



AI - A PERSPECTIVE STUDY OF HR PROFESSIONALS IN INDIA AND ABROAD

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Abstract:

In present scenario AI is opened various opportunities in the workplaces. India, Germany, Singapore have positioned as leaders in AI tools adoption. Artificial intelligence (AI) integration streamlines Human Resource (HR) functions from employee recruitment to engagement and Performance Management. Companies are assimilating Machine Learning (ML) Algorithm, Big data and Data Modeling of AI into Human Resource Management for effective decision to achieve organizational goals. AI driven HR approaches are maximizing productivity of employees with this increases organizational competitiveness and Human capital management. This article tried to analyze current, future developments of AI in HRM by following Qualitative research methodology tools and techniques by percentage analysis. It can be concluded that adoption of AI technologies improves HRM process quality and in other phase it creates technical unemployment. This study attempts to examine the effect of AI technologies on traditional human resource management and employment opportunities and challenges.

Key Words: AI - Artificial Intelligence, HRM - Human Resource Management, Machine Learning (ML), Algorithm, Big Data and Data Modeling.

Introduction:

AI technology was identified in the year 1956 by Staurt (Norvig, 2016). AI traditionally refers to an artificial creation of human like intelligence through internet technology. In the beginning artificial intelligence was only seen in universities and research labs, but it became more popular during 1970s and visible in the markets. In 1980s Companies started adopting Human recourse information systems (HRIS). Today many research and innovations through internet made AI has necessary tool to our everyday activities (Umi, 2022).

Over last 10 years digitalization has increased high productivity and efficiency in data driven aspects such as finance, information technology, and Marketing and HRM tasks. Today AI infused various opportunities in HR functions such as payroll, talent management, employee experience management, people analytics, and more to save money and time. According to Nilsson (2005) Machines will replace Human work with demanded intelligence and he named it as Human level AI. To achieve success Organizations must effectively utilize people, process and technology at transformational value at optimized cost. AI applications automated tasks that need human interference (Ahmed et al., 2022; Drukker et al., 2020). AI tool "Systems, Application and Products in Data Processing (SAP) Success Factor Solutions-talent intelligence hub" (SAP news center) helps organizations in development of skills and talents in employees.

Literature Review:

AI agile HR works in employee engagement and retention according to company's objectives and strategies. Learning and development (L&D) complicated processes are made easy by AI tools (Int. J. Innov. Technol. Explor. Eng., 8 (11) (2019), pp. 2673-2681). The implementation of AI tools will automate routine manual tasks with the help of robotics (Sakka et.al.2022). Machine learning helps in data collection, interpretation, analyses and designed in automation of work (B.Zhang et al., 2023). (Barthelme & Furbach, 2023). AI powered algorithms assists in resume screening and identifying the right candidate in short span where as manual screening requires more time and effort (Nazri M.Z.A., Ghani R.A., Abdullah S., Ayu M., and Nor Samsiah R.)

Ultimately it is concluded that the success of AI in HR practices dependences upon human judgment and acceptance of machine learning (Goyal C., Patwardhan M.). It is identified that there is gap between theoretical-ground research on how organisations should develop their digital business strategies incorporating AI to create business successful strategies (Mikalef, Bourab, Lekakosb, & Krogstiea, 2019).

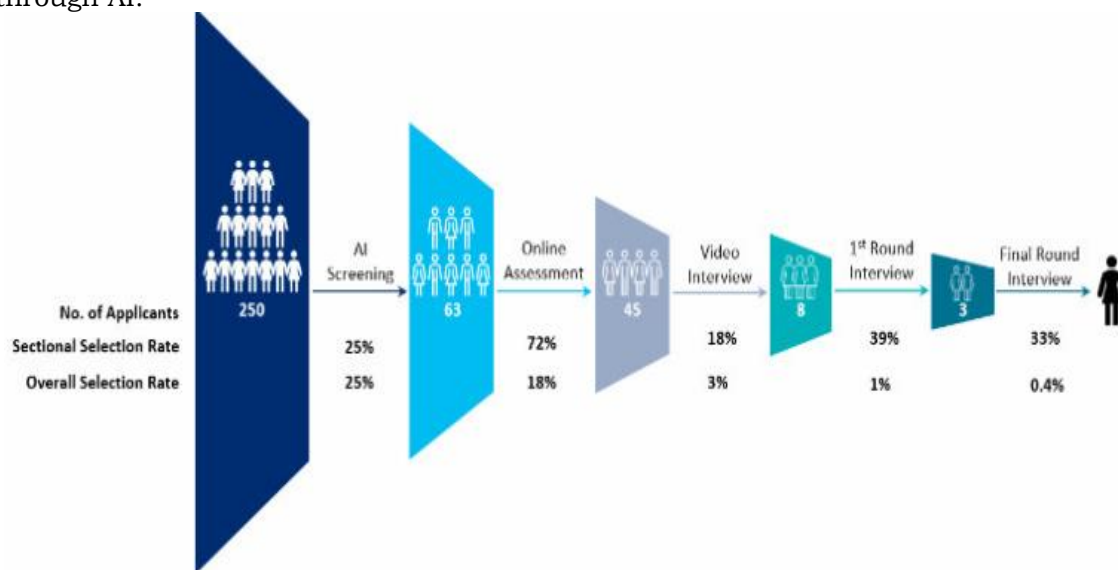
Roles of AI in HR:



Above diagram shows inclusions of AI in HR. Below explained its implications, Processes and involvements in detail with real time Company's examples and AI software tools adopted by them.

