

A Conceptual study of Role of Artificial Intelligence in Human Resources Management

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Abstract: *Work from home is a new terminology in corporate world after COVID 19. It is usually said necessity is the mother of invention and this pandemic gave rise to new work culture and technology. This momentum resulted the growth and usage of Artificial Intelligence (AI) in all most all the functions of management. AI is an unseen catalyser thatsmoothen the work. Like other functions AI also gave a new orientation to the function of HR. This research is dedicated to understand theimplementation of AI in HR activities. It also gives the glimpse of assistance of this new technology in unveiling new opportunities and challenges in the functions of HRM.After the deep conceptual study, it concludes that the hand of AI is going to be inevitable in almost all the activities such as right recruitment, smart hiring, performance appraisal, suitable training & Development, work allocation, and enriching workplace productivity. This study also gives spot light on future goals in HRM.*

Keywords: AI, HRM , Functions of HRM

I. INTRODUCTION

21st century has become the synonym to technology across all the fields. This modern intelligence system is complementing human being in a large ground. Technology is working as a great servant for making the life easy. Unlike other servants the master must be well aware and apt to handle them. Now human being wants the technology graduated from automation to intelligence. Artificial, is something “made or produced by human beings rather than occurring naturally, especially as a copy of something natural”(Oxford Dictionary, 2019). The current era is that in which this new technology reaches new heights and have great impact on business operations and management. This AI is as powerful and efficient as human mind. This technology is a potential of a machine to comprehend and function by its own in a way of human. Salin and Winston (1992) define it as a technique that allows a machine to perform tasks at the place of human intelligence. Nilsson (2005) used a new term human-level AI which means machines should be able to do most of the jobs that human intelligence demands. According to Investopedia, 2020 it can be applied to compliment human intelligence. The applications of AI are many in almost all the sectors and industries. AI is as efficient in performing strategic decisions as it helps in routine jobs or tasks. In the world of HRM, Artificial Intelligence is proving itself a strong hand. Most of the HR functions are efficiently being performed by AI.

II. REVIEW OF LITERATURE

By the first decade of 21st century Kapoor B. (2010) studied on business intelligence and data analytics features incorporated in human resource management modules and figured out that business AI beneficial for an organization. Dirican, Ulrich and Dulebon (2015) studied the futuristic approach of HR and its transforming approach from administrative to strategy.

Buzko (2016) found that the main factor that affects the frequency and intensity of training in a company is net income. the author suggested that in modern business circumstances use of AI become more crucial.

In an International Journal of Pure and Applied Mathematics “Artificial Intelligence in Human Resource Management” (2018)Merlin & Jayam threw a spot light on HRM functions such as recruitment, training, talent management & retention are being performed through AI very effectively.



On the contrary the investigated study, titled “**The Impact of Robotics, Artificial Intelligence on Business and Economics**” gives shocking result. It suggests adverse effects in business operation by integration of Robotics and Artificial intelligence.

Research Objectives

1. To explore the concept of artificial intelligence.
2. To comprehend the role of artificial intelligence in HRM functions.
3. To analyze the opportunities of AI in HRM.
4. To investigate the obstacles of artificial intelligence in HRM.

III. RESEARCH METHODOLOGY

As it is a study to understand the concept and implementation of AI in HRM so descriptive method is used in it. For understanding the utility and importance of AI in HRM secondary data has been used. The source of secondary data was previous studies on the same.

Involvement of AI in HR Function

HRM is effective utilization of only live resource of any organization to attain the organizational goals. Procurement of manpower, recruitment, selection, training, development, compensation, performance appraisal and separation are the main functions of HR. in the views of Schemerhorn (2001) HRM is an art of getting and shaping the manpower to help the organization to achieve its organizational goals and satisfy its mission. According to Bibi, Pangil& Johari(2016). Retention of the best employees and maintain their satisfaction in work place is the fundamental objective of a HR manager as human is a live and ever-changing part of an organization, therefore, human resource must be managed in the best way by its organization. Amla& Malhotra(2017) investigated that the sustainable HR planning heading towards a revolution by inculcating big data analysis, cloud computing as well as artificial intelligence. AI is offering its strong hand to reshape HR world. It is efficient, accurate and time saving in its way. In the present world the organizations require technically sound employees who are able to employ machines to perform for them as per their requirement. AI will give its hands to uplift work life balance. AI will help them to complete their tasks well in time. In HRM functions AI can assist in following ways:

Recruitment

Presently almost all the organizations are using AI for recruitment. To judge and pick the best candidate they are using artificial intelligence. AI is helping them to the best talents quickly and effectively. HireVue, (2018) suggests in his study that the top organizations are using AI tools such as automatic answering machines to answer the queries of job specification. AI is suggesting the suitable talent after the comparison among the available talent.

