

WILL ARTIFICIAL INTELLIGENCE (AI) REPLACE HUMAN RECRUITERS?

Mohammad Tamzid*

ABSTRACT

As the result of globalization, the world is becoming increasingly reliant on technology. In order to be competitive, businesses must keep up with the times. HRM is more essential now than before, specifically with an emphasis on the recruitment of new workers who will contribute skills and expertise to a business. With technology advancements lie the possibility to automate tasks that were once performed by humans. As a result, it is critical to analyze and assess the influence of technologies on HRM, particularly the recruiting process. The goal of this research is to investigate the effects of new technologies, particularly Artificial Intelligence (AI), on the hiring process. Its goal is to see where artificial intelligence (AI) may be used to improve the conventional recruiting system. This paper is based on qualitative study. Semi structured interview was conducted with four multinational companies (Godrej, Dabur, ACI, Coca-Cola) from Bangladesh. It is examined through the lens of interpretivism research philosophy and inductive research methodology. The findings demonstrate that AI in recruiting is still a relatively young field, with few firms utilizing AI but not in all aspects of their hiring process. Pre-selection, maintaining communication with candidates, sharing results are some of the areas of recruitments where AI has been used mostly now a days. The major advantage of AI is removal manual and routine activities. The biggest obstacle, on the other hand, was identified as the firms' general preparedness to adopt new technology.

Key Words: Artificial Intelligence; Human Resource Management; Recruitment Process.

1. INTRODUCTION

1.1 Background of the Study

Recruitment is an essential element of HRM since it is used to obtain human capital, which is one of the most valuable assets an organization can have. All of an organization's procedures and actions with the primary objective of identifying and attracting new workers are included in recruitment. Organizations must be capable of attracting the finest candidates to the greatest degree feasible, particularly nowadays, in order to achieve the right applicant pool from which to pick and make the appropriate recruiting decisions, as demand for highly skilled prospects is intense (Parry & Wilson, 2009; Parry & Olivas-Lujan, 2011). Furthermore, the duration and form of work have evolved over time (Ekonen, 2014). Since the traditional concept

* Assistant Professor, Green Business School, Green University of Bangladesh.

of a profession and an individual's position in a company has shifted, employee engagement is no longer self-evident (Riivari, 2009). Because workers are regarded as the company's most valuable asset, poor recruiting leads in significant costs (McLean, Stakim, Timmer & Lyon, 2016).

The recruiting system had always been prolonged, took a lot of time, and required a lot of paperwork for recruiters, but that is progressively changing as online recruitment becomes more popular (O'Donovan, 2019). Outsourcing recruiting to businesses that specialize in hiring and staffing is becoming more common (Taylor, 2010; Johnson, Wilding & Robson, 2014). The recruiting process is getting increasingly complicated as social networks, information technology, and infrastructure continue to evolve (Bâra, Simonca, Belciu, & Nedelcu, 2016; McLean et al., 2016). Job searchers may now digitally submit their resumes on company websites because of technologies and the internet (Dhamija, 2012). In addition to the benefits that technology gives in improved filtering and connecting applicants, online recruiting has offered significant benefits in terms of expense, time, candidate pool, and response quality (Panayotopoulou, Vakola, & Galanaki, 2005). As a result, it may be said that the personal touch in recruiting is dwindling (Bondarouk & Brewster, 2016).

Now researchers are looking at how technology might assist make the recruiting process go more smoothly and efficiently (Galanaki, Lazazzara & Parry, 2019). The use of AI in HRM and recruiting has been dubbed 'the new era of HR,' since AI is changing the recruitment business by taking over mundane activities formerly performed by human recruiters (Upadhyay & Khandelwal, 2018).

1.2 Problem Statement

Human recruiters now handle the majority of the recruiting process, sifting across CVs, internet portfolios, and other channels to locate applicants. Recruiters handle all initial communication, provide feedback to rejected prospects, and perform applicant interviews (O'Donovan, 2019). Human limitations, such as prejudices, assumptions, and time constraints, have been recognized as a concern that might impede the effectiveness of a recruiting process (McRobert, Hill, Smale, Hay, & Van Der Windt, 2018). This is an issue since it may cause an organization to lose both the best suited applicants for a position and money (Baron, Musthafa & Agustina, 2018). In the future, more in-depth empirical study should be performed in light of modern technology that allows for greater flexibility and access than previously (Searle, (2006); Chapman & Webster, (2003). According to Marler and Fisher (2013), the present research lacks the innovative technology-based recruiting approaches that are needed. Furthermore, the implications of new technology for HRM are still

a bit hazy for recruiters, about whether such new and efficient tools present problems or possibilities for recruiters' job (Bondarouk & Brewster, 2016; Stone, Deadrick, Lukaszewski & Johnson, 2015). Due to the fact that the present literature still lacks the same problem as it did in the previous years, a more in-depth examination of the topic should be done, especially given the fact that new technologies are now part of the recruiter's everyday work.

