Employees' Perception Towards Artificial Intelligence in Recruitment and Selection Process

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ABSTRACT

Artificial intelligence (AI) has emerged as the most popular term in the 21st century as a result of its broad application in the business sector of the 21st century, which is undergoing continuous change and becoming increasingly competitive. As a result of several technology breakthroughs, businesses have been pushed to enhance the effectiveness and user-friendliness of their value generation processes in order to provide superior service to their clientele. As a consequence of the presence of digitisation, the numerous functions and procedures that are related with human resources have undergone a substantial transformation. As well as shedding information on the extent to which recruiters are able to use artificial intelligence to hire persons, the purpose of this study is to throw light on the degree to which businesses are willing to embrace automation in human resource management. In the course of the investigation, a technique known as theme analysis is utilised, and the data is obtained from primary sources by means of the process of conducting semi-structured interviews with four professionals who are working in information technology businesses. This research would be beneficial to human resource managers and recruiters because it would enable them to take into consideration the disciplines of artificial intelligence deployment and management. This would enable them to take advantage of technology developments that lower costs.

Key Words: *Artificial Intelligence (AI), Human Resources (HR), Human Resource Management (HRM).*

INTRODUCTION

The fourth industrial revolution is digitising the manufacturing or production process. Therefore, with the technological improvements, organisations have had to incorporate new technologies like artificial intelligence (AI), big data, machine learning, data analytics, internet of things, cloud computing, and 3D printing. This digitisation, characteristic of the new industrial revolution, gives prominence to the development of technology, with the aim of increasing the efficiency of the companies and the way of creating value. Today companies may meet the expectations of clients with a far more satisfactory level of service thanks to the advent of technology-enabled platforms. These platforms have impacted the traditional company notions, consumer expectations and organisational forms. Industry giants and leaders are currently typical users of these technologies in an effort to gain the maximum possible value from Industry 4.0. This is not letting the department of human resources lag behind. HR specialists have managed to integrate the latest technologies, leading to the deployment of "Smart HR 4.0". This idea has been developed in the context of Industry 4.0 in an effort to properly manage human resources, which makes use of digital technologies such as the Internet of Things (IoT), artificial intelligence (AI), big data, and data analytics.

Various technology improvements have transformed human resource services including applicant tracking systems (ATS), robotic process automation (RPA), social media recruitment and information systems. The level of competitiveness in the industry and management of the global workforce is rising steadily. It is increasingly vital to integrate technology into human resource management (HRM) to improve HR service delivery and minimise costs. Talent acquisition is a process that is very stressful for human resource professionals. There is a departure from standard recruitment practices in the quest for talent. The process of talent acquisition introduces complexity because it involves multiple teams from throughout the company. The human resources department is always challenged to fill crucial roles with suitable individuals. Technological improvements and developments have made new solutions to the problem of human resources (HR) available. The current brouhaha is over the use of artificial intelligence in human resources. Artificial intelligence and virtual reality can be applied in human resources tasks such as hiring and selection, performance evaluation, payroll, talent acquisition, training and development, and onboarding. The most common usage of artificial intelligence is in the recruitment and selection process of candidates.

The application of artificial intelligence technology is a tool to help recruiters find the right people, screen and evaluate prospects, choose applicants, and establish a vast candidate pool. Artificial intelligence helps to automate and streamline procedures, especially repetitive, high-volume ones, saving time and costs. Artificial intelligence can also help improve the complete candidate experience. The outcomes from a study carried out indicate that candidates who have been through the technology-enabled recruiting process are more satisfied. Today, most organisations around the world are exploring for new ways to attract and engage potential candidates and improve talent acquisition through the selection of the most suited applicants for the organization. You can utilise artificial intelligence in recruitment in plenty of different businesses. AI-powered solutions are being used for recruitment by HR start-ups such as HireVue, Para.ai, Pymetric, Hiretual, Darwinbox and Dockabl. Tools include intelligent applicant tracking systems (ATS), robotic process automation (RPA), recruiter chatbots and digitised interviews. These tools have also been used by famous MNCs including Infosys, IBM, EY, Accenture, Deloitte, Unilever, L'Oreal, Capgemini, Amazon, Bajaj Allianz, TechMahindra, Mindtree and LinkedIn. In the AI recruitment technology world, there are many different components, such as artificial intelligence, natural language processing, machine learning, predictive analytics, sentiment analysis, algorithm, and people analytics.

