Thesis

on

The Application of Artificial Intelligence (AI) in Human Resource Management and its impact on Traditional Recruitment process.

Submitted by

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Letter of Transmittal

Mr. Md. Masud Rana
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Subject: Submission of Thesis Report.

Dear Sir,

I am very pleased to submit you of my Thesis on report accordingly. The report titled **"The Application of Artificial Intelligence (AI) in Human Resource Management and its impact on Traditional Recruitment process" w**as assigned and approved by you during my three months of thesis on period.

I have devoted my best effort to make the report an informative one. I will remain ever grateful to you for rendering me the opportunity of working on such an interesting field. If you need any clarification regarding this report, I will be available for this.

Sincerely,

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Declaration of Authenticity

I, hereby declare that the thesis Report namely **"The Application of Artificial Intelligence (AI) in Human Resource Management and its impact on Traditional Recruitment process"** by me after completing the inspection with all the data by myself.

I also declare that this paper is originally worked and prepared by myself for academic purpose which is a part of MBA- thesis paper, and the paper may not be used in actual scenario

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Supervisor's Certificate

This is certified that the concerned report entitled **"The Application of Artificial Intelligence (AI) in Human Resource Management and its impact on Traditional Recruitment process"** is an original work by Zanifer Juy, ID No: MBA2102023016, Semester: Spring 2022, Program: MBA (HRM), Department of Business Administration, Sonargaon University, is a student of MBA Department of Business Administration. This report has completed under my supervision and submitted for the partial fulfillment of the Course.

Md. Masud Rana
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Executive Summary

In the dynamic and competitive world, technology has changed the pace of all the industry. Artificial intelligence is a technology which enables the industry to grow at faster pace and efficiently finishing their work. This technology has entered into various departments such as finance department, human resource department, marketing, production etc. Human Resource Management (HRM) is more important than ever, especially with a focus on the recruitment of new employees which will bring skills and knowledge to an organization. With technological advances also comes the opportunity to streamline activities that previously have had to be carried out by humans. Therefore, it is of the highest importance to consider and evaluate the impact technology might have on the area of HRM and specifically the recruitment process. The objective of this study is to assess HRM practices in Bangladesh, as well as this paper, has highlighted the importance, future challenges, and benefits of adopting artificial intelligence.

This thesis uses a qualitative study with semi-structured interviews conducted with eight HR related personnel from all over Bangladesh. It is viewed through an interpretivism research philosophy with an inductive research approach.

The results show that the area of AI in recruitment is relatively new and there are not many companies that utilize AI in all parts of their recruitment process. The most suitable parts to implement AI in traditional recruitment include recruitment activities such as pre-selection and communication with candidates and sending out recruitment results for applicants. The main benefits of AI were seen as the speeded quality and elimination of routine tasks, while the major challenge was seen as the companies' overall readiness towards new technologies. As Bangladesh is progressing and going to be a developing country by 2024, hence this is a high time to adapt AI to boost up HR function in the business organization.

Chapter: 01

Introduction

In today's globalized world, the traditional ways of how business is conducted are being challenged. There are no longer only local firms as competitors, but organizations have to compete constantly on a global level as new technology is making the world smaller. This implies that for an organization to stay up to date and keep a competitive advantage,embracing these new technological developments is key. HRM involves many different aspects,such as training employees, recruitment, employee relations and the development of the organization. Humans work as a source of knowledge and expertise which every organization can and should draw on. Therefore, acquiring and retaining these types of employees through recruitment play a big role today. Due to the importance HR has for the organization, the recruitment process of how these resources are obtained is the key to success. The recruitment process used to be longer, take a large amountof time and imply a large amount of paperwork for the recruiters, however this has already slowly started to change with online recruitment becoming common.

In later years due to the technological changes, research has been conducted on how these two important aspects of HRM and technology can be combined. Usually, studies are conducted ofhow the recruitment process can be smoother and optimized with the help of technology. Right now, the focus lies a lot more on technological advances helping recruiters, for an example the process is becoming more automated. Due to this, it can be stated that the human touch in recruitment is becoming lessened. In the article by Baxter, he tries to predict the trends which will take over recruitment in 2019. He suggests predictive analytics to take away some of the guessing which takes place in recruitment, but he also brings up AI as a tool which will be used when interviewing candidates. This thesis aims to explore the aspect of one of the newer technologies: Artificial Intelligence (AI). Application of AI to HRM was one of the most remarkable trends among recruitment professionals in 2018. The adoption of AI in HRM and in recruiting can be called as "the new age of HR", since AI changes the recruitment industry by replacing routine tasks that have been conducted by human recruiters.

AI as a field is wide and a multidisciplinary domain, which can beexploited not only in computing disciplines but also in linguistics and philosophy. AI can takemany different

forms, such as robots, bots or software. The concept of AI is oneof the most novel domains in engineering and science and it has been studied since the SecondWorld War. The name of Artificial Intelligence was verified in 1956. Salin and Winston (1992) defined AI as being a set of techniques that allow computers to accomplish tasks that would otherwise necessitate the reasoning skills that human intelligencebrings. According to Nilsson (2005) machines should be able to do most of the jobs that humanintelligence demands, which he calls for human-level AI. This thesis will not focus on AI in terms of actual robots, but rather on the implementation of AI in different software which companies use within the recruitment process.

1.1. Objective of the study:

The purpose of this study is to explore the current state of AI and how it can be applied to the traditional recruitment process. It will research what impact AI technology has on recruitment and where it would be most useful in the recruitment process. This thesis will expand current research by applying AI into Breaugh's (2008) recruitment model to fill the gap on how AI can impact traditional recruitment and possibly increase effectiveness.

1.2. Methodology:

The report has been prepared based on both primary and secondary data. Data collected from the organization and other sources is assembled and used in different part of the report. Based on the collected report is prepared.

To collect the primary data, I have prepared a questionnaire and took interview some of the Professionals who are serving for the organizations which are using AI.

Secondary data is collected from sources like reports, published documents, internet and articles.

1.3. Limitation of the study:

Some obstacles have come across while preparing this report, which can be termed as the limitation. The limitations that were faced:

- The internal and sensitive information is confidential and are not accessible
- Lack of sufficient time of the HR personnel hindered the opportunity to learn about certain issues or practices deeply.
- Lack of sufficient accessible books and journals about HR practices in the organization.
- Published information is not up to date and unavailability of enough relevant records and information.

Chapter: 02

Literature Review

2. Literature Review

2.1. Human Resource Management (HRM)

There are many definitions of human resource management brought forward by a range of researchers, however most of the definitions do complement each other.

A definition by Schemerhorn (2001) is that HRM is how you are able to gain and develop a workforce which is talented, to help the company achieves its goals, as well as its mission, vision and ifferent objectives at hand. Another definition is that HRM is an approach to employee management with the aim of retaining a workforce which is both capable and committed by different techniques, such as cultural, structural and personnel to bring the organization a competitive advantage.

For the purpose of this study, HRM will be defined as the process of acquiring and maintaining new skills, capabilities and competences in an organization throughits workforce by the means of different management techniques.

HRM practices include recruiting new employees, managing employees, hiring employees and developments. Most of these practices have a specific focus on retainingnew employees and keeping up their satisfactory level. This is because human resources are such a dynamic part of the company and is ever changing, therefore it needs the right management by an organization. The management and retention of HRM can be argued to have a special importance within manufacturing companies which beholds a focus on innovation within manufacturing to get a comparative advantage and betterperformances. The role that HRM have within an organization have changed severely during many years and are no longer just used as a way tomanage an organization's internal costs of labor. More recent researches are looking into HRM as being a strategic asset to organizations where employees are the key assets and how to acquire and manage these play the most important role. In the following section recruitment in HRM will be discussed followed by a section onselection in HRM.

2.1.1. Recruitment in HRM

The research conducted within recruitment as a part of HRM has increased in the later decades and there is now more available research on how recruitment actually impact applicant behaviors and employee behavior. Recruitment is defined as the practice of finding the right candidates which make up a candidate pool which fits an open jobvacancy that a company have. Recruitment can also be said to be the centerpiece within HRM, as it is those employees that are hired who will be subject later on to the other HRM practices. This is further supported by Newell (2005) who states that it is very important to have competent personnel in organizations, which is fulfilled with an effective recruitment and selection process. If the wrong person is hired, the organization can suffer from several economical losses instead. However, being able to hire the most competent and best employees on the market is becoming increasingly hard amongst the competition on the job market. The way recruitment is being conducted has therefore, due to the competition, changed. It is no longer possible to use the same recruitment sources as before, instead companies nowadays use moreinnovative ways of recruiting their employees as a way to stand out from competitors. What can be drawn from this is how important it is for every organization totry to keep up with recruitment trends and how recruitment is developing.

2.1.2. Selection in HRM

Selection is the second process which is undergone when hiring new employees. It usually takes place after the organization have been doing initial recruitment where they establish a pool of possible qualified applicants, and now have to select the right applicant for the job. A comparison which can be done of selection is to that of a jigsaw puzzle, as stated by Newell (2005), where a company tries to select the correct piece tothe puzzle out of a bunch of wrong pieces. Selecting the right employees is most commonly conducted by traditional methods, such as interviewing the candidates. However, this is a practice which companies slowly exchange to more non-traditional methods as a way to increase the reliability of the selection. One of the important things to consider when doing the selection is everyone in the established pool of candidates should have an equalchance to be selected for the job.

Some methods used for selection includes pre-selection, interviews and assessment centers. To evaluate the right selection method for an applicant there are three methods, usually applied

as follows: reliability, validity and usefulness. In validity, applicants can be scored on a scale withjob performance on y axis and team-working score on the x axis according to “false negatives”or “false positives” - either people were thought to be bad, but they were good, or people werethought to be good but ended up performing badly. The final selection decisionis usually taken by one person in the end, most often a recruiter with experience within the job who can take adequate decisions on who would fit the job. There is also the possibility in larger corporations to have the final selection be decided by a panel with some of the main personnel in charge of the employees, such as line managers and chairman. This method eliminates the pressure of experience and abilities the individuals need to have and can also help eliminate some factors of biases toward candidates.

2.2. The traditional recruitment processes

The traditional recruitment process does not have a determined model for how it should be conducted, rather it is described and theorized slightly different by many researchers argues that there are two views to the traditional recruitment process: either the organizational view or from the job-seekers view. However, there is a lack of models which refers one view to the other. Therefore, when investigating the recruitment process, it is important to keep in mind from what view it is taken. Among these different suggested modelsof the recruitment process, it is possible to see some common steps emerge. Usually, the first step taken is for the company to determine if a spot or vacancy within the organization needs to be filled, secondly is to conduct an analysis of the job opening, thirdly to write a descriptionof the job and lastly to determine a description of the preferred employee.