1.3 Objective of the Study

The goal of this study is to look how AI can be used in the hiring process. It has investigated the influence of AI technology on recruiting and where it can be most beneficial in the process. This study has also looked into the advantages of utilizing AI in the recruiting process, as well as the challenges that recruiters experience while using AI.

2. LITERATURE REVIEW

In this research, it was decided to conduct a thematic literature study, in which major topics and concerns were identified by sifting through previous research on AI in HRM, especially the recruiting process. The objective of taking a theme approach to the literature review is to provide a clear and concise overview of what past research has addressed in connection to the topic of this research. Because a thematic literature review focuses on a single topic and the elements that emerge from it, it felt like the best choice for my study to investigate recruiting and AI in HRM (Broadhurst & Harrington, 2016). The themes were discovered by looking at the key concepts discussed in earlier journals and classifying them into fields of concern that best captured and described what had previously been studied. These themes are:

- a) Application of AI in recruitment process
- b) Benefits of using AI in recruitment process
- c) Challenges of using AI in recruitment process

2.1 Recruitment in HRM

Human capital is such a vibrant and ever-changing element of a firm that they require proper management (Bibi, Pangil & Johari, 2016). Recruitment is described as the process of identifying qualified individuals from a pool of applicants to fill an available position in a firm (Stoilkovska, Ilieva & Gjakovski, 2015). Recruitment is also the focal point of HRM, because it is people who are employed who will be subjected to the other HRM activities later on (Griepentrog, Harold, Holtz, Klimoski & Marsh, 2012). Newell (2005) adds to this by stating that it is critical to have competent employees in companies, which is achieved through an efficient recruiting and selection process. Instead, if the incorrect individual is

recruited, the company might face a slew of financial damages (Muir 1998). However, with so much rivalry on the labor market, finding the most qualified and finest personnel has become increasingly difficult (Taylor & Collins, 2000; O'Donovan, 2019). As a strategy to differentiate themselves from rivals, organizations are employing increasingly inventive methods of staff recruitment (Taylor & Collins, 2000). What this shows is how critical it is for any organization to stay on top of recruitment trends and developments.

The conventional recruiting process does not have a set model for how it should be carried out; instead, numerous scholars explain and hypothesize it in somewhat different ways (Acikgoz, 2019). According to Acikgoz (2019), there are two perspectives on the conventional recruiting process: the corporate perspective and the job-seeker perspective. The company's initial stage is usually to establish if a place or vacancy within the business needs to be filled, followed by an analysis of the job opening, writing a job description, and finally determining a description of the ideal person (Thebe & Van der Walddt, 2014; Mueller & Baum, 2011; Carroll, Marchington, Earnshaw & Taylor, 1999). Breaugh (2008) presented a recruiting process model that consists of five interrelated phases. Thebe and Van der Walddt's (2014) model comprises of 11 phases that the authors have suggested based on a compilation of prior academics' recruiting model concepts. Even though this model includes additional stages, it is of essentially the same kind as the Breaugh model (2008). Muller and Baum (2011) offer a 12-step model that has many of the same features as the previous ones. Breaugh's (2008) model is seen to be the finest representation of the conventional recruiting process, as it captures both the organizational and job-applicant perspectives.

2.2 The Concept of Artificial Intelligence (AI)

The simplest approach to grasp the notion of AI is to dissect the terms individually and examine their meaning. Despite the fact that AI has been around for a long time, there is no universally accepted definition of the idea (Legg & Hutter, 2007). Many studies that provide definitions focus on defining the 'I' in AI, which is more difficult to nail down. The meaning of 'A,' which stands for Artificial, is a widely accepted term that does not require as much clarification (Bringsjord & Schimanski, 2003). According to the Oxford Dictionary, artificial is defined as "anything manufactured or produced by humans rather than happening naturally, especially as a replica of something natural" (Oxford Dictionary, 2019). As a result, artificial might be defined as anything created by people to mimic anything which normally happens. The difficult issue is defining intelligence. Some describe AI as the construction of robots, machines, or algorithms that exhibit sophisticated behavior akin to that of humans (Kaplan, 2016; Tecuci, 2012). The difficulty with this concept is that it requires measuring human intellect in order to compare it to the

intelligence of the robots or machines that populate it. Many additional, relatively casual meanings of intelligence include the power to think, organize, understand, adapt to new, or extract information (Legg & Hutter, 2007). It might also be the capacity to comprehend facts and make judgments depending on that info and the circumstances (Ved, Kaundanya & Panda, 2016). For the sake of this research, AI is defined as a machine's ability to learn, analyze, and comprehend information in a manner comparable to that of humans.

