Significance of Artificial Intelligence in Recruitment Process

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ABSTRACT

HR is the division of a business that is charged with finding, screening, recruitment, training job applicants. It typically finds, trains, hires and fires employees.

Organization are increasingly recognizing the critical role of HRD in nurturing their most valuable asset-their people, it starts from the very sourcing, screening, recruiting, induction, performance management and their development. With the changing scenario, technological advancement has impacted HR process significantly. The innovation of artificial intelligence and machine learning are now significantly entered the field of human resource development.

AI system can analyze vast amount of HR data to identify potential candidate and predict their chances of getting shortlisted foe a particular job. AI recruitment reduces by automating all the mundane tasks. Recruitment has become a hotbed for AI applications in HR. The platform has led to an improvement in candidate experience by making it easier for job seeker to apply for open position and communicate directly with the company.

With the changing scenario and advancement in technology, AI has incorporated in every disciple. It helps I increasing the human efficiency of doing task for quick and better achievement of organizational objectives. HR department in itself is in a pivot position as it starts before any function comes into action. It plays key role in streamlining all the departments and processes that are working towards business operations. AI isn't here to replace human recruitment but it's here to make their lives infinitely easier. Though AI finds no comparison to the human brain, still it's a game changer for improving the quality of work done.

KEYWORDS: Artificial Intelligence (AI), Human Resource (HR), Human Resource Development (HRD)

INTRODUCTION

This paper set out to consider artificial intelligence (AI) and the growing influence it has on recruitment industry. Artificial intelligence recruitment reduces the workload for recruiters by automating all the mundane tasks. AI has been accepted, by practicing recruitment specialists, as being "game-changing for HR". With AI powered recruitment, increase quality of hires, alleviate repetitive tasks and use time effectively. Hire best talent based on real potential and reduce bias.AI recruitment is not only beneficial for you and your team; it is also beneficial to enhance the candidate experience. AI Recruiting tools enable organizations to improve hiring practices by identifying more qualified candidates and sourcing additional candidates. The platforms can also improve the candidate experience by making it easier for job seekers to apply for open positions and communicate directly with the company.

This process will require significant structural and technological change in recruitment processes but will enable teams to maximize the efficiency and effectiveness of their talent acquisition strategies. . Screening resumes efficiently and fairly still remains the biggest challenge in talent acquisition: 52% of talent acquisition leaders say the hardest part of recruitment is identifying the right candidates from a large applicant pool.

RECRUITMENT

According to DeCenzo and Robbins," It is the process to discover potential candidates for future actual or anticipated job vacancies". Recruitment is the process of actively seeking out, finding and hiring candidates for a specific position or job. The recruitment definition includes the entire hiring process, from inception to the individual recruit's integration into the company.Business involves continuous selecting and hiring of the right people who can contribute to the growth of the organization. The primary responsibility of an HR recruiter is to hire the most suitable employees for new job positions within the organization and to retain them tactfully. Recruitment does not happen around the year. There should be a tactful strategy that needs to be driven as per the organization's talent requirements. Hence, a recruiter is expected to stay tuned for the developments in the company and regularly monitor if any potential job opportunities will arise.

But as we all know that recruitment has always been a time-consuming, repetitive process. For example, many companies have used AI to quickly process large amounts of data to improve efficiency, accuracy, and productivity. In its simplest terms, AI is really just automation that allows us to solve big, complex, repeatable problems with quality results. AI is there to better illuminate the path to get recruitment task performed smoothly.

ARTIFICIAL INTELLIGENCE

Intelligence might be defined as the ability to learn and perform suitable techniques to solve problems and achieve goals. Whereas Artificial Intelligence (AI), is a term coined by Emeritus Stanford Professor John McCarthy in 1955, was defined by him as "the science and engineering of making intelligent machines". In general terms we can say that AI is the science of making machines that can think like humans. It can do things that are considered as "smart." AI technology can process large amounts of data in ways, unlike humans. It is the simulation of human intelligence processes by machines, especially computer systems.

