THE ROLE OF ARTIFICIAL INTELLIGENCE (AI) IN RECRUITMENT AND SELECTION OF EMPLOYEES IN THE ORGANISATION

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Abstract

One of the most innovative technologies now available is known as artificial intelligence (AI), and it is already altering the manner in which we live in a number of ways. In recent years, it has been more common practise in the recruiting industry to make use of enormous volumes of data in order to find applications, analyse applicant profiles, conduct interviews, choose the top prospects, and so on. As a consequence of this, it has the potential to influence the function of human resources, the perspective of people looking for work, and the general culture and policies of the firm. Because recruiters may not be aware of the availability of this technology or because the businesses that are adopting this technology may still be in the beginning stages of the adoption process, this circumstance presents a number of challenges that are closely related to the actual conditions that exist in the real world. This encourages us to do further research on the subject so that we can inform members of the public about the potential benefits of the technology.

First, artificial intelligence improves the application experience by cutting down on the amount of time and effort spent on the process by the HR manager. This frees up resources that can be used toward enhancing the overall productivity of the company. According to a poll conducted by the Sage Group, more than twenty-four percent of businesses all over the globe are already using AI in their candidate selection and evaluation procedures. More than half of all HR managers have shown interest in using AI solutions over the next 12 months. Second, according to the World Economic Forum (WEF), roughly 75 million of the world's already existing occupations will be gone. Because of the addition of 133 million new job roles and positions, the human resources department is going to be under a great deal of stress. This is particularly the case because of the rise of artificial intelligence (AI) and machine learning (ML), both of which will cause the organisation to hire more HR professionals to handle the increased workload.

Keywords: Artificial Intelligence, Recruitment process, Talent management, Correlation analysis, Chi square test analysis

INTRODUCTION

As the corporate world advances and becomes more competitive, artificial intelligence (AI) is being employed more and more, and the phrase has become something of a buzzword in its own right in the twenty-first century. Artificial intelligence (AI) stands for "artificial intelligence." Businesses have been put in the position where they are required to improve the efficiency and user-friendliness of the processes that they utilise to create value as a consequence of a number of improvements in technology. The proliferation of digital technology has brought about changes in the roles and practises of HR departments. This research's objective is to give insight into how companies feel about HRM automation and the extent to which artificial intelligence may be employed by staffing agencies to fill available positions. In particular, the study will focus on how businesses feel about the usage of robotic process automation. The research used a technique known as theme analysis, and the core data was gathered via semi-structured interviews with four professionals working in the IT business. The results of this study might assist human resources managers and recruiters in better managing and using AI in order to capitalise on the financial advantages of technological advancements in this field.

Because it has been shown that the traditional interview and resume procedure does not work, the recruitment sector is now facing a significant challenge. According to research conducted by the Department of Labor and Gallup, the success rate of using this method to locate the ideal applicant for a position is just 16%. In order to relieve this issue, a number of businesses have begun to implement preemployment tests in which applicants are asked the same set of questions. Despite their validity (being related to work performance) and dependability (remaining constant even when administered repeatedly), they have low completion rates since candidates have to put in a lot of time to complete them. This is because they are relevant to job performance. As a result, businesses risk losing access to some of the most talented individuals available. Because of this, 81 percent of the total sample size of more than 10,000 participants said that Talent Acquisition was either "critical" or "extremely vital," making it the third most serious problem that organisations are now facing.

It is anticipated that the usage of artificial intelligence (AI) would continue the trend of technology that enables recruiters to screen more prospects and give better, more economical services to companies as well as job-seekers. The expression "game-changing for HR" gives the impression that there may be both favourable and unfavourable results as a direct consequence of the growing use of AI. The introduction of the World Wide Web was the most recent event to cause a revolution in the staffing sector. This event made it possible for worldwide e-recruitment techniques to be developed, which increased the number of candidates who applied for positions all over the world. Applicants who placed a high emphasis on maintaining a wall between their personal and professional lives were often irritated by the fact that potential employers were able to see their

social media accounts as well as other information that was meant to be kept private.