Robotics, natural language processing, expert systems, automated reasoning are just a few of the technical domains in which AI has advanced (Ved et al. 2016). Furthermore, Ved et al. (2016) claim that there are five key areas of AI implementation: first, language interpretation, second, machine perceptions, third, problem solving, fourth robotics, and fifth, games.

2.3 The Application of AI in Recruitment

Information extraction, according to Stuart and Norvig (2016), is a process that involves analyzing a text for knowledge and information. Information extraction techniques, which can automate the process of screening resumes and extracting important information, can be employed by AI, particularly in the recruitment of new personnel (Kaczmarek, Kowalkiewicz & Piskorski, 2005). Automatic methods that grade job prospects have been offered to speed up the recruiting procedure since the quantity of job applications has risen and can even overwhelm HR staff. Because HR departments often undertake manual evaluations of submitted job applications, candidate rating systems built with AI can help recruiters be more efficient in their evaluations (Faliagka, Ramantas, Tsakalidis & Tzimas, 2012). The candidate rating system is powered by AI algorithms, with human recruiters supplying training data for the AI algorithms to understand how to score candidates (Faliagka et al. 2012). Chatbots are AI-driven hiring assistants that facilitate individual and up-to-date connections with applicants via emails, text messages, or dialogue boxes, according to Upadhyay and Khandelwal (2018). It is feasible to obtain details about candidates' personality characteristics, mood, and emotions by doing language analysis of their blog posts or LinkedIn profiles (Faliagka et al. 2012). Several computer-assisted job matching strategies have been designed to help recruiters reduce their burden. Software that classifies resumes is one example of such a strategy that may be developed using learning-based approaches and algorithms (Montuschi, Gatteschi, Lamberti, Sanna, & Demartini, 2014).

2.4 Benefits of Using AI in Recruitment

According to Dickson and Nusair (2010), using AI in the recruiting process allows companies to save money, access a wider set of candidates, enhance speed and efficiency, and reduce paperwork. Furthermore, AI can skim material shared on

social media, giving it access to an applicant's beliefs, views, and personality traits (Upadhyay & Khandelwal, 2018), which are usually mentioned during a job interview (Faliagka et al. 2012). As a result of AI technologies, recruiters may analyze job candidates' personality qualities even before a job interview (Faliagka et al. 2012). According to Upadhyay and Khandelwal (2018), AI is neutral and resumes are evaluated equitably, giving all candidates an equal opportunity. When it comes to applicants who have been declined for a job, AI systems may provide feedback on their credentials and skills so that they might improve in the future (Upadhyay & Khandelwal, 2018).

In addition to these advantages, the reduced quantity of physical tasks in the hiring process allows for more time to be spent focusing on possible job seekers who are qualified for open positions (Guchait, Ruetzler, Taylor & Toldi, 2013). According to Leong (2018), the application of AI in recruitment allows recruiters to quickly connect with the top talent management prospects rather of wasting time and money reading and skimming through resumes. AI-based recruitment and talent selection allows for the ranking of job candidates and, as a result, the identification of the highest-scoring prospects. This technique is dubbed Resume Scorer by Leong (2018), and it saves recruiters a substantial amount of time and energy. Aside from these improvements, AI can assist recruiters in delivering personalized emails to potential job applicants regarding the progress of their applications and arranging interviews. According to Upadhyay and Khandelwal (2018), human recruiters used to do redundant activities, but AI will render some recruiting procedures obsolete by allowing recruiters to outsource monotonous work. When it comes to engaging with applicants, AI systems can help recruiters engage with prospects by allowing them to contact them via the web, social media, and mobile platforms. (Upadhyay & Khandelwal, 2018).

2.5 Challenges of Using AI in Recruitment

Personal privacy and the way data is handled and analyzed are two of the most significant challenges that AI-based recruitment brings. When it comes to analyzing data or sharing personal data, it affects both HR professionals and online HRM users (Bondarouk & Brewster, 2016). Unconscious discrimination during hiring processes by organizations is a significant part of the challenges that AI-based recruitment entails (Stuart & Norvig, 2016). According to Stuart and Norvig (2016), exploitation of AI can result in a number of issues, including job loss due to automation, and in some cases, AI systems can be used for unintended purposes. What concerns recruiting in particular is the risk of job loss due to automation, since many work positions have already been replaced by AI algorithms, resulting in increased unemployment. Although the AI-based systems are highly effective at detecting talent, other tasks, including as negotiations, cultural fit evalu

ations, and rapport building, need still be handled by people. (Upadhyay & Khandelwal, 2018).

