



ADOPTION OF TECHNOLOGY ON RECRUITMENT PROCESS A STUDY OF PERCEPTIONS AND ATTITUDES OF HR PROFESSIONALS

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Abstract: This research paper examines the transformative effects of technology on the recruiting process. With advancements in technology recruitment practices have evolved significantly. The objective of this study is to provide a comprehensive overview of the impact of technology on various stages of recruitment, including sourcing, screening, interviewing, and onboarding. Additionally, the paper explores the advantages, challenges, and potential ethical considerations associated with the integration of technology in recruiting. The findings of this research shed light on the opportunities and limitations of technology-driven recruitment and offer insights for organizations to optimize their hiring strategies in the digital era.

By providing a comprehensive overview of the impact of technology on the recruiting process, this research paper serves as a valuable resource for professionals in human resources, talent acquisition, and organizational leadership, helping them understand the opportunities, challenges, and best practices associated with integrating technology into their recruitment strategies.

Keywords: Adoption of Technology, HR Professionals, Perceptions

1: Introduction:

Technology has revolutionized the recruitment process, allowing organizations to attract, assess, and hire candidates more efficiently. The increasing reliance on digital platforms and the rise of the internet has provided organizations with unprecedented access to a vast pool of talent. Automation and artificial intelligence (AI) have also played a key role in reshaping the recruiting landscape, allowing recruiters to automate repetitive tasks and focus on strategic activities. AI-powered tools can analyze large volumes of data, identify patterns, and predict candidate suitability, helping organizations make more informed hiring decisions. Technology has revolutionized the recruitment process, allowing organizations to access global talent pools and enhance the accuracy of the hiring process.

Applicant tracking systems (ATS) have become integral to recruitment operations, enabling recruiters to efficiently manage candidate pipelines, collaborate with hiring teams, and maintain compliance with data protection regulations. Recruitment analytics and data-driven decision-making have gained prominence with the aid of technology, allowing HR professionals to identify areas for improvement, optimize recruitment strategies, and make data-backed decisions to attract and retain top talent. Mobile recruitment applications and platforms have emerged as a response to the increasing use of smartphones and mobile devices. However, the use of AI algorithms for candidate screening raises concerns about potential biases and discrimination, and the over-reliance on technology can undermine the human touch and personalized interaction that candidates often seek during the hiring process.

The two objectives of the paper are -

- (i) To explore the extent to which recruiters and HR managers have adopted technological development in their recruitment process.
- (ii) To understand the advantages and challenges of technological adoption in the recruitment process.
- (iii) To understand the intentions of HR professionals to adopt technological advancement in the recruitment process.

The paper is structured into five parts. The first part provides an introduction and states the main objectives of the study. The second part consists of literature review that explores the various aspects of technology in the recruitment and selection processes. The third part details the research methodology employed in the study. The fourth part presents the observations and findings derived from the study. Lastly, the fifth part concludes the paper by summarizing the key insights and conclusions drawn from the research.

2: Literature Review

The literature review of the existing studies was done to comprehend the different aspects of involvement of technology in the recruitment process. The major studies that were reviewed are summarized in the following four categories.

The first category comprises studies that explain how the adoption and integration of new technology into current systems improves the effectiveness and productivity of the hiring process. Studies by Yoon Kin Tong, D. (2009) and Yuvaraj, M. (2016) covered the costs and benefits of adopting new technologies as well as the factors influencing adoption. These studies also emphasized how effective planning, communication, stakeholder engagement, and change management methods are essential for the successful adoption of technology.

The research that examined the use of automation and artificial intelligence in the recruitment process fall under the second category. The automation of repetitive operations reduces manual labor, increases productivity, and eliminates human mistake, according to a study by Upadhyay, A.K., and Khandelwal, K. (2018). According to a study by Geetha, R., and Bhanu, S. R. D. (2018) and others, artificial intelligence (AI) analyses, interprets, and extracts insights to generate data-driven forecasts that influence the recruiting business strategically.

The third category of studies discussed the use of applicant tracking systems (ATS) in the recruitment process. Mukherjee A. N. (2014) talked about the effects of applicant tracking systems (ATS) on the HR process, professionals, and job seekers and proposed a model of a human resource information system (HRIS) based on ATS functionality. The possible use of applicant tracking systems as a fraud detection technique was examined by Niharika Reddy in 2019.