One recruitment process model as proposed by Breaugh (2008) consists of five different interconnected steps (see Figure 1). The first step begins with the organization establishing recruitment objectives, which is the specification of how many positions should be filled and what characteristics, such as skills, work experience, education, the desired hire should inhabit. The second step is the development of strategy, where the organizations should choose what kind of employee they want to recruitment, through what source, what message they want to reach out with and if there would be any budget constraints. The sources beinginternal, external or walk-ins. Third step is the recruitment activities where the method of recruitment should be decided, which recruiters should do the recruitment or if theyneed to extend the time for the

job offering. Up to the third step the recruitment process by Breaugh is described according to the organizational view, the fourth step thereafter is where the variable of the job applicant comes into the model. This includes the interest of the applicant,such as how interesting they think the position is, what they expect from the job offer or what other opportunities they have. It also includes the self-insights and decision-making process ofthe applicant. The fifth and final step is the recruitment results, which is interconnected with allthe previous steps of the recruitment process. This is the final results of the whole recruitment, which should be connected with the recruitment objectives the organization had from the beginning and be visible through both the development of the strategy and the recruitment activities. With all these steps implemented is when according to Breaugh (2008) an organization has successfully recruited a new employee for a vacant position.

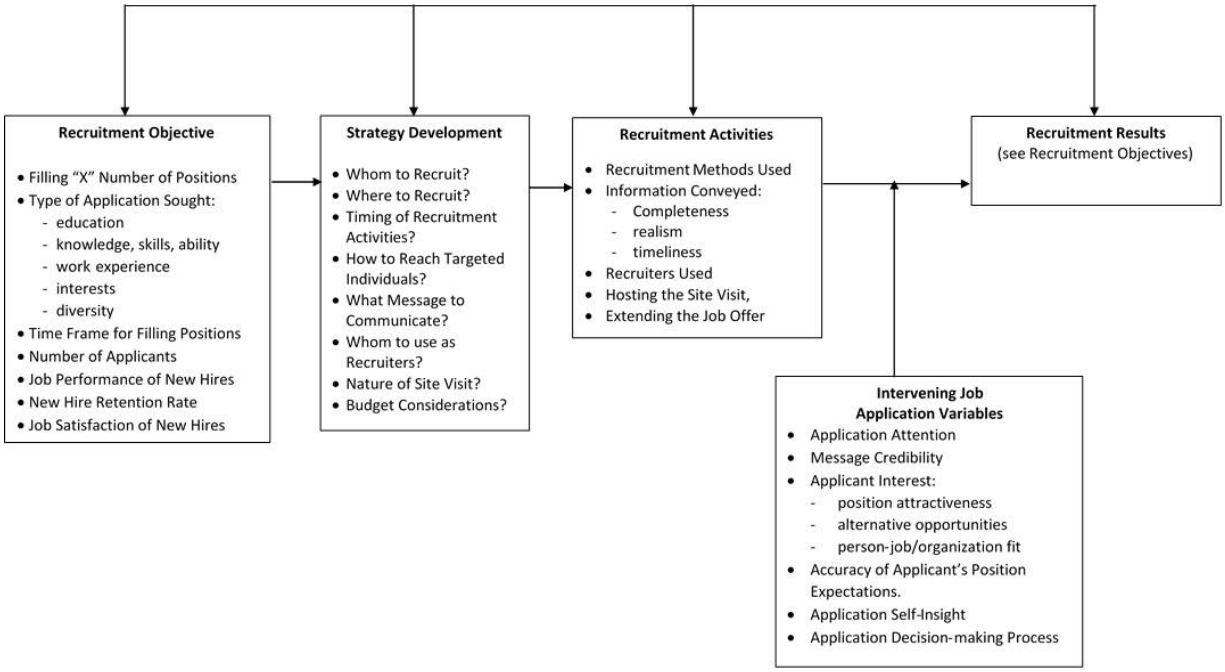


Figure 1: *Model of the recruitment process as theorized by Breaugh (2008).*

Similarly, to the suggested recruitment process model by Breaugh (2008), are the ideas of Mullerand Baum (2011) and Thebe and Van der Waldt (2014). These authors present models which is difference to Breaugh's five step model. The authors have broken down the models to smallermore concentrated steps compared to the model by Breaugh. The model by Thebe and Van der Waldt (2014) consists of 11 steps which the authors have proposed based on a collection of previous researchers' ideas of the recruitment model. These collective steps in

short are to identify the job vacancy, make job description, details and performance of the job, consultationof the recruitment procedure, search the sources of recruiting, choose method for recruiting, develop strategy, place advertisements in appropriate place, ensuring enough time/application blanks for applicants, screening and evaluation of the recruitment. As noticed from this model even though it has more steps, it is of basically the same nature which is entailed in the model by Breaugh (2008). Muller and Baum (2011) propose a 12 steps model which contains similar aspects as the previous ones proposed. It starts with theanalysis of job opening followed by creation of job description, searching for employees followed by steps reviewing the employee, interviewing two times, testing the employee in theworkplace and lastly taking a reference check. The ending of this recruitment process differs slightly from others, but the ground principles within it are the same.Out of the many theorized models, the one brought forward by Breaugh (2008) is believed to best capture what the traditional recruitment process is, as it compared to others describes boththe organizational and job-applicants view. The model also has a large amount of citations, 379in total and is written in the journal of Human resource management review with a 72 H index.Therefore, it is strongly believed to be a reliable source and to be able to represent the traditionalrecruitment process. The Breaugh (2008) model will guide this thesis and be interpreted throughpast research with a multidisciplinary approach from areas such as technology and strategic management.

2.3. HRM Practices in Bangladesh

The human resources management (HRM) is considered a fundamental organizational resource which helps an organization to maintain its successful operation. To sustain in the free market economy Bangladesh is also under fierce competition and required an effective and efficient HRM practice. Yet the scenario or HRM practices in Bangladesh is still underdeveloped. The Bangladesh government initially adopted a socialist economic model. Consequently, government and policymakers did not offer priority to concerns such as industrialization of the private sector, productivity and human resource Management. Though Bangladesh continues to modernize, the status of HRM practices remains predominant. Choudhury et al., (2020) Mentioned, despite the fact that HRM practices are important for improving organizational efficiency and competitive advantage, surprisingly inadequate numbers of studies on HRM practices have been carried out in Bangladesh. Besides, stated, the effectiveness and sustainability of HRM practices could be pivotal and driving forces for Bangladesh's economic growth to become a middle-income country by 2024, given the country's scarce natural resources and abundance of human resources. Many organizations are family-owned and controlled

by family members, and human resource management activities tend to be seen as just a business owner's wish, and that is why the current HRM practices are far below the level needs to achieve in Bangladesh. There is still rare empirical research on HRM in Bangladesh, and only a few studies have been published in recognized and trusted journals, usually on specific issues of HRM practices (Choudhury et al., 2020; Kamrujjaman et al., 2016; Mahmood & Absar, 2015). At the present time, Labor and export-oriented companies have begun facing pressure from the EU and North American countries to uphold their labour rights standards and improve working conditions in their factories. This pressure from somewhere else is urging companies to change their organizational culture and HRM practices. As such big companies have started adapting E-HRM system and ERP access for HRM personnel.

2.4. The concept of Artificial Intelligence (AI)

Artificial Intelligence (AI) has been around for a long time and have had a wide area of application throughout the years, but only during the later year has the technology been further developed and implemented within many different organizational settings. To understand the concept of AI, the easiest way is to break down the words by themselves to lookat each meaning. However, even though AI have been around for a longer period of time thereis not one pre-determined definition of the concept. Many researches who bring forward definitions focus to define the 'I' in AI, usually because this is harder to pinpoint. The definition of 'A', that is Artificial, is a universally agreed on term and therefore does not need as much defining. Artificial, defined accordingto Oxford Dictionary is something "made or produced by human beings rather than occurring naturally, especially as a copy of something natural" (Oxford Dictionary, 2019). Therefore, it can be established that artificial is what humans have made to simulate something that usuallyoccurs naturally.

The tricky part then lies within defining intelligence. Some would define the term of AI as the creation of robots, machines or programs which inhabits what could be seen as similar intelligent behavior as human have (Tecuci, 2012; Kaplan, 2016). The problem with this definition is having to measure human intelligence to compare it to that of the robots or machines inhabiting it. Kaplan (2016) instead states that his own personal interpretation of intelligence would be that it is "the ability to make appropriate generalizations in a timely fashion based on limited data". Many other more informal definitions of intelligence include it being when something has the ability to think, plan, have knowledge, adapt to environment or retrieve information (Legg & Hutter, 2007). It could also be the ability to understand data

and from that make decisions based on the data as well as the situation at hand (Ved, Kaundanya & Panda, 2016). As an example, it could be that a program can learn how toplay games such as tic-tac-toe, or how to recognize individual faces or compose music - then itis artificial intelligence (Kaplan, 2016). For the purpose of this study, AI is defined as the abilityof such things as machines to learn, interpret and understand on their own in a similar way to that of humans.

There are many areas where AI can be implemented and it can take place in many different forms. For an example, it can be as a machine, robot, computer program or software. Some of the technological areas in which AI have expanded to is robotics, processing of natural language, expert systems as well as automated reasoning (Ved et al. 2016). Furthermore, according to Ved et al. (2016) there is five different main areas of implementation of AI which are firstly interpretation of language, secondly machine perceptions, thirdly problem solving, fourth robotics and lastly games. These implementation areas are also further supported by Tecuci (2012) who have knowledge acquisition, natural language and robotics as some key areas for AI.

2.5. Online recruitment

During the past years the HRM field has been strongly affected by technological advancements, especially the Internet have largely impacted the overall functioning of HRM in organizations. Online recruitment, that can also be called as e-recruitment, has been an enormous trend in HRM in the terms of automating the recruitment process and various HR tasks such as HR evaluation and HR rewards (Dhamija, 2012). Due to large number of job applications which emerge especially from the use online recruitment, there has been discussions about how organizations can manage all of these applications (Reingold, Baig, Armstrong & Zellner, 2000). However, exploitation of technology in hiring process has become particularly popular among large companies (Andersson, 2003).

According to Dhamija (2012) e-recruitment is one of the most popular non-traditional recruitment ways to recognize and attract potential job candidates. Organizations turned to use online recruitment, because finding potential job candidate through online recruitment is both quicker, cheaper and more efficient. One remarkable disadvantage of using online recruitment

is the possibility for discrimination between active internet and non-internet users (Dhamija, 2012). In addition to all advantages that online recruitment entails, it is important to remember the broad application of technological advancement to HRM. In addition to electronic job application forms, online recruitment contains several different recruitment parts, such announcing available job positions on the Internet, receiving job applications online and the exploitation of different electronic recruitment tools. Some of the electronic tools include such as recruitment banks and robots to scan through online applications (Panayotopoulou, Vakola & Galanaki, 2005).