3. METHODOLOGY

3.1 Research Philosophy and Strategy

There are five distinct research philosophies to select from, including positivism, critical realism, interpretivism, postmodernism, and pragmatism (Saunders, Lewis & Thornhill, 2019). The interpretivist method was determined to be the most appropriate for this study, as it attempts to explore how firms and people participate in the recruiting procedure and are influenced by the introduction of AI. Interpretivists think that it is critical to recognize the environment in which a study is conducted in order to comprehend, evaluate, and analyze the information obtained (Thahn & Thahn, 2015). Interviews are seen to be a good way to acquire data in interpretivism (Carson, Gilmore, Perry, & Gronhaug, 2001).

A qualitative study appeared highly appropriate for this study because it aimed to collect actual particular data in terms of information rather than statistics. Qualitative data can be acquired through online surveys or in-depth interviews, and researchers can then use the information to create a hypothesis (Bryman & Bell, 2011; Saunders et al. 2009). According to Sanders et al. (2009), qualitative analysis is beneficial when the goal of the research is to understand individual characteristics like actions, views, and values. Furthermore, qualitative analysis is suitable in instances when researchers want to investigate the causes and meanings underlying certain decisions and behaviors (Sanders et al. 2009). According to Bryman and Bell (2011), a qualitative study is more adaptable than a quantitative study, allowing researchers to gather more in-depth data. Because of these general benefits of qualitative analysis, we decided that it would be preferable for our study than a quantitative investigation.

3.2 Data Collection

Observations, focus groups, and interviews are some of the most popular approaches for a qualitative study, such as this study (Gill, Stewart, Treasure & Chadwick, 2008). Interviews were chosen over focus groups or observations since they would provide for more particular understanding into the business on a personal level, as well as the ability to contact out for more information.

The questions were chosen depending on four distinct factors. The first component was focused on general inquiries from the experts questioned, while the others were based on topics from the literature study. Concerns about AI's use in recruiting, as well as questions about the obstacles and benefits of AI in recruitment,

are among the three elements. All interviews began with a request from each interviewee to record the conversation in order to capture what was said. The data was then transcribed and processed using the specified data analysis method, completing the data collecting process.

The firms (Godrej, Dabur, ACI, Coca-Cola) included in this study were selected for their activity in the domain of artificial intelligence in the hiring process. Those that were contacted were firms that actively employ AI software in their recruiting process. In semi-structured interviews, researchers prepare questions for respondents ahead of time (Collis & Hussey, 2014). The goal was to obtain thoughts and experience on the influence of AI in recruiting from HR experts, thus four semi-structured interviews were performed. Table 1 shows a summary of these interviews as well as their length.

Table 1: Summary of the Interviews

Interviewee	Title	Experience	Interview Date	Duration
Professional 1	Head of HR & Admin.	15 Year	07.05.21	45 min
Professional 2	HR Lead	9 Year	20.05.21	55 min
Professional 3	Assistant Manager, HR	7 Year	11.06.21	70 min
Professional 4	HR Specialist	6 Year	18.06.21	55 min

3.3 Data Analysis

Thematic analysis was chosen as the approach for analyzing the data. Thematic is a well-suited technique for this paradigm, thus it was chosen based on the initial research paradigm of interpretivism (Peterson, 2017). Thematic analysis is focused on narrowing down qualitative data, such as by categorizing the interviews that were performed, and then identifying emergent themes from there. Because of its flexibility, a theme analysis may be used to a wide range of study topics (Maguire & Delahunt, 2017). Three selected themes guided the investigation. Because the study data was gathered through topic interviews, these three themes aided in the synthesis of the data and simplified the procedure. The 6-step theme analysis procedure of Braun and Clarke (2006) was followed to apply the selected thematic technique for data analysis. Table 2 breaks down this model step by step.

Table 2: The 6-step Theme Analysis Procedure of Braun and Clarke (2006)

Steps	Description of the Process
1) Get to know your data:	Transposing data (if needed), reading and re-reading the data, and jotting down initial thoughts
2) Creating the initial codes:	Coding important data characteristics in a methodical manner over the whole data collection and compiling data related to each code
3) Looking for themes:	Organizing codes into suitable topics and collecting all essential data for each theme
4) Analyzing themes:	Checking that the themes function with the code extracts (Level 1) and the complete data set (Level 2), and creating a thematic 'map' of the study
5) Identifying and defining themes:	Continuous analysis to fine-tune the details of each topic as well as the overall message told by the study, resulting in clear-cut definitions and titles for each theme.
6) Developing the report:	Selection of vivid, engaging extract examples, final analysis of selected extracts, linking analysis to research topic and literature, and writing a scholarly report of the analysis

Table 3 provides an overview of how the themes were discovered and their significance in connection to the data collected. It will demonstrate how the topics were discovered using the above-mentioned method.