Studies that examine the use of predictive analytics and data-driven decision-making in the hiring process fall under the fourth category. It has been examined in articles by Jain, N., & Maitri (2018), Mishra, S. N. (2016), and others how the use of big data and predictive analytics tools might improve performance.

3: Research Methodology

The methodology adopted for the research is a combination of desk research and field research. The study adopted desk research to review and study relevant literature and used primary data collected from HR professionals through Google forms. The study is descriptive in nature and follows an empirical approach to analyze the responses received from HR professionals selected through convenience sampling technique. In order to understand the level of technological adoption in the recruitment process, the authors have considered the following model of recruitment process.

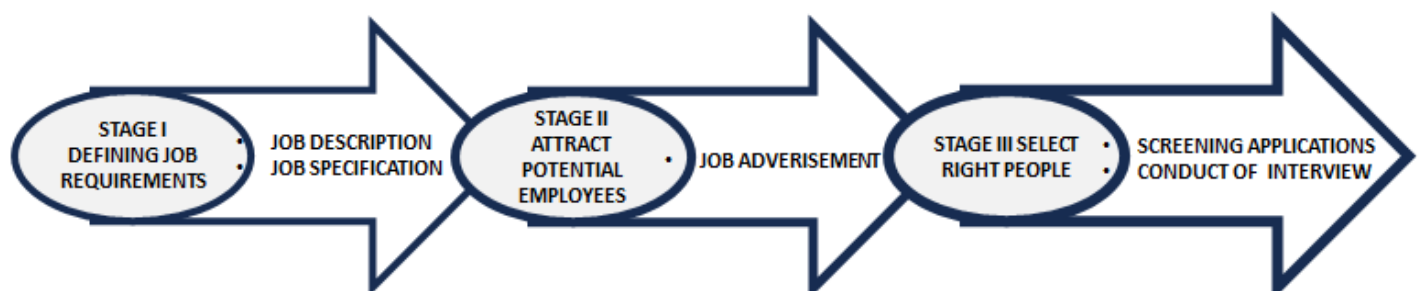


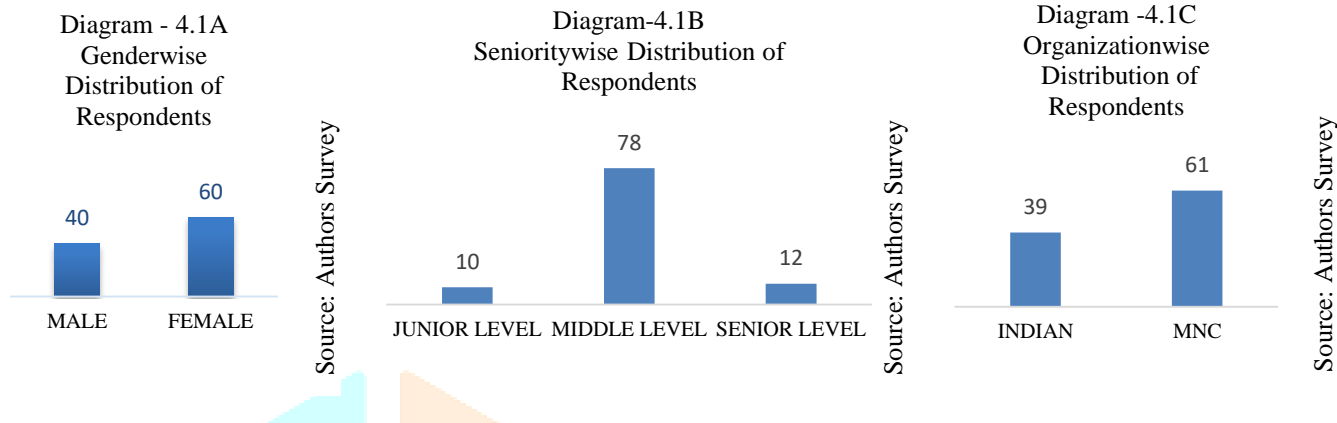
Diagram -1: Model of Recruitment Process

In this model, the recruitment process consists of three stages. The first stage is defining the job requirements. The first step consists of two sub steps – one is preparing the job description and the other is job specification. The second stage is attracting potential employees through job advertisement and the last step in this