Recruiting New Employees:

IT professionals, UI/UX designers use LinkedIn and GitHub for recruiting new employees. Organizations can customize sequence of communications for each candidates and redefines outreach strategies through AI.



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Source: Citi Global Insights

According to the above diagram 250 candidates reduced to 8, means 3% with usage of AI tools. It filtered CV in screening, online assessment, video interview and made recruitment process simple and quick.

Framing Interview Questions:

Pandologic, Chat GPT, Keisuke Inoue, Lead algorithm data Scientist, domain-specific large language model (DSLMM) helps in forming interview questions on the bases of job descriptions.

On Boarding:

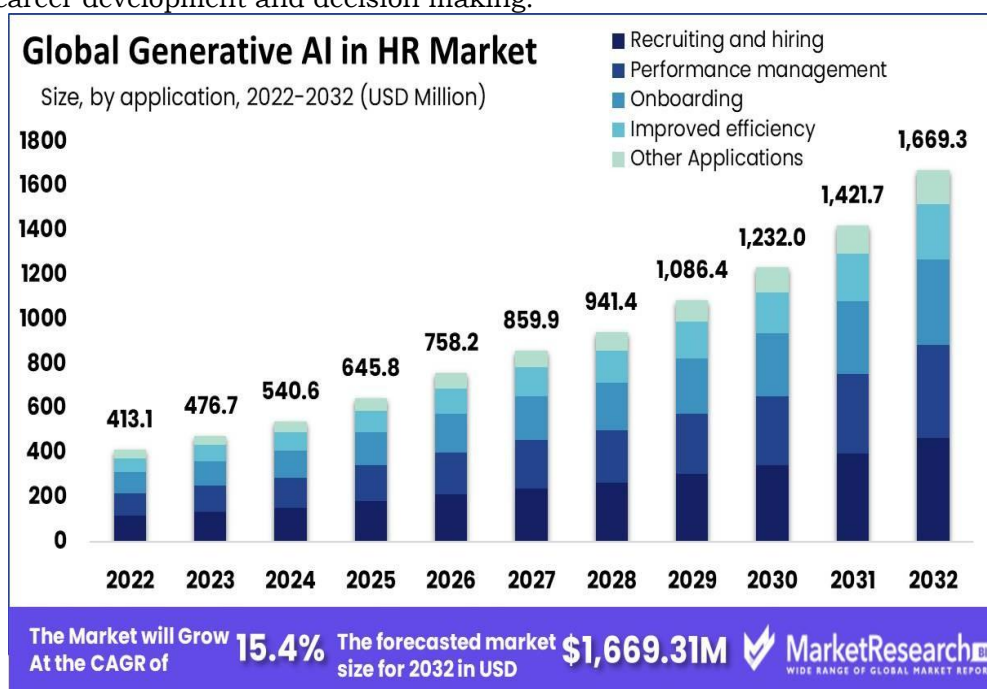
Document verification, conducting and providing IDs, access to work processes etc are simplified through AI powered Chat bots.

Employee Monitoring:

Employee Monitoring Software helps in identifying employees productivity by employee data, emails, chats, work patterns, disengagements or misconduct etc. "AI can monitor employees performance, behavior and engagement, providing HR teams with valuable insights. AI detects anomalies or violations of company policy. (Gallimore2023)

Learning and Development:

Textio, Attract AI, Fetcher, Eightfold, Leena AI etc are AI tools helps in skill development , training, data creation, career development and decision making.



Source: marketresearch.biz

According to the above diagram shows 76% of HR managers believe Adoption of GenAI in HR will impact on organizational success. 28% of recruiting and hiring process is done by AI. 15.4% is the growing rate of AI in HR from 2024 to 2032.

Objective of the Study:

- To understand how AI tools and technologies support HRM process.
- To understand the perspectives of HR professionals in India and abroad.
- To analyze the different AI tools used by HR professionals in India and abroad

Research Methodology:

In this study adopted descriptive research method with both open and closed ended questionnaire and analyse qualitatively (O'Connor et al., 2023) by percentage analysis and Chi square test (Non parametric test).

Research Design:

Data Source:

Primary Data Collection:

- Questionnaire: Open ended & closed ended
- Personal Interaction with HR professionals

Secondary Data Collection:

- Journals , websites , research articles, Newspapers etc

Sample Design:

Qualitative Research is used to frame the sample design. Random Sampling strategies are used to select the population.

Sampling Frame:

Random sampling method is adopted to effectively determine the perception of HR Professionals.

