A Study Artificial Intelligence Is Changing Conscription And Hiring Processes

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Abstract: In today's highly competitive business environment, the ability to collect and analyse accurate data is crucial for the growth and daily operations of any organization. Artificial Intelligence (AI) plays a significant role in enhancing the speed and efficiency with which industries complete tasks. AI has begun to permeate various departments, including Human Resources (HR), Finance, Marketing, and Production. By leveraging AI systems, organizations are able to streamline processes, monitor performance, and optimize day-to-day functions. As business pressures increase, more managers recognize the importance of AI in the workplace. This research paper adopts a descriptive approach, using secondary data sourced from research papers, publications, websites, HR blogs, and survey reports. The primary objective of the study is to explore the role of AI within the HR department and to examine the challenges faced in its implementation. The findings indicate that AI has a profound impact on several HR functions, such as recruitment, hiring, data analysis, and workload management. By incorporating robotics and AI tools, companies can enhance operational efficiency, reduce manual tasks, and improve overall workplace productivity.

Index Terms - Artificial Intelligence, Machine languages, human resource management.

I. INTRODUCTION

Technology is one of the major influential factor in an Industry. Since the 19th century, the role of robot have been replacing employees in production department. In third revolution began in the year of 1970s personal computers and the internet entered into working life and human labour were replaced by the machines. Now a days digital technologies like machine language (ML) and artificial intelligence (AI) both are entering into day to day working at workplace and which will lead transformation in business. "Artificial intelligence is defined as "an ideal intelligent" machine that is flexible agent that perceives its environment and takes actions that maximize its chance of success at some goal." Artificial intelligence is an intelligence that demonstrated by machine, in contrast to the natural intelligence done by humans. Artificial intelligence was coined first time in academics in 1956. Artificial intelligence is helpful in various business functions where it can help to reduce the workload and work pressure on the employees at workplace. Rapid changes in business needs fast response.

With using AI system organization can able to inform the existing performance and day to day function. In business pressure has been increasing, tough managers understood the importance of artificial intelligence at workplace. Now a days artificial intelligence has entering into the overall isystem of an organization and one of the area is human resource department where by using AI system human replaced the human and all functions in human resource department is carried like candidate screening, recruitment, alignment of human resource activates and performance management etc.

Human Resources Management has undergone profound transformations as a result of a diversification of issues related to the HR function and a strengthening of its influence in the strategic decision-making processes of companies. Today, the HR function is moving more and more towards personalizing HR practices that take into account the specificities of each target. The goal is to help managers achieve a better intergenerational collaboration. Human Resources Analysis enables companies to make good use of their "employee" databases in order to make the best decisions and improve their operational performance [1, 2]. At a time when business leaders are preparing for a digital world that is gaining momentum, artificial intelligence based on the "machine learning" technology [3] promises to revolutionize human resources departments at different levels: recruitment, training, management of career, mobility, compensation and benefits in order to attract talent and high potential, treat and evaluate nominations as quickly as possible, check the suitability of the profile and position and predict the candidate's added value for the company, these are the major challenges of any Human Resources Department[4]. One of the most difficult situations of any company that wants to be modern and competitive is to lose one or more of its successful employees to one of its competitors [5]. Thanks to artificial intelligence, HRDs can implement performance indicators of their human capital, based on internal data analysis, cross-referenced with external market data and in particular competition. The results of these analyses will make it Journal homepage: http://ijeecs.iaescore.com ISSN: 2502-4752 □ 33 Indonesian J Elec Eng & Comp Sci possible to map the existing profiles according to each employee's productivity and effectiveness [6-9]. Inspired by the functioning of the human brain, this technology is the subject of a technological boom and it is increasingly bringing about convincing results in the giants of technology (Apple, Facebook, Google, Microsoft ...). The treatment of the data is an intelligence that must be interpreted, mastered to make the best of it. And it is on the basis of this reflection and on its intuition that the HR function will be able to capitalize and to place its function at a higher strategic and decisional level. Some may think that data and algorithms could be a substitute for the intelligence of their decision when in fact; they allow a better expression of this intelligence. It is fundamental to understand that if data becomes unavoidable, it is not independent. All its value lies in the reading and interpretation of this information by human intelligence. Data does not replace the intelligence and courage of HR; it is at their service. HR, supported by the data, has the means to build their future. Challenging ready-made representations and preconceived ideas to induce propositions based on these observations is the challenge that accompanies the taming of data by HR [10].