2.6. The application of AI in recruitment

According to Upadhyay and Khandelwal (2018), the application of AI in HRM was one of the most remarkable trends among recruitment professionals in 2018. Stuart and Norvig (2016) defines information extraction as a process where information and knowledge can be gathered by scanning a text. Especially in recruitment of new employees, AI can be used by information extraction techniques that can make the process of resume scanning and extraction of relevant information automated (Kaczmarek, Kowalkiewicz & Piskorski, 2005). Since the number of job applications have increased and can even overwhelm HR departments, automated systems that ranks job candidates have been presented to accelerate the hiring process. HR department usually manually conduct the evaluation of the received job applications, hence applicant ranking systems which can be created with the utilization of AI can make recruiters evaluation task more efficient (Faliagka, Ramantas, Tsakalidis & Tzimas, 2012). Candidate ranking system works at the power of AI algorithms and human recruiters providing training data for the AI algorithms, from where they learn the scoring function of applicants (Faliagka et al. 2012). Upadhyay and Khandelwal (2018) introduces chatbots that are AI-driven recruitment assistants that enable personal and up-to-date connection possibilities with candidates via emails, text messages or dialogue box. There are several computer-supported job matchmaking techniques which have been developed in order to ease the workload of recruiters. Such techniques include software that sorts resumes and can be implemented by exploiting learning-based techniques and algorithms.

An interesting feature of AI-based ranking systems is the possibility to gather information about applicants' personality traits that are extremely important when fulfilling job positions. However, these traits are often observed during job interview, but preliminary data can be

acquired through web searches. By conducting linguistic analysis to applicants' blog post or LinkedIn pages, it is possible to gather information about applicants' personality trails, mood and emotions (Faliagka et al. 2012). Job interviews conducted as a video interview have become a popular recruiting tool among companies. An application for video interviews that utilize AIhas been developed by HireVue. In this application AI is able to interpret and analyze applicant's body language, facial expressions or tone of voice. The application compares the interviewed applicants to the top talent employees in the company and finally suggest the best applicants to recruiters (HireVue, 2018). The global hotel chain Hilton experienced several benefits of conducting video interviews, whereas the most remarkable implication was the decrease in the amount of time spent in recruitment process. Before the recruitment process took 42 says in Hilton hotel, but due to use of AI based video interviews, it takes only 5 days (HireVue Case Study, 2017.)

2.6.1. Benefits of AI-based recruitment

No department has more complex data management and analysis needs than the human resources department (Premnath & Chully, 2020). As such, Artificial intelligence can Reduce the work pressure of employees, simplify processes, analyse data, etc. AI engineering connects individual machines and computers to specific devices. The AI framework can be used for applicant selection, staff participation, reengagement, career development, etc.(Jia et al., 2018). Therefore, Artificial intelligence-based software will enable the human resources department to maximize performance. Release human resources personnel to perform more specific roles and activities that are truly important to the organization. Artificial intelligence helps to minimize the logistical burden of HR practitioners and helps them make decisions based on data analysis rather than self-esteem. Artificial intelligence is also used to recruit, reduce preference and retain top talent. In addition, as technology becomes more reliable and reasonable, people are expected to use AI. There is a clear economic opportunity to develop emerging technologies as soon as possible without wasting time on expensive risk analysis. However, artificial intelligence technology can improve the ability of any department to collect and process data and make preliminary predictions based on changing conditions (Ruby Merlin. P, 2018). Human resource leaders are increasingly expecting to add more content to key hierarchies. Nonetheless, the importance of authoritative tasks can regularly keep HR experts away from this regular work. Computer-based intelligence can provide answers to this question. This shows the huge development area using artificial intelligence.

If more organizations rely on AI to perform authoritative responsibilities, the productivity of the HR office may increase, and HR experts will have the option to focus more on the key expected levels (Premnath & Chully, 2020). Besides, self-sufficient knowledge is the most unparalleled type of innovation that relies on AI. It builds machines that can follow up on their own and contact hidden data. In any case, we observe the control of calculations and certain forms with equal assumptions. Since the human resources department must make full use of data classification to make full use of information, artificial intelligence programming can automate complex tasks, such as collecting data centrally from several contacts, isolating worker and human resources issues into personal data and preparing teams. Implementing AI and its benefits in the human resource advantages include:

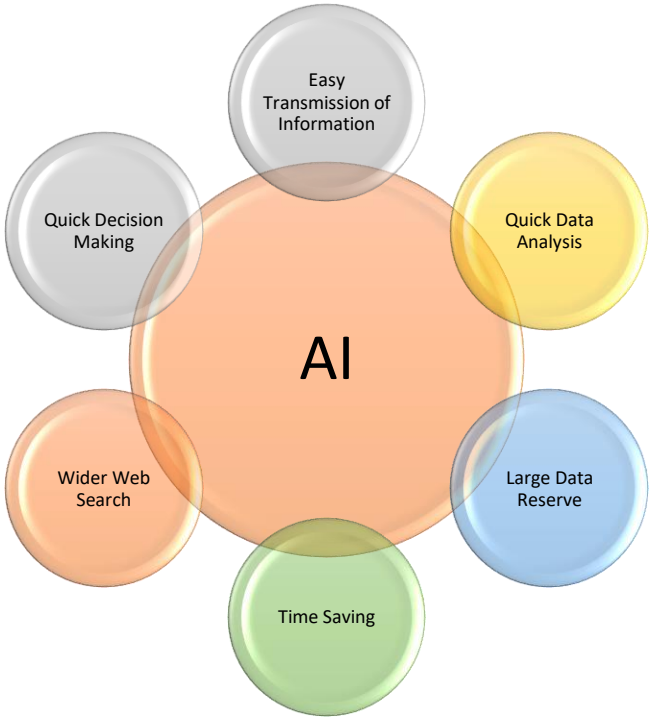


Figure 2: AI and its benefits

Since the human resources department hardly concentrates on the procedures of its best enrolment and individual executives, it can routinely change and update the simulated intelligent calculations. Human developers set calculations or formulas for situation boundaries, which can be specifically calculated based on occupation, workplace, working hours, competition, and the types of different variables related to the business. Here, computer-based intelligence is essentially arranged by reducing flawed principles and evaluating refined capabilities (Joo et al., 2018). In view of the defects of human theory, a

human dynamic process is an irrefutable error. Distinguish fine ability as the intensity of AI increases, many new arrangements are entering the business centre. One notable example of the increasing choice of answers in AI is computing, which evaluates emerging discourse examples and searches for signs of subtle abilities such as compassion (Ivanov & Webster, 2017). Through the AI program, the human resources department can help employees prepare for certification, perform extensive education, and learn new talents in the following ways. AI programs allow individuals to work at their own speed, but an extremely incredible program can promote faster development by providing prizes and incentives based on each worker's profile. Individuals who lack intelligence or ideas may be implied by external assets or manpower coaches.

2.6.2. Challenges of AI-based recruitment

Challenges of adapting Artificial Intelligence (AI) In Bangladesh Artificial Intelligence (AI) has started and is expected to change the role of human resources. At the present technological advancement, AI is highly praised. While AI's journey was not easy at the beginning of 2000 when AI first began as an academic discipline. Though modern HRM functions in most of the countries are adopting advanced HRM practices like AI. Yet, HRM in Bangladesh still takes after traditional workforce management practices, in recent years, analysts have distinguished changes that demonstrate progress in terms of strategic HRM practices (Choudhury et al., 2020). On the other hand, there are few people who believe that if AI is adopted then they may lose the job. Some people consider AI a major threat to humanity if development continues to disregard the risks associated with AI (Spadafora, 2016). While adopting AI in HRM practices in Bangladesh, organizations will face internal and external challenges. The biggest threat to adapt the AI is the fear of losing the job. It is clear that AI triggers a huge shift from physical to technical effort and thus gets such a bad name in taking over the work of the people (Mathur, 2019). In most cases, people believe AI can fully replace human involvement. From the adaptation point of view the major challenges are as following:

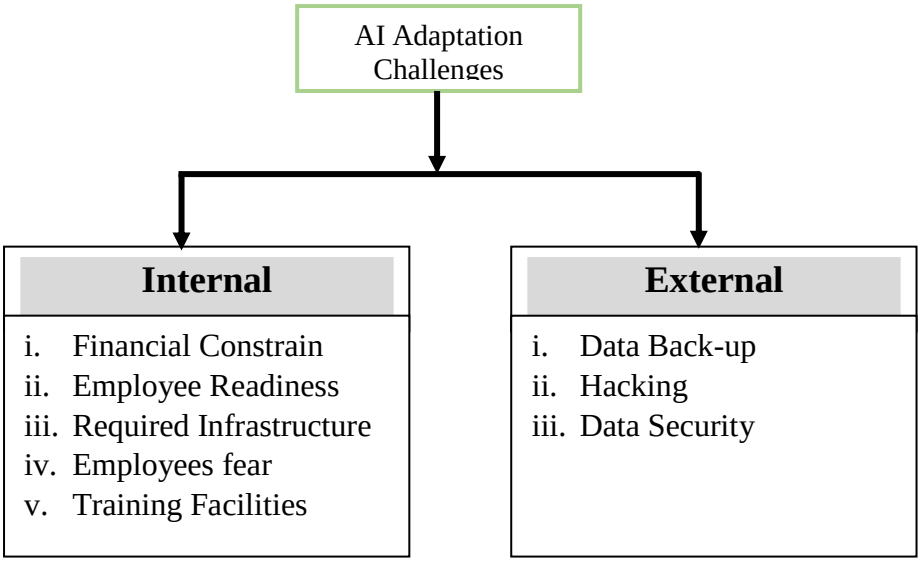


Figure 3: AI Adaption Challenges in Bangladesh

Bangladeshi companies will face challenges to adapt AI in HRM practices from internal and external sources. For adapting AI in HRM practices the very first challenges, organization face is financial constrain. In Bangladesh still, owners consider HR department as cost incurring department. The next internal challenge is to convince employee the importance of AI and its benefits to adapt. Following internal challenge is to reduce the job loss fear from employees and the last internal challenge is continuous training facilities. AI training is a continuous process; hence organization needs to maintain continuous training facilities. However, the adaptation of AI may also face external challenges like data back-up issues, if taking assistance from the third party of other countries, the organization will also face challenges to protect hacking and ensuring data security.

2.6.3. Biases in recruitment

Based on the previous literature, there are several biases that affect recruitment process which can be identified. According to Upadhyay and Khandelwal (2018), AI systems can be programmed to avoid unconscious biases in recruitment process. The authors argue that skill shortages are one of the largest challenges in hiring industry, but AI-based programs have the ability to bypass candidates' names, gender and age, that are the primary source of bias.

