

MANAGEMENT OF RECRUITMENT PROCESS WITH ARTIFICIAL INTELLIGENCE

Abstract

The recruitment process is part of every organization. Every year some new people join the organization through organized recruitment process. This process is very hectic as big companies have to scan the thousands of resume personally and then they call the people who are fulfilling their criteria for the next phase. As this process is very time consuming, artificial intelligence can play vital role in this process. The paper reviewed the management of recruitment process by referring various online publications, papers, online articles on this field which used artificial intelligence process for the fast results. The study finds that contribution of artificial intelligence in the recruitment process, is effective related to the time and money as less manpower can do effective work with the help of artificial intelligence.

Keywords: Artificial Intelligence, Recruitment Process, Technology, Technology Management

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I. INTRODUCTION

Recruitment is one of the most important functions of any organization. According to Edwin B. Flippo, “Recruitment is the process of searching the candidates for employment and stimulating them to apply for jobs in the organization”. According to Finnegan (1983), recruitment means “The right people in the right job”.

In traditional method of recruitment we used Newspaper, Local Employment Office, and Temporary Agencies etc. It is very time consuming job of posting and receiving applications and also sorting the applications.

The findings from CV-Library highlight the significant costs associated with the hiring process for businesses. These costs can vary depending on the number of roles a company is trying to fill and the specific recruitment methods used.

According to the research, the majority of businesses spend up to £5,000 per new recruit. This figure includes various expenses such as job postings, advertising, candidate screening, interviews, background checks, and onboarding.

In addition to monetary costs, there are time-related expenses. Sourcing, screening, and hiring candidates can be a time-consuming process, and this time spent by HR professionals and hiring managers translates into additional costs, particularly if it delays the filling of crucial roles.

To address these challenges and reduce costs, many businesses are turning to technology and automation. Applicant tracking systems (ATS), AI-powered recruitment tools, and online job boards are examples of technologies that can streamline the hiring process, improve efficiency, and reduce the workload on hiring professionals.

Modern methods of recruitment are quicker. We used modern gadget and methods of recruitment like Smartphone, Social media, Online Recruitment, Scouting and Event recruitment. Instantly online job openings post possible with latest technology. This rapid change offers numerous advantages for both employer and job seekers.

The modern method of hiring process is very cheap. Due to technology advancement, number of industries has grown up & competition also becomes high. Today work cultural is in online mode due to which it becomes easy & efficient for employee & employer to connect with each other. Also many companies have developed specialized in-house recruitment team that handle the entire recruitment process.

Traditional Recruitment process used systemic approach that organization use to attract and identify suitable candidate for various job position in the organization. This process involved several steps aimed at sourcing, evaluating, and selecting the most appropriate candidates to fill vacant place in the job. Here’s an overview of the traditional recruitment process.

II. TRADITIONAL RECRUITMENT PROCESS

The traditional recruitment methods persist in many organizations is valid, and there are several reasons for their continued use, such as familiarity and simplicity. Traditional methods like paper-based job postings, internal hiring, referrals, and word-of-mouth are easy to understand and implement, making them accessible to business of all sizes. These methods often involve personal connections and referrals, which can be valuable for cultural fit and team cohesion.

A reliable recruitment process aim to establish a balance between suitable candidates and maximizing the number of potential job seekers who apply is an important aspect of a successful recruitment process.

The recruitment cycle comprise of seven steps which is shown by Figure.1



Figure 1: Traditional Recruitment Process

- 1. Identifying the Hiring Needs:** This is the first step in recruitment process. This step helps to identifying hiring need or vacancies by considering the factors like Expansion, Project Demand, and Turnover etc. And analyzing job specification which includes Skills, Qualification and Experience required performing task effectively.
- 2. Preparing the Job Description:** Once you have clear understanding of hiring need and job specification, next step is to understand the duties and responsibilities related to job.
- 3. Talent Search:** The most important aspect of recruitment process is to identifying right talent, attracting them to apply. Recruiter used two source of recruitment. Internal source of recruitment open the doors for existing employee to showcase their talent. Hiring from exiting employee develop positive sense among the employee and require less time, cost, effort compare to external source. On the other hand external source also benefited. This source offer wider scope for receiving large number of applications. This will help to found out most suitable candidate for job.

4. **Screening and Shortlisting:** In recruitment process, Screening and Shortlisting applicants efficiently and accurately are a crucial step. This help to identify the most suitable candidates for evaluation and interview.
5. **Interviewing:** The interview process is most important step in recruitment process that provides an opportunity to thoroughly assess the shortlisted candidate's qualifications, skills and fit the candidate in the role and company culture
6. **Evaluation and Offer of Employment:** This is the final step of recruitment process. It required proper planning and execution. Even though a candidate may have completed all the necessary paperwork and shown patience throughout the selection process, there are always factors that could influence their final decision. So never take it for granted that the candidate will accept your offer.
7. **Introduction and Induction of New Employee:** When applicant get offer letter, they will become employee of company. By ensuring that, new employee feels welcome, informed and prepared for their role. With this induction program company can set the foundation for productive and successful employee relationship.