Because it is objective and evaluates each applicant in the same manner in accordance with the selection criteria, artificial intelligence (AI) may save recruiters from the laborious and time-consuming task they now have to do. In addition to their regular tasks, recruiters could be requested to take on the responsibilities of talent counsellors. These responsibilities might include things like planning, developing connections with prospects, and determining whether or not they are a good cultural fit. The employment process has been sped up thanks to the use of AI, which has resulted in an increase in human production. At every level of the employment selection process, from the first contact to the post-interview follow-up, chatbots that are driven by AI are being used to connect with prospective employees. Applications are evaluated by AI recruitment software based on the abilities, experience, and education that are provided on CVs, and applicants are given either good or negative feedback depending on the results. Candidates have the option of skipping the lengthy wait and receiving immediate feedback from AI systems about their abilities, knowledge, and expertise. As a direct result of this, they have a favourable opinion of the use of AI to aid in recruiting. In addition, AI paves the way for new career paths that, both now and in the not-too-distant future, potential workers may find interesting. Through online and mobile applications, AI is utilised to assist those who are looking for work. The exchange of information with chatbots takes happen in real time via many forms of electronic communication like email and text message. On the other hand, it offers information about the applicant's background to the managers who are recruiting.

As a direct consequence of this, the scope of this study is quite limited. In the field of talent management, correlation analysis is currently being used to investigate how an advanced deep learning-based framework influences the development of leadership skills. The purpose of this investigation is to frame significant independent factors such as effective talent acquisition, comprehensive performance management, and long-term workforce planning.

REVIEW OF LITERATURE

Since 2018, a broad variety of companies have started using artificial intelligence to aid in the hiring process. This trend is expected to continue (Upadhyay and Khandelwal, 2018). It has always been difficult to find the professional job applicants who are the best qualified for open jobs. The majority of people now spend a substantial amount of time on social media platforms such as Facebook, Twitter, and Instagram, which have become an essential component of most people's day-to-day lives. On these platforms, users express a diverse variety of perspectives (Van Esch & Black, 2019). One recruiter decided to begin promoting available positions on social media in order to reach a greater number of people. This, however, leads to an overwhelming quantity of applications, making it

difficult for human resources to swiftly discover the candidates who are the most qualified for the position(s) being advertised (Michailidis, 2018). It was both impractical and financially prohibitive to pay a large number of recruiters to go through and assess the hundreds or thousands of applications that were submitted for a single position. In addition, the effectiveness and efficiency of digital technologies are far higher than those of people (Van Esch & Black, 2019). In addition to this, the risk of cognitive biases is one that never goes away (Black & Van Esch, 2019). The utilisation of technology and solutions driven by artificial intelligence is required by HR departments in order to overcome these challenges and speed up the recruitment process. IKEA, L'Oréal, Unilever, and Amazon are just few of the organisations that employ AI-powered recruiting tools to find top talent in unique and individualised ways. Some examples of these technologies are Robot Vera, Mya the chatbot, and HireVue Assessments. These are just a few instances.

The widespread use of technologies that make use of artificial intelligence (AI) at almost every stage of the employment process is having a significant influence on the recruiting sector. These procedures have been of great assistance in selecting the most suitable applicants from among a seemingly endless pool of applicants (Sekhri & Cheema, 2019). These tools come in useful for a broad variety of jobs, one of which is the construction of gender-neutral and sexist-free job advertisements that are directed at a certain demographic (Rab-Kettler & Lehnervp, 2019). AI is being used by businesses such as Textio to assist in personalising the language used in job advertisements and job descriptions to each unique customer (Van Esch & Black, 2019). Additionally, L'Oréal employed AI to change the advertising' discriminatory wording, which led to an equal amount of male and female applicants (Sharma, 2018).

It is feasible that the best applicants will be matched with the best positions owing to the ATS (Applicant Tracking System), which is a technology driven by artificial intelligence that reviews CVs. The usage of chatbots that are run by AI is also growing in popularity within the human resources sector. These chatbots may communicate with prospective employees through text messaging, email, social media, and other channels to answer questions, give assistance around the clock, and do other tasks (Upadhyay and Khandelwal, 2018). These bots use natural language processing to comprehend what people are saying and communicate with them in a manner that is almost entirely human, replete with contextual terms, abbreviations, emotions, and so on (Nawaz & Anjali, 2019). Companies like Paradox's AI-powered assistant Olivia make contact with prospects through text messaging and social media in order to acquire information about potential hires (Van Esch & Black, 2019). The technique of video chat analysis that is driven by AI examines a variety of aspects of the interviewee, including their age, lighting, tone of voice, cadence, the keyword that is used, mood, behaviour, eye contact, and emotion, amongst other things (Fernandez & Fernandez, 2019). Video interviewing evaluation systems such as Affectiva, HireIQ, and HireVue analyse the

verbal inflections, pauses, and facial expressions of applicants in order to come to judgements about the candidates' emotional intelligence, honesty, and personality. Massive amounts of data from social media can be analysed by AI-recruiters, who can then assess applicants based on their social values, views, and attitude in order to obtain a sense for their personal and professional characteristics. This can be done without favouritism or prejudice (Upadhyay and Khandelwal, 2018). Using AI-driven recruitment tools is something that companies like Facebook, WayUp, and Muse have done.

