COLLABORATING AI AND HR TO FACILITATE TALENT HUNTING

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Abstract

This study aims to provide insight into how the collaboration between AI (Artificial Intelligence) and HR (Human Resources) facilitates an organization's talent hunting. The study identified the impact of three key factors - people analytics, recruitment and selection, and employee learning and development on talent hunting. To achieve these objectives, the researchers employed a combination of both primary and secondary data sources. Primary data was collected from different companies in Bangladesh, and secondary data was collected from relevant books, journals, and articles. Based on the data collected, the researchers could find out that the companies of Bangladesh have started to harness the power of AI for recruitment and selection and are experiencing a positive impact on talent-hunting efforts. But there was no use of AI for people analytics and training and development yet. The researchers have explained the benefits and difficulties of AI and HR collaboration in different Bangladeshi companies through real-life case studies. After doing a thorough analysis, a few barriers to collaboration between AI and HR in Bangladeshi companies have been identified by the researchers. Then, the study highlighted a few policies that will aid Bangladeshi companies in overcoming the difficulties of this collaboration. There existed a few limitations of this study. Finally, the researchers pinpointed a few directions for future research in this area.

Keywords: Artificial Intelligence (AI), Talent Hunting, People Analytics, Recruitment and Selection, Learning and Development (L&D), Human Resources (HR), Human Resource Management (HRM).

1 Introduction

Employees play an important role in every organization's smooth operation and

ultimate success. Identifying and hiring the right talent and grooming them in the process are crucial steps for any organization. Doing this talent hunting using traditional methods was challenging and less effective. But now, technology has made all these tasks easier and more effective. According to Oswal *et al.* (2020), Artificial Intelligence (AI) has greatly influenced the Human Resource Management (HRM) functions of a business. This technology is bringing change in the way of attracting and retaining suitable talents. Organizations which have redefined and updated themselves by utilizing AI in their business operation are able to achieve a leading position in the business world.

According to Yahia *et al.* (2021), people analytics deal with numbers which enrich the narratives with deeper insights. These narratives help organizations to understand what competencies they need to look for, find out why employees leave, predict how many of them might leave in the future, forecast the trends, predict challenges, and deal with uncertainty and disruption in the workplace. Facts are delivered through people analytics, which is later transformed into actionable insights with the help of expert advice. These actionable insights help HR managers to nurture the company's developing talents and optimize business strategies. For these reasons, people analytics is now regarded as a "must have" competence for HR management to achieve competitive advantage.

AI is also fully redefining the employer-applicant relationship. Chatbot, an AI tool, facilitates the candidates with an advanced and a better experience with their employers. In the recruitment and selection process, AI aids organizations by automating different HRM functions such as candidate assessment, reference checking, interview scheduling, and sending job offers to selected candidates. A few of the widely used AI recruitment platforms are- Fetcher, Hiretual, XOR, Eightfold, Pymetrics, Humanly, Textio, My Interview, Paradox, Talkpush, AllyO, Seekout, and Loxo. (Oswal *et al.*, 2020).

AI has also brought innovations in the Learning and Development (L&D) function of an organization. L&D is a professional development function that is provided by a business to its employees. Through this function, an organization empowers its employees' growth and develops their KSAs (Knowledge, Skills, and Abilities) which ultimately results in better performance. According to Bhatt and Muduli's (2022) study, AI innovations like artificial neural networks, technology-enhanced learning, robots, interactive voice response and text-to-speech,and natural language processing improve the efficiency of the learning and development process. So, by implementing AI tools in the L&D function, the L&D professionals will be able to make the learning process quicker, cheaper, flexible, convenient, efficient, less expensive, more accurate, and suitable for a large number of learners.

1.1 Statement of the Problem and Justification of the Study

The traditional HR practices were not fixed on any specific model. Rather, the HR activities depended on the view of either the employer or potential candidates. The traditional HR tasks were lengthy, repetitive, costly, time-

consuming, complicated, and full of errors, biases, and racism. There was no way to ensure that the most suitable candidate had been hired or the employees were given the proper training for their development. As a result, they reduced the efficiency level of the organizations. Due to the lack of traditional HR practices, most modern HR professionals identified that only AI tools got the ability to overcome these issues, which occur due to human unconsciousness. (Oswal *et al.,* 2020).This research gap induced the authors to undertake the present study.

1.2 Literature Review

Once, HR was regarded as a personnel department, and its functions were non-strategic and highly tactical. At that time, HR was little more than recruiting employees, providing benefits, handling employee issues, and recording attendance. But now, HR is considered to be a core business function, and talent hunting is one of its important activities. Companies now understand the importance of talent hunting, and so are putting their focus more on it. (Tripathy, 2014). According to Sujatha (2020),Talent hunting is an efficient practice that helps an organization identify and recruit the right candidate and hold the employees to acquire long-term business goals.