Table 3: Example of Data Analysis Process

Original Expressions	Reduced Expressions	Subcategories	Themes
<i>"What makes us unique is that we use AI to screen all of the prospects. We may examine profiles based on CVs as well as personality attributes and state things like: That's a wonderful profile in contrast to what you're looking for in the job description, and we can tell you whether it's excellent, medium, or poor in relation to the job requirements as well."</i>	-Comparing candidates on the basis of CV using AI -Comparing personality traits with job description using AI	Screening candidates using AI,	The Application of AI in Recruitment
<i>"AI can help recruiters save time and money by speeding up the process and providing a great applicant experience. It is feasible to identify the silent candidates with the aid of AI, and there is more time to focus on the best fits."</i>	-Speeding up the recruitment process -Maintaining good communication with candidates - Reducing the cost	Cutting down routine and administrative tasks	Benefits of Using AI in Recruitment
<i>"Poor implementation of AI is a bias itself. You must understand how to employ artificial intelligence properly. Failure can also result from making the incorrect decision." "As the Amazon example shows, the main problems for AI are programming and trained biases."</i>	- Requires trained employees to run the AI -Programmed, languages or cultural biases	Proper implementation of AI	Challenges of Using AI in Recruitment

4. FINDINGS AND DISCUSSION

4.1 Application of AI in Recruitment Process

All of the professionals agreed that the typical recruitment procedure takes a long time. A number of processes must be completed by the recruiter. The majority of these processes are repeated. Two experts claim that some of the processes in the recruiting process are difficult and time-consuming.

"It's a very conventional approach, and I believe it's also extremely time consuming since individuals still have to go through a number of processes, some of which are quite complex." (Professional 1)

"Traditional recruiting is time-consuming and, in the opinion of many applicants, outdated." (Professional 3)

Organizations have begun to use AI in recruiting, although each is at a different stage. Some are new to it, while others have been doing it for a long time. Every business has its unique requirements, and AI technology is being used or will be used to meet those requirements.

"The organization(s) establishes its own recruiting objectives and targets, which the AI software then assists in achieving during the recruitment process." (Professional 1)

"I believe we are just getting started, and we are continuously learning." (Professional 4)

All professionals stated that AI technology is used in the prescreening and pre-selection stages, where there is a lot of regular labor. Two of the professionals' pre-screening was stated to occur most frequently via social media platforms such as LinkedIn or Facebook. The remainder of the experts stated that the screening was done on applications that were immediately submitted in response to a job posting. Prescreening is done not just by using particular keywords, but also by looking at the language and other characteristics used in the applicant's submissions. Maintaining contact with the applicant is a difficult process, and no businesses are currently employing AI in this area. They only use email, sms or phone calls.

"What makes us unique is that we use AI to screen all of the prospects. We may examine profiles based on CVs as well as personality attributes and state things like: That's a wonderful profile in contrast to what you're looking for in the job description, and we can tell you whether it's excellent, medium, or poor in relation to the job

requirements as well." (Professional 1)

"AI software tools perform best when they are used in the early stages of the hiring process, when there are more administrative tasks and no need for humans." (Professional 2)

"What would it mean to a candidate to have someone check in on them; it doesn't matter who it is or even if it is a person, like: Hey, your interview is in a week, do you have any questions?" This is something that AI software can help with." (Professional 3)

"We use AI software mostly for pre-screening, pre-selection, and other elements of the recruiting process where we believe we don't need a person as much... we strongly believe there are some aspects of the recruitment process that AI can't replace." (Professional 4)

4.2 Benefits of using AI in Recruitment Process

Professionals 1 and 4 indicated that they can improve their application pool by utilizing AI. AI, according to Professional 4, cut the time and expense of recruiting. Professional 2 thinks that AI assists recruiters by automating mundane duties, allowing them to devote more time to strategic initiatives.

"It is feasible to obtain a better understanding of talent than your rivals by utilizing AI in order to acquire talent, therefore increasing the competitiveness of your firm." (Professional 1)

"AI assists recruiters in reducing mundane activities so they may begin directly interviewing applicants." (Professional 2)

"When it comes to screening applications, recruiting becomes less time intensive, and AI can assist recruiters in identifying exceptional job prospects by creating short lists." (Professional 3)

"AI can help recruiters save time and money by speeding up the process and providing a great applicant experience. It is feasible to identify the silent candidates with the aid of AI, and there is more time to focus on the best fits." (Professional 4)

Communication with the applicant is an area where there is still room for improvement. In this point of the hiring process, AI has promise. In this section, the organizations that were questioned still do not utilize AI. Professionals think that incorporating AI with communication can improve candidate experience and increase application engagement.