Beattie and Johnson (2012) found in their study that several large organizations assured that there are unconscious biases having impact on recruitment process. Hence there is the possibility that these recruitment decisions are significantly influenced by unconscious biases and stereotyping. In their study Beattie and Johnson (2012) points out that especially minority

ethnics groups encounter certain disadvantages when it comes to gaining access and being employed in the labor market.

Chamberlain (2016) argues that even if there are biases and stereotypes in the recruitment process, it is important to be aware of them and understand their impact. The author emphasizes that biases can be two-sided, either bias for something or bias against something. In addition, there is a danger of recruiters who base their final recommendations about a job applicant on opinions rather than facts. Even in some cases these final recommendations can be someone else's opinions than the recruiter's and hence it is important to understand how biases can affect recruiters' decisions. Already several actions, such as adopting highly structured hiring procedures and training hiring decisions makers, have been implemented by companies to control biases in recruitment process.

Chapter: 03

Methodology

3. Methodology

3.1. Research Philosophy

There are in total five different research philosophies, namely positivism, critical realism, interpretivism, postmodernism and pragmatism, to choose from. Out of all five, the interpretivist approach was found to be the most fitting to this studyas this thesis aims to understand the ways how organizations and individuals takes part in a recruitment process and are impacted by the addition of technology. This thesis takes into account the environment and other contexts, such as where the research study is taking place and with those who are being interviewed. It is concluded that those factors can influence the result of this thesis.

In addition, interpretivism view is when researchers take an approach to understanding the world from the experiences as well as perception of those participating in it. Interpretivist argue for the importance of understanding the context of which a research is carried out in order to understand and analyze and be able to interpret the data which have been gathered. On contrary, positivism has an objective perspective to the nature of reality. Since non-quantitative techniques are used in interpretivism, whereas positivism requires morethe use of formalized statistical and mathematical techniques, positivism was considered as unsuitable for this study. In addition, in interpretivism, interviews are considered as a suitable approach to collect data.

3.2. Research Strategy

There are two main strategies one can adapt to their research, namely qualitative and quantitative. Qualitative data is based on meanings that are expressed through words, whereas quantitative data implies meanings that are evolved from numbers. This thesis aims to gain real specific data in the terms of information and not numbers a qualitative research seemed more fitting. Collis and Hussey describe qualitative data as transient and it is often used with an interpretivist methodology. Qualitative data can be gathered through online questionnaires or profound interviews and then allows researchers to develop a theory from the data collected. In turn, quantitative data that is often precise there are different techniques such as statistics, charts and graphs available to examine and analyze the collected data.

According to Sanders et al. (2009) qualitative analysis is useful when the researches' objective

is to grasp individual's personal traits such as behaviors, opinions and values. In addition, in situations where researchers are interested in examining reasons and meanings behind specific decisions and actions, qualitative analysis are appropriate. Bryman and Bell (2011) states a qualitative study being more flexible than a quantitative research and henceallows researchers to acquire more in-depth information. Based on these overall advantages of qualitative analysis, it deemed better for our study instead of that of a quantitative study. Qualitative research will allow this thesis to be able to gather information through limited amounts of interviews regarding about how AI is applied in HRM practices in different organizations. Qualitative research approach is useful as the topic of this thesis calls for personal information conducted from specific organizations, information which is based on being qualitative and could not be obtained through statistical data.

3.3. Research Approach

There are three significant research approaches, namely deductive, inductive and abductive approaches (Mantere & Ketokivi, 2013; Saunders et a. 2019) The main difference between deductive and inductive approaches is whether the starting point of the research is theory or data. The third approach, abductive, arose as a result by combining deductive and inductive approaches (Saunders et al. 2019).

When using a deductive approach, the researcher begins the study with theory that is often built up from academic literature. Then the researcher creates a research strategy to experiment the theory based on academic literature (Thomas, 2006; Saunders et al. 2019). An inductive approach is in the question when the researcher starts the study by gathering data to investigate a phenomenon and then develop and build theory (Thomas 2006; Collis & Hussey, 2014). The third approach, abductive, in turn first allows researchers recognize themes and explicate patterns and then either to develop a new theory or alter already existing theory that is then examined based on collected data (Mantere & Ketokivi, 2013; Saunders et al. 2019). Based on the descriptions of the three above mentioned research approaches, an inductive approach was chosen to this study being to most appropriate approach. This is because the study aims to explore impacts of technology on acquisition of human capabilities through recruitment and this effect on organizational effectiveness which when comparing the approaches is the most suitable to be conducted with the inductive approach. The inductive approach allowed the

authors to gather data from the beginning about how AI impacts HRM and recruitment, which were able to later compare and support with the help of established theory.

3.4. Conducting the Literature Review

In this thesis it was chosen to do a thematic literature review where main topics and issues have been picked out from scanning over past literature covering the topic of AI in HRM and more specifically the recruitment process. The purpose of using a thematic approach to the literature review is that it allows for a clear and simple overview of what the previous research have covered in relation to the issue which this thesis aims to explore. As a thematic literature review has a focus on covering a specific topic and the themes emerging from that, it seemed the most fitting for this thesis in order to explore recruitment and technology within HRM (Broadhurst & Harrington, 2016). The themes were identified by seeing the main ideas written about in previous journals and from there categorizing it into areas of interested which would best capture and describe what had been previously researched.

The key words were used when searching for literature was “Artificial Intelligence” “Human resource management” “Recruitment process” “AI in HRM” and “Technology & HRM”. A wide selection of journals covering the independent topics of interest was found, such as Artificial Intelligence, Human Resource Management and the recruitment process. Based on journals covering the use of Artificial Intelligence in Human Resource Management was found. When searching for papers it was chosen to focus on some of the more recent papers in order to be sure of a relevant research problem, however it was made sure to conduct a comprehensive search on all existing literature to make sure not to miss any of the key concepts or theories within the subject. The papers will guide this study to identify what topics have already been covered by previous literature and where in the research there is a gap that could be filled or expanded on with this study.

Key journals were searched with the help of Primo search and Google Scholar, where it was also checked what sources some key journals which had found had cited to be sure the most relevant and up to date journals had been found. To check the validity of these journals, journal ranking systems, such as Scimago Journal and Country Rank and Academic Journal Guide were applied to be sure the journals had a good score.

3.5. Data collection

3.5.1. Data collection method

There are different methods one can apply when conducting research, many may seem good but not all is fitting to each research purpose. Some of the most common methods for a qualitative study, as this thesis is, include observations, focus groups or interviews (Gill, Stewart, Treasure & Chadwick, 2008). The reason interviews were chosen and not focus groups or observations is because interviews would allow for specific insights in the industry on a personal level where the opportunity to reach out to gain additional information would be possible. Observations would not have been efficient for this study as it only bases around spending longer time looking at and taking notes of a process, as for this study it would imply conducting observations of how AI is implemented and carried out within company's recruitment process (Gill et al., 2008). Once qualitative data is gathered with sufficient time to carry out analysis and transcription in detail, it will give better insights to the topic of this thesis compared to that of quantitative data.

3.5.2. Data collection process

The data was firstly collected by choosing the type of companies that was desired, reaching out to them and setting up a date for an interview. Thereafter the planned structure for the interviews took place. The questions were determined based on three different aspects. The first aspect was based on general questions of the interviewed professionals and the other two aspects was based on aspects identified from the literature review. The two aspects include questions relating to application of AI in HRM and questions relating to challenges and benefits of AI in recruitment. The interview guide to this can be found in Appendix 1. The data collection took place roughly one and a half month into the started research and was conducted after a full frame of reference had been finished. This ensured that the ideas from previous researchers within the line of research had been covered and to establish what research could expand on. All interviews began by asking each interviewee if it was allowed to record the interview in order to capture what was being discussed. All the data was later transcribed and analyzed through the chosen method for data analysis, which completed the collection of the data.

3.6. Research process steps

3.6.1. Choice of companies

The companies used in this thesis were chosen based on their work within the area of AI in the recruitment process. Those who were reached out to was companies who either actively use AI software within their recruitment process, or companies who are developers of AI software for organizations to implement in their recruitment. In this way, a wide range of information was gathered from different perspectives. There was no delimitation locally to Dhaka or Bangladesh, as implementing AI within HRM is a rather new subject. This implies that there is limited amount of companies, especially within Sweden, who actually implement AI in recruitment.

3.6.2. Interviews

According to Collis and Hussey (2014) an interview is a primary data collection method where researches have chosen participants to answer questions about what the chosen participants do, feel and think. Interviews as a data collection method is suitable under an interpretivist paradigm and during the interviews the purpose is to probe data about individuals' opinions, attitudes, feelings and understandings. Under semi-structured interviews, researchers have developed questions for the interviewees in advance.

An online, asynchronous, in-depth interview can be conducted. Meho (2006) mention that an asynchronous interview that is in general conducted through email, is differentfrom e-mail surveys, being more semi-structured. Meho (2006) have listed several qualitative studies that have been conducted through e-mail interviews. Persichitte, Young and Tharp conducted a study in 1997, where the researchers interviewed six education professionals by e-mail about the technology used at work. In 2004 Lehu conducted in-depth interviews with 53 top-level managers and executives about the brands age and how managers relate to them. In this thesis, the answers received by email were as comprehensive as the answers received during the telephone interviews.

Eight semi-structured interviews were conducted since the aim was to gather opinions and experience about the impact of AI in recruitment from professionals within the field of HR.

Due to differences in locations, seven interviews were conducted through either telephone or Skype. From the request of one participant, one of the interviews was conducted through email. The same questions that was asked during the telephone and skype interviews were sent out to this specific company by email.

3.7. Method for Data analysis

The method that was chosen to analyze the data with was thematic analysis. This method was chosen based on the initial research paradigm of interpretivism, as thematic is a well fitted method for this paradigm. Thematic approach is based on narrowing down thequalitative data, for an example by coding the interviews which has been conducted, and fromthat pick out the emerging themes. A thematic analysis is very flexible in its nature and is therefore applicable to many research areas (Maguire & Delahunt, 2017). The themes identifiedthrough the thematic analysis will be acting as the main points of data analysis and contrasted to the theoretical framework as well as the chosen model.

3.7.1. Coding & Themes

To apply the chosen thematic method for data analysis, the 6-steps thematic analysis process by Braun and Clarke (2006) was adhered. This model is described step by step in Table 1.