Selection

The second step in the procedure is selection and procurement of workforce. This step comes after recruitment. After recruitment the HR select the appropriate candidate for a specific job (Newell, 2005). According to the study of Rajesh, Kandaswamy, & Rakesh (2018) AI can assist a human resource manager to pick the justified candidate with the required skills.

Post-Offer Acceptance

The waiting period between the submission of application and job offer acceptance is nearly 2-3 weeks. In this period AI can be the most useful tool to engage the candidates and keep into the organization. AI can answer the generic queries such as tags, positions, locations or categories.



Induction

Induction programs are usually the windows to peep into the organization to understand its vision, mission and core objectives. Shake hand with AI can answer generic questions, information and resources that may help the new members to acquire the knowledge of organization better.

Work Scheduling

HR managers have to pay enough attention on job allocation, scheduling meetings and interviews despite less productive but time consuming activities. Here AI can be the best bet to do these activities. It can circulate and collect the information of the employees through various automated tools.

Compensation:

Natural phenomena say that the most complexed in HR function is administration and process of payouts. It has to be done with utmost care to bring satisfaction in workforce. AI can help to a great extent in it as accounting is more transparent, bank accounts are linked with Aadhar Cards and PAN Cards, salary is transferred in account directly. Even the calculation of TDS is very much systemized.

Training & Development:

According to Riebli (2018) one of the key functions of HR is Training and Development. In modern organizational structure training and development programs are conducted through modern technology. IT tools have made T&D easy for organizations to plan T&D sessions. AI enables the HR managers to plan T&D sessions more effectively and productively.

Performance Evaluation and Appraisal:

Performance evaluation and appraisal at regular interval is very important for employees as well as the organization. Appropriate appraisal is very essential for the satisfaction of the employees and satisfied employees are the key to success of an organization. AI applications can help not only in evaluation of work but also can support in improve the performance,

Possibilities in AI based HRM

Controls unjustified behavior: According to Rathi's (2028) research AI is the best bet to reduce nepotism or any unjust behavior of giving back to undeserving behavior.

AI is based on coding, algorithms, reasoning and logics so the chance of accurate result is very fair,

AI can manage work division, work flow and work rotation.

AI can help the HR team to make training and development more productive.

AI is able to break monotony of work.

Applications operated through AI are very supportive hands in talent acquisition work allocation.

Challenges of AI

AI is a very good servant but a very horrible master. The organizations are in a cat race of adopting AI in their functioning. Correct choice of AI application and tool is very essential for effective results. Wrong input will definitely yield wrong output.

While hugging AI the organizations may face some problems:

- According to Sen's (2018) research in highest number of cases organizations start overlooking the humans' talent in quest of AI. The fact is AI is good to complement human not compete human. Human is always more creative than AI.
- Use of AI needs special training and enough exposer. Providing sufficient training or getting the suitable candidate is also a challenge.



- According to the study of Agrawal G. (2018) if some results of AI are not compatible with managers' findings or their requirements then they start doubting the implementation of AI. Even they start underutilization of AI.
- How so ever AI is a mere machine which can be hacked easily and may cause havoc for an organization.

IV. CONCLUSION

HR department may be more productive and innovative after imbibing AI in its functioning. This new concept helps the organization to complete the work well in time but also is accurate in result, it improves the productivity. This new technology is very supportive in making strategy and drawing decisions. While using this technology one thing has to be remembered that it is only a supportive technology not a driver. The managers must use it as good servant like other automatic machines not as a master.