"In the future, AI will be utilized more and more in HR departments, particularly in the contact with candidates." (Professional 2)

"Candidates don't want to feel like they're in a black hole; they want to feel involved." (Professional 3)

"AI can aid in candidate engagement and "warm them up" for interviews (by checking in on them via messaging)." (Professional 4)

4.3 Challenges of Using AI in Recruitment Process

One of the greatest problems mentioned by the three professionals is proper execution. Incorrect implementation might lead to biases and the system failing in the company. To run the AI system correctly, the company requires skilled personnel once again. Even though AI can minimize unconscious biases, there are still those that are programmed, such as linguistic or cultural prejudices.

"Language biases and machine cultural comprehension are additional obstacles for AI. Understanding cultural obstacles, such as terminology and how information is presented in a certain nation or culture, is an area where AI may have difficulty." (Professional 1)

"As the Amazon example shows, the main problems for AI are programming and trained biases." (Professional 2)

"Poor implementation of AI is a bias itself. You must understand how to employ artificial intelligence properly. Failure can also result from making the incorrect decision." (Professional 3)

"Adapting AI to innovation is undoubtedly one of the most difficult problems, given that HR departments are regarded as a very conventional element of the business." (Professional 4)

4.4 Will AI Take Over Human Recruiter?

Will AI take over human recruiter? The most often demanded questions by experts. All four experts agreed that AI will undoubtedly replace certain aspects of the recruiting process. Professional 1 stated that AI is now handling the day-to-day tasks in the recruitment process. Professional 3 also said that AI is now doing the repetitious duties. Humans make recruiting decisions, according to Professional 4, and decision-making cannot be substituted. As a result, we can claim that AI will be able to replace specific occupations and duties in the recruiting process, but not any positions.

"AI will undoubtedly be able to replace some aspects of HRM and the recruiting

process, but not all. AI isn't meant to replace humans in the recruitment process; therefore some functions shouldn't be replaced as well." (Professional 1)

"AI can replace mundane tasks...the program is able to speak with individuals who apply, collect their first information, and offer employment information...such it's a seamless system that the applicant doesn't care if it's truly a human they're taking to" (Professional 2)

"AI isn't designed to take over all of a human recruiter's responsibilities in the recruiting process; I can imagine a future when it replaces some but not all of them." (Professional 3)

"Hiring decisions are made on the basis of persons....Human touch and emotion are irreplaceable....people are so at ease with the things they are familiar with." (Professional 4)

Human resources demand regular face-to-face interaction. Human resource professionals must be able to think critically and adapt to the conditions of each situation they encounter. An automated HR department will be unable to fulfill the expectations of each employee and candidate at a firm. Allowing AI to totally replace the recruiting process would be disastrous, since employers would have a poor feeling of fit for the position and would ignore superior candidates with less appealing credentials on paper. So AI may replace certain routine tasks, duties, responsibilities but will not be able to take the HR roles.

5. CONCLUSION

The main conclusion of the study is that, while AI in recruiting is still a relatively new application, it is becoming a growing field in HRM. This study suggests that companies should carefully examine the genuine need for AI implementation before deploying it. AI is thought to be capable of replacing administrative chores in HRM, but particularly in the recruiting process, including recruitment activities, intervening job candidate variables, and recruitment outcomes. In these areas, AI would expand on the traditional recruiting process, allowing companies and job candidates to have additional options while also making the process faster and easier. By incorporating AI software into the recruiting process, a firm may witness improvements in applicant communication, a bigger candidate pool, the re-discovery of lost skills, and overall recruitment outcomes. Despite the fact that AI may be used in many aspects of the recruiting process, not every firm is required to use it in all areas. Some businesses may choose for only one or two of these, based on the issues they're having the greatest trouble with and where AI may help. To

summarize, the major advantages of AI in traditional recruiting are improved quality and the elimination of mundane activities. The primary problems highlighted, on the other hand, were the technological preparedness of AI implementation and how humans are taught to receive AI. There are certain drawbacks to AI because it is still in its early phases, which makes it less applicable to the whole recruiting process and can lead to questionable findings in terms of its authenticity.