HUMAN RESOURCE (HR)

As the name says, human resources are the people working for the company. The employees are the ones that carry out the diversity of tasks within a firm to meet the objectives that have been specified. The 5 M's of management are man, money, material, machine and methods. Man is regarded as the most important ingredient when achieving strategic goals. This includes learning and development, career planning, management of payroll, addressing grievances and compensation.

ARTIFICIAL INTELLIGENCE

The phrase “artificial intelligence” was invented by John McCarthy, the man who is considered to be the “father” of the science. AI was defined by McCarthy as “the science and engineering of making intelligent machines, especially intelligent computer programs. Artificial intelligence operates in a way similar to human intellect, including the ability to learn, adapt, recognise and correct. The term

was initially used by John McCarthy in 1956, who defined it as "the science and the engineering of making machines intelligent." It is a computer based system, sometimes called a robotic system, meant to process information to provide outputs that are similar to the way human labourers in an organization use their ability to learn, make decisions and solve issues. AI or artificial intelligence is the study of how to make a computer function intelligently like humans. According to the Encyclopedia Britannica, artificial intelligence (AI) is the ability of a digital computer or computer-programmed robot to accomplish tasks that are usually associated with intelligent beings. Intelligent are those beings who have ability to adjust themselves in diverse situations. According to Dictionary 1, “Artificial Intelligence” is the ability of a computer or other machine to execute tasks that are usually done by intelligent beings. Artificial intelligence, or AI. This is a computer science discipline that aims to create machines that can do just that. The development is intended to enable computer programs and robots to imitate human behaviour. Artificial intelligence is capable of performing a number of tasks, recognising patterns, synthesising information and drawing conclusions on the basis of this same knowledge. Its way of thinking and behaviour is similar to that of human intelligence. Artificial intelligence technology encompasses topics like robots, machine learning and natural language processing.

Objective of The Study

1. To comprehend how employees feel about the use of AI in hiring
2. To investigate how workers view the benefits, difficulties, and potential applicability of using AI in hiring

REVIEW LITERATURE

Karan Hiren Bhalgat (2019) has done a study in the month of August 2019 named “An exploration of how Artificial Intelligence is impacting the Recruitment and Selection process”. The aim of this study was to understand the effect of AI-based software on the job of recruiters and to acknowledge its role in the procedure of employing the most qualified people in the sector. Other issues and concerns relating to the deployment of AI in the recruitment process were also investigated. The findings of the study indicate that artificial intelligence (AI) has some interesting applications in recruitment and selection processes, but still has certain limitations with its usage. Finally, the researcher concluded that these issues and concerns will be addressed in the future, and the industry will obtain an artificial intelligence system that is far more advanced, cost-effective.,

Ayesha Javed and Juthika Kabir Brishti (2021) researched on the topic of “viability of AI based recruitment process”. The goal of the study was to uncover the opportunities accessible to applicants and recruiters and to highlight the key barriers that would need to be addressed. Moreover, it helps the readers to assess the feasibility and usefulness of artificial intelligence in the recruitment of new personnel. The study carried out an evaluation of the difficulties associated with utilising artificial intelligence during recruitment, and the findings of this study led to the conclusion that it will assist readers in gaining a better understanding of the development of artificial intelligence (AI) technology in recruitment over the course of the past few years, and that recruiters may be able to reimagine new ideas and evaluate contemporary.

Mina Son, Hyeonju Lee, Hyejung Chang. (2019) "Artificial Intelligence-based Business communication: Application for Recruitment and selection". Research project. July of. The goal of this research was to evaluate how artificial intelligence technology can open up new communication channels in the workplace. They used the in AIR, which is an online system that conducts the recruitment process. This system encompasses, but is not limited to, document evaluations, personality tests, interview screens and judgement suggestions. The growth of the Internet and artificial intelligence technology has allowed the expansion of communication channels between candidates and HR managers, based on the findings of the study. This has allowed a variety of operations to run much more efficiently.