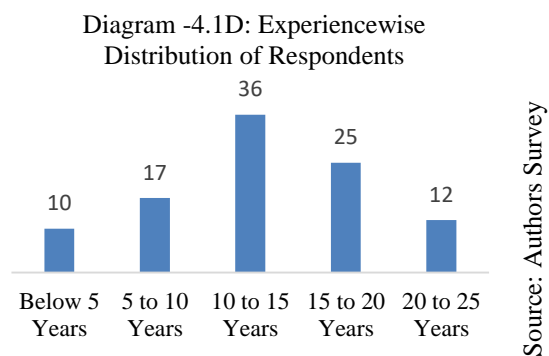
recruitment model is selecting the right people. A structured questionnaire was used to collect data from the HR managers in the Delhi NCR are selected through convenient sampling technique. To summarize the findings of objective I and II are summarized using graphical and diagrammatical tools. For drawing conclusion regarding the third objective, the non-parametric, Wilcoxon-Signed Rank test is used.

4: Findings & Interpretation

4.1 Profile of the Respondents -The profile of the final 100 respondents whose responses were analyzed is summarized below –



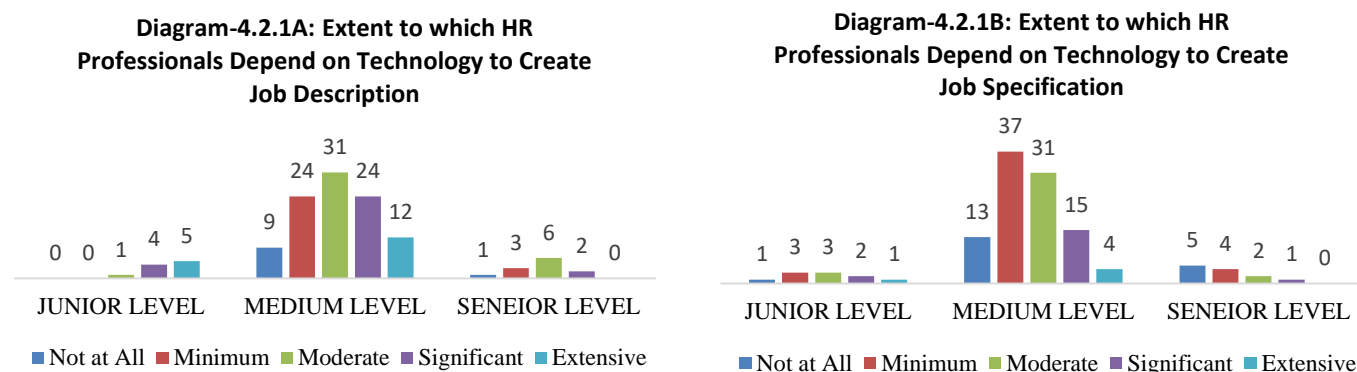
As shown in Diagram-4.1A, 60% of the respondents are female while the rest are male. In terms of seniority, as can be seen from Diagram-4.1B, more than 50% of the respondents are in the position of middle management while approximately 20% are in the senior position level while the remaining are in the junior level. Diagram-4.1C, shows that approximately two third of the respondents work in MNCs and the rest in Indian organizations. Finally, in terms of total years of experience, as shown in Diagram-4.1D, around 10% of the respondents have less than 5 years of experience, 17% have experience of 5 to 10 years, 61% have experience of 10 to 25 years while 12% have experience of more than 25 years. The findings and interpretations of the study as per the above model are summarized below –



4.2 Towards Adopting Technological Advancement in the Recruitment Process.

The findings related to this objective are divided into three parts as per the three stages of recruitment process defined in the model.

4.2.1: This segment summarizes the findings related to defining the job requirement. Job description and job specification are the two components of defining the job requirement. Job description provides an overview of the responsibilities associated with the job while a job specification outlines the qualifications, knowledge, and skills necessary for the job. As shown in Diagram – 4.2.1A, majority of the respondents at the junior level depends on technology for creating job descriptions. However, as the seniority level increases the dependence on technology for creating job description falls. However, as far as job specification is concerned, majority of the respondents at junior and medium level positions have shown moderate level of dependence on the use of technology. Most of the respondents, as shown in Diagram-4.2.1B, HR professionals at senior level have no dependence or a minimum level of dependence on technology for creating job specifications.



