are able to use effective ethical discrimination and misconceptions to generate results. When they are looking for an organization to be helpful, they are more likely to leave it off the list. Machine learning can have a significant impact on the way talent is acquired and retained. The more that is experienced, the more likely the person is to feel it. This helps the employer in the initial tasks and will help them to pursue their future growth in the long run. In general, it can help improve human capital in the organization by making it more efficient and effective. The end result is satisfactory to the company, and there are no problems or concerns that need to be addressed. Results are important, and they are accelerated by action. It reduces the hiring time and helps in increasing the overall productivity of HR employees. Work that is effective and efficient can be based on team collaboration. This includes identifying and recruiting new employees, recruiting employees, and managing recruitment campaigns.

The company is very careful in its dealings when it comes to hiring and firing employees. The machine learning-supported program has new features that provide new recruitment details like job profile, reporting authority, team members, job assignments, administrative duties, policies and almost all the information along with the job, first app or laptop. to use Some places where machine learning is used to help companies manage human resources and understand and analyze policy issues. When implementing pay management and employee performance policies, it is important to consider the impact on company compliance. In addition, strategies for increasing employee productivity and compliance should be considered. Additionally, corporate compliance checks should be a part of the salary management and performance program. Machine learning can be used to incorporate different ways of using human resources in a company. The HRM employee is able to easily learn HR functions, design and develop applications for the technology. This means they can apply the technology to their work in a more efficient way. Track data shows that the company's products are performing well, and that employees feel positive about using them.

Machine learning systems can track employee activities such as browsing, email, projects and other temporary activities. It can point to personnel management and report to management. It helps an organization to better understand and address its inclusion and retention challenges. HRM applications that use machine learning can help employees work more efficiently. The potential for this software to be more efficient and effective is very high. It is specially designed to meet the needs of the employees and their results. There is a growing trend of organizations adopting machine learning in their HR processes, but it is clear that the technology will have a long-lasting impact on the sector. For this reason, it is important that HR professionals prepare themselves for these changes by understanding what technology is and how it is applied to various tasks.

1.1 Machine Learning influence HR Industry

For example, advertising, transportation, banking, legal, education, and now our workplaces are also using machine learning to help manage employee data. Despite a slowdown in the use of artificial intelligence in business, 38 percent of businesses are using it now, and 62 percent of those who have started using it plan to use it in the future. According to Deloitte, 33 percent of employees plan to quit within the next five years. AI will be more efficient at their jobs if they have a job that requires them to use their skills.

1.2 Objectives of the Study

- To study the impact of machine learning in human resource management practices.
- To study the HRM strategies while using machine learning.
- To analyses the role of the of each Human resource function.

II. REVIEW OF LITERATURE

Srinivas Bandi and Richa Verma, (2020) machine learning has exploded over the past decade, and it is now one of the most popular and influential technologies in the world. Machine learning is helping companies make better, faster decisions by using algorithms to analyze data. This is as true for the human resources sector as it is for anything else. HR recruiters have implemented machine learning software to accelerate recruitment and create more efficiency in the overall selection process. Machine learning technologies are great for advancing tasks in human resources.

Vinay Kumar, (2019) studied machine learning so that I could use it to think, understand and accomplish tasks that were previously performed by humans. Machine learning has become more advanced in the last decade, thanks to advances in technology. Machine learning enables organizations to make better, faster decisions using available data. Nothing changes in the HR sector like in any other field. HR employers use machine learning software to achieve faster recruitment and create more power in the recruitment and selection process in everything. There are many ways to improve labor using machine learning techniques. This paper provides a more in-depth explanation of how authentic employee intelligence is and how it can be used in business.

Fengxiang Jiang, (2018) many space situations have been extensively studied on machine learning. This paper discusses how the use of IT technology has had a significant impact on the field of HRM, particularly through the use of HRM systems. Currently, most companies are using AI to help improve their workplaces. The HR domain assesses the performance of employees in an AI role to prevent Shore from taking over. Happens second time. in the IT industry in Delhi The current objective of the study is to examine the relationship between skill and staffing levels in the IT industry. Human resource study was done in Delhi region. A study was conducted to see if there was any relationship between the use of the two factors and HR performance in the results of AI. The results were confirmed. AI has had a significant impact on the field of intelligence and is easy to use, which is a testament to its effects on human resources. The new name of this study is Industry 4.0. The company will provide insights on the future of machine learning, which is a revolutionary state in the industry.