REFERENCES

- Acikgoz, Y. (2019), Employee recruitment and job search: Towards a multi-level integration. *Human resource management review*, 29, 1-13.
- Bâra, A., Simonca, I., Belciu, A. & Nedelcu, B. (2016), Exploring Data in Human Resources Big Data. *Database Systems Journal Board*, 3.
- Baron, I.S., Mustafa, & Agustina, H. (2018), The challenges of recruitment and selection systems in Indonesia. *Journal of management and marketing review*. 3(4), 185-192.
- Bibi, P., Pangil, F., & Johari, J. (2016), HRM practices and employees' retention: the perspective of job embeddedness theory. *Asian Journal of multidisciplinary study*, 4(5), 41-47.
- Bondarouk, T., & Brewster, C. (2016), Conceptualizing the future of HRM and technology research. *The International Journal of Human Resource Management*, 27(21), 2652-2671.
- Bondarouk, T., & Brewster, C. (2016), Conceptualizing the future of HRM and technology research. *The International Journal of Human Resource Management*, 27(21), 2652-2671.
- Braun, V., & Clarke, V. (2006), Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77-101.
- Breugh, A.J. (2008), Employee recruitment: Current knowledge and important areas for future research. *Human Resource Management Review*, 18, 103-118
- Bringsjord, S. & Schimanski, B. (2003). What is Artificial Intelligence? Psychometric AI as an answer. *IJCAI'03 Proceedings of the 18th international joint conference on Artificial intelligence*, 887-893.
- Bryman, A., & Bell, E. (2011), *Business research methods* (3rd ed.). Oxford: Oxford University Press.
- Carroll, M., Marchington, M., Earnshaw, J., & Taylor, S. (1999). Recruitment in small firms: Processes, methods and problems, *Employee Relations*, 21(3), 236-250.
- Carson, D., Gilmore, A., Perry, C., & Gronhaug, K. (2001). *Qualitative marketing research*. London: Sage.
- Chapman, D. S., & Webster, J. (2003), The use of technologies in the recruiting, screening, and selection processes for job candidates. *International journal of selection and assessment*, 11(2-3), 113-120.
- Collis, J. & Hussey, R. (2014), *Business research*. 4th ed. PALGRAVE MACMILLAN.

- Dhamija, P. (2012). E-recruitment: a roadmap towards e-human resource management. *Researchers World*, 3(3), 33.
- Dickson, D. & Nusair, K. (2010). An HR perspective: the global hunt for talent in the digital age. *Worldwide Hospitality and Tourism Themes*, 2(1), 86-93.
- Ekonen, M. (2014). *Keskijohdossa toimivien naisten ja miesten tarinat uristaan korkean teknologian alalla*. Jyväskylä University Printing House, Jyväskylä 2014.
- Faliagka, E., Ramantas, K., Tsakalidis, A., & Tzimas, G. (2012). Application of machine learning algorithms to an online recruitment system. In *Proc. International Conference on Internet and Web Applications and Services*.
- Galanaki, E., Lazazzara, A., & Parry, E. (2019). A cross-national analysis of e-HRM configurations: integrating the information technology and HRM perspectives. *Organizing for digital innovation*. 27, 261-276.
- Gill, P., Stewart K., Treasure, E., & Chadwick, B. (2008). Methods of data collection in Qualitative research: interviews and focus groups. *British dental journal*, 204(6), 291-295.
- Griepentrog, B.K., Harold C.M., Holtz, B.C., Klimoski R.J. & Marsh S.M. (2012). Integral social identity and the theory of planned behavior: Predicting withdrawal from an organization recruitment process. *Personnel Psychology*, 65, 723-753.
- Guchait, P., Ruetzler, T., Taylor, J. & Toldi, N. (2013). Video interviewing: A potential selection tool for hospitality managers - A study to understand applicant perspective.
- Johnson, G., Wilding, P., & Robson, A. (2014). Can outsourcing recruitment deliver satisfaction? A hiring manager perspective. *Personnel review*, 43(2), 303-326.
- Kaczmarek, T., Kowalkiewicz, M., & Piskorski, J. (2005). Information extraction from CV. In *Proceedings of the 8th International Conference on Business Information Systems*, 3-7.
- Kaplan, J. (2016). *Artificial Intelligence: What everyone needs to know*. Oxford: Oxford university press.
- Legg, S. & Hutter, M. (2007). A Collection of Definitions of Intelligence. *Advances in Artificial General Intelligence: Concepts, Architecture and Algorithms*, IOS press, Issue 157, 17-24.
- Leong, C. (2018). Technology & Recruiting 101: how it works and where it's going. *Strategic HR Review*, 17(1), 50-52.
- Maguire, M., & Delahunt, B (2017). Doing a thematic analysis: A practical, step-by-step guide for learning and teaching scholars. *All Ireland Journal of Teaching and Learning in Higher education*. Vol.3.
- Marler, J. H., & Fisher, S. L. (2013). An evidence-based review of e-HRM and strategic human resource management. *Human Resource Management Review*, 23(1), 18-36.