Source: Authors Survey

Source: Authors Survey

4.2.2 This segment summarizes the findings related to use of technology in attracting potential employees. Two questions were asked – First question was to find out HR managers perception about the capability of technology in attracting potential employees and second question was about their preferred choice of technological platform and software to attract potential employees. As shown in Diagram – 4.2.2A, majority of the HR managers at the medium level position either agreed to the positive impact of technology in attracting potential candidates or were neutral. The same trend was also seen in the responses of HR managers at the junior level as well as at senior level. As far as the use of different technological platform for attracting potential employees is concerned, as shown in Diagram -4.2.2B, the preferred choice among the respondents were networking platform like LinkedIn or online job posting websites like Naukri, Times jobs etc. Conducting online video interviews has also become an important tool for attracting potential interviews. These are followed by social media like platforms like Facebook, Instagram, and Twitter. However, virtual career fair is yet to become acceptable to majority of HR professionals as a tool for attracting potential employees.

Diagram-4.2.2A: Technology can Help HR Managers Attract Potential Employees

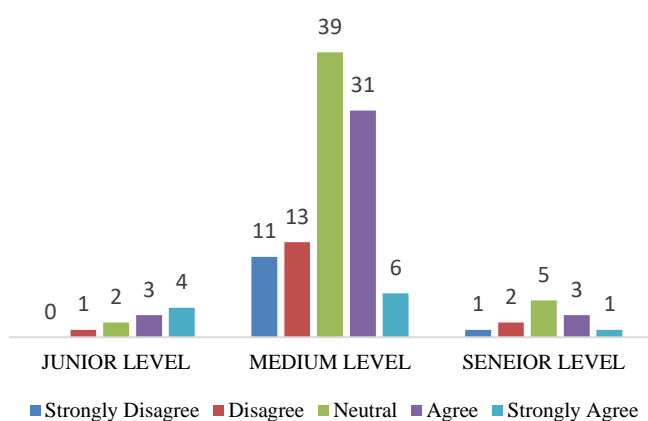
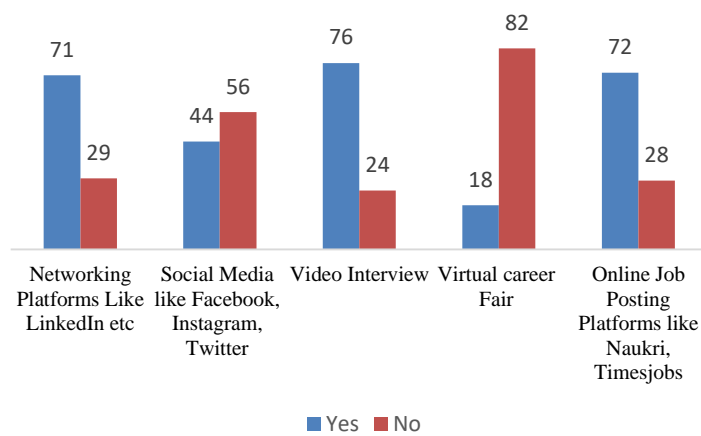


Diagram -4.2.2B Use of Technology Platform by HR Professionals to Attract Potential Candidates



Source: Authors Survey

Source: Authors Survey

4.2.3 This segment deals with the third stage of the recruitment model i.e., selecting the right candidate for the job. This stage can also be divided into two or three sub stages depending on the job type. To assess the use of technology in this stage of the recruitment process, HR professionals were asked about how they use technology is used in screening process of the applicants, in conducting interview and assessing the skill levels of the candidate where required. The results of use of technology related to submission and organization of applications, filtering resume, social media presence, automated response generation, judging the cognitive abilities and personal traits of the applicants are summarized in Diagram –4.2.3A. When asked about the most preferred way to conduct online interviews, the preferred platforms are found to be – Zoom, Google Meet, Skype, Webex. The results of preferred choice for conducting online interviews are summarized below in Diagram –4.2.3B.

Diagram -4.2.3A: Extent of Technology Use in Different Ways of Screening Applicants