By increasing its pool of recent college graduates, Unilever was able to accomplish this goal at a cost that was far lower than in years past. 2019 (Van Esch & Black) (Van Esch & Black). The growing interest in these cutting-edge resources is an encouraging sign for the potential applications of these tools in the candidate selection process. The use of technologies that utilise artificial intelligence (AI) is still in its infancy; yet, these technologies have a tremendous lot of promise to revolutionise the staffing market (Upadhyay and Khandelwal, 2018). Because of this, there is a significant amount of material to learn before one can properly implement and make use of these cutting-edge technology. As a result, the objective of the study was to determine the scope of artificial intelligence (AI) applications in the recruiting process as well as their potential advantages and disadvantages.

Nevertheless, the frequency of occurrence of AI varies greatly depending on the setting. The western world and eastern Asia both have a reputation for having some of the most sophisticated uses of AI. In spite of this, the biggest numbers of bright people are joining the labour market on the Indian subcontinent. This puts a significant strain on the process of recruiting new employees and creates a dreadful situation for HR professionals who are engaged in the talent war. This makes it more challenging for professionals who work in human resources to select the candidates with the most relevant experience and skills for an open position. As a consequence, there is a greater chance that errors or omissions will occur, which could lead to the unfair dismissal of applicants who would have otherwise been qualified. The most common and generally well-received use of AI in recruitment is the use of large amounts of applicant data to narrow down the number of people who may potentially fill a given position. The bottom lines of businesses are beginning to place a greater emphasis on artificial intelligence (AI) and machine learning (ML) algorithms, two of the kinds of automation that have received the most academic attention.

A study found that by the year 2035, intelligent and digitally networked systems, especially AI, may contribute to development at a rate that is above and beyond this region's current growth rate of over 420 billion euros per year. This is despite the fact that the region's current growth rate is over 420 billion euros per year (SIEMENS). According to predictions provided by PWC, artificial intelligence will have added an extra $15.7 trillion to the global economy by the year 2030. As a

result, the introduction of AI into the staffing industry is both unavoidable and essential.

The use of these algorithms in the post-COVID labour market is the component that is considered to be of the second most significant importance. The labour market has been significantly altered as a result of the pandemic, which occurred at the beginning of the fourth industrial revolution. In spite of the fact that the COVID 19 epidemic is beginning to wind down, HR managers still have the chance to boost the bottom line of the organisation by taking prompt action. According to the findings of a separate survey, both educational institutions and businesses have adjusted to the new standard of online recruiting. For instance, the vast majority of businesses have expressed contentment with the virtual recruitment process, which suggests that its use will continue long after COVID has been decommissioned. Because of this, virtual recruitment will progress to the point where artificial intelligence will be the only option and in-person encounters will be discouraged to a high degree.

METHODOLOGY

The primary purpose of this research is to investigate the potential applications of AI in the selection process. It has been determined that effective management of a company's human resources is essential to the success of contemporary businesses in today's environment of cutthroat competition. Companies that operate in the service sector (such as those involved in banking, telecommunications, and information technology, amongst others) stand to gain a great deal if they have employees who have received adequate training and are dedicated to the success of their employer. These employees are more likely to be productive and to make a positive contribution to the overall success of the company. The descriptive technique has been the primary focus of this inquiry because of how helpful it has been in developing a solid understanding of the research topic. The majority of the data that researchers use comes from things like surveys, but they also look at secondary sources of information like ProQuest and other digital libraries online, printed journals, dissertations, conference papers, and so on. The researchers asked the respondents closed-ended questions based on a Likert scale with five points each to elicit helpful comments from the participants.

Respondents are chosen via the use of a sample technique known as convenience sampling, which is a kind of nonprobability sampling. The questionnaire is used to elicit responses from the sample population, and the SPSS data tool is used to analyse the data received from the questionnaire and the sample population. The sample population yielded around 149 replies, which were then subjected to statistical analysis, including percentages, correlations, and chi-square tests.

RESEARCH CONSTRAINTS

There is no major association between Sourcing better candidates and implementation of AI in recruitment and selection process in the organisation

There is no major association between Reduces ambiguity and error and implementation of AI in recruitment and selection process in the organisation

There is no major association between Better Workforce Planning and implementation of AI in recruitment and selection process in the organisation

ANALYSIS AND INTERPRETATION

The analysis of the data is broken up into three sections: a correlation analysis of the independent and dependent variables; a chi-square test analysis of the hypothesis; and a percentage rate analysis of the most important parameters impacting deep learning in support of human resource practises. Each section examines a different aspect of the data.