Sample Size: N: 100

Questionnaire with both open and close ended questions was sent to HR professionals ranging from Managers, HR practitioners, Recruiters, Employees and others. 50 responses were received as per Table No: 1

Expected Sample Size:

Questionnaire was sent to members of NIPM, NHRD, NIPM (Southern Africa) and other Indian IT professionals numbering 100

Observed Sample Size:

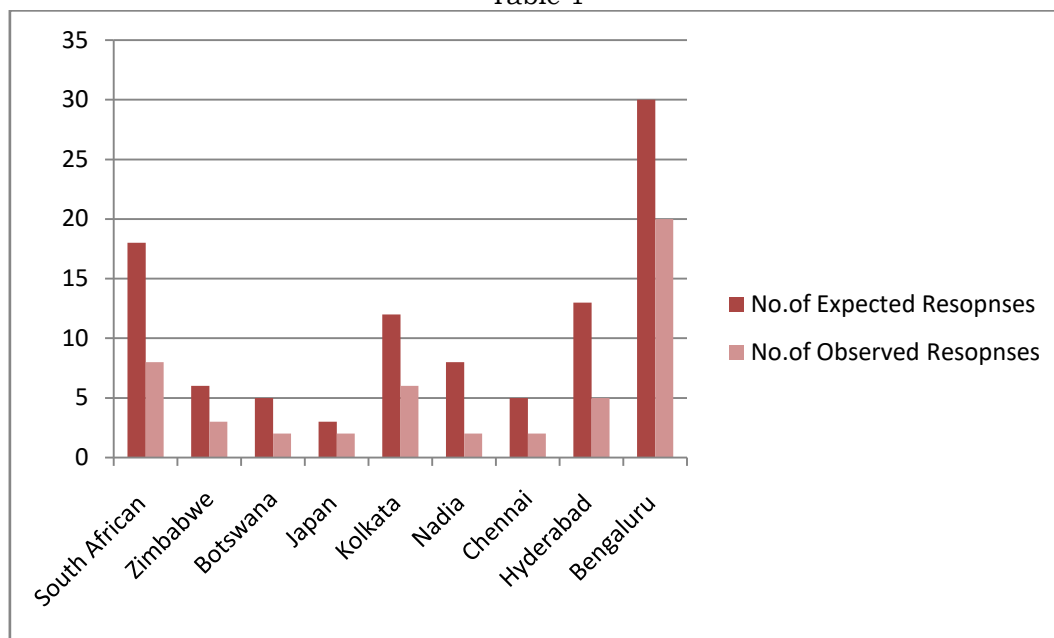
We have received 50 responses during our study. Details are as follows:

Foreign and Indian HR managers, HR specialist, Recruiters, Employees & Others

Foreign & Indian Responses	No. of Expected Responses	No. of Observed Responses
South African	18	8
Zimbabwe	6	3
Botswana	5	2

Japan	3	2
Kolkata	12	6
Noida	8	2
Chennai	5	2
Hyderabad	13	5
Bengaluru	30	20

Table 1



Results and Discussion:

1. Role of respondents in the Organization:

HR Managers	HR Specialist	Recruiters	Employees	Others
18	11	9	8	4

Table 2: Source: authors own creation

Hypothesis:

- H_0 = The number of observed respondents are equal to the expected number of respondents on the basis of job roles.
- H_1 = The number of observed respondents are not equal to the expected number of respondents the basis of job roles.

Statistical Analyses using Chi-Square Test:

Job Role of Respondents	% of Expected Respondents	No. of Expected Respondents (E)	No. of Observed Respondents (O)	$(O-E)^2/E$
HR Managers	30%	30	18	4.8
HR Specialist	25%	25	11	7.8
Recruiters	12%	12	9	0.5
Employees	20%	20	8	7.2
Others	13%	13	4	6.2
Total $= (O-E)^2/E$				26.5