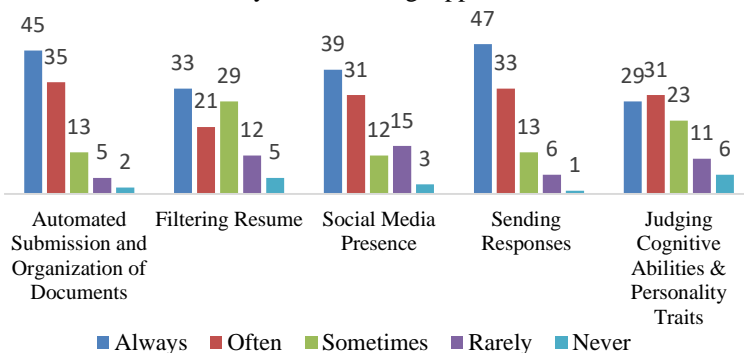
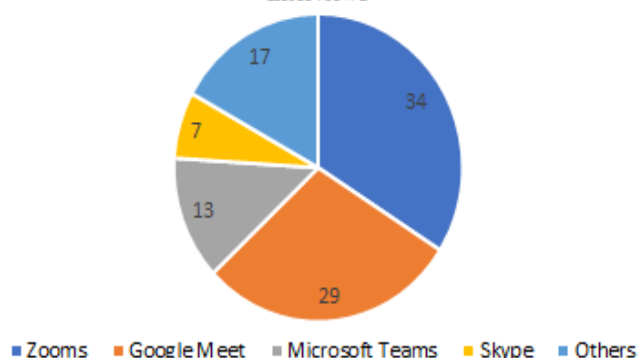


Diagram - 4.2.3B: Preferred Platform for Conducting Online Interviews



Source: Authors Survey

Source: Authors Survey

4.3: Objective-II: Advantages and Challenges of Adopting Technological Advancement in the Recruitment Process.

In a digital age the impact of technological advancements has a huge impact on the recruitment process. However, several challenges need to be countered for successful adoption of technology in recruitment. This segment summarizes the perception of the HR professionals about the advantages and challenges that exist in adoption of technological advancement in the recruitment process. The table 4.3A & 4.3B summarizes the perception of the respondents about the advantages and challenges of adopting technology in recruitment process.

Table – 4.3A A Perceptions About the Advantages of Adoption of Technology in Recruitment Process

	VSA	SA	NAD	SD	VSD
VSA: Very Strongly Agree; SA: Strongly Agree NAD: Nether Agree nor Disagree; SD: Strongly Disagree; VSD: Very Strongly Disagree					
Saves Time	37	34	14	8	7
Increases Accuracy	33	32	12	13	10
Increases Pool of Candidates	31	40	10	11	8
Improves Communication	35	35	12	10	8
Improves Tracking and Management of Applications	37	29	14	11	9
Sources: Authors Survey					

Table – 4.3B A Perceptions About the Challenges of Adoption of Technology in Recruitment Process

VSA: Very Strongly Agree; SA: Strongly Agree NAD: Nether Agree nor Disagree; SD: Strongly Disagree; VSD: Very Strongly Disagree	VSA	SA	NAD	SD	VSD
Applicants are not always Comfortable in Using Technology	24	45	11	13	7
Incompatibility of the Existing System with Adoption of Advanced Technology.	33	38	12	10	7
Lack of Data Security and Data Protection Policies	27	33	22	13	5
High Investment Cost for Adopting Technology	39	29	15	11	6
Unreliability of Results from Use of Technology	9	13	19	31	28
Sources: Authors Survey					

4.4: Objective-III: Intentions of HR professionals to adopt technological advancement in the recruitment process.

In this segment we analyze the perceptions of HR professionals towards effectiveness of technology in the recruitment process and their intentions of adopting technological advancement in the recruitment process. Responses of the HR professionals about their perception regarding effectiveness of technology in the recruitment process, as well as their intention to adopt technology in the recruitment process were collected in a scale of 1 to 10. As all professionals who participated in the survey were not considered in a position to judge the effectiveness of technology or to take decision regarding the adoption of technology, hence, instead of all, only 12 respondents in senior level with more than 20 years of experience were considered. Wilcoxon-Signed Rank method is used to test the hypothesis – The median of differences between HR professionals perceived effectiveness of technology in recruitment process and intentions to adopt such technology is zero. In other words, there is no difference between the perceived effectiveness of technology and HR managers intention to adopt it. The results of the analysis obtained using SPSS is shown below –

Hypothesis Test Summary

Null Hypothesis	Test	Sig.	Decision
1 The median of differences between Effectiveness of Technology and Adoption of Technology equals 0	Related-Samples Wilcoxon Signed Rank Test	.003	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

The rejection of the null hypothesis indicates that there exists a significant difference between the HR professionals perceived effectiveness of technology and intention to adopt it. In other words, rejecting the null hypothesis indicates that there exists a meaningful relationship or association between the HR

professionals perceived effectiveness of technology and intention to adopt it. That is the level of perceived effectiveness of technology influence or impact HR professionals' willingness or inclination to adopt technological advancement in the recruitment process.