The English Oxford Living Dictionary gives definition on AI as, "The theory and development of computer systems able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages. "AI has been classified into hard AI and soft AI. Hard AI aims to create machines that can think and act autonomously, exhibiting consciousness and self-awareness. On the other hand, soft AI, often referred to as weak AI or narrow AI, focuses on developing AI systems that are designed to perform specific tasks or functions.

AI in hiring process or AI in recruiting enables talent acquisition teams to discover passive candidates and unlock data-driven insights that guide decision-making and better outcomes such as quality of hire. AI in recruiting tools can help deliver the right jobs to the right talent, the right talent to the right recruiters … and ultimately build up organizations efficiency.

REVIEW OF LITERATURE

Using AI save organizations money and efforts (Vijay Sundaram, 2018); (Jones, 2018), and it could boost the hard and soft skills of recruiters (Luiza Sayfullina, 2018), improving speed and task efficiency (Niehueser and Boak, 2020), as well as building relationships between recruiters and candidates(Othamar Gama Filho, 2018) to result in fining talents unbiasedly (Rebecca Greenfield and Riley Griffin,2018). Recruiters all over the world have a big challenge to screen the massive number of CV's andapplications directly after finalizing the attracting process and jump to start the selection process. (ChrisCollins, 2018) reviewed the challenges related to receiving a large number of applicants to be screenedand evaluated in which recruiters sometimes find difficult to tackle. He offered AI solutions to serve the processing of these applications via chatbots, in which every single applicant can engage personally with the organization's interactive system.

According to Geetha R. and Bhanu Sree Reddy(2018), the aim of this paper was to analyze the role of AI in recruitment process. The main objective of this paper were to analyze or study the influence of artificial intelligence in hiring process in the companies. The researcher used the secondary data in this study like websites, journals, newspaper etc to explore the more strategies while hiring or recruiting the candidates with AI.

Contribution in AI in respect of recruitment is also done by Okolie et al (2017), who stated employers had benefits including lower costs, more applicants and better candidate matching with candidates having an easier application process, with a wide variety of job opportunities and finally a greater response rate from the employer to receive feedback. Poor hiring decisions are estimated to cost $1.6 million for every 1000 hires made (Randstad, 2018). Bullhorn (2018) suggest efficiency is one of two reasons for increasing automated processes in recruitment..

Faliagka et al (2012) directly agrees, adding that AI will reduce the time required to fill vacancies as well as aiding the recruiter in ranking candidate suitability. Improving the candidate experience is something a recruiter is tasked with but the current level of administrative tasks in the industry stops them from doing this, AI is argued as the solution (May, 2016).

In the words of Dr. A.P.J. Abdul Kalam (2010), "The turning point in the process of growing up is when you the core strength within you that survives all hurt". The hardest battle, which any human can ever imagine fighting; and never stopping fighting until you arrive at your destined place, that is, a UNIQUE YOU.

The ultimate goal of recruitment process is to find the right aspirant at the right point of time by human resource manager, which may extend the activity by utilizing more number or source. For filling up the specified vacancies we would work from various mediums to find and place the finest candidates.

OBJECTIVES OF THE STUDY
- To observe how artificial intelligence is used currently in recruiting process.
- To understand the importance of artificial intelligence in recruitment.
- Investigate the impact of Artificial Intelligence on the employer and candidate independently and establish the positive and negative effects for both parties.

RESEARCH HYPOTHESIS
H_0: There is no significant correlation between AI and recruitment process in an organization.
H_1: There is significant correlation between AI and recruitment process in an organization.

RESEARCH METHODOLOGY

In this study a standardized structure is distributed via social media platforms. The standardized structure questionnaire is used for data collection to ensure a fair comparison across the respondents so that the respondents would answer based on the genuine variations and not diverge in their answers because of the different question asked.

The total number of participants was N=352 including employees working in different companies. They reported a work experience ranging from one to five years or more. The questionnaire used in the study was implemented on the Google forms and the link was electronically distributed to the participants to obtain the information about perception on the given topic. Participants were free to answer all the questions, while they were assured about the anonymity and confidentiality of the data.

Five point Likert scale ranging from: Strongly Disagree (SD), Disagree (D), Neutral (N), Strongly Agree (SA), Agree (A) was used to measure the adequacy of the data.

