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Impact of Artificial Intelligence in the Recruitment Process within the IT Industry: A Case Study in Bangalore City.

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Abstract: This research delves into the significant influence of Artificial Intelligence (AI) on the IT recruitment landscape in Bangalore City. While acknowledging AI's capacity to alleviate traditional hiring hurdles like constricted talent pools, lengthy screening, and inherent biases, this study concurrently underscores the indispensable need for human engagement throughout the recruitment journey. The investigation aims to uncover how AI optimizes comprehensive tactical Human Resource Management, its application in IT recruitment and selection, and the perspectives of both IT recruiters and candidates on AI-driven hiring, with a particular focus on how human interaction and empathy seamlessly integrate with technological progress. Additionally, the study will pinpoint the challenges faced by recruiters and businesses in adopting AI, as well as the barriers candidates encounter when navigating job portals, all while prioritizing the delivery of a positive and tailored experience. Utilizing a confirmatory research approach, empirical data will be gathered via survey questionnaires from 200 IT recruiters and 200 candidates on online platforms within Bangalore City. The anticipated result is a thorough comprehension of AI's effects on IT sectors, providing recommendations for enhancing workforce effectiveness through intelligent recruitment practices for both business objectives and tactical human resource management, ultimately advocating for a harmonious blend of AI-driven efficiency and crucial human elements.

Keywords: Artificial Intelligence, Information Technology, Human Resources, Traditional Recruitment.

INTRODUCTION

Tactical human resources is an Operational activity within the Human Resource Department managing and supporting employees, organizations and overall HR Strategies. The tactical activities help the HR processes and management of the workforce such as, Recruitment, Onboarding, Record keeping, benefits, employee relations, performance management, training, compliance in well functioning Human resource department in organization.

Artificial Intelligence In recruitment is the application

of algorithms and Artificial Intelligence to improve and automate many aspects involving machine learning, data analytics and other techniques in enhancing candidate selection and optimizing outcomes. Artificial Intelligence Guides candidates and Employers through hiring and strategies faster screening, evaluation interviewing and offering jobs, verifying backgrounds and tests to complete the hiring processes.

Artificial Intelligence tools use pattern recognition, capabilities, soft skills, personality traits, creative

tasks and accurate processes in providing organization's success in Human resource. Adoption of Artificial Intelligence in Recruitment helps in efficiency of handling volumized applications and saves time in screening top resumes that are relevant for the opportunities, evaluate them and schedule interviews, this enhances the candidate experience as the virtual assistance is provided in every aspects of the hiring process along with the personalisation in answering and guiding the candidates through their application.

Every candidate in the talent pool within the database from diverse backgrounds are assessed to discover the skills, match for the opportunities using the Virtual tools, usually the traditional hiring process is more time consuming and biased, the talent pool is not screened completely leading to various biased decisions and judgments that are subjective in nature. Historical data can be integrated by Artificial Intelligence tools to predict the patterns, correlation or analysis on providing valuable insights to the Tactical Human Resource departments within an organization in suggesting chances of hiring accurate candidates and providing organizational success to strategies.

Traditional Recruitment process is effective, but there were some challenges that Human resource specialists had faced many problems such as limited search as limited channels restricts in reaching smaller pool of candidates eventually missing highly qualified candidatures, Sorting numerous resumes, screening, conducting and coordinating interviews with hiring coordinates. Lack of candidate engagement, limited access to candidates information, higher costs, discrimination in hiring process gave path to many changes in adopting technologies in Recruitment.

Change in technologies has brought many updates in traditional recruitment processes. The old recruitment focused on filling the position with limited pool of candidates, limited access to data. Organization is focused on a strong employer brand, creative candidate experience, continuous candidate engagement by providing values, culture, benefits. Human resource management deals with concepts such as compensation, performance management, organization development, safety, wellness, benefits, employee motivation, training, and others. Human Resource Analytics is the method used to create and assess insights of employees, determine contribution of every employee towards generating revenue for the organization which can reduce overall costs, making risks and accomplishing strategic plan. Thorough understanding of Human resources of an organization to help the crucial insights into their overall functions, this overall process can help

companies to understand their own strengths and weaknesses. When a company is not aware of their capabilities and drawbacks, they will not be able to make necessary and right changes for them to succeed or develop. This analysis can promote growth and determine potential candidates to increase standards, set their visions and make accurate decisions for future needs. Artificial Intelligence in Human resources helps in Scheduling with candidates, training sessions and other Human Resource Activities in another Area where Artificial Intelligence can help improve efficiency. This can help streamlining the entire process of scheduling on an organizational level. Candidate acquisition, scanning resumes without any bias, avoiding employee engagement, and answering real time questions that can help in the recruitment processes. Human Resource Chatbot is one of the major tools within Artificial Intelligence recruitment software that allows job seekers, employees to communicate through SMS, Website, and other applications like WhatsApp. This application allows for meaningful exchanges without the need for Human resource management to take their time. Workforce engagement aims to support operations planner, the team lead and agent.