Percentage analysis

Table 1: AI methods supports in lowering cost
(Source: Created by the researchers)

AI supports in lowering cost	Frequency	Percent
Strongly Disagree	8	5.4
Disagree	14	9.4
Neutral	25	16.8
Agree	55	36.9
Strongly Agree	47	31.5
Total	149	100

According to the findings, 31.5 percent of respondents agreed with the statement that using deep learning methods helps the organisation save money. Companies are always searching for new ways to save costs, and it has been stated that the cost of hiring skilled workers is on the increase. As a result, these companies are also looking for new ways to save money. The use of approaches from deep learning enables management to concentrate on reducing costs in terms of both time and money across the selection and hiring processes. In addition, 36 percent of individuals who participated in the survey agree with the notion.
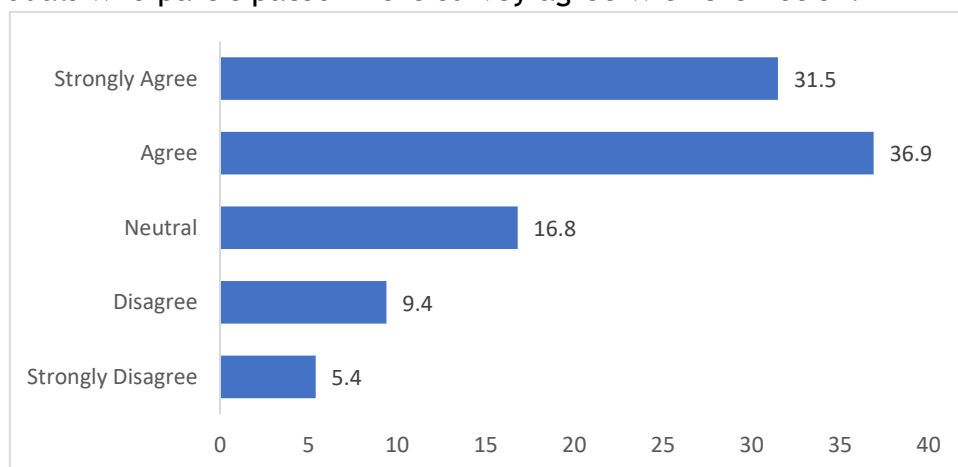

Fig 1: AI methods supports in lowering cost
(Source: Created by the researchers)

Table 2: Supporting HR practices efficiently
(Source: Created by the researchers)

HR practices efficiently	Frequency	Percent
Strongly Disagree	10	6.7
Disagree	13	8.7
Neutral	24	16.1
Agree	51	34.2
Strongly Agree	51	34.2
Total	149	100

Early responses to the assertion that deep learning technologies help boost efficiency in HR activities in the organisation received high acceptance from 34.2% of respondents, as shown by the data in the table. It is reasonable to assume that deep learning approaches are becoming increasingly significant in human resource practises as more and more firms place a priority on making the most of the potential advantages they might provide.
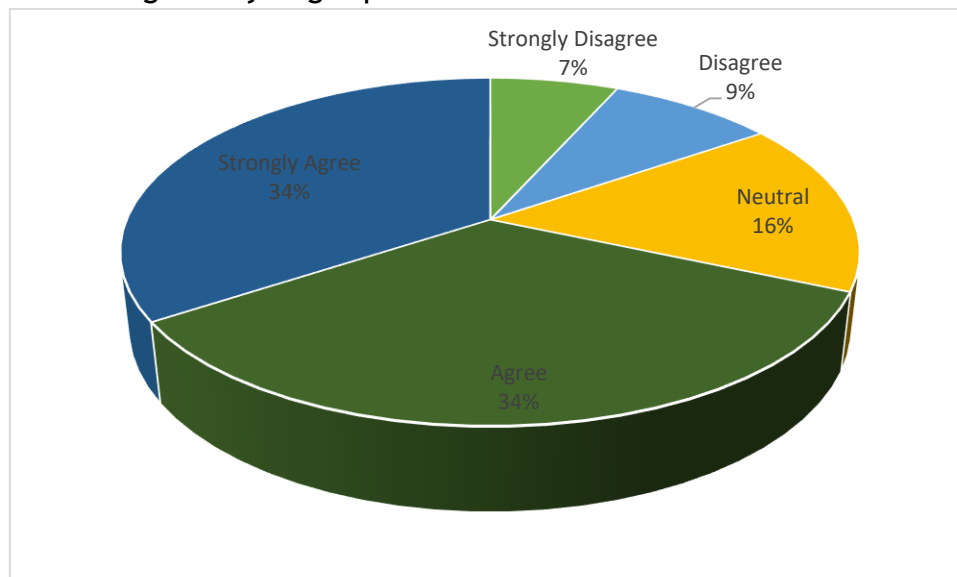
Fig 2: Enable in efficient HR practices
(Source: Created by the researchers)

Correlation Analysis

As we go on to the next stage of the study, we will be able to see how the independent variables are connected to the variable that is being investigated. The Karl Pearson coefficient of correlation is a useful tool for achieving this goal. This coefficient of correlation may take on a range of values, from -1 for perfect negative correlation to +1 for perfect positive correlation.