DATA ANALYSIS

Table 1 shows the demographical profile of respondents:

S.No.	VARIABLES	RESPONDENTS	FREQUENCY	PERCENTAGE
1	GENDER	MALE	192	54.54
		FEMALE	160	45.45
2	DESIGNATION	HR	116	32.95
		NON HR	236	67.04
3	EXPERIENCE	0-2 YRS	157	44.60
		2-5 YRS	33	9.37
		MORE THAN 5 YRS	162	46.02
4	AGE	25-35 YRS	105	29.82
		36-45 YRS	169	48.01
		ABOVE 46 YRS	78	22.15

Interpretation:

1. From the data it is clear that majority number of respondents (N= 192) are males.
2. From the data it is clear that majority number of respondents (N= 236) are from non HR background.
3. From the data it is clear that majority number of respondents (N= 162) have experience of more than 5 yrs.
4. From the data it is clear that majority number of respondents (N= 169) belongs to the age group of 36 to 45 years.

AI is significant in attracting and retaining suitable candidates?

Particulars	Number of response	percentage
Highly disagree	27	7.67
Disagree	33	10.15
Neutral	71	21.84
Agree	116	35.69
Highly agree	105	32.30

Change is required in HR recruitment process as it is quite complex?

Particulars	Number of response	percentage
Highly disagree	19	5.39
Disagree	23	6.53
Neutral	69	19.60
Agree	123	34.94
Highly agree	118	33.52

Technologies have drastically altered your recruitment process?

Particulars	Number of response	percentage
Highly disagree	21	5.96
Disagree	34	9.65
Neutral	88	25.00
Agree	132	37.5
Highly agree	77	21.87

Recruitment the most time-consuming process in an organization and we must try to speed up our recruitment process?

Particulars	Number of response	percentage
Highly disagree	13	3.69
disagree	29	8.23
neutral	47	13.35
agree	184	52.27
Highly agree	79	22.44

AI based decision making is reliable?

Particulars	Number of response	percentage
Highly disagree	37	10.51
disagree	42	11.93
neutral	57	16.19
agree	162	46.02
Highly agree	54	15.34

There is no discrimination during the recruitment process when using AI?

Particulars	Number of response	percentage
Highly disagree	26	7.38
disagree	41	11.64
neutral	87	24.71
agree	161	45.73
Highly agree	37	10.51

There will be more role of recognition of the employee in the organization?

Particulars	Number of response	percentage

Highly disagree	23	6.53
disagree	27	7.67
neutral	103	29.26
agree	157	44.60
Highly agree	42	11.93

Through AI the individual performance of each employee will be policy based totally on credit points without human interference?

Particulars	Number of response	percentage
Highly disagree	31	8.80
disagree	23	6.53
neutral	67	19.03
agree	134	38.06
Highly agree	97	27.55

There will be equal delegation of work for each employee as task will be automated as per specialization?

Particulars	Number of response	percentage
Highly disagree	16	4.54
disagree	24	6.81
neutral	54	15.34
agree	141	40.05
Highly agree	117	33.23

AI will drastically change the recruitment process?

Particulars	Number of response	percentage
Highly disagree	32	9.09
disagree	37	10.51
neutral	93	26.42
agree	118	33.52
Highly agree	72	20.45

RELAIBILITY ANALYSIS

The data was subjected to SPSS version 22.0 on the basis of that following result can be interfered

Table

Reliability Statistics	
Cronbach's Alpha	N of Items
.852	10

From the data it is clear that the questionnaire is highly reliable as the value of Cronbach's alpha is 0.852