Table 3

Chi- Square = $(O-E)^2/E$

O = Observed Respondents

E = Expected Respondents

Degree of freedom = $n - 1 = 5 - 1 = 4$

Significance Level = 5% = 0.05

Significance Level Table Value = 9.488

Observed Chi - Square Value = 26.5

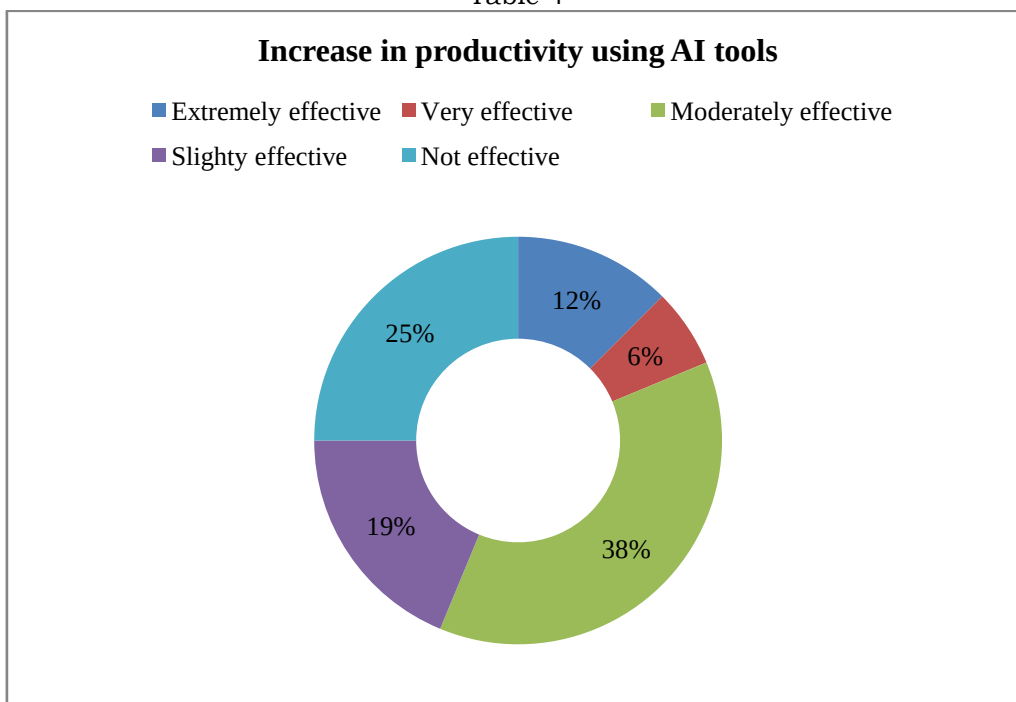
From the above Table 3, Likert Scale method is used for Calculations, we can analyze that Observed Chi Square Value (26.5) is greater than the significant Level Value (9.488), we reject null hypothesis and Accept alternative hypothesis. Hence we conclude that the numbers of observed respondents are not equal to the expected number of respondents on the basis of job roles.

2. Percentage of Increase in HRM Productivity after Using AI Tools:

Extremely Effective	8
Very Effective	6
Moderately Effective	16

Slightly Effective	14
Not Effective	6

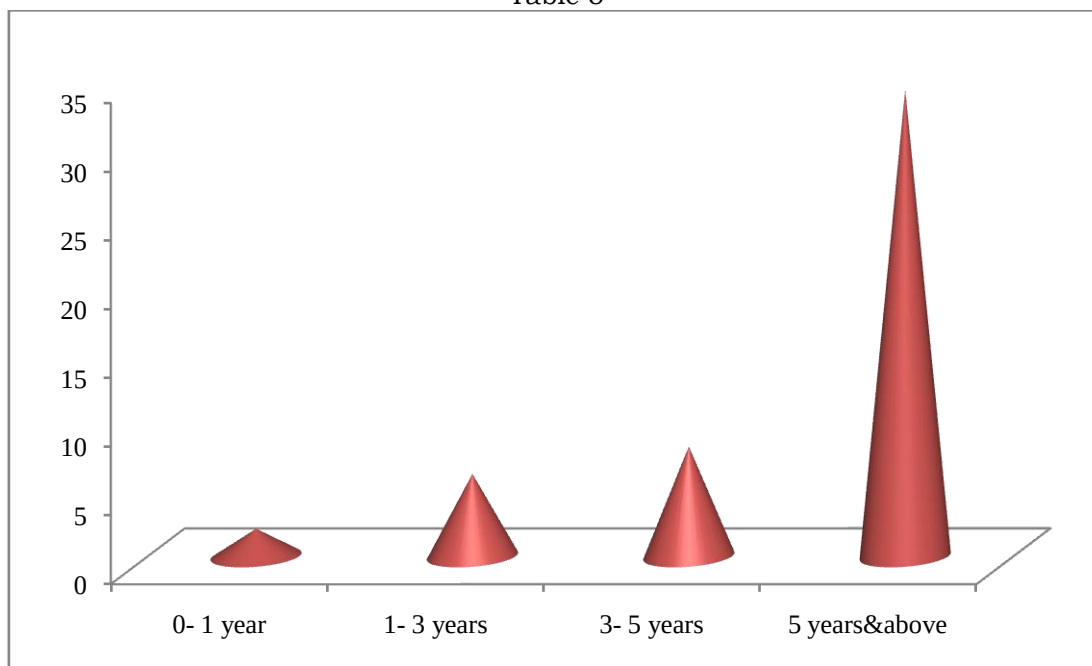
Table 4



3. Respondents Work Experience in Terms of Years:

Experience in Years	0- 1 Year	1- 3 Years	3- 5 Years	5 Years & Above
No. of Respondents	2	6	8	34