Table 3: Correlation Analysis
(Source: Created by the researchers)

Karl Pearson coefficient	Sourcing better candidates	Reduces ambiguity and error	Better Workforce Planning	AI in Recruitment and Selection
Sourcing better candidates	1	.893**	.833**	.837**
Reduces ambiguity and error	.893**	1	.855**	.842**
Better Workforce Planning	.833**	.855**	1	.757**
AI in Recruitment and Selection	.837**	.842**	.757**	1

Table 3 displays the association coefficient between AI recruitment and selection, improved candidate sourcing, improved workforce planning, and lower uncertainty. There is a positive correlation between the dependent variable and the other variables ranging from 0.75 to 0.842%, and there is a positive correlation ranging from 0.757% to 0.893% between all of the variables when they are considered together.

Test of the critical hypothesis
There is no major association between Sourcing better candidates and implementation of AI in recruitment and selection process in the organisation

Table 4: Chi square analysis between sourcing better candidates and implementation of AI
(Source: Created by the researchers)

Chi-Square Tests	Value	df	P data
Chi-Square test	218.848a	16	0.00
Likelihood Ratio	172.841	16	0.00
Linear Association	103.614	1	0.00

From the analysis it is noted that P data is 0.00 which is less that the significance level of 0.05 hence it is stated that there is a major association between Sourcing better candidates and implementation of AI in recruitment and selection process in the organisation
There is no major association between Reduces ambiguity and error and implementation of AI in recruitment and selection process in the organisation

Table 4: Chi square analysis between reducing ambiguity and implementation of AI

(Source: Created by the researchers)

Chi-Square Tests	Value	df	P data
Chi-Square test	227.742a	16	0.00
Likelihood Ratio	172.306	16	0.00
Linear Association	104.993	1	0.00

From the analysis it is noted that P data is 0.00 which is less that the significance level of 0.05 hence it is stated that there is a major association between Reduces ambiguity and error and implementation of AI in recruitment and selection process in the organisation

There is no major association between Better Workforce Planning and implementation of AI in recruitment and selection process in the organisation

Table 4: Chi square analysis between better workforce planning and implementation of AI

(Source: Created by the researchers)

Chi-Square Tests	Value	df	P data
Chi-Square test	190.067a	16	0.00
Likelihood Ratio	150.649	16	0.00
Linear Association	84.83	1	0.00

From the analysis it is noted that P data is 0.00 which is less that the significance level of 0.05 hence it is stated that there is a major association between Better Workforce Planning and implementation of AI in recruitment and selection process in the organisation

CONCLUSION

Automation that is based on AI is bringing to light the fact that staffing agencies can now pursue both high volume and high touch strategies, which results in a more meaningful connection with candidates and clients. This is in addition to the fact that AI-based automation streamlines the matching process. AI assistants may intelligently propose the next step in the recruiting process as they route qualified prospects to recruiters. This might be a useful way to expedite the process. The use of artificial intelligence allows for the identification of those job applicants who are the most qualified to fill a certain vacancy. James

There was a reduction in costs for businesses, an increase in the number of applications, an improvement in candidate matching, simplified application procedures for applicants, an expansion of the pool of jobs that were available, and an increase in the response rate from the company in order to gather feedback. Businesses really need to use AI if they want to remain competitive, and those who do it first will have a significant competitive edge. In response to the fast development of AI and the competitive advantage it gives to its early adopters, leadership and recruiting firms have already begun making substantial modifications to their operations. These adjustments are being made in order to keep pace with the industry. Artificial intelligence (AI) solutions will make it simpler for organisations to acquire access to top talent. Because of this, competition will intensify, and firms and HR managers will need to adapt their approach to recruiting in order to make advantage of AI. AI has the potential to change the income, profitability, and talent acquisition of firms, which in turn may have an effect on the recruiting sector as a whole as well as the norms of competition. It is crucial to have a firm grasp on the transformative possibilities of automation and AI in order to successfully absorb incoming talent and, eventually, acquire an edge over other businesses.

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