The legacy recruitment process involves many steps and processes which start from analyzing job requirements in understanding hiring managers and stakeholders specifications such as skills, experiences, education and other specifications. Recruiters create job descriptions through various platforms like job boards, company websites and networking sites. Recruiters manually screen resumes and select candidates who meet initial requirements for further rounds of interviews, evaluation on various factors that can help the recruiters in assessment and check on references. Post selecting candidates, recruiters collaborate with Hiring managers and stakeholders. Negotiation of job offer and discussion on compensation package to onboarding smooth process and completing necessary paperwork and orientation session within organisation.

1.1 Impact of Artificial Intelligence in recruitment:

- The recruitment process has significantly affected the organization in identifying the suitable talent in a brief period and how they will positively impact the business.
- This technology growth also has had a positive effect on automating the repetitive, frequent processes in selection, where the entire process is enormously saving time and more effective.
- Reducing the line of recruiting workflow using the machine learning and auto

screening resumes of candidates gives an upper hand to recruiters in more efficiency and helps recruiters dedicate more time on other processes and future steps.

- Databases that can be generated through the internet or using these technological advances have also been one key factor in revealing the effectiveness of selection and ease in future recruitment and hiring.
- The initial screening and verifying of a candidate's profile can be carried out in a simplified manner, this can be very useful for both candidates to understand the status of each stage and where they can improve along with recruiters in their recruitment process and analytically in decision making processes.

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Over the internet, ATS can help in tracking applicants within a company. Based on training on automated judgments applicants are screened and evaluated. AI powered assessments for the skill based hiring helps the companies in selection processes as there might be large inbound applicants for a role. Candidates are still using traditional or human eye catered resumes, AI screens profiles that are comprehensive for the Automated formulated frameworks.

2. RESEARCH QUESTION:

2.i) To study the impact of use of AI in the Hiring process for End to End Tactical Human resource Management.

2.ii) To know the challenges and difficulties of Recruiters and Business, by usage of AI in Recruitment.

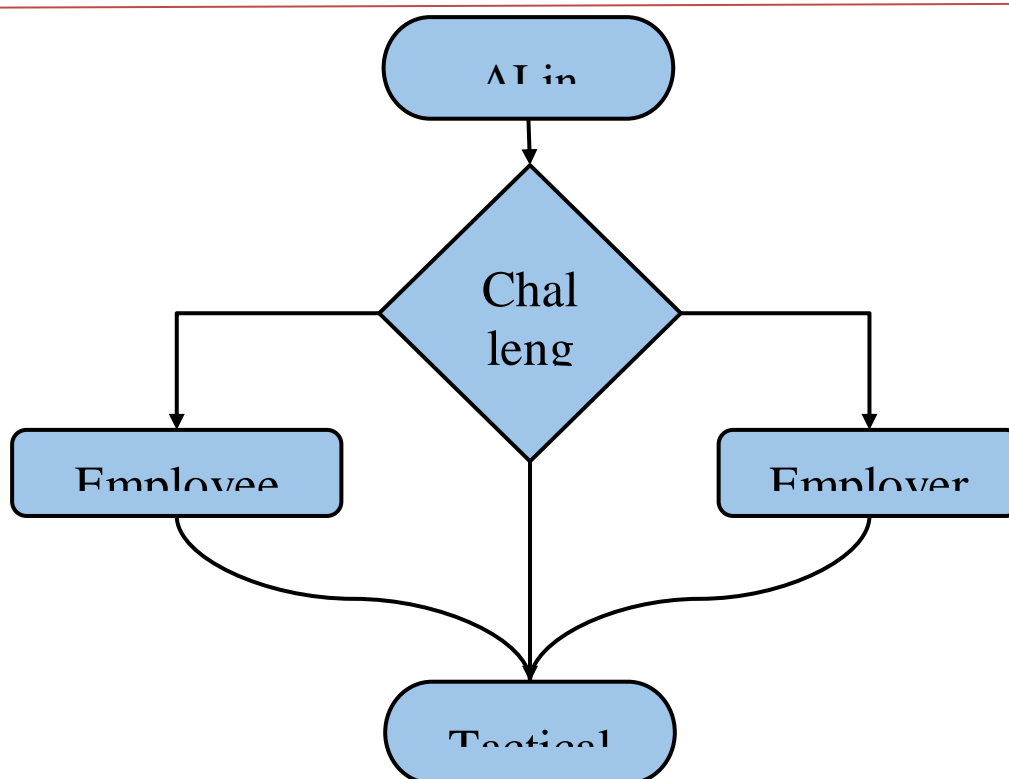
2.iii) To understand the experience of IT Recruiters in use of AI in recruitment and selection process.