In 1956, the term AI was first used by John McCarthy. But the study on it started during World War II by English mathematician Alan. In today's modern world, we can see the usage of artificial intelligence in all the things around us. With the advent of Industry 4.0, a digital transformation can be seen in the organizations' HR department's

recruitment practices (Biliavska *et al.,* 2022). A few of these recruitment practices are discussed below:

*People Analytics:*In this business world, companies operate their business strategies by gathering data from their customers to predict their future behavior. This helps them to take the next step. Similarly, HR professionals can use AI in HR to do people analytics. AI will aid HR in identifying what type of data needs to be tracked, managed, analyzed, and protected. This will help the organizations use innovative ways to attract top talents and survive in the never-ending war for talent. (Ahmed, 2018).

Recruitment and Selection: According to Biliavska *et al.* (2022), today's businesses are trying to incorporate AI technologies in their recruitment process in order to cut costs and save time. CEO of Ideal Corp., Somen Mondal, emphasized that AI has reduced recruitment costs by 71% and tripled recruitment productivity. Besides reducing costs, AI is capable of identifying candidates' data accurately. Midas IT, an AI analytics specialized company, highlighted that interviews that are AI-generated can identify talented candidates almost 82% accurately.

Employee Learning and Development: It has been found that humans don't know how to train people perfectly. Most of the L&D industry's professionals agreed that at least half of the training is wasted as they are inappropriately applied, forgotten, or wasting people's time. Not only this, we individuals don't clearly know what skills and abilities we need to learn to do better in our job. In this regard, AI can play a great role by monitoring and studying the behaviors, skills, and activities of the

highest performers and guiding trainees to be like them. AI will be able to make learning more exciting, beneficial, and effective. (Ahmed, 2018).

1.3 Research Objectives
1. Identify the impact of people analytics on talent hunting.
2. Recognize the effect of recruitment and selection on talent hunting.
3. Examine the influence of employee learning and development on talent hunting.

1.4 Research Model
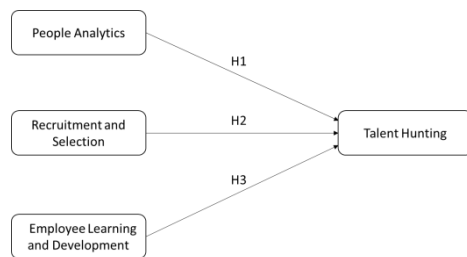
Figure 1. Conceptual Model

1.5 Research Hypothesis
The following hypotheses were established after doing an intensive literature review:

H_1:People analytics has a positive impact on talent hunting.

H_2:Recruitment and selection are positively associated with talent hunting.

H_3:A positive relationship exists between employee learning and development and talent hunting.

2 Methods
2.1 Study Design
The study design has been empirical in nature.

2.2 Study Period

The study has been conducted from February to April 2023.

2.3 Sample Design
To select the study sample, the researchers used the purposive sampling method.

2.4 Data Collection Procedure
For the study, primary data has been collected from three different companies like a bank, a deep-tech start-up, and a digital agency company which have been presented as real-life cases in data analysis. Secondary data was collected from relevant books, journals, and articles from Google Scholar.

2.5 Data Analysis
The case study method has been used for analyzing the collected data.

3 Analysis of Findings
3.1 Company 1- BRAC Bank Limited
BRAC Bank, a leading private commercial bank in Bangladesh, has embraced the use of AI-based platforms in its recruitment process. It has used a USA-based leading AI platform specifically for its Young Leaders' Program. This flagship program aims to identify and onboard talented individuals and nurture them for future leadership roles within the bank. The decision to utilize an AI-driven approach stemmed from its commitment to fostering inclusion and overcoming the challenges associated with traditional recruitment methods. Hosting tests for thousands of candidates has been a logistical and administrative burden for employers. This becomes even more challenging for candidates residing outside of the capital city, Dhaka, as they are required to incur

travel expenses. BRAC Bank recognized these challenges and sought to overcome them by adopting an AI-based approach to testing, thereby enabling greater participation and inclusivity.

In 2022, BRAC Bank successfully administered exams to over 40,000 candidates using this AI-based platform. As of April 2023, during our research, the bank has already assessed more than 50,000 candidates through this innovative approach. The AI-based platform allows BRAC Bank to customize the skillset requirements based on the desired proficiency level, ensuring that candidates are evaluated appropriately for entry-level, intermediate, and other positions. To address the challenge of ensuring integrity, BRAC Bank has capitalized on the platform's capabilities, which include video, audio, recurring images, and window proctoring. This ensures a secure and reliable examination process.