Correlations

		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
Q1	Pearson Correlation	1	.178**	.186**	.270**	.172**	.163**	.316**	.321**	.153**	.166**
	Sig. (2-tailed)		.001	.000	.000	.001	.002	.000	.000	.004	.002
	N	352	352	352	352	352	352	352	352	352	352
Q2	Pearson Correlation	.178**	1	.302**	.335**	.459**	.278**	.327**	.346**	.409**	.274**
	Sig. (2-tailed)	.001		.000	.000	.000	.000	.000	.000	.000	.000
	N	352	352	352	352	352	352	352	352	352	352
Q3	Pearson Correlation	.186**	.302**	1	.472**	.422**	.380**	.402**	.255**	.227**	.429**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000	.000
	N	352	352	352	352	352	352	352	352	352	352
Q4	Pearson Correlation	.270**	.335**	.472**	1	.453**	.410**	.523**	.317**	.262**	.419**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000	.000
	N	352	352	352	352	352	352	352	352	352	352
Q5	Pearson Correlation	.172**	.459**	.422**	.453**	1	.481**	.324**	.437**	.484**	.440**
	Sig. (2-tailed)	.001	.000	.000	.000		.000	.000	.000	.000	.000
	N	352	352	352	352	352	352	352	352	352	352
Q6	Pearson Correlation	.163**	.278**	.380**	.410**	.481**	1	.319**	.450**	.408**	.402**
	Sig. (2-tailed)	.002	.000	.000	.000	.000		.000	.000	.000	.000
	N	352	352	352	352	352	352	352	352	352	352
Q7	Pearson Correlation	.316**	.327**	.402**	.523**	.324**	.319**	1	.267**	.302**	.308**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.000	.000
	N	352	352	352	352	352	352	352	352	352	352
Q8	Pearson Correlation	.321**	.346**	.255**	.317**	.437**	.450**	.267**	1	.485**	.355**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000	.000
	N	352	352	352	352	352	352	352	352	352	352

Q9	Pearson Correlation	.153**	.409**	.227**	.262**	.484**	.408**	.302**	.485**	1	.494**
	Sig. (2-tailed)	.004	.000	.000	.000	.000	.000	.000	.000		.000
	N	352	352	352	352	352	352	352	352	352	352
Q10	Pearson Correlation	.166**	.274**	.429**	.419**	.440**	.402**	.308**	.355**	.494**	1
	Sig. (2-tailed)	.002	.000	.000	.000	.000	.000	.000	.000	.000	
	N	352	352	352	352	352	352	352	352	352	352

Correlation is significant at the 0.01 level (2-tailed).

Based on the results, we can state the following:

- Attraction and retention of employees and complexity have a statistically significant linear relationship (r=0.178, $p < .001$).
- The direction of the relationship is positive (i.e., attraction and retention of employees and complexity are positively correlated), meaning that these variables tend to increase together.
- Attraction and retention of employees and technology have a statistically significant linear relationship (r=0.186, p<0.001).
- The direction of the relationship is positive (i.e., attraction and retention of employees and technology are positively correlated), meaning that these variables tend to increase together.
- Attraction and retention of employees and time consuming process have a statistically significant linear relationship (r=0.270, $p < .001$).
- The direction of the relationship is positive (i.e., attraction and retention of employees and time consuming process are positively correlated), meaning that these variables tend to increase together.
- Attraction and retention of employees and decision making have a statistically significant linear relationship (r=0.172, $p < .001$).
- The direction of the relationship is positive (i.e., attraction and retention of employees and decision making are positively correlated), meaning that these variables tend to increase together.
- Attraction and retention of employees and discrimination of employees have a statistically significant linear relationship (r=0.163, $p < .001$).
- The direction of the relationship is positive (i.e., attraction and retention of employees and discrimination of employees are positively correlated), meaning that these variables tend to increase together.
- Attraction and retention of employees and role of recognition have a statistically significant linear relationship (r=0.316, $p < .001$).
- The direction of the relationship is positive (i.e., attraction and retention of employees and role of recognition are positively correlated), meaning that these variables tend to increase together.
- Attraction and retention of employees and individual performance have a statistically significant linear relationship (r=0.321, $p < .001$).
- The direction of the relationship is positive (i.e., attraction and retention of employees and individual performance are positively correlated), meaning that these variables tend to increase together.

- Attraction and retention of employees and equal delegation of work have a statistically significant linear relationship ($r=0.153$, $p < .001$).
  The direction of the relationship is positive (i.e., attraction and retention of employees and equal delegation of work are positively correlated), meaning that these variables tend to increase together.
- Attraction and retention of employees and change have a statistically significant linear relationship ($r=0.166$, $p < .001$).