III. RESEARCH METHODOLOGY

Most of the hiring decisions are made on gut feeling. The interviewers usually take less than a minute to decide whether an interviewee is an ideal match for the job or not. There's no data that support these decisions. A random decision to hire people, based on candidate's appearance, speech, experience and the way they present themselves is made. That's the major reason behind recruiters and hiring managers complaining about getting 30 to 40 percent of their candidates wrong. ML algorithms simplify the task by searching resumes, finding eligible internal candidates, identifying top performers and analyzing data about shortlisted candidates who are more likely to succeed. Although HRM has not been studied in machine learning on the effect of humans on machines, empirical studies using humans as a model have emerged that are useful for IT companies. Make sure you are effective and efficient with your resources.

IV. THE MAIN ROLE OF AI IN HR PRACTICES

i. Planning - HR professionals will be able to focus more on strategic planning at the organizational level using AI. When you acquire more qualified applicants, the process becomes shorter from start to finish, allowing managers to devote more resources to reviewing HR data and improving prudent planning.

ii. Recruitment - Recruiting software helps recruiters to print job descriptions and retrieve candidate details, schedule interviews, and respond to candidate mails. It also helps to send information after an interview.

iii. Culture development - In a game-changing environment for company culture, AI can be the key to keeping employees engaged and loyal. This will allow organizations to experiment more with their products and services. Companies are now able to try out new customer interactions, improve customer experience, improve employee engagement and always on the move for the best results in product or service delivery.

iv. Employee evaluation- AI helps process huge amount of employee data with lightning speed, and evaluates them accurately.

v. Remuneration - Compensation and benefits can be a major driver of employee satisfaction and engagement, which in turn can lead to a more productive workforce. Machine learning can help to simplify the tasks of the organization, and can help to improve the employee experience with machine learning. AI can identify patterns and trends in data, predict performance, and understand drivers to generate compensation models and systems that are customized to meet the specific needs of the business.

vi. Training - A lot of importance has been given to customize and AI based workforce for organizations to survive in the future. Employers and employees both benefit from using AI technology. AI allows employers to cost-optimize their workforce by using the latest technology, while the employee can learn new skills based on industry changes.

vii. Absenteeism- Predicting work absenteeism using predictive analytics and artificial intelligence can help control this. Some companies have contingency plans in case of a specific incident like an oil spill. ERM (Employee Relationship Management) and wellness organizations can achieve effective ERM by quickly answering employee queries by creating chatbots that allow employees to communicate with each other.

It will enable organizations to track employee engagement and performance and provide feedback to employees on their individual activities and progress. Employee burnout can be reduced by using artificial intelligence to measure this. Creating a healthy environment is vital to keeping your health and well-being high.

viii. Employee Retention- Using Predictive Analytics and AI, Organizations can retain talented employees.

V. HRM BEST PRACTICES

Presented below are seven human resource best practices proposed by Jeffrey Pfeiffer, (1994) and (1998), which propose a set of best practices that can increase company profits. If these HR principles are combined, their impact is even greater. These are the best practices for online marketing:

Intelligence integration will improve HR practices in organizations as these apps allow better decision making in analysis, prediction and diagnosis of problems. Machine learning can be embedded in recruitment, training, and boarding processes to help improve the efficiency and effectiveness of these tasks.

Fig 1.1 HR Best Prctices

VI. DATA ANALYSIS AND INTERPRETATION

i. Hypothetical testing

Hypothesis testing can be used to correct a problem by determining whether the sample data provides support for generalization. If a test is significant, the hypothesis may not be proven to be completely true, but if the test is not significant, the hypothesis may be accepted. The study found no significant association between age group and HR practices among users of AI technologies in middle age.

HR factor/Age groups	22-25 yrs	26-30 yrs	31-40 yrs	Above 40 yrs	F-Value	P-Value
Planning & DM	(2.31)	(1.81)	(1.81)	(2.13)	0.53	0.66
Recruitment	(4.16)	(3.28)	(2.04)	(4.30)	1.84	0.15
Training & Development	(4.11)	(2.53)	(2.42)	(4.19)	0.29	0.83

Performance Analysis	(4.39)	(2.09)	(2.75)	(2.16)	0.27	0.84
Work-life Balance	(2.33)	(2.76)	(2.32)	(3.17)	0.97	0.41

Source : Primary Data

From the above table it is found that the hypothesis is accepted in all cases. There is no significant relation between age groups and their perception towards AI technologies in HRM practices.

VII. FUTURE MACHINE LEARNING HUMAN RESOURCES APPLICATIONS

i. Enterprise Management

As we can see, machine learning insights based on enterprise management and affiliation already exist, but they have not yet been taken to a large scale. KPMG promotes big data and predictive analytics for business decision making in your customized "intelligent enterprise approach". New Locations is an excellent resource for job seekers.

Google People Analytics has been a pioneer in building performance management engines at the enterprise level. The team (led by Prasad Setty) began by posing existing questions, but then used data to help answer them. I'm looking for new ways of doing things that are more efficient or effective. People Analytics has helped improve the production and overall well-being of "Googlers". The team has developed insights that have led to improvements in company-wide operations, such as increased efficiency, accuracy and clarity.