Face	Description of the process
1. Familiarizing yourself with your data:	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
2. Generating initial codes:	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes:	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes:	Checking if the themes work in relation to the codes extracts (Level 1) and the entire data set (Level 2), generating a thematic "map" of the analysis
5. Defining and naming themes:	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions andnames for each theme

6. Producing the report:	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

Table 1 *- Phases to thematic analysis according to Braun and Clarke (2006)*

First the data gathered from the interviews was transcribed into a written form, listened and read several times. The second step include generating initial codes from the collected data. The pre-set codes were such as traditional recruitment, artificial intelligence, effectivity, time management, technology, automatization, talent acquisition and human resources. Additional codes which emerged during the analysis of the data was resources, personality traits, judgement, communication, screening and talents. In the third phase, the identified codes were closely analyzed and considered how to combine them in order to create a theme. In the fourth step, that is reviewing themes, authors started elaborating identified themes. In the fifth phase authors generated precise definitions and names for each identified theme that will be presented in analysis part of the thesis. Finally, the sixth phase of the model allows authors to conduct the final analysis and write the thesis with finalized themes (Braun & Clarke, 2006).

Table 2: below shows an overview of how the themes were found and their meaning in relation to the data that have been collected. It will name the themes and show how the themes was identified through the process described above.

1. Themes	2. Identification	3. Description
Effectivity in the recruitment process	Communication with candidates, time management, data and information, speedof recruitment, automatization of administrative and routine tasks.	This theme describe how Artificial Intelligence can be utilized within the recruitment process in order to make if more effective and better compare to its traditional ways.
The application of AI in recruitment	Automatization, talent acquisition, screening, technology, personality traits,AI used in different areas of traditional recruitment.	This theme describes how AI can be appliedon different areas within the traditional recruitment process, to help automate different tasks.
Human error and biases	Biases, judgements, personal opinions,favoritism for personal connections, stereotypes.	This theme describes the human errors whichexists in the traditional recruitment process model, such as biased opinions.

1. Themes	2. Identification	3. Description
Benefits and challenges of using AI	Cutting down routine and administrativetasks, speeding up recruitment process, training of machines and humans.	This theme describes the benefits and challenges that the usage of AI in recruitment brings, as well as how they should be taken into consideration when implementing AI in recruitment.

Table2 : *Summary of the identified themes and its indicators*

3.8. Research Trustworthiness

3.8.1. Validity and reliability

In qualitative research it is important to be able to convey the validity and reliability of the conducted research. The concept of validity can also be considered as the credibility of the research and it refers to the extent to which the arguments, interpretations and results that are presented in the research demonstrate the subject they are supposed to refer to. Several factors such as poor samples, faulty procedures and misleading measurement can deteriorate validity in research. Reliability in turn refers to the fact that the data that is collected from the research can be used to describe the topic that has been explored. Reliabilityimplies the repeatability of findings and the reliability of the data. Repeatability means that if someone were to conduct the same study again it should yield the same results.

In each study, researcher's own values, opinions, assumptions and understanding can have an impact on the reliability of the study. In this study, the subjective choices made by the authors have impacted the formation of the theoretical framework. It is also apparent that author's own interpretations impact the results of the study. In order to have an appropriate balance with validity and reliability, it is important to have an organized description of the research process and hence this thesis process is described as accurately as possible. When it comes to reliability and the repeatability of the finding, it was noticed that with the sufficient number of interviews, the same message and points started repeating over and over again in the interviews.

3.8.2. Ethical considerations

For the research to be reliable, the trust of interviewees is important. According to Collis and

Hussey (2014), when interviewees have the possibility to remain anonymous, their identity, insight and opinions will not be unveiled and the information received during the interview will be handled carefully. Therefore, in this research, all interview participants are referred as professional and no names of the interviewees or their companies are unveiled to protect their integrity.

Chapter: 04

Empirical Findings

4. Empirical Findings

4.1. Overview of empirical findings

The following section covers the empirical data found for this study. The empirical findings will be presented accordingly to the main themes which were identified through the thematic data analysis. The themes will be presented in the following order: effectivity in the recruitment process, application of AI in recruitment, benefits and challenges of using AI and lastly human error and bias.

4.2. Effectivity in the recruitment process

4.2.1. What traditional recruitment have to offer

All eight professionals agreed on a few things which traditional recruitment has to offer in terms of benefits. Some points in particular that every professional agreed on was that traditional recruitment has the value of the human touch. This implies that there is always a human who can interact with applicants and have a special connection with them. Some of the interviewees argued that by having human to human interactions as it is in recruitment nowadays, it is easier to communicate without misunderstandings. It also makes it possible to discuss ideas, both between recruiters but also between recruiter and job applicant.

> "The human touch and feeling are something which can never be replaced...people areso comfortable with the things they know" (Professional 2)

Another point that six out of eight professionals agreed on is that traditional recruitment is an already tested measure. For an example, having a formal interview with candidates has been done the same way for several years within recruitment, as well as many other selection methods. This means that these practices have a long line of existing theories and research underlying to it, validating their results. Therefore, there is a lot of information recruiters can draw on and be confident in the results they get at the end of the recruitment. One interviewee said that as traditional recruitment has been mostly successful for organizations up to this point, not many feel comfortable changing from what is already proven to work.

There were not many opposing views that emerged about the traditional recruitment process.

Many professionals choose to just bring up the human touch as one of the only key things with traditional recruitment. The only difference that could be seen between the professionals was how much emphasis they put on mentioning good things about traditional recruitment. There were three professionals who put more focus talking about the good things with having traditional recruitment. The rest of the interviewees just touched briefly upon benefits, but most chose to just quickly mention one or two things and then put more focus on the drawbacks. Therefore, it can be seen as a shift where some of the professionals think there are some good things with having traditional recruitment, whereas others are strongly drawn towards its negatives.

4.2.2. What traditional recruitment lacks

Many of the professionals had inputs and ideas about what stopped traditional recruitment from being the best that it could be. One of the major challenges that all eight professionals took up and talked in depth about was the length of the recruitment process. All agreed that the current recruitment process is very time consuming, both for candidates and the recruiter. It makes applicants go through lengthy and complicated processes which makes candidates wait for a long time to even get through the process.

"Traditional recruitment is time-consuming and, according to many applicants, old-fashioned.'' (Professional 8)

"It's a very traditional way, I think traditional way is also very time consuming, peoplestill have to go through lots of steps, very complicated steps sometimes." (Professional1)

Due to the traditional recruitment being time-consuming, it also makes for less time for the recruiters to take the best decisions, which was mentioned by six interviewees. Furthermore, all professionals mentioned that recruiters often do not have the time to communicate with candidates during the ongoing recruitment. There is usually no time either to give applicants a heads up if they did not get the job they had applied for.

Another idea brought up by the professionals was that there is a lot of faking being done by applicants. The applicants write their CV's way better than what they actually are. With faked CV's it makes it hard for organizations to know that the candidate they hire actually have the

experience they say in their CV. Two of the professionals also mentioned that one of the major problems in traditional recruitment is to find the right candidate among those who are not actively seeking for a job, as focus usually lies in finding new talent. Furthermore, it was said by one interviewee that candidates are easily forgotten after being rejected for a certain job while they still have their CV's saved in the database. Instead of these candidates being re-discovered for a new position, recruiters look among other applicants.

Biases, racism and judgment from the recruiters are another area where traditional recruitment lacks. Some mentioned that there can be a biased selection based on the job applicant's age, gender or heritage. Other biases were based on for an example if the recruiter preferred work experience from a specific company, such as Apple. Then that recruiter would only want to hire people who had worked there. All these biases were brought up as inconsistencies in the recruitment process, as when biases are involved the decisions are not fairly made.

"...maybe you're just hiring a bunch of nice people, maybe your manager is hiring people just like that, then you decrease the diversity of the talent and that harm the performance of the team and the company overall." (Professional 7)

4.3. The application of AI in recruitment

The following section will describe in what part of the organization AI software are implemented in the organizations interviewed. Overall, many of the interviewees agreed that even though AI is an interesting new technology, it has a long way to go before it could be perfectly implemented strategically.

"I do think we are at the very beginning and we are still learning." (Professional 5)

4.3.1. Pre-screening and pre-selection

It was found that six out of eight professionals actively use AI software in the pre-screening and pre-selection process of their recruitment process. In the pre-screening part for the companies, AI technology bases itself on the job descriptions provided by the company and screens for possible job candidates. This is conducted by not just applying certain keywords, but also through language and other traits used in the applicant's submissions. The pre-

screening for four of the professionals was said to most often take place through social media channels such as LinkedIn or Facebook. The rest of the professionals said that the screening was conducted on applications sent in directly on a job posting. Some software also does pre-screening by applying personality tests. The personality tests are applied to see if the candidate has the right qualities and skills which the job requires.

In terms of pre-selection, it was discussed that AI helps give an organization all the necessary information to select candidates that seems the most fit. One professional described the process as the technology putting together a long list ranking the best fit candidates for a job vacancy. This then helps the company get a basic understanding of what the AI software feel, based on all data collected to evaluate who would actually be the best fit employee. From this, the organization itself gets to select the candidate which they wish to hire. They can either pick from the top ten candidates provided by the AI software or choose freely who of the candidates put forward they want to hire. An important focus was put here by one professional, who said that the AI software learns from the way you pick candidates. If you constantly would pick from the top 10, the AI software will learn that these are the type of people you want and therefore eliminate others who might be eligible for the job as well.

4.3.2. Communication with candidates

All eight professionals said that they actively used AI software to communicate with the candidates who apply to their open positions. Some of the professionals used similar type of AI software when communicating but for some it differed. Some companies' software had chat bots which took the candidates information such as name, previous job experience and similar data. This was then converted into a CV and a job application which the AI software later would screen through. The chat bot has a continuous interaction with the job applicant, where the applicant can get updates and ask the chatbot questions. The AI software know itself how long time it has gone since the job applicant applied to the job and check in to see how the candidate is doing and if any questions has arisen regarding the position.

"What would it mean to a candidate to have someone, does not even matter who it is orit is even a person, to check on you, like: Hey, your interview is in a one week, do you have any questions? AI software can enable this." (Professional 7)

Many of the professionals said that the AI software can give each candidate an overview when a recruitment process has been finished of what qualities the candidate had or what it was lacking in relation to the job posting. It can in detail explain why the person did not get the job. It also allows for the job applicant to ask questions if they would still be unsure why they were not chosen.

4.4. Benefits and challenges of using AI in recruitment

4.4.1. Benefits of using AI in recruitment

Majority of the professionals agreed that AI benefits recruiters when it comes to cutting down routine and administrative tasks. Hence recruiters have more time to focus on the best matches. The use of AI in recruitment help recruiters especially in the evaluation, ranking and qualification processes of job applicants and hence it is possible for recruiters to start the recruitment process with the most potential job candidates directly by interviewing them. When it comes to communication between recruiters and job applicants, many of the professionals would not mind whether the communications happen through human or AI based robot. Five out of eight professionals mentioned that with the help of AI it is possible to speed up the recruitment process and hence the recruitment processes become less time consuming.