BRAC Bank has been impressively able to conduct tests for up to 40,000 candidates in a single day, with results delivered within 24 hours. These results provide a comprehensive report on the candidates' skills, knowledge, and aptitude levels. Moreover, BRAC Bank has found this AI-based approach particularly beneficial for assessing candidates' practical knowledge in the IT department, as opposed to relying solely on theoretical assessments, as is common practice in many other companies in Bangladesh. However, the bank recognizes that AI may not be as suitable for evaluating candidates for roles beyond entry-level positions at present.

Looking ahead, BRAC Bank envisions utilizing machine learning algorithms to automate repetitive tasks involved in training and development, such as verifying National Identification Cards (NID) and Credit Information Bureau (CIB) records. By doing so, the bank aims to streamline its operations, enhance efficiency, and allocate resources more effectively.

The integration of AI-based platforms in BRAC Bank's recruitment process has ensured greater inclusion for candidates and enabled wider participation. The AI-driven assessments have also enhanced the bank's ability to assess candidates effectively in multiple areas, leading to more accurate evaluations and improved selection outcomes.

3.2 Company 2- Intelligent Machines – Enterprise AI

Intelligent Machines, a Bangladesh-based forward-looking company working in the realm of Artificial Intelligence (AI) and Machine Learning, adopted an AI-based approach in its recruitment process for product engineering posts. This approach was possible because of the seamless integration of two-AI based platforms - (1) Codility and (2) Workera.

Intelligent Machines has been committed to eliminating biases in its recruitment process. Its recruitment test aims to assess the conceptual skills of the candidates, offering an unbiased metric to test their abilities. The company takes two tests of the candidates before making the final selection for cultural assessment. Instead of collecting or reviewing a candidate's CV, it takes the candidates' email addresses and sends them the Codility test link. Codility is an AI-based technical recruitment platform that is used by companies to assess the coding proficiency

of candidates and make hiring decisions based on evident data. The Codility test examines three primary aspects of a candidate:Problem Observation, Problem Breakdown, and Design and Execution of Solution. Its difficulty can be set to medium or hard level too.

The Codility test is used to provide an objective outcome: Pass or Fail. Candidates scoring 90% or higher in the Codility test are sent the next stage's link, which is the Workera test. If a candidate scores below 90% in any one of the three aspects of the Codility test, the candidate isgiven a second chance to take the test. If the candidate is able to score the threshold of 90% or higher in the second Codility,he/she is then sent the Workera test link.

Workera is an AI-based platform that provides skills intelligence to help enterprises comprehend, cultivate, and deploy their talent. This test is a standardized test, like SAT, or GMAT, that acts as a comprehensive evaluation platform. Like a spider web, it branches out to assess six important areas of the candidate's expertise: Machine Learning, Deep Learning, Data Science, Mathematics, Algorithm Coding, and Software Engineering. The Workera test generates a score based on the candidate's performance. The candidates who achieve satisfactory scores on the Workera test progress in the later stage of the recruitment process - cultural assessment.

As Intelligent Machines can sendAI-based assessment links and check against their past standard marks to assess the candidates, the time and effort behind manually checking through CVs and assessing candidates have been heavily

minimized. After adopting AI-based platforms in the technical assessment of candidates, the effectiveness and efficiency in picking out the best-fit candidates for their teams have increased while ensuring zero bias. Thus, it can be said that these AI-based approaches in the recruitment process have saved both time and money of Intelligent Machines and helped them to achieve business efficiency.

3.3 Company 3- A Digital Agency Company

A digital agency company based in Australia and Bangladesh has taken a forward-thinking initiative aimed at reshaping its HR processes. The company has set out to create a comprehensive and user-friendly AI-based platform that empowers organizations to effectively manage their workforce, drive growth, and unleash the full potential of their employees. At the heart of their product lies a strong emphasis on harnessing the power of artificial intelligence.

Its in-house developed product integrates advanced AI technologies into various HR functions, updating how organizations approach talent management. With an AI-based CV sorting system, voice recognition and analysis tools, and video analysis capabilities, the platform offers a suite of innovative features designed to streamline and automate HR processes.

This AI-driven platform enables recruiters to expedite the initial screening process by utilizing AI algorithms to analyze and evaluate resumes. By automating CV sorting, HR professionals can efficiently filter and prioritize candidates based on their qualifications and suitability for

specific roles. In addition, the platform leverages voice recognition and analysis tools to evaluate applicants' confidence levels and choice of words during interviews or communication. It also incorporates video analysis capabilities that assess applicants' postures, gestures, and facial expressions captured in video interviews.

By implementing this innovative AI-based platform, the company aims to transform HR processes, from recruitment to talent management, into a seamless and efficient experience. The integrated features of the platform offer organizations the tools they need to streamline recruitment, enhance candidate assessment, and nurture talent within their workforce.