2.iv) To observe how artificial intelligence is used in the IT recruitment and selection process at organisations.

2.v) To determine Recruiter- Candidate experience in the full life cycle of Selection and Recruitment process in IT using AI Hiring Practices.

PICTORIAL REPRESENTATION:

The pictorial representation shows the importance of artificial intelligence in the recruitment process. The connection of Artificial intelligence is the IT industries selection process, to understand the employer and employee experience in the tactical human resources.



3. MOTIVATION :

All previous studies spoke about the futuristic impact an organization can have once they adopt AI in their hiring process. How time, cost and bias nature can be eradicated and hiring can be fastened.

My Study aims to know how AI tools in the recruitment process can help the IT industries in Efficient and reach a huge pool of candidates giving us the best talents in the market and it can help the Human resource team within IT Industries.

This research subject is interesting to me because I as a Talent acquisition professional and planning member would be greatly impacted along with my company and colleagues with the knowledge on how Artificial Intelligence can impact and help in strategizing tactical Human resources within our organisation. It also can help with the industrial revolution on adopting Intelligence in supporting the legacy human resource process and upgrading their process or initiatives in acquiring and involving a huge talent pool of diversified resources in the company.

Expected outcome from this study would be understanding the impact IT industries can get on adopting an Artificial intelligence environment and suggest on how they can improvise their workforce effectively using Intelligence in recruitment process for the business and tactical human resource management in an organisation. This study also focuses on the impact Artificial intelligence in the

recruitment process in recent times, in IT Industries within Bangalore City.

REVIEW OF LITERATURE:

4.1 Mehrotra and Khanna (2022, January 15) conducted a study on recruitment through AI in selected Indian Companies. The study focused on understanding the perception and experience of employees towards adopting AI in recruitment and to estimate how relevant it was. Authors were keen on understanding what are the understanding of employees concerning metrics of talent acquisitions and AI application in recruitment. It was observed that the thematic analysis approach on secondary data collected through research findings and the Semi- interview data analysis was identified as 6 codes that were themes. Consensus agreement was used for inter-code agreement as Nominal group techniques. The study was limited to 4 samples that had undergone semi structured interviews that lasted for 3-4 minutes showing companies using AI provided support to companies becoming pervasive and talent acquisition metrics indicated AI had significantly helped in reducing time and process of recruitment and hiring of a candidate.

The study spoke about why there is slower adoption of AI in India compared to the US or Japan. Factors such as lack of infrastructure, organisation size, cost and scale of benefits for organisation, volume of hiring and availability of reliable and accurate data in building algorithms are important in implementing AI in the hiring process. Though usage of AI in hiring

has been seen across the Indian market, the success seen is comparatively lesser in India. Organisations have been outsourcing training, aids, and development in recruitment and overall growth using AI for significant changes in organisational growth.

4.2 Chauhan, S et al (2021, February) studied the impact of technology on recruitment. This analysis focused to show the current electronic recruitment activities, the process and its efficiencies in performance of an organisation. Many studies have been conducted on dynamics on time units, organisations seemed thirsty for IT to improve services. Unit of time to operate was one of the main research gap the authors wanted to address through their study. The data that was referred through both Secondary and primary sources through the form of questionnaires were collected from 40 respondents, where authors received 31 responses from their targeted universe.