5. Summary and Conclusion:

The study investigated the perceptions and attitudes of HR professionals towards the adoption of technology in the recruitment process. The study highlighted the importance of technology in the recruitment process and tried to understand how HR professionals perceive and embrace the technological advancement in the recruitment process. He majority of HR professionals expressed positive perceptions towards the adoption of technology in the recruitment process. They recognized the role of technology in all the different stages of recruitment processes, starting from job description and job specification, to attracting potential employees, screening of candidates and finally concluding the process after conducting interviews, assessing skill sets and background checking. The advantages of technology in increasing accuracy, efficiency, expanding candidate reach, streamlining communication process are broadly accepted by majority of the respondents. The study also identified the practical challenges of adopting technology in the recruitment process. The study

also found a positive correlation between perceived effectiveness of technology by HR professionals' and their willingness to adopt it.

However, being a survey-based study, the paper is subjected to limitations such as sampling bias and self-reported bias. The convenience sampling technique adopted in the study may result in a non-representative sample. This in turn may limit the generalizability of the findings. Further increase the adoption of technological advancement in the recruitment process will depend on a number of factors including changes in the organizational culture, training imparted to staff, support of top management, and availability of resources. In conclusion, it can be said that despite several limitations, overall, there exists a positive attitude of HR professionals towards adoption of technology in the recruitment process. Understanding the limitations can help HR professionals overcome the obstacles associated with technology adoption, maximize its use, and take leverage of its advantages to improve recruitment processes. Organizations can adapt to the changing landscape of recruitment market by addressing concerns, offering necessary support, and promoting a culture of use of technology. Further research and collaboration are needed to explore other dimensions and define strategies for successful adoption of technology in recruitment.

6. References:

- [1] Yoon Kin Tong, D. (2009). A study of e-recruitment technology adoption in Malaysia. *Industrial Management & Data Systems*, 109(2), 281-300.
- [2] Oostrom, J. K., Van Der Linden, D., Born, M. P., & Van Der Molen, H. T. (2013). New technology in personnel selection: How recruiter characteristics affect the adoption of new selection technology. *Computers in Human Behavior*, 29(6), 2404-2415.
- [3] Abdul, C., Wang, W., & Li, Y. (2020). THE IMPACT OF TECHNOLOGY ON RECRUITMENT PROCESS. *Issues in information Systems*, 21(4).
- [4] Sołek-Borowska, C., & Wilczewska, M. (2018). New technologies in the recruitment process. *Economics and Culture*, 15(2), 25-33.
- [5] Nikolaou, I. (2021). What is the Role of Technology in Recruitment and Selection?. *The Spanish journal of psychology*, 24, e2.
- [6] Visa, A., Einolander, J., & Vanharanta, H. (2015). New tools to help in the recruitment process. *Procedia Manufacturing*, 3, 653-659.
- [7] Gupta, P., Fernandes, S. F., & Jain, M. (2018). Automation in recruitment: a new frontier. *Journal of Information Technology Teaching Cases*, 8(2), 118-125.
- [8] Parry, E., & Tyson, S. (2009). What is the Potential of E-Recruitment to Transform the Recruitment Process and the Role of the Resourcing Team?. In *Handbook of research on e-transformation and human resources management technologies: Organizational outcomes and challenges* (pp. 202-217). IGI Global.
- [9] Yuvaraj, M. (2016). Adoption of technology in recruitment of library professionals and faculty members: Case study of social media in India. *The Bottom Line*, 29(4), 241-250.
- [10] Oksanen, R. (2018). New technology-based recruitment methods (Master's thesis).
- [11] Geetha, R., & Bhanu, S. R. D. (2018). Recruitment through artificial intelligence: a conceptual study. *International Journal of Mechanical Engineering and Technology*, 9(7), 63-70.
- [12] Dhamija, P. (2012). E-recruitment: a roadmap towards e-human resource management. *Researchers World*, 3(3), 33.
- [13] Montuschi, P., Gatteschi, V., Lamberti, F., Sanna, A., & Demartini, C. (2013). Job recruitment and job seeking processes: how technology can help. *It professional*, 16(5), 41-49.
- [14] Dickinson, D. (2011). Using technology for smarter recruitment. *Strategic HR Review*, 10(2).
- [15] Agarwal, R. (2022). A Study on E-Recruitment an Exploratory Study. *Sanshodhan*, 11(1), 108-114.