Table 5



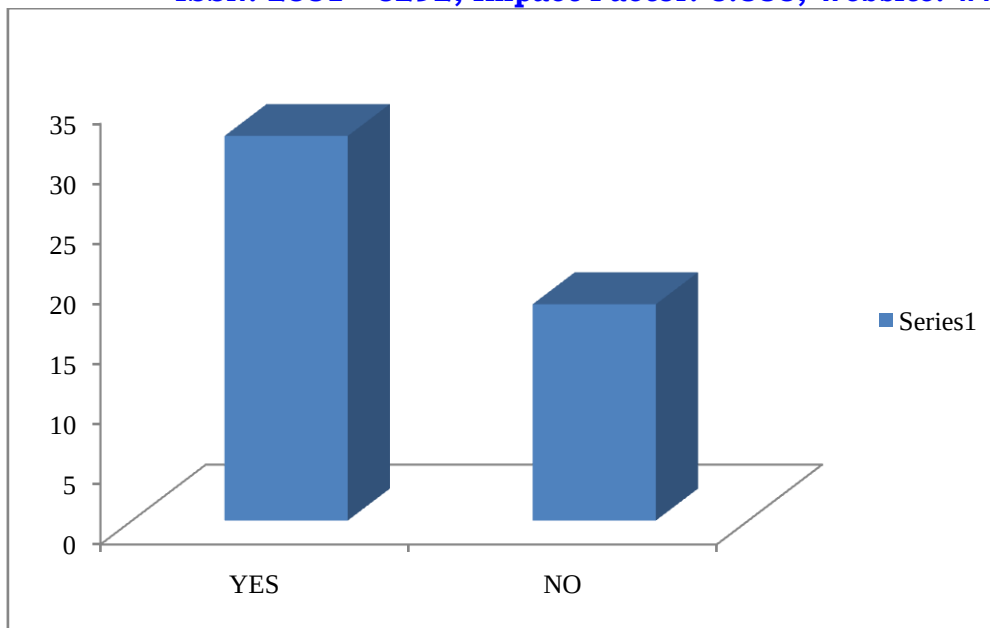
Source: authors own creation

We analyze respondents experiences in terms of no. of years. 4% respondents have less than 2 years, 12% respondents have 1 to 3 years, 16% respondents have 3 to 5 years, 68% respondents have 5 years experience. Hence our majority of respondents are having above 5 years of experience in their respective careers.

4. No. of Companies are Using AI Tools in the Recruitment & Selection:

Yes	No
32	18

Table 6



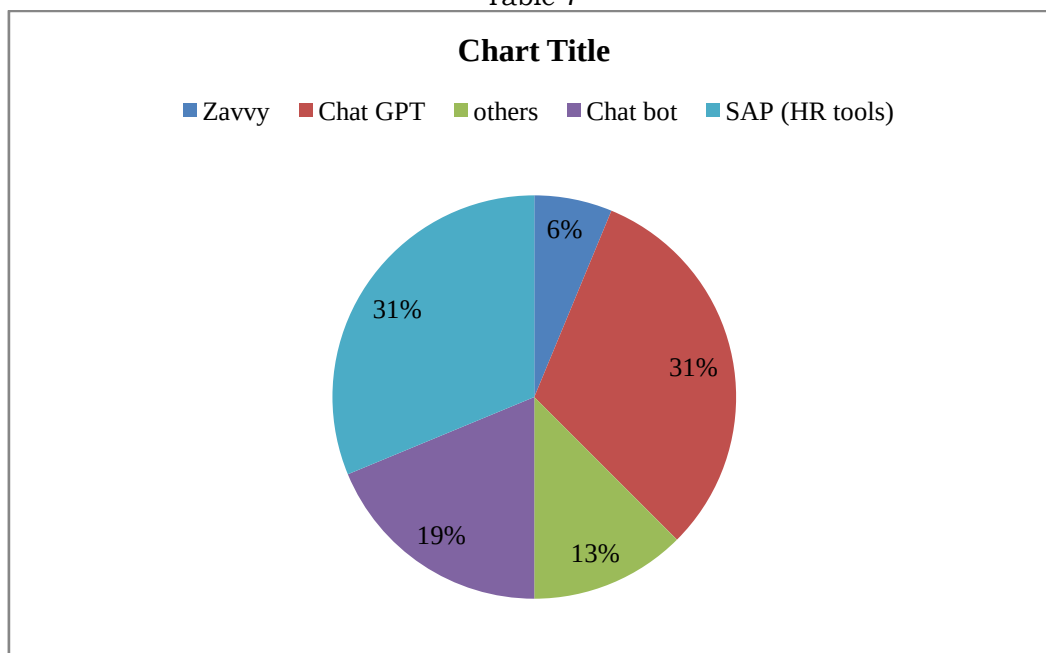
Source: authors own creation

With reference to the above table & diagram, it indicates number of respondents company's adopted AI tools. Out of 50 sample 64% of sample size are working on AI tools and remaining 36% are not using AI tools.

5. Different AI Tools Adopted in HRM Processes:

Zavvy	Chat GPT	Chat Bot	SAP (HR Tools)	Others
2	10	6	10	4

Table 7



Source: authors own creation

With reference to the above table & diagram, it indicates 31% organizations are using SAP (HR customized tool), 31% Chat GPT, 19% are Chatbot tools, 6% Zaavy, 13% are using Other AI tools for HRM processes

Hypothesis:

- H_0 = the number of observed respondents are equal to the expected number of respondents based on AI tools Implemented in the respondents organization.
- H_1 = the number of observed respondents are not equal to the expected number of respondents based on AI tools Implemented in the respondents organization.