The HR professionals suggested 87.5% were clear on identifying hidden and visible aspects in hiring processes and 12.5% of HR Professionals do not get both these aspects, use of social websites and job portals is considered obligatory to survive in existing competitive market for 95% of professionals, however organisation has prearranged 85% of summer trainees as providing opportunities; 90% of the respondents expressed that they believe employees are given special treatment along with Company branding to retain the existing employees in the corporation. The data collected also highlighted 55% of respondents agreeing on internal hiring is effective in motivating their employees and 95% of the Primary respondents had the system to calculate the cost per recruitment. This study was limited to 40 respondents across the Hiring professionals and suggested statistics reveals organisations general HR work is cut down drastically through Electronic Recruitment processes.

4.3 Yawalkar, V (2019, February) intended to study Artificial intelligence and its role in human resource management. Author collected the data through existing books, journals, articles and other secondary sources to study the concept, role, benefits and challenges of Artificial intelligence in human resource management. This study came to conclusions that the competitive era and tremendous growth in the industrial sector has resulted in enhancing the speed and routine work by adoption of modern technologies. Machine learning and artificial intelligence had played a vital role in recruitment, selection, hiring, analysing performance, collecting data of employees and providing real time information that is accurate.

Continuous improvement to be in front of the

industries is very challenging because of the competition and changes in the technologies. Digital Technologies plays an vital role in the field of human resource department within an organisation to be updated with the latest tech's. Integral roles such as analyzing performance, data collection of employees on real time basis for accuracy in information is very necessary for the company, these are all done by artificial intelligence and machine learning. Though the authors rely on mostly secondary data for their suggestions, we can see that most human resources departments at companies follow and uphold the information from the previous studies.

4.4 Karjagi, R., and Shivakalimath, S. (2022) Studied an RLS Model for forecasting resource fulfilment in IT and Consulting Firms: The Global Context, by analysing the ARIMA, RSL-statistical Forecasting and R statistical tools to understand forecasted data and resources in developing Dashboards that would enhance faster phrases in understanding available resources at every location for given roles and what might be the futuristic numbers in open positions. The targeted resources were from January 2015 to April 2018, number of employees essential skills, locations through descriptive analysis for data collecting data from Lloyds banking group.

The model showed 50% accuracy in Full time equivalent (FTE) effectively and optimization in staffing and planning within an organisation. These can help the organisation in assigning and planning for prediction of workforce and minimising the ideal resources. Descriptive analysis was based on COBOL, Java-J2EE, database, application testing and project management. The descriptive analysis on skill based outputs depicted well information on time can be possible because of this analysis and any type of resources can be ideal and easily acquired. The limitation of the research was the model analysis may be poor protectiveness. Future research lines may be machine learning algorithms that may bring more accuracy in results.

4.5 Fraij, J and Varallyai, L (2021, May) deep studied on Literature Review of Artificial Intelligence impact on the recruitment process by using systematic review of literatures previously studied on AI and recruitment process. These studies were based on six principles such as mapping files through scoping reviews, comprehensive search, quality assessments, data extraction and synthesis and finally writing up the entire process. The researchers focused on firstly what impact does AI bring-in to the recruitment process and what results were excluded and included in the study. 21 studies are analysed by the authors where the dateline range was 10 years from 2010 to 2020, limited to business and management. 18 studies among the 21 were conceptual data, 5 based

on questionnaires and 7 on secondary data studies, this discussed that implementing AI in the recruitment process has become more efficient because of the Cognitive engagement and insights in hiring, this has bought the ability of thinking and engaging logically like human being. Thus the performance and practice of the recruitment process has been benefited. A huge pool of candidates have accessibility to build their future using AI applications in recruitment.

AI will impact positively in reducing time taken for screening resumes, corruption in hiring can be totally taken off, Identifying and attracting talents was possible through AI, as it is similar to human brains and knows how to attract and adopt from the market pool. This study gave references to all the general topics of AI in recruitment within organisation rapidly helping in better quality in recruitment efficiencies.

4.6 Nawaz, Nishad (2019, December) collected data on AI is transforming recruitment effectiveness in CMMI level companies through convenient sampling methods through constructed questionnaires shared to Human Resource professionals via personal contacts, social media like Twitter, LinkedIn, Facebook of selected companies. 126 responses were collected where only 100 questionnaires were correctly filled for analysis. 3 variable components were considered in acquiring the data such as Opportunity variable, risk Variable and utilisation variable with 3 subdivisions under each of them.

