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Challenges of Artificial Intelligence in Human Resource Management of an Organisation

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Abstract

Artificial Intelligence is a technology that enables and prepares the machines to think, grasp, and accomplishing the tasks which are previously carried out by humans. AI has been grown aggressively and exponentially in the past decade. Artificial intelligence is assisting IT companies for making better and faster decisions. This applies to the area of human resources as much as anything else. HR recruiters have carried out Artificial Intelligence software to expedite in recruitment process and create more competence in the overall selection process. The objective of this paper is to assess Artificial Intelligence in Human Resources Management. (HRM) and highlighted the challenges of artificial intelligence in Human Resources Management. Artificial intelligence helps in contributing multiple solutions for hiring managers including basic recruiting tools, intermediate applications and advanced AI solutions. These tools are generating the most efficient way for human resources to predict a candidate's future success with their company. Artificial Intelligence (AI) is metamorphosing the human resources field altogether. The current study would scatter some light on the breakthroughs of Artificial Intelligence and their implications with respect to HRM.

Keywords: Artificial Intelligence, Human Resource Management, Challenges.

1. INTRODUCTION

Artificial intelligence and machine learning have become more popular and prevalent in each and every sector including banking, marketing, biotechnology, healthcare, and communications. Now, there is a drastic change in the human resources sector as well. By this, the way of approaching and managing the business's staffs were changing and HR strategies are also enormously improved. This boosts productivity and employee engagement.

The Top priority of HR management is to manage the workforce while concentrating on the rules and procedures. It will also improve employee performance. AI rapidly increases this process by relying more on the analytical analysis of data instead of individual observations. Because of the emerging severe competition, it is indispensable factor to use a system up gradation to stay competitive despite human limitations.

While the organization struggling to apply the Artificial Intelligence on their Human resource management, they can observe the potential opportunities to improve their business rapidly and at the same time they must face the respective challenges creating by the AI and also

by the other technology applications. This study analyses the latent opportunities and challenges of using Artificial Intelligence in Human Resource Management by analyzing the literature

2. REVIEW OF LITERATURE

Martincevic and Kozina (May 2019)– Paper showed the vital entireness of challenges that Abased recruitment involves are unconscious judgment through hiring procedures by organizations. It was also concluded that companies should be capable of train people and machines to evadethese favoritisms.

Dinesh G. Harkut and Kashmira Kasat (March 2019) "Artificial Intelligence – Challenges and Applications" – In this study based on open access – peer reviewed it has concluded that building trust, AI human intervention, Investment, High expectation, Data security are few of the challenges which is faced by the organizations.

Vivek Yawalkar (February 2019) "A Study of Artificial Intelligence and its role in Human Resource Management" - Volume 6, Issue 1 (E-ISSN 2348-1269, P- ISSN 2349-5138) – The research paper is descriptive in nature. The researcher used secondary data and concluded that a role of AI is larger into various functions carried out in human resource department where by robotics companies can handle recruitment, hiring, analyzing the data, colleting the data, reducing workload at workplace and enriching workplace efficiency.

Cliff Saran (2019) A survey of 350 US and UK-based CIOs, chief financial officers, vice presidents and IT managers has reported that IT decision-makers are becoming increasingly aware of artificial intelligence (AI) bias. Nearly half of AI professionals across the US and UKsay they are "very" to "extremely" concerned about AI bias. Data Robot's research found that Ails used by organizations to execute functions across departments; including human resources(35%).The survey also reported that 85% of IT leaders who took part in the survey believe that AI regulation would be helpful for better defining what constitutes AI bias and how it should be prevented.

Buzko, et al., (2016) - "Artificial Intelligence technologies in human resource development". The researchers, ponder on hurdles of AI technologies in human resource area where authors noted that AI notable to identify the effectiveness of training costs. In the research paper authors noted that artificial intelligence technologies facilitate the prompt analysis of data by human.

3. OBJECTIVES OF THE STUDY

- ➢ To identify the relationship between Artificial Intelligence and Human Resource Management
- ➢ To analyze the Impact of Artificial Intelligence in human resource management
- ➢ To explicate the challenges of Human resource while using artificial intelligence.
- ➢ To measure the ways to overcome the AI challenges

4. SCOPE OF THE STUDY

This Research paper titled "Challenges of Artificial Intelligence in Human Resource Management of an organization" limits its scope to the HR professionals and Company employees in an Organization.