Statistical Analyses using Chi-Square Test:

AI tools installed in the Organizations	% of Expected Respondents (100)	No. of Expected Respondents (E)	No. of Observed Respondents (O)	(O-E) ² /E
Zavvy	5%	5	2	1.8
Chat GPT	20%	20	10	5.0

Others	5%	5	4	0.2
Chat Bot	15%	15	6	5.4
SAP (HR Customized Tools)	25%	25	10	9.0
Not Using	30%	30	18	4.8
Total = $(O-E)^2/E$				26.2

Table 8

Degree of freedom = $n - 1 = 6 - 1 = 5$

Significance Level = 5% = 0.05

Significance Level Table Value = 12.592

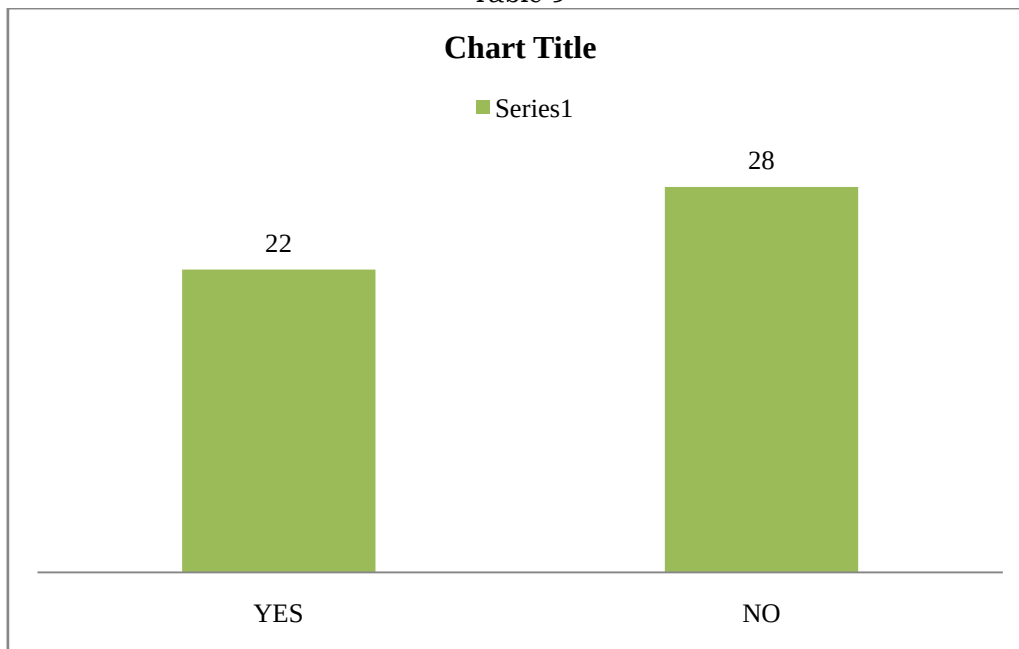
Observed Chi - Square Value = 26.2

From the above Table-8 Calculations, we have evaluated values of expected and observed and analyzed that Observed Chi Square Value (26.2) is greater than the significant Level Value (12.592). We reject null hypothesis and Accept alternative hypothesis. Hence we conclude that the numbers of observed respondents are not equal to the expected number of respondents on the basis of AI tools Implemented and used in the respondent's organization.

6. Numbers of Organizations are Using AI in Performance Appraisal:

Yes	No	Total
22	28	50

Table 9



Source: Authors Own Creation

With reference to the above table & diagram, it indicates out of 50 respondents 44% organizations are using AI performance Appraisal tools.

Hypothesis:

- H_0 = the number of observed respondents are equal to the expected number of respondents based on AI performance Appraisal tools Implemented in the respondent's organization.
- H_1 = the number of observed respondents are not equal to the expected number of respondents based on AI performance Appraisal tools Implemented in the respondent's organization.

Statistical Analyses Using Chi-Square Test:

AI Performance Appraisal Tools	% of Expected Respondents (100)	No. of Expected Respondents (E)	No. of Observed Respondents (O)	$(O-E)^2/E$
SAP (HR Customized Tools)	25%	25	8	19.56
Chat GPT	20%	20	5	11.25
Intelli HR	5%	5	1	0.8
Others	20%	20	8	7.2
No AI Tools Used	30%	30	28	0.13
Total = $(O-E)^2/E$				38.94