The results hypothesis showed a significant strong relationship on the recruitment process where direct impact on artificial intelligence and risk of variables was in relation with artificial intelligence. True value for opportunity risk was 5.346, risk and utilisation was 8.300 and 7.257 respectively based on the study. Changes in algorithms according to the changes in industry by developers can help the recruitment process in reducing the risk and bringing in human touch for the process, this can gain in time and cost effectiveness and enhance quality for applications in the pool of talents.

4.7 Ramkumar, A and Rajini, G (2019, January) in their research paper on Effective Recruitment and Selection System for the IT Software Industry in India conducted a study of various softwares processes within IT industries for talent acquisitions and their overall socio economic experiences. There are many processes like interviews, different tests ,Key performance like growth and sales, selection techniques for better recruitment and selection. The authors wanted to test 12 hypothesis that were connected with selection processes, these assumptions were tested using Mann- Whitney U test

where significance level was .05, variables in sales was .054, net margin for profit resulting to .619 and revenue of .164 for average net profiles for each employees as .447.

The authors concluded that transformation of the Indian software industry has surely led to economic and revolutionary growth in demand for employment which has given the young populace direction for their futures. Many agencies also have formulated assistance in policies and incentives as economic drivers like NASSCOM.

4.8 Palos-Sánchez, et.al, (2022, November 18), made an in depth study on artificial intelligence and human resource management in the bibliometric analysis area. The queries the authors had was if scientific communities consider artificial intelligence as a commonly used tool in human resource management, will these artificial intelligence have impact on divisions of human resources and would it improve the companies competitiveness and how can the challenges be overcome in people management using artificial intelligence . This analysis was using Bibliometrix applications, this tool was developed in 2017 by Aria and Cuccurullo, to analyze comprehensive scientific mapping. The tool was open source and works on R language in integration and statistical- graphical packages. This helps in analyzing big data and summarizes the topics. The background of study was from 2018 to 2022. Previous researchers have focused on shedding light to artificial intelligence in human resource management. What gaps are seen and what might be futuristic focuses on acceptance of artificial intelligence, especially Machine Learning (ML). Physics, Biology, humanities were excluded, this made the Researchers look into these reviews, more than hundred articles were collected where few articles were rejected on irrelevance, Some papers were finalized in harmonization of results. Multiple Correspondence Analysis (MCA) made it possible in artificial intelligence in human resource management, Digital recruitment and electronic human resource was seen as possible through this Bibliometrix study, this developed the Human resource management.

Artificial intelligence Renews the process and helps in management solutions by the previous studies by scholars, artificial intelligence will be the most definite world innovation with a growth of 64.38% in the global market. The average number of published articles with artificial intelligence in human resource management was less than 2% in 2017, which seemed to have a change of 10% in 2019. There will be many more updates on how artificial intelligence can be more efficient within organisation as the technology changes.

4.9 Tambe, Prasanna et.al, (2018, 30th November) conducted a study on Artificial intelligence in human resources management; Challenges and a path forward with the aim of understanding the reasons why HR phenomena is complex, data is challenging, employees reaction to AI and fairness and legal constraints in AI in human resource operations. Causal reasoning was used to address the challenges across the AI life cycle, as algorithm creation is more reliable than causation in databases. This reasoning also helped the authors in understanding the fairness and explainability that employees also may come across in advancing the modeling of HR cycle in the data science community. Then came randomisation. Algorithms can be randomized to establish the causality, HR outcomes and produce the fair outcomes and uncertainties based on the probability predictions.

The outcomes are formalized using the formalizing process to have reasonable algorithms ensuring the assumptions, cost and employee challenges in the process. The study suggested that the logic of efficiency and appropriateness converge with the subject matter. The HR management using AI can forward both counts and efficiency within the organisation by using and implementing the different stages on the accurate stages and process of HR operations.

4.10 Votto, A et.al, (2021, 23rd November) intend to make a study on Artificial Intelligence in Tactical Human Resource Management: A Systematic Literature Review, using the SLR Methods, in generating the literature to analysis, seeks solution for research questions and extract relevant literatures with respect of systematic use of AI, HRM and Tactical HRIS.

Two phases were used in this process, first was filtering the literature and second focusing on contents of each article reviewed. Many articles were yielded which met date, language and peer review requirements. This further was filtered again on inclusion and exclusion criterias. After both the phases, authors came to the conclusion of sub articles and some among them met the primary studies based on SLR methodology as the authors needed.

Managerial T- HRIS focused on Human centric and nurturing the same, Enhancement in AI in HR professions are the aim of this research, AI application in Managerial HRIS could be the focus area in further studies. HRIS and HRM can be focused on growth of the field as there will be many changes that could prevail in future as the technology changes and develops in the world.