III. ARTIFICIAL INTELLIGENCE

“Artificial Intelligence is the science and engineering of making intelligent machines, especially intelligent computer programs” described by father of AI, John McCarthy. McCarthy's definition emphasizes the interdisciplinary nature of AI, incorporating both scientific and engineering aspects. AI system process large amount of data and information. AI involves understanding of human intelligence, replicating its functions in machines, and developing algorithms and techniques to enable machines to learn, reason, and adapt.

The goal of AI is to develop machine that can perform tasks intelligently and autonomously, ultimately enhancing their capabilities beyond what traditional programming can achieve.

AI highlighted some of the key areas, applications and algorithm such as deep learning, machine learning, machine vision, generic algorithm, neural network and so on (Jarrahi, 2018). AI has expanded its field into various specialized area and applications such as natural language processing, expert system, automated reasoning. (Ved et al, 2016).

AI has revolutionized the recruitment process by automating many of the backend tasks traditionally handled by recruiters and hiring managers.

Przemek Berendt's statement highlights an important perspective on the impact of AI in the workplace. Rather than fearing the changes brought about by AI, it's more productive to view it as a tool that can enhance and unable the work we do. Here are some example considers this view point:

1. Paradox's AI-powered assistant, Olivia, is an innovative solution designed to streamline and enhance the recruitment process for both recruiter and job seekers. Olivia uses AI and natural language processing (NLP) technology to learn about candidates' skills, expertise,

and relevant job experience. This assessment helps recruiters quickly identify candidates who match the qualifications and requirements for specific roles.

2. HireVue's use of conversational AI and automation in the recruitment process represents significant advancement in improving the candidate experience and streamlining hiring. The AI recruiting assistant can assess candidates' skills and qualifications through these text-based conversations. It helps match candidates with job openings that align with their skill sets and experiences, increasing the likelihood of finding the right fit for both candidates and employers.
3. XOR.ai's chatbots engage with applicants and candidates effectively. By providing a conversational interface, candidates can have their questions answered and navigate the application process more smoothly, leading to a better candidate experience.

Creating a smoother and more confidential job-seeking experience is an important goal, and several companies have developed AI algorithms and platforms to achieve this. These platforms prioritize matching job seekers with suitable roles while maintaining anonymity. Here are some companies that offer such services:

- Bullhorn's integration of AI into its talent platform represents a significant advancement in the recruitment industry, offering benefits for both recruiters and candidates.
- Eightfold AI is an innovative company that utilizes artificial intelligence (AI) to streamline the process of matching companies with high-quality candidates. Traditional resume reviews often have limitations, such as biases and the inability to measure an individual's true potential accurately. Eightfold AI addresses these challenges through its talent intelligence platform, which employs advanced AI algorithms and data analysis techniques.
- Entelo is a technology company that specializes in talent acquisition and recruitment solutions, harnessing the power of artificial intelligence (AI) and predictive analytics to simplify and enhance the hiring process. One of their notable offerings is the machine learning platform called Envoy, which is designed to streamline and optimize the recruitment process for employers. (<https://builtin.com/artificial-intelligence/ai-in-hr-recruiting>)

IV. ARTIFICIAL INTELLIGENCE RECRUITMENT PROCESS

The integration of AI into the job search and recruitment process can bring about significant benefits for both companies and candidates. By automating and evaluating various prospective for recruitment process, this technology can reduce time and cost by improving overall quality of hiring.

AI used in various stages of recruitment Process. Here is the eight ways AI is utilized by HR during recruitment:

1. **Screening Candidates:** AI tools engage candidates through chatbots, collecting feedback and necessary information even before they apply. This helps candidates understand the role better and provides recruiters with insights about candidate preferences and qualifications.
2. **Candidate Engagement:** AI automates candidate engagement through automated emails or messaging systems, ensuring that candidates receive timely updates about their application status. This maintains ongoing communication and improves response rates.
3. **Re-Engagement:** AI tools allow for re-engaging candidates who might have been considered for a previous position. It's a strategic way to tap into candidates who have shown interest before and assess their current availability and interest levels.
4. **Post-Offer Acceptance:** After candidates accept a job offer, there's often a waiting period before they start. AI can provide relevant information and resources during this period, helping to maintain the candidate's excitement and interest.
5. **New Hire On-boarding:** AI can assist in the on boarding process by providing information about company policies, procedures, and culture. This ensures that new hires have access to essential information and resources without overloading HR staff.
6. **Career Development:** AI tools can create personalized training programs and career development plans for employees. They can offer individualized coaching and learning opportunities based on each employee's needs and organizational requirements.
7. **Employee Relations:** AI-powered chatbots can handle employee queries about benefits, leave, appraisals, and other HR-related topics. This frees up HR staff from addressing routine questions, allowing them to focus on more strategic tasks.
8. **Scheduling:** AI can assist in scheduling interviews, meetings, and even booking facilities. This eliminates the need for manual coordination and streamlines the scheduling process, making it more efficient.