"AI can speed up the recruitment process and create an excellent candidate experience,while it reduces the cost. With the help of AI it is possible to find the silent candidates and there is more time to focus on the best matches." (Professional 4)

It was also mentioned that AI allows more equal chance to all candidates for being selected for the job due to decreased human bias. Two of the eight professionals adduced that with the help of AI it is possible to find and notice both potentially silent job candidates and excellent job candidates. One of the professionals mentioned the impact of AI to business's competitiveness:

"By using AI in order to gain talent, it is possible to get better insight of the talent than your competitors and hence increase company's competitiveness." (Professional 5)

Even it is possible that AI will replace some tasks conducted by humans in HR department, it is important to keep the human touch in recruitment process and one of the professionals

mentioned that the purpose of their company is to bring the human touch back to recruitment.

“HRM is very much about dealing with people, which also requires talents that artificial intelligence is not capable of replacing at least with knowledge, for example empathy.” (Professional 8)

An important issue that two of the professionals brought up was the real need and benefit of the use of AI for the company. Hence it is crucial for the companies to consider the real effectiveness brought by AI to the organizations and ponder how the use of AI in recruitment affects company’s effectiveness.

4.4.2. Challenges of using AI in recruitment

Some identified challenges that the AI can bring to companies are the adaptation of new technology within AI and lack of trust. Having an adequate adaptability towards AI and having proper tools to utilize AI are extremely important because it need to be known how to use AI in the organization.

“Bad implementation of AI is a bias itself.” (Professional 6)

Several professionals mentioned that HR departments are considered as traditional and hence it is extremely important to pay attention to the overall adaptability of new technologies. One of the professionals mentioned that in order to gain all the benefits that the use of AI in recruitments brings, organizations need to be able to buy AI. This implies that organizations need to have enough time to dedicate to new technologies.

“You need to know how to use artificial intelligence correctly. Choosing the wrong waycan also cause failure.” (Professional 8)

It was discussed during the interviews that several organizations consider that they want to use AI, but they do not necessarily know why and how to use it. It can be the case that the organization do not necessarily need the speed or quality brought by AI or the organization might not even have the technical team to implement AI. An important aspect of using AI in recruitment process is to consider how well AI can understand company’s values and whether

AI completely understands what kinds of job candidates the company is looking for. This comes to the concept of biased machine learning and to Amazon case example that was brought up by three interviewed professionals. It was discussed that there is a danger of biased machine learning as was in the case for Amazon in 2015, when the company uncovered that their new recruiting engine favored men when it came to rating candidates for software developer positions and this AI recruiting tool showed biases against women. According to one of the professionals, an area where AI might have difficulties is understanding cultural barriers, since terminology varies between cultures and nations. Hence one of the most fundamental challenges of using AI in recruitment that was discussed during the interview is how to train people to train machines in order to avoid biases.

4.4.3. Human error and biases

Majority of the professionals agreed that AI can be a tool to help when it comes to unconscious biases in recruitment, but not solely solve or remove them. However, three out of the eight professionals agreed that AI is a right tool to solve unconscious biases and actually one of the core purposes of AI based recruitment is to solve these biases. One professional stated that AI can solve unconscious biases. This is because the way an applicant's CV is written or the quality of their CV does not matter, if the applicants have the skills which are stated in their CV.

On contrary one professional hoped that AI will not completely take away biases, since in certain situations a job applicant might be suitable for the job position based on his or her passion or attitude and not solely based on the work experience, she or he has. In these situations, AI might not recognize the motivation, but only the amount of work experience and other qualifications and hence it is good if recruiter's own opinion matter. However, the same professionals agreed that AI can greatly improve and help with these biases. However, recruitment must always be legal and there are also laws that requires recruiters to act equally and non-discriminatory in all areas.

Chapter: 05

Analysis

5. Analysis

5.1. AI in the traditional recruitment process model

The many theorized models of the recruitment process by authors as Muller and Baum (2011), Thebe and Van der Waldt (2014) and Breaugh (2008) are able to give an overview of how companies have been carrying out traditional recruitment up to this day, and what way they have been able to benefit companies. Out of these, Breaugh (2008) is a main model which is looked upon, however it does not cover the aspects of technological developments such as AI. Therefore, following will be an application of how each step would be carried out in the traditional model if AI software were implemented instead. An overview of these steps and how AI applies in the traditional recruitment process model can be found in Figure 4 below.

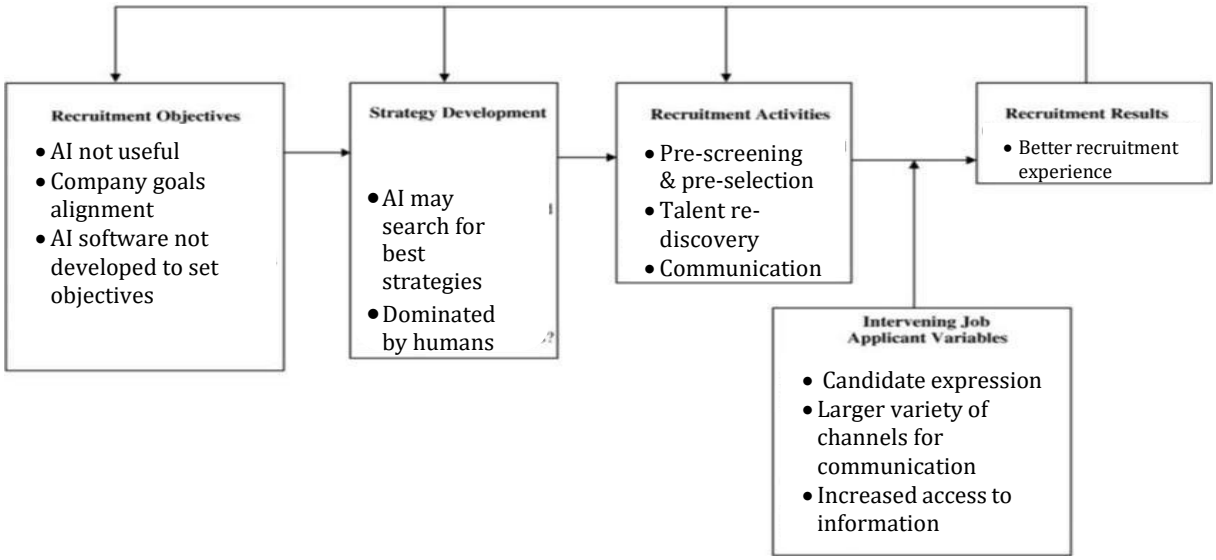


Figure 4: Overview of AI in the traditional recruitment process model developed from empirical data.

5.1.1. Recruitment objectives

Recruitment objectives being the first and initial step in the proposed recruitment process model by Breaugh (2008), it is argued that there needs to be set goals for the recruitment which should be aligned with what result the company want to achieve. This would make the recruitment objectives a section in the recruitment process with the need of humans, as different forms AI technology cannot replace a company's own values and its future orientations. Recruitment objectives also contains the detail of who they should hire, and for an example what type of knowledge and education the company wish for the applicant to have. The recruitment objectives

are very personal for every individual company, some objectives might be to try to gain the highest number of applicants for an open position, while others mighthave their objectives to influence their post-hire outcomes from the recruitment. By the importance of these decisions and the underlying meaning the objectives have for the recruitment process, one could argue that these objectives have to and should be set by the leaders of an organization. AI is not able to replace the human mind and the importance for human touches in this stage of the recruitment process.

"AI is not meant to replace all roles of a human recruiter within the recruitment process, I can see a future where it might replace some but not all functions." (Professional 1)

It is described in detail when a company develops AI software that this software is not meant to set certain objectives for the company, but rather work as a tool to later in the recruitment process help achieve the strategic objectives set.

"The organization(s) creates own objectives and goals for the recruitment which the AIsoftware later help achieve through the recruitment process" (Professional 5)

When discussing any type of organizations and its way to success, clear objectives is one of the first thing a company needs. The recruitment objectives are purely factual thingsaligned with the core of an organization, which is not something that can be replaced by a robotwith machine learning. This is because such a replacement would not be to any gain or give anincreased effectiveness as AI is programmed to do and learn what the humans want it to. An organization can have any different types of objectives that they wish to achieve, but AI would not be able to set these types of objectives.

"Hiring decision are based on people..." (Professional 7)

The AI software would miss the mark for what is important objectives for the organization and therefore in this phase of the traditional recruitment process model, the human should be the one handling it.

5.1.2. Strategy development

The strategy development is where recruiters are taking a decision on how they are planning to reach out to the candidates they wish to hire, and who exactly these candidates are. It basically answers the questions of who to be recruited, when, where, how, through what sources and what message to portray to the job applicants. In earlier studies as suggested by Barber (1998) the recruitment generally consists of gaining applicants, retaining the applicants and to influence the decision to take the job. This in large connects to each companyhaving to make decisions on who it truly is they want to hire and the characteristics this personshould behold to be the best fit hire for the job vacancy. The strategydevelopment should be aligned with whatever objectives an organization is trying to fulfil.

From the conducted interviews it became apparent that the strategy development is another point where there is an important need for the skill sets and capabilities inherent in humans, which cannot necessarily be directly substituted by AI. AI can be implemented to a smaller extent, for an example choosing the most suitable strategy to achieve the set objectives. However, this is still a stage which needs to have the overseeing of a human.

“I believe AI will definitely be able to replace areas of HRM and the recruitment process, but not everything. AI is not supposed to take the human out of recruiting eitherso some function shouldn’t be aimed to be replaced either” (Professional 1)

When discussing the strategy development, none of the interviewees put any deep focus on discussing the strategy as a possible area to implement the AI software. This does not have to imply that it cannot bring potential benefits by automating best strategies based on online searches to fit the set objectives of the organization. However, no interviewee brought this up as something they consider to do, as of this moment due to the technology being in such a beginning phase.

“We adopt the AI software mainly in pre-screening, pre-selection, and other parts where we feel that we don’t need a human as much... we strongly believe there’s certainthings in the recruitment process that AI can't replace...these could be face-to-face interviews and assessment” (Professional 4)

5.1.3. Recruitment activities

Found from much of the data collected and similarly to ideas brought up by previous researchers (Kaczmarek et al. 2005; Dickson & Nusair, 2010), AI technology can be useful when implemented in the right section(s) of the recruitment process. This can be such as the recruitment activities. Through the recruitment activities the company communicate a message about an open job vacancy to the applicants, which is why the activities carried out needs to be easy and clear to understand. There are theorized many differentways for which the recruitment activities and its intent can be made clearer, however none so far have covered the implementation of AI in this. During this stage in traditional recruitment according to interview data is where AI software works the best. This is because most of the job is to gather initial data of the candidate, carry out communication and get an overview of who the possible candidates are for the job.