5. NEED FOR THE STUDY

This study examines the need of Artificial Intelligence in administrating activities in the area of training and development, recruitment, automation of research and development and so on. It also focuses on the influence of artificial intelligence and its impact in HR department. AI has created a break through innovation in which it helps in real time decision making and also helps HR department to analyze their resources skills and recommended training module based on their job.

6. RESEARCH METHODOLOGY

Data Collection: The data required for this study is gathered from using both primary and secondary source. This study describes the descriptive method of research. The primary data for the study collected through the set questionnaire with open ended and close ended questions and secondary data for the study collected from the various sources like journals, research papers and website and sample size limited to descriptive research. A structured questionnaire is developed and distributed through Google forms.

Research Design: Before analyzing the types of research designs it is essential to understand the role and purpose of research design. It's also mandatory to know what type of research design is formulated. The research design was descriptive and involved survey of Facial cream customers.

Sampling Method and Sample Size: This survey is based on Convenience sampling technique. Questionnaire filled by the selected respondents. The sample size included sufficient in number in an organization. The sample size selected is 200. Large sample size has been avoided as it was challenging to manage and small size of sample is avoided due to its improper representation.

Statistical Tools: Data's have been examined and tested with the accuracy of tables, charts, percentageanalysis, ranking analysis and Pearson Correlation Method.

7. CHALLENGES FOR AI-AIDED HRM.

➢ lack of complete understanding of AI by the Managers
➢ Lack of trust in AI.
➢ Lack of skills about AI in HR staff.
➢ Reliability and validity of AI decision-making.
➢ Budget constraints.
➢ Inherent biases of AI algorithm.
➢ Data privacy.
➢ Return of AI investment

8. DATA ANALYSIS AND INTERPRETATION
Table-1: The interview process preferred by respondents

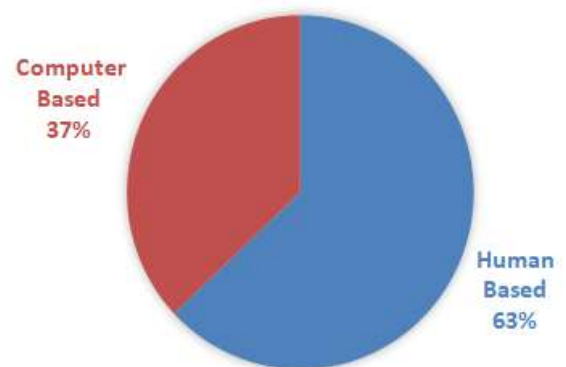| Interview Process	No. of Respondents	% of Respondents
Human based	126	63 %
Computer based	74	37 %
Total	200	100

Fig-1: Showing the interview process preferred by respondents

Interpretation

The above chart Depicts that majority i.e., 63% of the respondents prefer Human based Interview& 37% likes computer-based Interview. It obviously explains that Human Interview has less tendency of making errors than computers-based interview.

Table-2: In which area currently using Artificial Intelligence?

Area used	No. of Respondents	% of Respondents
Trainings & Development	102	51 %
selection	48	24%
Recruitments	20	10%
None	30	15%
Total	200	100

Currently using area

51%
24%
10%
15%

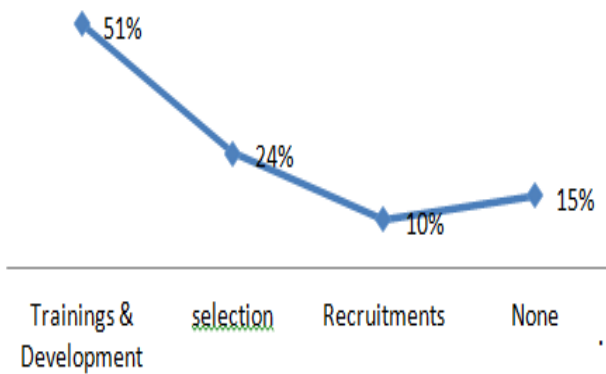Trainings & Development   selection   Recruitments   None

Fig-2: Showing the area currently using Artificial Intelligence

Interpretation

The above chart depicts that around 51% of the respondents are using Artificial Intelligence in the area of Training & Development, 24% uses for area of selection , 10% ofrespondents are using AI for recruitment and others making use of Artificial Intelligence forautomation, warehouse & R & D.