CONCEPTUAL AI APPLICATION MODEL FOR HRM
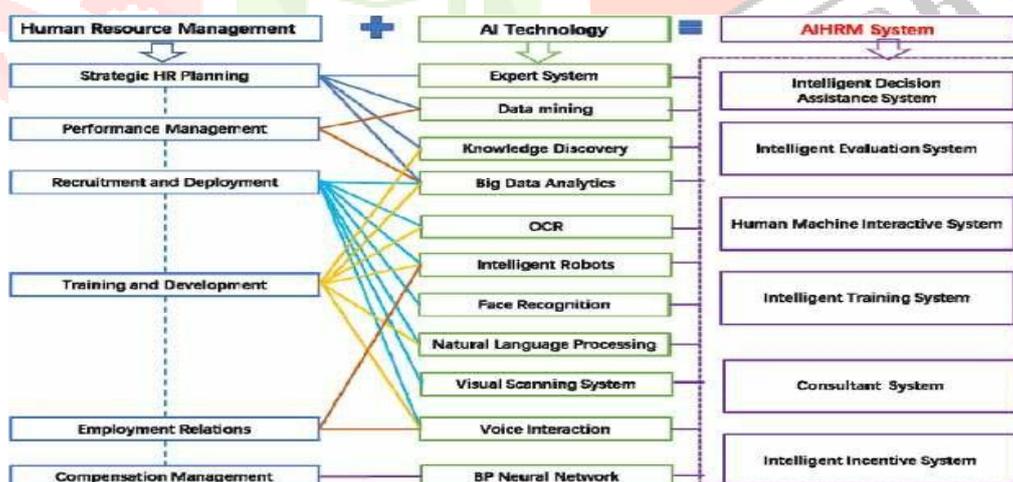
A conceptual model for artificial intelligence application in human resource management.

Human Resources Strategy and Planning

The evaluations of the individuals in the database, as well as proposals for promotion and training, must be used in the HRP process. It's used to make judgments like which staff will be promoted to higher positions, what type of training the person should receive when promoted to a higher position, and what external resources should be employed if the person is unable to advance to a higher level [17]. During the planning phase, quick access to personnel information in the system will guarantee that the HRP process is done efficiently [18].

Recruitment and Deployment

A good staff can be defined as a staff that can do their job properly without any mistakes and according to their job description. In order to do so, they must have proper knowledge and experience. In Universiti Teknologi Malaysia, we have a lot of different post that have different job description. It is important that the staff hired for a particular post to have sufficient knowledge and experience. The combination of excellent academic qualification plus sufficient experience is the key for staff recruitment in this university. A lot of problem will occur if the recruitment process doesn't provide suitable candidates for the post. The worst case scenario is when the university appoints staffs that are not qualified for the post. Although this problem never happen in UTM it is crucial for us to find an alternative method to find the best candidates for recruitment purpose. One of the best methods that we could think of is by applying the Quality Function Deployment, House of Quality as a mechanism to find the best applicant for a post in UTM. While HOQ is famous for its role in product development, we find out that it is also a powerful tool for staff selection. By integrating HOQ in the recruitment process we can actually eliminate the possibilities of appointing wrong person for the wrong post.

Training and Development

Human resource managers focus on the individual training history of employees by tracking the training and trainees' performance in the system. This will determine the type of training needed by different employees and train the employees accordingly [21].

Performance Management

Performance Management deals with the challenge organizations face in defining, measuring and stimulating employee performance with the ultimate goal to improve organizational performance. Thus, Performance Management involves multiple levels of analysis and is clearly linked to the topics studied in strategic HRM as well as performance appraisal. This paper presents a model for Performance Management combining insights from strategic HRM and I/O psychology. The model incorporates multi-level elements, and adds to previous models by explicitly incorporating employee perceptions, the role of direct supervisors and possible reversed causality. Challenges for future research are also presented.

Compensation Management

The system evaluates possible alternative wages using appropriate statistical programs, develops wage plans, determines wage costs from collective bargaining agreements, and prepares budgets for each department [24]. In addition to these, information from other HR features can be used to perform job classifications, display salary types, and determine rates for all departments. Thanks to this system, more accurate wage policies are to be determined through relevant job titles and time-based internal wage surveys [25].