Table 10

Degree of freedom = $n - 1 = 5 - 1 = 4$

Significance Level = 5% = 0.05

Significance Level Table Value = 9.488

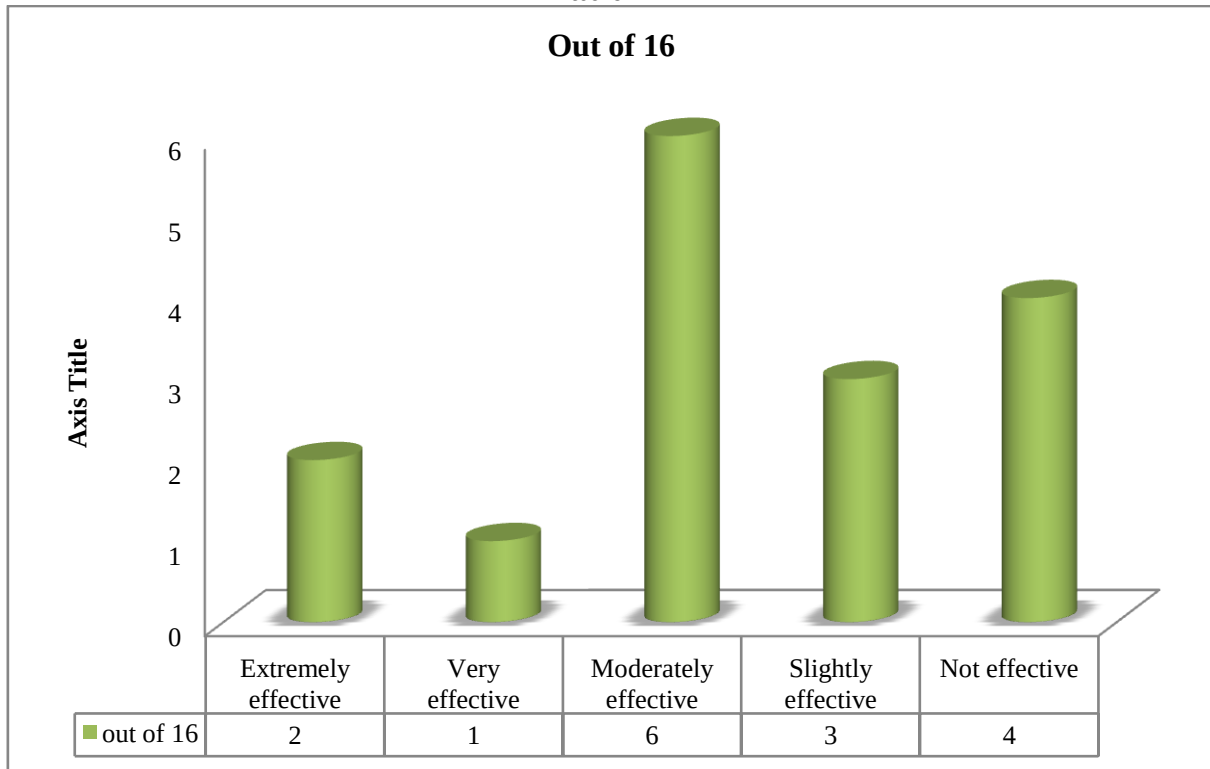
Observed Chi - Square Value = 38.94

From the above Table:10 Calculations used for analyses, Observed Chi Square Value (38.94) is greater than the significant Level Value (9.488), we reject null hypothesis and Accept alternative hypothesis and we conclude that the numbers of observed respondents are not equal to the expected number of respondents on the basis AI performance Appraisal tools Implemented in the respondent's organization.

7. No. of Organizations Using AI Tools in Training and Development:

Yes	No	Total
16	34	50

Table 11



Source: authors own creation

With reference to the above table & diagram, it indicates out of 50 respondents, only 16 organizations are using AI tools and remaining companies are following different training and development methods.

Hypothesis:

- H_0 = the number of observed respondents are equal to the expected number of respondents based on AI tools on Training and development Implemented in the respondent's organization.
- H_1 = the number of observed respondents are not equal to the expected number of respondents based on AI tools on Training and development Implemented in the respondent's organization.

Statistical Analyses Using Chi-Square Test:

AI tools in Training and Development	% of Expected Respondents (100)	No. of Expected Respondents (E)	No. of Observed Respondents (O)	(O-E) ² /E
Chat GPT	20%	20	8	7.2
Eightfold	10%	10	3	4.9
Fetcher	5%	5	1	3.2
Others	20%	20	4	12.8
No AI Tools Used	45%	45	34	2.6
Chi- Square Total = (O-E) ² /E				26.7

Table 12

Degree of freedom = $n - 1 = 5 - 1 = 4$

Significance Level = 5% = 0.05

Significance Level Table Value = 9.488

Observed Chi - Square Value = 26.7

From the above table: 12 calculations Observed Chi Square Value (38.94) is greater than the significant Level Value (9.488), we reject null hypothesis and Accept alternative hypothesis. Hence we conclude that the numbers of observed respondents are not equal to the expected number of respondents on the basis of AI Training and development tools Implemented in the respondent's organization.

Discussion on Open Ended Questions:

- What do you see as the biggest advantage of using AI in HRM?

The Following Responses Indicate the Merits of AI Being Introduced in HR Domain in Corporate Environment According to Responses Received:

- AI reduces various steps followed in processes of resume Screening.
- Adoption of AI avoids repetition of work and Saves Time in HR process.
- Usage of AI tools reduces bias and discloses Accuracy.
- AI tools simplify Payroll management and Leave tracking.