- McLean, S., Stakim, C., Timner, H., & Lyon, C. (2016). Big Data And Human Resources: Letting The Computer Decide?. *Scitech Lawyer*, 12(2), 20.
- McRobert, C.J., Hill J.C., Smale, T., Hay E.M., & Van der Windt D.A. (2018). A multi-modal recruitment strategy using social media and internet-mediated methods to recruit a multidisciplinary, international sample of clinicians to an online research study. *PLoS ONE*, 13(7).
- Montuschi, P., Gatteschi, V., Lamberti, F., Sanna, A., & Demartini, C. (2014). Job recruitment and job seeking processes: how technology can help IT. *It professional*, 16, 41-49.
- Mueller, J.R & Baum, B. (2011), The definitive guide to hiring right, *Journal of applied Business & Economics*, 12(3), 140-153.
- Muir, J. (1998). Recruitment and Selection. *Management Services*, 32(11), 12-15.
- Newell, S. (2005), Recruitment and Selection. *Managing Human Resources: Personnel Management in Transition*. 4th edition, Blackwell Publishing LTD.
- O'Donovan, D. (2019), HRM in the organization: An overview. *Management Science. Management and industrial engineering*. 75-110.
- Oxford Dictionary. (2019), Oxford dictionary: definitions. Retrieved from: <https://en.oxforddictionaries.com/definition/artificial>
- Panayotopoulou, L., Vakola, M., & Galanaki, E. (2007), E-HR adoption and the role of HRM: evidence from Greece. *Personnel Review*, 36(2), 277-294.
- Parry, E., & Olivas-Lujan, M. (2011), Drivers of the Adoption of Online Recruitment – An analysis using Innovation Attributes from Diffusion of Innovation Theory. *Electronic HRM in Theory and Practice*, 159-174.
- Parry, E., & Wilson, H. (2009), Factors influencing the adoption of online recruitment. *Personnel Review*, 38(6), 655-673.
- Peterson, B.L (2017), Thematic analysis/interpretive thematic analysis. *The international encyclopedia of communication research methods*.
- Riivari, E. (2009), Tapaustutkimus urapoluista ja uraosaamisesta. Jyväskylän yliopisto, Taloustieteiden tiedekunta.
- Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research methods for business students* (8th ed.), Harlow: Pearson Education Limited.
- Searle, R. H. (2006), New technology: the potential impact of surveillance techniques in recruitment practices. *Personnel Review*, 35(3), 336-351.
- Stoilkovska, A., Ilieva, J. & Gjakovski, S. (2015), Equal employment opportunities in the recruitment and selection process of human resources. *UTMS Journal of Economics*, 6(2), 281-292.
- Stone, D. L., Deadrick, D. L., Lukaszewski, K. M., & Johnson, R. (2015), The influence of technology on the future of human resource management. *Human Resource Management Review*, 25, 216-231.

- Stuart, R., & Norvig, P. (2016). *Artificial Intelligence: A Modern Approach*. Third Edition. Prentice Hall Press Upper Saddle River.
- Stuart, R., & Norvig, P. (2016). *Artificial Intelligence: A Modern Approach*. Third Edition. Prentice Hall Press Upper Saddle River.
- Taylor, S. (2010), *Resourcing and Talent Management*, 5th ed., Chartered Institute of Personnel and Development, London.
- Tecuci, G. (2012). Artificial Intelligence. *Wires computational statistics*, 4(2), 168-180
- Thahn, N.C. & Thahn, T.T.L (2015). The interconnection between interpretivist paradigm and qualitative methods in Education. *American journal of Educational science*, 1(2), 24- 27.
- Thebe, TP. & Van der Waldt, G. (2014), A Recruitment and Selection Process Model: The case of the Department of Justice and Constitutional Development. *Administratio Publica*, 22(3), 6-29.
- Upadhyay A, K. & Khandelwal., K (2018), Ashwani Kumar Upadhyay; Komal Khandelwal, (2018)"Applying artificial intelligence: implications for recruitment", *Strategic HR Review*, 17(5), 255-258.
- Ved, S., Kaundanya, N.S. & Panda, O.P. (2016), Applications and Current Achievements in the field of Artificial Intelligence. *Imperial Journal of Interdisciplinary research*, 2(11), 932-936.

Appendix 1

Interview Questions

General questions:

1. What is your name and what does your company do?
2. How long have you been in HRM or recruitment?
3. Do you have any experience working with AI in particular?

Questions relating to application of AI in Recruitment:

4. What is your company's recruitment process like?
5. What do you think are the current benefits or challenges with traditional recruiting?
6. How does artificial intelligence (AI) function in the recruitment process? What is the purpose of the program/software for your/other businesses? Which part of the hiring process are you using AI/software to help with? (Pre-screening/pre-selection, communication with applicants, recruiting organization, and so forth.)
7. Why does your company implement AI or develop AI recruitment software?
8. Do you believe that AI will replace functions of HRM job completely? What part and why? If not, why not?

Questions relating to benefits of using AI in recruitment process:

9. What are the benefits of employing AI in the recruiting process, if you could name a few?
10. Given the problems and benefits of traditional recruiting, do you believe AI may help to mitigate or improve these factors?

Questions relating to challenges of using AI in recruitment process:

11. What do you think are some challenges of using AI in recruitment process? What are the biggest/most difficult challenges if you can name some of them?
12. Can AI solve those challenges in the future?