Table-3: Do you think that, has technology reduce time

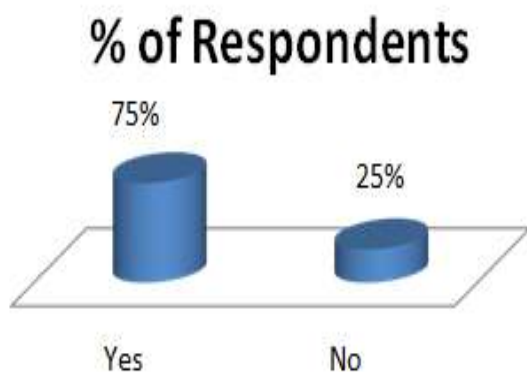| Technology Reduce Time	No. of Respondents	% of Respondents
Yes	150	75 %
No	50	25 %
Total	200	100

% of Respondents

75%
25%

Yes   No

Fig-3: Showing the technology has reduced time.

Table-4: AI Technology used for ranking method

AI Technology used for the purpose of	Rank
AI Technology is compatible with other systems	8
AI Technology makes data analysis easier	3
AI Technology able to perform the tasks faster	4
Employee need training of using AI Technology	1
Enough resources to work using AI Technology	5
Management insists on using AI Technology	6
Employees are willing to learn to use AI Technology	7
AI Technology is useful for the given job	2

Interpretation

The above table and chart depict that majority of the respondents feels that the amount of time spend on unnecessary task and Human errors can be reduces by upgrading new technologyand the others are not agreed with this statement.
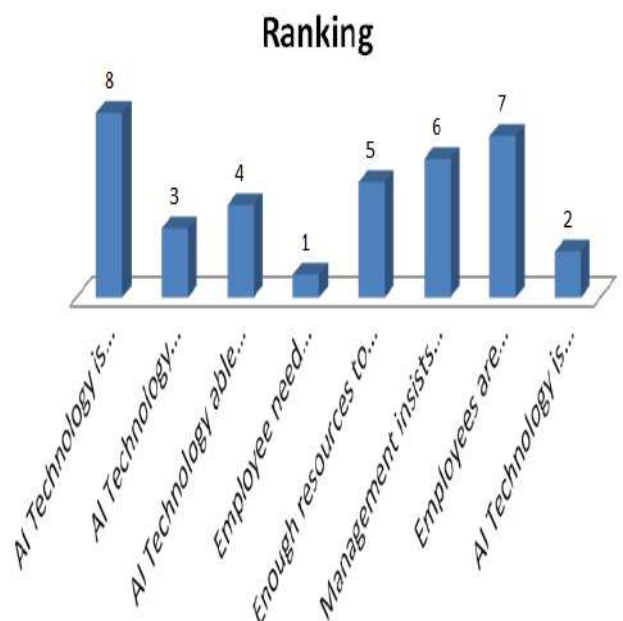
Ranking

8
3
4
1
5
6
7
2

AI Technology is... AI Technology... AI Technology able... Employee need... Enough resources to... Management insists... Employees are... AI Technology is...

Fig-4: showing AI technology used.

Interpretation:

This table shows 1st in the Organization employee needs training of using AI technology, 2nd rank is useful for the given job, 3rd rank for makes data analysis easier, 4th rank is able to perform the tasks faster, 5th to work using enough resources, 6th rank on using management insists to AI technology, 7th rank is willing to learn and 8th is compatible with other systems.

Table-5: Showing Pearson Correlation Method

Let we assume employee's organization validated as the basis for HR functions as using AIas X and HR strategies as using AI as Y.

X	Y	X2	Y2	XY
20	34	400	1156	680
90	98	8100	9604	8820
48	28	2304	784	1344
42	40	1764	1600	1680
200	**200**	**12568**	**13144**	**12524**

$$R = \frac{\sum XY}{\sqrt{\sum X2}\sqrt{\sum Y2}}$$

$$= \frac{12524}{12852.73} = \boxed{0.974}$$

Interpretation:

The coefficient ranges from -1 to 1. A value of 0.974 shows that a linear equation describes the relationship positively with all data points lying on the same line in AI technology.