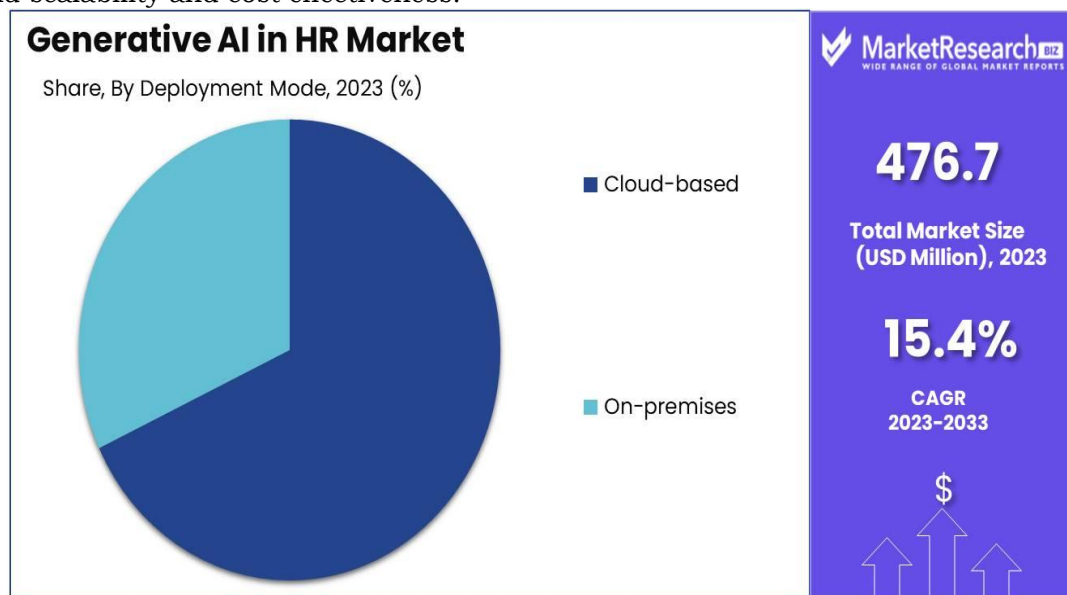
Challenges: What Do You See as the Biggest Challenge of Using AI in HRM?

The following are seen as challenges in applying AI

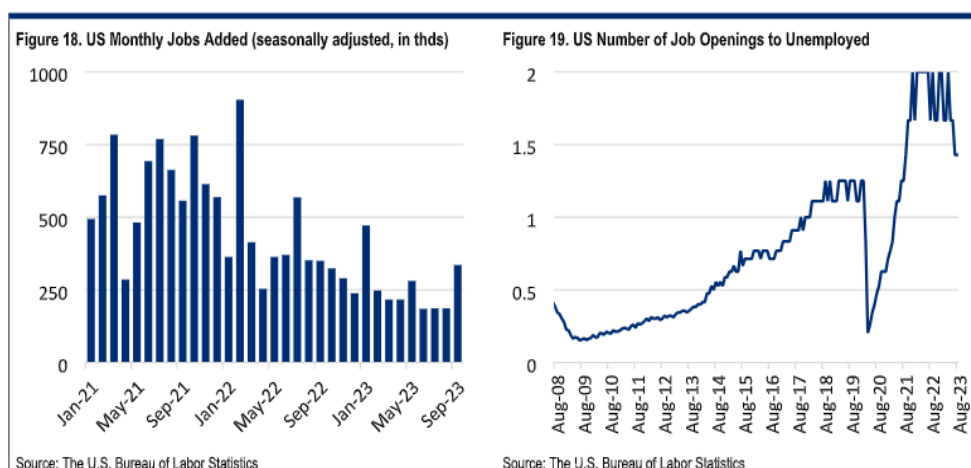
- AI mimics all the work done by the human and Reduction in team size.
- Hampers the physical work and will reduce employment opportunities.
- AI tools may not analyze human sentiments and emotions .Hence Personal behavior evaluation is difficult.
- AI - Will never and ever behave like human being. And end up hiring irrelevant profiles.
- AI could have both positive and negative.

By Deployment Mode Analysis:

In 2023, Cloud-based generative AI captures 68% of the HR market, enhancing recruitment efficiency and scalability and cost effectiveness.



Source: marketresearch.biz



Source: Global insight

With reference to the above diagram we can see the changes taking place in AI growth and employment opportunities in the Global perceptive.

Conclusion:

The impact study of introducing AI in HR domain thus can be useful in delivering appropriate and hand in services to the organizations. At the same time, it is also felt that the lesser use of human interface can bring elements of lack of personalized and committed service to the main function of Human Resources Development as even in advanced industrialized countries AI had not made that much of impact in resolving issued such as discipline, training, wage negotiations amongst the most important

aspects of HR domain in any organization, Yet, change is imminent and as days go by, AI could become an integral part of decision making. As Lord Gower says, "Men may come and Men may go, an organization goes on forever and ever". If this is true, then Organizations around the world would add up AI in their kitty.

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