REFERENCES

- [1]. Agrawal A (2018), 'The economics of artificial intelligence', McKinsey Quarterly, April 2018.
- [2]. 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> on 12/09/20
- [3]. Bibi, P., Pangil, F., & Johari, J. (2016). HRM practices and employees' retention: the perspective of job embeddedness theory. Asian Journal of multidisciplinary study, 4(5), 41-47.
- [4]. Dirican, C. (2015). The Impacts of Robotics, Artificial Intelligence On Business and Economics. Procedia - Social and Behavioral Sciences, 564-573.
- [5]. Investopedia define Artificial Intelligence, <https://www.investopedia.com/terms/a/artificial-intelligence-ai.asp>, retrieved on 09/11/20.
- [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]. Kapoor, B. (2010), "Business Intelligence and Its Use for Human Resource Management", The journal of Human Resource and Adult Learning, Vol 6, pp 21-30.
- [8]. Newell, S. (2005). Recruitment and Selection. Managing Human Resources: Personnel Management in Transition. 4th edition, Blackwell Publishing LTD
- [9]. Nilsson, N. J. (2005). Human-level artificial intelligence? Be serious! AI Magazine, 26(4), 68-75.
- [10]. Oxford Dictionary. (2019). Oxford dictionary: definitions. Retrieved from: <https://en.oxforddictionaries.com/definition/artificial> on 09/02/20.
- [11]. 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 on 09/04/2020.
- [12]. Rath, 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 on 09/05/2020.
- [13]. Salin, E. D., & Winston, P. H. (1992). Machine Learning and Artificial Intelligence. Analytical chemistry, 64(1).
- [14]. Schermerhorn J.R (2001). Management Updated. New York: John Wiley and Sons. Inc.
- [15]. Sen S (2018), 'The next generation organizations', Beyond Thinking [Online]. Retrieved from <https://medium.com/beyond-thinking/the-next-generation-organizations60688e8b34e2> on 09/10/2020.
- [16]. Ulrich, D. and Dulebohn, J. (2015), Are we there yet? What's next for HR? Human Resource Management Review 25 (2015), 188-204.
- [17]. Wall T.D. & Wood S.J. (2005). The romance of human resource management and business performance, and the case for big science. Human Relations, 58(4), 429-462
- [18]. Bessen, J. E. (2019). AI and Jobs: The Role of Demand. NBER Working Paper Series. Retrieved from NBER



- [19]. Boden, M., Bryson, J., Caldwell, D., Fox, D., Kapsalis, A., & Stirling, W. (2017). Principles of Robotics: Regulating Robots in the Real World. *Connection Science*, 29(2), 124-129.
- [20]. Dastin, J. (2018). Amazon Scraps Secret AI Recruiting Tool That Showed Bias Against Women. Reuters. Retrieved from Reuters
- [21]. Davenport, T. H., Guha, A., Grewal, D., & Bressgott, T. (2020). How to Design AI-Based Customer Experiences. *MIT Sloan Management Review*, 61(4), 26-35.
- [22]. Dwivedi, Y. K., Hughes, D. L., Ismagilova, E., Aarts, G., Coombs, C., Crick, T., & Wamba, S. F. (2021). Artificial Intelligence (AI): Multidisciplinary Perspectives on Emerging
- [23]. Challenges, Opportunities, and Agenda for Research, Practice and Policy. *International Journal of Information Management*, 57, 101994.
- [24]. Floridi, L., Cowls, J., Beltrametti, M., Chatila, R., Chazerand, P., Dignum, V., ... & Schafer, B. (2018). AI4People—An Ethical Framework for a Good AI Society: Opportunities, Risks, Principles, and Recommendations. *Minds and Machines*, 28(4), 689-707.
- [25]. Huang, M. H., & Rust, R. T. (2018). Artificial Intelligence in Service: A Review and Agenda for Future Research. *Journal of Service Research*, 21(2), 155-172.
- [26]. Huang, M. H., & Rust, R. T. (2018). Artificial Intelligence in Service: A Review and Agenda for Future Research. *Journal of Service Research*, 21(2), 155-172.
- [27]. Huang, M. H., & Rust, R. T. (2021). Artificial Intelligence in Service: Current and Future Directions. *Journal of Service Research*, 24(2), 157-178.
- [28]. Jain, N., & Gautam, V. (2016). Artificial Intelligence in Human Resource Management: An Emerging Role in 21st Century. *International Journal of Management*, 7(3), 1-7.
- [29]. Jain, R., & Triadafilopoulos, T. (2020). AI and HR Analytics: Redefining Talent Management in the 21st Century. *Human Resource Management International Digest*, 28(2), 12-15.