"AI software tools works the best when they are implemented in the beginning phase ofthe recruitment process, where there's more administrative task and not a need for humans" (Professional 3)

One major recruitment activity is pre-screening and pre-selection. As Stoilkovska et al. (2015) states, one of the first things to do is to look through candidate profiles, establish a pool of possible candidates and later have a selection process where they further narrow down who is the best fit candidate. As argued by Upadhyay and Khandelwal (2018), AI is a perfect tool to help replace these type of routine tasks screening and selection tasks. This is supported from interviewed professionals who said that the software can determine, identify and select the best qualities from a candidate with less time than any human could. AI software used in pre-screening can also make a qualified matching of appropriate candidates based on wider search parameters (Faliagka et al. 2012). The AI software helps recruiters as well by ranking them according to who is the most fit for a certain job, this is presented as a ranked list with top candidates on top which the company gets to do their selection from on who they further want to bring to an interview. This is an idea argued for by Leong (2013) and are supported through respondents from the conducted interviewees in this study.

"What is very specific is that we apply AI on screening all the candidates. We can see profiles based on CV but also on personality traits, and we are able to say: that's a great profile compare

to what you require in the job description, and we can say if it'sgreat or average of weak in comparison to the job description too." (Professional 1)

"AI is able to retrieve/sort applications with desired keywords and criteria without having to read each application immediately. AI is able to assess the suitability of a person according to the set criteria." (Professional 8)

A problem which could arise when using AI software is how to validate the data that the AI provides. This could make it difficult for a company to be really sure of the results of AI without having to have test runs before it is implemented as a part of their recruitment process. However, not all companies mention the validity as a big problem, most still thought that what they got out from having AI software instead of people in their recruitment activities gave them better results in the end, and that they got better candidates being hired. It is still important for every company to consider as they might have to do tests to in a way try to validate and be sure they are getting a better candidate compared to traditional recruiting.

"They would take inputs and information and help streamline CV's that the recruiters would look at...however they couldn't validate the results from it." (Professional 7)

"We are currently testing out the software to see where we can fit it in the best...currently we are looking at implementing it in reaching out and ranking employees...it's still very new but so far we are happy with the results it is providing tous." (Professional 2)

Another recruitment activity is talent re-discovery, which is a key element that easily is lost in the traditional recruitment process as the focus usually lies on finding new and exciting talent. Talent re-discovery was put in focus especially from one interviewee,who stated that there are many candidates applying for a certain position but does not get it. These candidates then get lost in a database and are forgotten about. Instead, by implementingAI software the talents that have been dealt with previously can instead be re-discovered for open job positions. In this way, by implementing AI, a company is able to re-use data and information about that specific person, which saves the company loads of time having to go through new applicants.

"What artificial intelligence can enable, in my experience with it, is talent re- discovery...I

think this is very important for any company because they might be reallygood contenders for a job vacancy." (Professional 7)

Communication with candidates is also a sort of recruitment activity carried out in this stage of the recruitment process. It is where contact is established and data is collected by recruiters. However, it is also an area which is not exploited properly in traditional recruitment due to the limitations of recruiters' experience in terms of time. Barber (1998) argues that the communication that a company carry out to its applicants needs to be clear so that the message can be understood. This implies that when the communication does not get the right amount of time given to it, the job applicants might not be aware of why they should apply to work there. This in turn could eliminate possible candidates who would want the job but due to no communication would choose not to apply or lose interest. For any company, this would bea loss of assets to the company. Due to these limitations other solutions are necessary to consider. As most interviewees argued when talking about communication, they believed AI would perfectly be able to replace the human and carry out a strategically smarter and more convenient communication. They believe that by replacing communication with an AI chatbot or AI software they would be able to check up on how the applicant is doing during the process.The AI software can carry out communication with several applicants at once whereas a human recruiter only can do a limited amount in order to keep track of everything. Therefore, with literature emphasizing the importance of clear communication it becomes apparent that AI could be a tool enabling companies to better reach out and keep contact with those searching for a job. This information from primary data collected was in line with what some researchers has said about benefits with AI, such as Dickson and Nusair (2010), where they argue that a larger pool of candidates is reached out to and communicated with through the implementation of AI software.

"AI can replace routine tasks...the software is able to communicate with those who apply and take their initial information and provide information regarding the job...it'ssuch a smooth system where the candidate does not care if it's actually a person they are taking too." (Professional 6)

5.1.4. Intervening job applicant variable

Within a recruitment process it is important to not only mention the organizations view but also the job applicants view, as brought light upon by Acikgoz (2019). The current intervening job applicant variable without the implementation of AI is when the applicant has a say about how credible they think the message the company is sending, how much attention the applicant pays to the job, what expectations the applicant has, and the overall interest of the applicant. These variables are of importance because they focus specifically on the job applicants' characteristics and their own choice. A recruitment process is not, and should not, be solely focused on what the company does but also consider that of a candidate to most fairlyrepresent a successful recruitment. Aligned with this is ideas talked about through interviews where most of the professionals said that when they are implementing AI software, they want to focus on how the job applicant can benefit from it as well.

"The recruitment process should be easy to go through...it doesn't help the candidate experience if they have to go through so many steps to even apply...it could even make candidates less willing to apply. I strongly believe that AI can help our recruiters get better contact with our candidates and also give them more of a chance to express themselves." (Professional 2)

In this part of the recruitment process the AI software should enable the candidates to show a truer picture of themselves. With AI in this intervening job applicant variable the candidates can get a chance to present themselves more in-depth, in a way which is easier and more extensive in its nature compared to the one existing in the traditional recruitment process (Breaugh, 2008). Therefore, applicants gain the opportunity to voice themselves and take a stand in accordance to the job that is being offered. The AI software enable the applicants to do so more than what traditional recruitment can offer.

"We also offer candidates to apply in a modern way by offering more information about themselves, not only CV... you are able to show your personality traits, to film yourself,to show more about yourself and be judged on the person you are and not only the person you are on a CV. Which we believe is not enough." (Professional 1)

Additionally, in this stage as Breaugh (2008) model states, the job candidate gets the opportunity to early on take a step and decide if they want to engage further in the process or if they are uninterested in the position. With AI, it would allow for information to reach the applicant faster which would make them be able to take an informed decision about it they are truly interested or not in earlier stage of the recruitment process. Therefore, AI can eliminate a lot of candidates who are not interested and cut them out from the candidate pool making it lower number of applicants to have to select from by the recruiter later on.

"Candidates get the opportunity to say yes I am interested in this position or no, I don'twant this position any more. AI makes it easier not only for the company looking for a person to hire but also for the applicant searching for a specific job." (Professional 4)

The intervening job applicant variables gets faster in speed with AI and the evaluation can be more detailed and truer to fact compared to how it is traditionally conducted. As a professional mentioned in an interview, an ineffective recruitment process also impacts the experience of the candidate, so to not let this happen and make the applicant feel more inclined to apply for the job AI should be implemented.

"If you have an ineffective recruitment it affects your company in many ways...it meansyou won't have a great candidate experience…that then impacts how people think aboutyour brand and if they want to represent your brand." (Professional 7)

5.1.5. Recruitment results

The recruitment results in a sense is connected with both the need for an implementation of AI software and human recruiters. The end results after a human recruiter has taken a decision of who should be hired can easier be communicated back to candidates with the help of AI software. This could be the same type of software and chatbots which have communicated with the candidates earlier on in the process which then tells who passed and who did not. With the AI software implemented candidates can get detailed feedback on what they lacked for the position. This enables happier candidates as they would not only hear back from the company but also know why specifically they could not get the position. AI cannot fully take over the recruitment results part of the recruitment process model due to the major part of it is lying in the humans making the final decision on who is hired. However, throughout the process AI can

work as a tool to help ensure that an organization gets the recruitment results that they desire.

“Largely the end results of your recruitment depend on the tools that you have available and how you utilize these…for an example AI can be a very helpful tool in youuse it correctly.” (Professional 6)

The overall determination of a successful recruitment is dependent on the organization meeting the recruitment objectives they set out to in the beginning of the process, and if they now feel that they can select a candidate who fit the job description. It is a very subjective view of what implementing AI in the recruitment process actually mean for each organization. In addition, each organization need to decide if these extension and improvement to the recruitment process is something which they are in a need of and if it will make their recruitment better for both recruiters and job applicants.

“The true measure of quality...are you getting better quality because of AI? Those are the things...as an institute we are just now starting to see the result of that.” (Professional 7)

5.2. Implications of using AI in recruitment for organizational effectiveness

According to Stone et al. (2015), even information technology has impacted the processes and practices of HRM largely, little research had been conducted and examined about its effectiveness for organizations. Interviewed professionals mentioned that there is barely a firm that uses AI in each part of recruitment, but rather in a few parts of their recruitment. The real effectiveness and real need of using AI in recruitment was brought forth by several interviewed professionals. It is crucial for companies to consider what is beneficial for them and what is the real need of implementing AI in their recruitment process. It also needs to be considered what the main driver of the company is and what they are trying to achieve, because this will in turn determine if the effectiveness that AI may give is truly what the company also needs.

“Is it actually a benefit to be able to hire people just in one day?” (Professional 3)

“From an HR perspective, is efficiency my main driver? We’re in a dangerous place where if

we over simplify the work and we say it's all about efficiency, then we start removing the strategic influence that recruiting teams have which are making sure we are getting really great talent." (Professional 7)

Companies should be able to determine what effectiveness implies for them. The following statement is an example how effectiveness can be seen in a company:

"Due to AI, we can read CV's in twelve different languages now so you can have the CV in French and have the job in German or in Spanish." (Professional 5)

This statement describes the effectiveness in a way that processes which before required human intelligent and included several separate and time-consuming parts, can now be conducted by AI tools in much shorter time. In addition, effectiveness can imply a decrease in the amount of time spent in recruitment process. This type of effectiveness was examined in the Hilton hotel case example, where AI based video interviews was able to cut down the recruitment process from 42 days to 5 days.

The real implications of AI based recruitment needs to be considered in the terms of effectiveness and utility. In addition, it was emphasized during the interviews that organizations need to carefully consider in which parts of their HRM functions AI is needed:

"I do believe that AI can make the recruitment process more efficient and accurate, but itis rather company-specific and I think that every company will have some different what they need about of AI and different types of effectiveness they are targeting." (Professional7)

"In order to have all the benefits that the use of AI in recruitment brings, organizations need to be able to buy AI and they have to have the time to dedicate, because many organizations think that they want to use AI, but they don't know why. Probably they do not need this speed or quality and they might not have the technical team to implement AI." (Professional 5)

In addition, Zang and Ye (2015) bring forth studies stating that even if new technology makes HRM more efficient and accurate, there is a risk of HR analytics being only a transient trend if the technology transformation does not manage to become a continuous part of management

decision-making. Adaptability of companies towards AI was discussed during the interviews and hence training of people, machines and robots about new technologies and AI was emphasized.