The direction of the relationship is positive (i.e., attraction and retention of employees and change are positively correlated), meaning that these variables tend to increase together

RESULTS

AI will drastically impact the recruitment process thereby smoothing the procedure from its complexities. It seems to attract HR and Recruitment industry by a blizzard. Recruitment is a task of attracting the prominent aspirant with required job skills and hires them by outsourcing agencies or by HR managers of the business for a job vacancy. As it reduces both time and cost of the candidate and company .New technology on recruitment will lead to use more timing on selecting prospective aspirants and less on resume scrutiny.

AI can smooth the recruitment process in various ways:

Firstly, in screening of candidate, it keeps the candidate well informed in both ways before and after they apply for a particular vacancy. It resolves all the queries of the candidate using chat box which is a AI tool. A Chat box helps the candidate by responding to the queries and also AI tool asks for feedback and required information about the candidate.

 It also helps in approaching the suitable candidates, AI tool automates a candidate application process using automated e-mails or by using messaging system. As these automated information may keep in touch with the candidate which may lead to quick response from the candidate.

Secondly, in market mapping which is used by recruiters to identify and analyze the talent pool in a specific industry or location. The use of intelligent AI Chabot's that hold conversations with potential candidates, judge their suitability and then guide them through the application process will lead to a more diverse and higher quality set of applicants delivering a higher probability of matrices matching between the company and the applicants.

Thirdly, it helps in developing candidate's career and skills. Employees always need to be motivated with well-established training programs, equipped with learning environment, and career growth information to be shared by boss or superior which is highly impossible. But, the solution is AI tool as the ability to conduct such programs and coach individually as per the organization need.

Fourthly, it is more reliable as task will be done in an automated way as per skills and past performances without human interference so there will be less of error. There will be more role of recognition of task and performance as evaluation will be totally credit based without flattering. It will thereby help in enhancing performances of each employee creating more devotion and truth for the organization. It will totally curtail unbiased recruitments and promotions.

Fifthly, it is more of time and cost saving.AI saves time by keeping the records as such which leads not to do the repeated event. The task of acquiring right aspirant to the organization takes place with qualitative manner and outsourcing recruitment agency is reduced. So, AI tools helps to save costs.AI packages helps to screen and select quality aspirants. It helps to identify candidates' skills, competency and trait that match the job applied for. So, it results in hiring talented candidate.

CONCLUSION

To conclude the role of AI it is the combination of humans and AI that leads to data maintenance, save the cost and time to the organizations with more accuracy and access in total recruitment process.

With all these benefits it has certain challenges too:

- Higher upfront costs
- Need for a lot of data for training and engagement
- Potential to learn human bias from patterns in the existing recruitment process
- Potentially losing human touch in recruitment
- Skepticism and hesitation in adopting new technology

The problem is, "how will they transform your hiring process"? Automation and making smart decisions may save companies thousands of dollars per employee every year, in addition to improving the work life. Therefore, it is not surprising that several HR departments and providers are attempting to capitalize on the advantages of AI. Here are a few ways AI can transform your hiring process.

Simplifying the sourcing process: Finding and attracting the right candidates for an open position is a struggle well-known to talent acquisition specialists. With AI-powered recruitment, you can scan online resumes and social profiles of potential candidates — at scale — to find a more diverse talent pool suitable for your open position.

Enhancing employee experience: Once sourced, AI solutions can contact potential candidates and lead them through the recruiting funnel quickly. This ensures a smooth and positive candidate experience, which is a critical contributor to talent recruitment and retention.

Boosting screening: As AI tools are always learning, they can boost your screening process by not just relying on the candidates that have applied for the position but also reviewing past applications to select the most suitable candidate. Moreover, you can train AI models to remove unconscious bias from the recruitment process to ensure an inclusive and diverse workforce.

Assisting interview process: Before inviting candidates for an in-person interview, AI in talent acquisition can help you check a candidate's fit by offering job simulations, undertaking personality testing, and conducting a pre-set virtual interview. As a result, you can ensure that not only the candidates meet the job requirements but will also fit your company culture.

Improving on boarding experience: AI-powered HR solutions go beyond just screening and interviewing and extend to onboarding as well. Automating repetitive tasks — such as conducting background checks, putting together the paperwork, and getting employees started with the necessary documentation — helps employees begin work quickly and enables the HR department to focus on other critical tasks.

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