The utilization of AI in these ways demonstrates how technology can significantly enhance the efficiency, effectiveness, and personalization of the recruitment and HR processes. By automating routine tasks and providing tailored experiences for candidates and employees, organizations can allocate their resources more strategically and create a more positive candidate and employee journey.

V. LITERATURE REVIEW

The ultimate goal of any recruitment process is to place right person, at a right time and right position by using number of available resources. For stuffing the suitable candidate organization work from various medium and appoint the suitable candidate. Every organization has two factors of recruitment i.e internal and external factor depend upon efficiency of organization which uses different methods and process for recruitment. The successful recruitment process is when selected candidate perform excellent their job. Provide customize information, data, source while during recruitment process can remarkably enhance its effectiveness. e (Rao, 2010).

Van Esch et al. (2019) point out that the integration of AI into recruitment process is a notable trend in global organizations. The integration of advance technology into recruitment is an ongoing process which reduce routine work like email communication, resume screening, interview scheduling etc. (Leong, 2018). As par (Leong, 2018) offline recruitment process is very tedious process, depending on candidate's applications. Thus with the use of AI recruiter only focus on attracting and engaging best candidates for their organization.

AI technology used by people in their day to day life like Smartphone, Laptops, Tabs etc. By using this tools organization save money and efforts (Vijay Sundaram, 2018); (Jones, 2018), improve the soft and hard skills of recruiters (Niehueser and Boak, 2020), also establish relationships between recruiters and candidates (Othamar Gama Filho, 2018), this will help in finding right talent (Rebecca Greenfield and Riley Griffin, 2018). (10+82).

Implementation of AI enabled technologies by the US organization Hirevue for analyzing various aspects of candidates interactions during interview such as language, appearance and the candidate react for each and every question. This will help to place suitable candidates for organization.

Though it is a need for deeper understanding of e-recruitment (Allden and Harris, 2013) mainly from the recruitment point of view (Anderson, 2003; Holm, 2012). Gap in the existing research come up with valuable opportunities for further investigation and research. Thus current study exploring the recruiter's approach on the role of AI technology and conditions required for organization to accept AI in their day to day schedule can yield valuable insides. Opportunities and risks of artificial intelligence in recruitment and selection

VI. IMPORTANCE OF AI IN RECRUITMENT

There are several highlighted key advantages of using AI in recruitment. Let's delve deeper into each of these points

- 1. Time Saving:** AI's ability to automate tasks and maintain records efficiently eliminates the need for repetitive actions. Traditional recruitment processes involve spending significant time on resume screening. By automating this task, AI enables HR professionals to focus on more strategic and value-added activities.
- 2. Mapping of Talents:** AI's data analysis capabilities help HR identify the best-suited candidates based on competencies and skills. This ensures a more accurate match between the candidate's abilities and the job requirements, resulting in better placements and improved employee performance.
- 3. Cost Saving:** By reducing the dependency on external recruitment agencies, AI tools save costs associated with outsourcing. Organizations can use AI-driven tools to directly source, screen, and select candidates, leading to cost savings over the long term.
- 4. High-Quality Hiring:** AI's data-driven approach and unbiased screening contribute to hiring high-quality candidates. It minimizes the risk of human biases and focuses on objective qualifications, leading to better talent acquisition.

5. **Query Redressing and Employee Engagement:** AI-powered systems provide prompt responses to employee queries, enhancing their satisfaction and engagement. When employees receive timely and accurate information, they are more likely to feel valued and engaged, contributing to lower turnover rates.
6. **Unbiased Recruitment:** AI reduces bias by evaluating candidates based on objective criteria rather than subjective judgments. This results in a fairer and more inclusive hiring process that considers candidates solely based on their qualifications and skills.
7. **Identifying Quality Aspirants:** AI tools excel at assessing candidates' skills, competencies, and traits in alignment with the job requirements. This leads to the identification of candidates who are genuinely well-suited for the role, improving the overall quality of the talent pool.

In summary, AI-driven recruitment offers a range of benefits, including time and cost savings, improved talent mapping, enhanced employee engagement, and unbiased candidate selection. By leveraging AI's capabilities, organizations can streamline their recruitment processes, improve the quality of hires, and create a more efficient and effective hiring ecosystem. However, it's essential to maintain a balance between automation and the human touch, ensuring that the recruitment process remains personalized and empathetic while reaping the benefits of AI technology.

VII. CONCLUSION

Recruitment is a critical function for any organization. Finding and selecting the right talent can significantly impact the success and growth of a company. The use of AI in recruitment signifies its importance in finding the right candidates to meet an organization's needs. The efficiency and effectiveness of AI-driven recruitment solutions make them appealing to recruiters and organizations seeking to optimize their hiring processes. AI's capabilities are transforming the way recruitment is conducted. However, it's important to recognize that while AI brings many benefits, it's not a complete replacement for human involvement. A balanced approach that combines AI's strengths with the human touch is crucial for maintaining a personalized and empathetic candidate experience while harnessing the advantages of AI technology.

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