“There should be greater focus on what is the thing we need to change in the organizationon the long-term level and let’s help in identifying how we train machines as well people to identify the right skills of individuals to succeed the company for the long term.” (Professional 3)

“Teaching different robots takes time, but I also believe that the use of recruit-robots will increase as long as enough information is available behind them.” (Professional 8)

In the future it should focus more on the training of machines as well as well people to recognize the talent bearing in the mind the long terms objectives of the organization.” (Professional 3)

In order to get the most benefit out of AI based recruitment, companies should have the adequate tools to train people and machines. It is the most certain way to assure the effectiveness that AI based recruitment can bring and a way to assure that AI based recruitment is not only an ongoing trend.

It needs to be considered when implementing AI and pondering its implications for organizations, that not AI do not work exactly similar to each organization. The results and true implications are very subjective and up to every individual company, therefore it also need to be treated as such. If AI gives very good results in a certain part of a recruitment process for one company, it is in no way a verified measure that the exact same thing will work in another company. It could, but there needs to be an adaptability with the software and an awareness of this factor.

“One size does not fit all, you cannot have one and the same process and one and thesame tool and expect it to work for everybody.” (Professional 7)

5.2.1. Benefits of using AI in recruitment

Previous literature and studies have managed to identify several benefits of utilizing AI in

recruiting. Upadhyay and Khandelwal (2018) points out that before repetitive tasks were conducted by human recruiters, but AI will make some of the recruitment processes obsolete. Now recruiters can delegate these repetitive tasks to AI systems and recruiters have more resources to strategic issues. Among the interviewed professionals, the abolishment of routine and administrative tasks was mentioned as being themost remarkable benefit.

"AI helps recruiters to cut the routine tasks down and they can start directly interviewing candidates." (Professional 2)

"Recruiting becomes less time consuming when it comes to screening through applicantsand here AI help recruiters to identify talented job applicants by doing short lists." (Professional 3)

According to Dickson and Nusair (2010) the use of AI in recruitment enables recruiters to reach larger candidate pool and decrease the amount of paperwork. Leong (2018) mention candidate ranking as being one of the remarkable benefits that AI based recruitment brings, allowing recruiters to spend more time on the best talent management candidates. Ranking of candidates was also seen as an important benefit according to interviewed professionals:

"Phases where AI is beneficial are ranking of the most suitable applicants and assisting in communication. In my opinion, artificial intelligence and traditional recruitment are thebest solutions when used together. Recruitment must also be personal and have individualattention, where the role of the recruiter is central. With the help of AI, the recruiter has more time for this." (Professional 8)

The communication between job candidates is seen as an important part of recruitment and with the help of AI it is possible to improve the communication channels. When it comes to connecting to candidates, it can be stated that AI systems facilitate the communication between candidates and recruiters, because AI systems allows to contact candidates through the web, social channels and mobile platforms (Upadhyay & Khandelwal, 2018).

"AI will be used more and more in HR departments in the future, especially in the communication with applicants." (Professional 2)

When it comes to interaction between candidates, it was considered important by one interviewed professional that candidates should be engaged regularly in recruitment process, not only when informing the results of the process.

“Candidates do not want to be in the black hole, they want to feel engaged.” (Professional 7)

“AI can help in the interaction with candidates and warm up them for the interviews (by checking up on them through messaging).” (Professional 7)

5.2.2. Challenges of using AI in recruitment

Adaptability towards new technologies and AI was considered as a remarkable challenge that AI entails by interviewed professionals. This view goes in the line with Martincevic and Kozina (2018), since they argue that it almost impossible for organizations to operate successfully without any level adaptation of new technologies. The ability to adapt new technology in organizations determines largely how they are able achieve their market competitiveness. During the interviews, professionals discussed the importance of firms’ adaptability towards new technologies and how AI understands company’s values:

“Adaptation of AI to innovation is definitely one of biggest challenges, since HR departments are considered as quite traditional part of the company.’’ (Professional 1)

“The benefits are there, but companies need to dedicate the time in order to make thesebenefits to shine.” (Professional 5)

“How well AI can understand company’s values or understand what kind of candidatesthe company is looking for?” (Professional 4)

Other important entirety of challenges that AI-based recruitment entails is unconscious discrimination during hiring processes by organizations (Stuart & Norvig, 2016). This was also noticed from one of the professionals with the notifications that companies should be able to train people and machines to avoid these biases.

“The biggest challenges for AI are programmed and training biases, as can be noticedfrom the Amazon example.” (Professional 3)

However, according to Upadhyay and Khandelwal (2018), AI systems can be programmed to avoid unconscious biases in recruitment process. The authors argue that skill shortages are one of the largest challenges in hiring industry. Even though AI-based systems are extremely beneficial at recognizing talent, but there are still some activities that should be conducted by humans, namely activities such as negotiations, appraisal of cultural fit and rapport building. This argument is in the line with one of the interviewed professionals agreed that AI might have difficulties when it comes to cultural differences:

"Language biases and cultural understanding of machine are also challenging for AI. An area where AI might have difficulties is understanding cultural barriers what terminology is and how information is presented in certain country or culture." (Professional 3)

Chapter: 06

Recommendation & Conclusion

6. Recommendation

As of today, Bangladesh is still using the traditional way of HRM practices, though few conglomerates', MNCs' and few corporate houses have started using E-HRM (HRIS, ERP etc.) yet the modern HRM practices did not flourish. To sustain and increase the efficiency organizations' in Bangladesh should adopt the ever-changing technology especially for the HR personnel. Artificial Intelligence (AI) adaptation is not easy for a developing country like us. To ensure the effective adaptation process, organizations need to formulate efficient and executable policies. To do that organizations may follow the following steps:

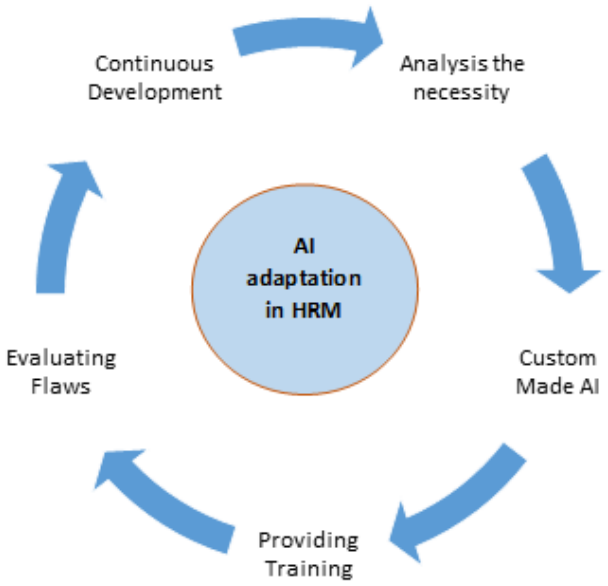


Figure 5- AI Adaptation steps

As stated in Figure 5 organization should follow several steps to ensure effective adaption strategy for AI in HRM practices. Step 1: Analysing the necessity (Financial ability and HR Personnel readiness to accept), Step 2: Developing tailor-made AI, Step 3: Conducting Training, Step 4: Evaluating loopholes', and maintaining the continuation of AI development Besides, for the future study, researchers can conduct quantitative research to find the organizations and HR personnel perception to adopt AI in HRM practices. While conducting exploratory research, authors should focus on control variables' (age, sex and education) and UTAUT model.

Conclusion

Today's world is technology driven. None of the organization can sustain in the long run without transforming them manual to digital. Artificial Intelligence assists to ensure efficient, effective and timely HR function. As Bangladesh is going to graduate as a developing country and focusing on the agrarian based economy to an industrialized and manufacturing economy, hence Bangladesh is at the edge of adapting modern HRM practices. To ensure sustainable and effective HRM practices, Bangladesh needs immediate adaptation of AI in HRM practices on a large scale. Though the AI adaptation will face utmost challenges initially, but the positive outcome is organizations' development friendly. This study will assist business owners, government and HR consultants to give focus on policymaking to face AI adaptation challenges and to safeguard effective HR practices.

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Appendix 1- Questionnaire

General Questions:

- Please tell us your name and a little about what your organization do.
- What is your specific role in the organization?
- What have you worked with in the past before your current position?
- How long you have been working in HRM or in recruitment?
- What experience do you have working especially with AI?
- How does the recruitment work within your company?

Questions relating to application of AI in HRM:

- What do you think are the current benefits or challenges with traditional recruiting?
- What do you think the effects are of an ineffective recruitment process within an organization?
- How does the application of AI within recruitment work? What does the program/software do for yours/others companies?
- In which function of the recruitment process are you implementing AI/your software? (Pre-screening/pre-selection, communication with applicants, organization during recruitment etc)
- Why does your company implement AI or develop AI recruitment software?
- How has AI based recruitment shaped and changed the so called 'traditional HRM and recruitment'?
- What has been the most remarkable or important change, if you can name one?
- How do you think AI will shape HRM and recruitment jobs in the future?
- Do you think that AI will substitute or replace some functions of HRM job completely? What part and why? If not, why not?
- Are there some functions of HRM where AI will not probably be used?
- How do you think that the role of HRM functions in the organizations will change due to use of AI? How and why?
- Do you think there would be any trust issues or (other issues) with applicants towards having new technology handling the recruitment?
- Which issues do you think it would be? Or none at all?
- What do you think of the current state AI technology and algorithm are in now? Is it sufficient? Is it missing something?
- What challenges could this mean for the implementation of AI in recruitment?

- Having an effective recruitment is said to be one of the most important parts of HRM, how would the implementation of AI relate to this?
- Do you think AI can make recruitment more effective in terms of faster more accurate recruitment and in the end make more economical profit for an organization?

Questions relating to challenges and benefits of using AI in recruitment process:

- What, if you could mention some, do you think are the benefits of using AI in recruitment process? (Compared to "traditional recruiting")
- The problems and benefits mentioned about traditional recruitment, do you think AI being used in recruitment can delimit or enhance these factors?
- What is the most important benefit if you can name one?
- What do you think are some challenges of using AI in recruitment process?
- What is the biggest/most difficult challenge if you can name one?
- Can AI solve those challenges in the future?
- There are written articles about unconscious biases in traditional recruitment, for example job candidates' age, gender, background and recruiter's own opinions. Do you think AI based recruitment can solve these biases?
- How do you see the future of the application of AI within recruitment change? Will it be implemented more or less?
- In which functions of HRM will AI be used the most in the future?

Questions regarding the recruitment process model steps:

- What are the steps which you as a company undertake during your whole recruitment process? What do you start with doing when you need to recruit someone new and what is the process until you've found someone?
- In which of these steps do you incorporate Artificial Intelligence software?
- There is a five-step model covering the following steps within recruitment "Recruitment objectives" --> "Strategy development" --> "Recruitment activities" --> "Intervening job applicant variables" --> Recruitment results o Do you agree with these steps as a general recruitment process model?