Table-6: What are the factors affecting artificial intelligence in HRM

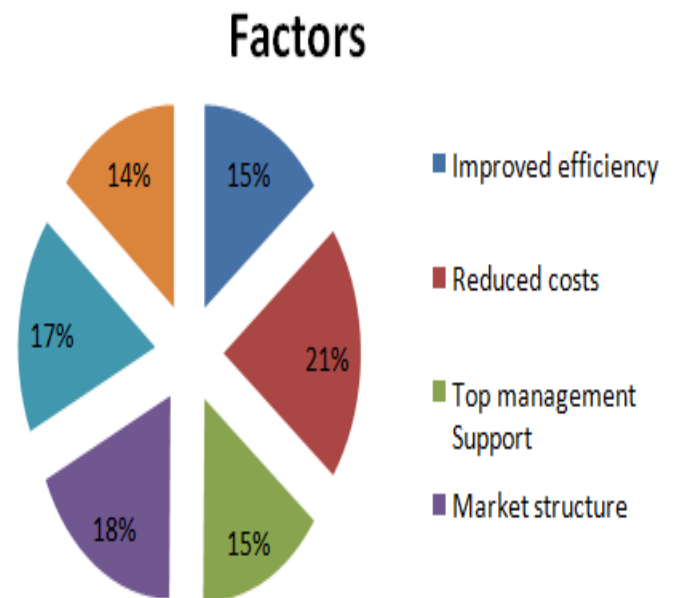| Factors of Motivation in an Organization with AI	Highly Satisfied	Dissatisfied	Neutral
Improved efficiency	102	45	53
Reduced costs	142	26	32
Top management support Market structure	103	56	41
Competitive pressure	125	35	40
Government regulations	120	50	30
	100	40	60

Fig-6: showing the factors of motivation in an organization with AI.

Interpretation:

As per the data collected, Reduction of cost and market structure score of 142 and 125 of highly satisfied, while top management support and competitive pressure got the score of 56 and 50employees stayed dissatisfied and score of 53 employees expressed as Neutral in improved efficiency in AI.

9. FINDINGS

- Most of the respondents prefer human interview than computer-based interview.
- Majority of the employees using AI as training and development purpose. Very few of them think the other way and some of them are not sure.
- Majority of the respondents felt that the technology has reduced time.
- More numbers of respondents opinioned that an HR department as well as an organization can need the benefits of training to Artificial Intelligence in the HR department.
- Through the research of this study, we found that Artificial Intelligence is using more in HR functions and HR strategies.
- Most of the respondent have noticed that the factors are affected to reduced cost and market structure in their organization

10. SUGGESTIONS

- This study would like to suggest that an organization must recruit well trained and skilled employees for better performance of artificial intelligence.
- On one hand using of Artificial Intelligence in HR can enjoy the benefits but on other hand it wills volute privacy of data. Hence Organization must take precaution measures to overcome from privacy issues before implementation of AI
- Artificial Intelligence cannot be used in all the sectors as it causes social economic inequality.
- It is not always possible to implement Artificial Intelligence is HR as it leads to Human Bias.
- The effective implementation of AI in HR enhances employee's engagement at work place.

11. THE FUTURE BENEFITS OF AI IN HR

- Despite all these challenges, the future of Human Resource is likely to be shaped by Artificial Intelligence.
- As AI technology improves, there is an expectancy to see more automation, personalization, and data-driven decision-making in HR practices.
- AI will help to improve HR practices, such as job posting, candidate screening, and employee performance management.
- AI will also help HR professionals to make more informed decisions by providing real-time data and insights.
- We also see the emergence of new roles and job functions in HR, such as AI ethics officers, who will ensure that AI algorithms are used ethically and fairly.
- These roles will become increasingly important as AI becomes more integrated into HR practices, and HR professionals must ensure that AI is used ethically and fairly.

12. CONCLUSION

From the above study we can conclude that application of Artificial Intelligence helps the organization work faster and more efficiently to compete at the global level. Artificial Intelligence redefines and reshapes the HR practices like recruitment, selection, appraisal, work redesign, compensation which facilitates HR transformation. And also helps the HR department to save time as most of work can be performed through AI. The effective implementation of AI makes the employees to engage more in the work. AI can help the organizations to fill the open positions quickly in HR including short-term and temp positions.

The adaptation of any AI technique to particular HRM tasks is considered a challenge for decision-makers in the HR department as it requires deep knowledge in both HR and AI. Therefore, the main aim of his paper is to find a practical model for an organization that would like to adopt AI technologies and applications in specific HRM scenarios effectively.

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