Oihab Allal-Chérif, Alba Yela Aránega and Rafael Castaño Sánchez carried (2021) out a research project entitled 'Intelligent recruitment: How to identify, choose and retain talents from around the world using artificial intelligence. Participant observation and qualitative data collection were conducted to provide the foundation for the research. The researcher used a number of case studies to examine, compare and integrate a number of different technologies dedicated to recruitment. The effectiveness and limitations of these tools were studied and assessed, so as to extend the recruitment process.

RESEARCH METHODOLOGY

AI in the hiring process is an integral part of the ecosystem the HR age has built. The objective of this study is to determine the importance of employees' perceptions on artificial intelligence (AI) in terms of recruitment process in an effort to increase the efficiency of the human resources department. We are asking Human Resources and other departments to participate in this survey to help determine the influence of Artificial Intelligence (AI) on the recruitment process. The human resources department will gain from incorporating artificial intelligence into the hiring process. It's worth thinking about the fact that HR team members can spend more of their time on hiring, instead of wasting it on procurement. It will also help recruiters to find the applicants faster and cheaper. Therefore, the organization will be able to deal with skill shortages as promptly as possible.

Questionnaires were used to collect data for the study. The survey was administered to the personnel of the organization whose participation was needed. The collection of data is done through the use of a normal random sample technique. The design of the study is descriptive in nature. The sample consists of 101 persons and the data was obtained from staff members working in various functional areas. Analysis of variance (ANOVA), correlation, and chi-square test are applied for data analysis.

The chi-square test of independence is more commonly called the chi-square test of association and is generally used to examine whether or not the categorical variables are connected with each other. It runs the test without any parameter. The equation $X^2 = ({\it O}_i - {\it E}_i)^2/{\it E}_i$ is used, where O_i is the observed value and E_i the expected value. The main equation is this. A one-way analysis of variance (ANOVA) will be used to assess if there are statistically significant differences between the means of three or more independent groups which are no longer related to each other. In this video you will obtain an overview of one way analysis of variance (ANOVA), as well as information on the assumptions of the test and the permissible applications for it. With the one-way analysis of variance (ANOVA you) can compare the means of the groups you are interested in. You can find out if there are any statistically significant differences between the groups.

The Pearson Correlation Coefficient is a method that can be used to examine linear correlations between data sets. The value of the coefficient is between minus one and plus one. If the coefficient approaches to zero, the data is deemed to be fragmented. But if the result is +1, it means that the data has a positive correlation and -1 means that there is a causal relationship between the two. Therefore, we should never use correlation to suggest that the two words have a cause-and-effect relationship.

RESULTS AND DISCUSSION

In the course of the organization's recruitment, the Chi-Square test, the analysis of variance (ANOVA), and the correlation were utilised for the purpose of assessing the employees' perceptions of artificial intelligence.

Chi-Square test

H0: There is no relationship between the recruiting at scale and AI finds the best candidates.

H1: There is a relationship between the recruiting at scale and AI finds the best candidate.

Table 1: A Relationship Between the Recruiting at Scale and AI Finds the Best Candidates

Value		df	Asymptote c Significance (2-sided)
Pearson Chi-Square	97.377a	12	<.001
Likelihood Ratio	68.242	12	<.001
Linear-by-Linear Association	22.332	1	<.001
N of Valid Cases	101		

From the data shown in table 1, we can infer that the test statistic is 0.001 which is less than the cut-off point of 0.05 at the 95% confidence level. Therefore, we infer that the alternative hypothesis (H1) is more likely to be true than the null hypothesis (HO). Based on the above facts, we can draw the following conclusion: the process of recruitment at scale is linked to the application of AI to identify the most qualified people.

H0: There is no impact of AI in removing the bias and for keeping a better documentation

H1: There is an impact of AI in removing the bias and for better documentation.

Table 2: AI In Removing the Bias and for Better Documentation

Value		df	Asymptotic Significance (2-sided)
Pearson Chi-Square	45.026a	6	<.001
Likelihood Ratio	44.893	6	<.001
Linear-by-Linear Association	28.988	1	<.001
N of Valid Cases	101		

From the data in table 2, we can determine that the test value of 0.001 is less than the threshold of 0.05 at 95% confidence level. Therefore, we conclude that the alternative hypothesis (H1) is more plausible than the null hypothesis (HO). From the statistics shown above we can conclude that there is a relationship between the ability of AI to remove bias and better documentation.