- Limiting the number of interviews required for an applicant (more than four didn't lead to higher quality)
- Revealing optimal organizational size and department size
- Better managing of maternity leave (Google saw a 50 percent decrease in defections)
- Creating on-boarding agenda for an employee's first four days of work, with increased productivity levels of up to 15 percent

ii. Post-Hire Outcome Algorithms

The CEB notes that an ideal adjustment algorithm would predict compliance with work requirements with curriculum vitae rather than a post-submission outcome or an employee's outcome (for example, customer satisfaction, for accepting a call). Higher in terms of customer satisfaction). The article indicates that it is sometimes from legal points of view that predict work performance, information that a machine can find better than human estimates. For example, the CEB describes a model designed for a representative role of the call center that combines the call center experience with the resulting poor performance. Although a link to the source or the actual model is useful, the idea is interesting and illustrates the power of automatic learning in the recognition of "invisible" models.

iii. Internal Management

As Paisha Roberts, Chief Scientist of Talent Analysis, The Role of Future Analysis in Staff Management in 2016, she revealed the internal movement of employees within the same subject to HR and analysis. Roberts said: "You can use agent-based modelling and see how people can progress in a business ... and be able to hire a person at the entry level that could possibly be a company. Although earlier systems exist, more data should over time lead to a stronger and progressive model for internal management over the next five years.

iv. Increased Behavior Tracking and Data-Based Decision Making

Ben Waber, President of Humansys and a past guest of Emerge & Emerge, spoke of the growing use of IoT, which brings data to the workplace. These types of gadgets are more common in Bluetooth Society-level headphones and intelligent badge IDs, for example, and companies continue to add sensor technology to the workplace to collect data. It's an area that Wabar studied while working as a visiting scientist at the MIT Media Lab, interacting with employees, interacting, networks within a company, with the people who spent their time with things. , among things, using a company's dialogue, using data collected by intelligent badges. To see. It seems like privacy may be a concern, but technologies like Intelligent Badges have started to grow rapidly in the video below, along with suppliers like ATMA, offering new and updated apps for Android phones.

VIII. CONCLUSION

Machinery requires a lot of data to function effectively, which requires proper storage and control. The industry requires other employees to manage and maintain senior software. Low data sets will also be difficult to achieve global technology optimization technology. Human resource management uses AI software to analyze the ideal strategy for machine learning. Before putting machines to power human resources, let's examine an area where AI can be useful. The main reason is to enhance the overall experience of the employees which can increase productivity and reduce operating costs. Relationship between people and machines has been redefined. There is no suitable sizing method to successfully control these changes. Instead, it is an organization that organizes collaborations with its human resource organization. Therefore, the AI implementation method can be adapted at work. Execute continuous changes across global teams. Learning to do every day affects our lives. Whether we use smartphones, surf the Internet, use navigation to buy products online, social media, or listen to songs, machine learning can somehow makes our choices. Machine learning has many benefits, such as making mistakes, making mistakes, making best decisions, working consistently, processing complexities and optimizing the use of best resources.

IX. FUTURE SCOPE

Organizations are currently dealing with an extraordinary crisis that is unlike anything they have ever faced before. For future researches, machine learning on human resource management practice should taking the initiative to predict change, co-creating various scenarios, and planning for the future.

References

1. Bharadwaj, A., El Sawy, O. A., Pavlou, P. A., and Venkatraman, N. 2013. "Digital Business Strategy: Toward a Next Generation of Insights," MIS Quarterly (37:2), 471-482.
2. Clemons, E. K. (2008). How Information Changes Consumer Behavior and How Consumer Behavior Determines Corporate Strategy. Journal of Management Information Systems, 25(2), 13–40.
3. Fengxiang Jiang, (2018) 'Strategic Recruitment Across Borders: An Investigation of Multinational Enterprises.' Journal of Management; 45 (2): 476-509.
4. Fichman, R. G., Dos Santos, B. L., and Zheng, Z. E. 2014. "Digital Innovation as a Fundamental and Powerful Concept in the Information Systems Curriculum," MIS Quarterly, 329-353.
5. Fitzgerald, M., Kruschwitz, N., Bonnet, D., and Welch, M. 2013. "Embracing Digital Technology," MIT Sloan Management Review, 1-12.
6. Granados, N., Gupta, A.: Transparency Strategy: Competing with Information in a Digital World. MIS Quarterly, vol. 37, no. 2,637-641 (2013).
7. Srinivas Bandi and Richa Verma (2020), challenges of machine learning in human resource Management in Indian IT sector, XXI Annual International Conference Proceedings; January 2020.
8. Vinay Kumar, (2019). A philosophy not of paper (Buen Vivir). Educational Philosophy and Theory, 50(14),1586-1587.