5. DESCRIPTION OF RESEARCH WORK

This research applies survey methodology. The primary datasets were collected through a survey questionnaire designed for this research, the data is collected from candidates who are available in the online platform such as LinkedIn. The survey targets are human resource professionals who engage in the selection process and focuses on IT recruiter's views on the artificial intelligence tools technology's impact on hiring. This study also can be classified under the Confirmatory Research method.

The questionnaire focuses on Impact of IT recruiters on the recruitment process and selection process on usage of artificial Intelligence tools/ platform for Recruitment process

The target sample size would be 100 IT recruiters and 100 candidates on an online platform at Bangalore City who are part of the Artificial Intelligence recruitment and selection process.

REFERENCES:

1. Comeet. (n.d.). The role of artificial intelligence in the hiring process. <https://www.comeet.com/resources/blog/the-role-of-artificial-intelligence-in-the-hiring-process>
2. Wikipedia contributors. (n.d.). Artificial intelligence in hiring. In Wikipedia. Retrieved December 17, 2025, from https://en.wikipedia.org/wiki/Artificial_intelligence_in_hiring
3. Analytics Steps. (n.d.). What role does AI play in human resource management? <https://www.analyticssteps.com/blogs/what-role-ai-human-resource-management>
4. Manatal. (n.d.). The impact of artificial intelligence on recruitment technology. <https://www.manatal.com>
5. Mehrotra, S., & Khanna, A. (2022). Recruitment through AI in selected Indian companies. A Journal of Management Research, 21(1). <https://doi.org/10.1177/09726225211066220>
6. Chauhan, S., Singh, A., & Sharma, S. (2021). To study the impact of technology on recruitment. International Journal of Innovative Science and Research Technology, 6(2). <https://ijisrt.com/assets/upload/files/IJISRT21FEB349.pdf>
7. Yawalkar, V. (2019). A study of artificial intelligence and its role in human resource

- management. International Journal of Research and Analytical Reviews, 6(1).
https://www.researchgate.net/publication/3312596981_A_Study_of_Artificial_Intelligence_and_its_role_in_Human_Resource_Management
8. Karjagi, R., & Shivakalimath, S. (2022). RLS model for forecasting resource fulfilment in IT and consulting firms: The global context. A Journal of Management, 21(1).
<https://doi.org/10.1177/09726225221075086>
9. Fraij, J., & Varallyai, L. (2021). A literature review: Artificial intelligence impact on the recruitment process. International Journal of Engineering and Management Sciences, 6(1).
<https://doi.org/10.21791/IJEMS.2021.1.10>
10. Nawaz, N. (2019). Artificial intelligence is transforming recruitment effectiveness in CMMI level companies. International Journal of Advanced Trends in Computer Science and Engineering, 8(6).
<https://doi.org/10.30534/ijatcse/2019/56862019>
11. Ramkumar, A., & Rajini, G. (2019). Effective recruitment and selection system for the IT software industry in India. Indian Journal of Public Health Research and Development, 10(1).
<https://doi.org/10.5958/0976-5506.2019.00016.0>
12. Palos-Sánchez, P., et al. (2022). Artificial intelligence and human resources management: A bibliometric analysis. Applied Artificial Intelligence, 36(1), 2145631.
<https://doi.org/10.1080/08839514.2022.2145631>
13. Tambe, P., Cappelli, P., & Yakubovich, V. (2018). Artificial intelligence in human resources management: Challenges and a path forward. SSRN Electronic Journal.
<https://doi.org/10.2139/ssrn.3263878>
14. Votto, A., et al. (2021). Artificial intelligence in tactical human resource management: A systematic literature review. International Journal of Information Management Data Insights, 1, 100047.
<https://doi.org/10.1016/j.jiime.2021.100047>
15. Eberle, C. (n.d.). The future of AI in talent acquisition: Trends and predictions. LinkedIn.
<https://www.linkedin.com/pulse/future-ai-talent-acquisition-trends-predictions-2023-christian-eberle>
16. Jobylon. (n.d.). How AI is transforming the world of recruitment.
<https://www.jobylon.com/blog/how-ai-is-transforming-the-world-of-recruitment>
17. RecruitBPM. (n.d.). Latest AI recruiting trends.
<https://www.recruitbpm.com/blog/2023-latest-ai-recruiting-trends/>