Table 3: The AI Removing the Bias for Better Documentation

Value		df	Asymptotic Significance (2-sided)
Pearson Chi-Square	120.389a	9	<.001
Likelihood Ratio	72.073	9	<.001
Linear-by-Linear Association	38.591	1	<.001
N of Valid Cases	101		

From the preceding table 3 we can conclude that at 95% confidence level the test value is smaller than 0.05. Therefore, the null hypothesis (HO) is rejected and the alternative hypothesis (H1) is accepted. From the above research we can conclude that Data back end decisions has an affect on choosing the best candidate utilising AI.

ANOVA

H0: There is no mean square difference in association between time and background check of the employees.

H1: There is a mean square difference in association between time and background check of the employees.

Table 4: Association between Time and Background Check of The Employees

Sum of Squares		df	Mean Square	F	Sig.
Between Groups	21.331	4	7.110	23.086	<.001
Within Groups	29.877	97	.308		
Total	51.208	101			

According to the data in table 4, the test value is 0.001 which is less than the threshold of 0.05 at the 95% confidence level. Thus, we infer that the alternative hypothesis (HI) is more likely to be true than the null hypothesis (HO). From the foregoing study we are able to come to a conclusion that there is a connection between the amount of time spent and the simpler background check of the employee.

H0: There is no mean square difference in association between the age and believe that HR Department will be automated in the future

H0: There is a mean square difference in association between the age and belief that HR Department will be automated in the future

Table 5: The Age and Belief That HR Department Will Be Automated in The Future

Sum of Squares		df	Mean Square	F	Sig.
Between Groups	9.538	5	2.384	2.073	.090
Within Groups	110.422	96	1.150		
Total	119.960	101			

From the facts shown in table 5, we can conclude that the test value of 0.090 is lower than the threshold of 0.05 at the 95% confidence level. Therefore, we infer that the alternative hypothesis (HI) is more likely to be true than the null hypothesis (HO). Taking into account the previous study, it can be concluded that there is a correlation between the age of the HR department and the opinion that it will be automated in the future.

CORRELATION ANALYSIS

Table 6: AI Based Candidate Identification

Correlations		AI will Automate HR in Future	AI Based Candidate Identification
AI will automate HR	Correlation	1	.671**
	Sig.(2-tailed)		<.001
	N	101	101
AI based candidate identification	Correlation	.671**	1
	Sig.(2-tailed)	<.001	
	N	101	101

From the data in table 6 we can infer that the value of correlation is 0.671 which means that there is a positive link between the ability of artificial intelligence to locate the best candidates and the fact that it will eventually take over the automation of the human resources department.

Table 7: AI Based Recruitment Reduce Number of Rounds

Correlations		Gender	AI based recruitment reduce number of rounds
Gender	Pearson Correlation	1	.087
	Sig. (2-tailed)		.388
	N	101	101
AI based recruitment reduce Number of rounds	Pearson Correlation	.087	1
	Sig. (2-tailed)	.388	
	N	101	101

There exists a favourable association between gender and the belief that the number of recruitment rounds can be reduced through the use of AI-based recruitment.

CONCLUSION

Artificial intelligence (AI) is a technology that has the capability to work in different environments with the same level of intellect as the human brain. It is gaining more and more attention and importance in the field of automating recruitment procedures, as opposed to more conventional approaches to recruiting. Recruitment is the most basic activity and it is important that all businesses give attention to this. The recruitment market nowadays is growing due to the usage of a technology-based recruitment method called H. recruiting with artificial intelligence. Many sectors are working to change the way they hire new personnel. Artificial intelligence technology plays a vital role in the duties involved during recruitment by helping the recruiter to match all the unstructured biodata of the candidates, build a single profile, and find and match the talents required for the industry. Now,

recruiters think that artificial intelligence technology is competing with them for the act of recruiting. In contrast, it is a man-made software and eases the labour process. The combination of people and AI leads to data curation, saving businesses money and time, while also enabling enhanced accuracy and access across the entire recruiting process. Here's a basic explanation of the application of artificial intelligence.

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