While the implementation of this AI-driven HR platform is yet to take place, the company is confident in the potential benefits it will bring. These benefits include improved recruitment efficiency, reduced bias in candidate selection, enhanced candidate experience, elevated employee engagement, and overall productivity gains. With the integration of AI technologies, the company is set to have a transformative impact on its HR operations, empowering them to effectively manage their workforce, unlock talent potential, and drive organizational success.

4 Barriers to Collaboration Between AI and HR Practicesin Bangladeshi Companies

We've gathered insights first-hand through personal interviews conducted with the Human Resources department of various leading companies of pharmaceutical, technological, and banking industries in Bangladesh. The objective of these interviews was to explore the challenges faced by organizations when adopting Artificial Intelligence (AI) in their HR practices. The main challenges that we could identify are as follows:

1. The reluctance of companies to embrace AI or similar advanced technologies is one of the most prominent challenges. This hesitation can be attributed to various factors, including a lack of awareness about the potential benefits of AI, concerns about the complexity of implementation, and resistance to change within traditional HR practices.

2. There is a prevailing stigma associated with data sharing among companies in Bangladesh, as organizations fear the potential misuse or unauthorized access to confidential information. They express concerns about sharing sensitive employee and candidate data with third-party agencies or platforms, which is often required when utilizing AI-based solutions.

3. The reliance on foreign companies to acquire AI technology and expertise is another critical challenge. The need to use AI solutions of mainly foreign vendors and potentially customize them to align with specific organizational requirements incurs significant expenses.

4. Companies perceive the expense associated with implementing AI as substantial and often question its return on investment (ROI). They think that the initial costs of

acquiring and customizing AI solutions, as well as the required infrastructure, may be perceived as unfeasible or not commensurate with the anticipated benefits.

5 Discussion

5.1 Recapitulation

The purpose of this study was to identify the collaboration between AI and HR to facilitate talent hunting in different companies in Bangladesh. The study highlighted three real-life case studies to portray the present AI and HR collaboration scenario in Bangladeshi companies. This study covered three different companies: a bank, a deep-tech start-up, and a digital agency company. After a thorough analysis of the case studies, researchers found that these three companies could implement and plan further to use AI tools in their recruitment and selection process only. AI implementation in people analytics is yet to be planned by the companies of Bangladesh, but the companies are on the way to collaborating AI with employee learning and development processes. As a result, only the second hypothesis of our study (H_2: Recruitment and selection are positively associated with talent hunting) can be accepted. The other two hypotheses cannot be accepted as the companies still didn't collaborate AI with people analytics and employee learning and development. Because of that, we cannot confirm whether they (people analytics and employee learning and development) are positively associated with talent hunting or not. This outcome creates concern among researchers about the capability of Bangladeshi companies to collaborate with AI and HR practices efficiently. If needed policy implication is not done, Bangladesh won't be able to survive in this fourth industrial revolution era for too long.

5.2 Policy Implications

The study suggests a few policy implications to overcome the barriers to collaboration between AI and HR in Bangladesh. The suggested policies are:

1. Top management needs to provide the required support to the HR managers so that they get the opportunity to implement AI tools in their HR activities.
2. Provide required training to employers and employees so that they get accustomed to the new AI applications.
3. There needs to be proper empirical evidence regarding the benefits of using AI tools for talent hunting.
4. Properly exercise the Intellectual Property Act in order to maintain the information confidentiality of the companies.

5.3 Limitations

There exist a few limitations in this study. *Firstly*, this study was made based on data collected from a limited number of companies, as most of the companies in Bangladesh still didn't start to use AI. *Secondly*, the companies wanted to keep most of the AI information confidential.*Thirdly*, this study's data was collected from a small number of sample size which has been located in Dhaka city. This makes the implication of the study restricted.

5.4 Directions for Future Research

Based on the findings, data produced, literature review, and references of the existing studies, the following further researchmay be considered:

- Impact of Artificial Intelligence (AI) on human psychology.
- Influencing factors for using AI in talent hunting of Bangladesh.
- Organizational capabilities for providing the required support to apply AI in talent hunting.

6 Concluding Remarks

With AI getting more impactful, the companies of Bangladesh should assess and start implementing AI in HR practices in order to optimize the talent-hunting process. This study shed light on the barriers to collaboration between AI and HR practices in Bangladeshi companies. Based on the barriers, the researchers gave a few policies which, if implemented, can help Bangladeshi companies mitigatetheir existing shortcomings. It is a must for the companies of Bangladesh to start adopting and utilizing the power of AI in HR and be more productive and efficient. This will not only benefit the companies but also will contribute to the goal of Smart Bangladesh. Thiswill advance Bangladesh further in the global arena. So, it is hoped that this study will act as an eye-opener for Bangladeshi companies to design their plans and harness the tremendous power of AI in their HR practices.

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