Employee Relationship Management

The definition of employee relationship management (ERM) was originally from the management of labor and capital. After several evolutions, it becomes the critical component of modern human resource management system--Employee Relationship Management. Employee relationship is the sum of management between corporate and its constituencies, especially employee and employer. It is recognized by its cooperation, conflicts in front of the power. At the same time, it will be affected by the certain society's economy, technology, policy and culture. It aims at the study of behaviors of employment. And it emphasizes that the internal relationship should be focused on staff that represents the spirit of teamwork and harmony. So, employee relationship management of SMEs can be defined as small scale economic organizations, compared with large enterprises, establish social relations with employees during the process of production.

Literature Review

(Kapoor, 2010) Researcher has examine the role of business intelligence and its use for human resource management. In this research article, a researcher investigated the leading business intelligence vendor to look into the business intelligence and data analytics features incorporated in human resource management modules.

(Jain, 2018) The research paper identified the role of artificial intelligence in human resource management. The researcher has quoted that most of the companies has been adopting modern technology in various HR process like recruitment process, performance appraisal process, cloud-based HR systems.

(Dirican, 2015) A researcher in his research paper, title "The Impact of Robotics, Artificial Intelligence on Business and Economics" has studied that use of Robotics and Artificial intelligence in business may have

negative impact on the overall functions of an organization like production, performance management, sale, strategic planning, customer relationship management, banking system, coaching, training, taxes etc.

(Buzko, et al., 2016) In paper title, Artificial Intelligence technologies in human resource development. The researchers, ponder on hurdles of AI technologies in human resource area where authors noted that AI not able to identify the effectiveness of training costs. In the research paper authors noted that artificial intelligence technologies facilitate the prompt analysis of data by human.

(R & D, 2018) The research paper title, Recruitment through artificial intelligence: A Conceptual Study. The researchers has narrated the role of AI in recruitment where artificial intelligence is played integral roll in recruitment process. Artificial intelligence helps in screening the candidates, auto-generated messages to candidates, employee's relations, scheduling the interviews etc.

(Jarrahi, 2018) In his researcher paper title, Artificial Intelligence and the Future of work: Human- AI Symbiosis in Organizational Decision Making. The researcher papers talked about the usefulness of AI for human. Artificial intelligence has been supporting in decision making, dealing with uncertainty, and especially equivocality of decision-making in an organization. Still in an industry the role of human is essential and technologies have to depend on human when subconscious decisions are essential to evaluate and facilitate the outcomes of decisions.

(Merlin.P & Jayam.R, 2018) In the research title, Artificial Intelligence in Human Resource Management, the researcher has insight the role of AI in human resource. An Author has concluded that AI is useful in workplace and help to HR professional to understand their working and to identify the problems and trends in advance.

Artificial Intelligence The status quo of artificial intelligence technology can be analyzed from three levels, the basic support layer, the platform framework layer and the domain technology layer (Brooks, 1991).

Platform Framework Layer Internet companies such as Google, Facebook, Microsoft, Baidu and Amazon, as well as universities such as the University of California at Berkeley and the University of Montreal in Canada have launched their own deep learning framework. Advanced deep learning technologies are expected to be applied with a small amount of customization and deployment, greatly reducing the burden on developers and businesses.

Research Methodology

The research study is using the descriptive research design. In the research study the researcher has used secondary data. The secondary data has been collected from research papers, published materials, online websites, HR blogs, and survey reports published by various research organizations.

Role of Artificial Intelligence in HR

Now a days HR department heading towards the digital revolution and using various method to simplify the resources by using big data analysis, artificial intelligence, and cloud computing. (Amla & Malhotra, 2017) Most of the organization has been using artificial intelligence or digital technologies in HR like chatbot, machines learning, and robot process automation in human resource management which support in recruitment, screening, onboarding, and interviewing etc. Following are the role of artificial intelligence in human resource management;

1. Recruitment: - The researcher (Amla & Malhotra, 2017) in his paper defined that only 40 percentages of companies and industries are using artificial intelligence. Organizations like SAT, Facebook, GE are using digital technologies in screening, interview, and identify the new talent for the recruitment process in an organizational. Through AI recruitment manager can examine the application and candidate can get quick response. Chat box system or automated answering machine plays essential role to solve the quires and problems regarding the process of recruitment in an organization.

2. Screening and Interview Process: - Artificial intelligence is helpful in automating the interview process by examining them with word or speech patterns exams. Through Ay software digital interview can take place and AI also helps to improve the candidate experience. Tools like Amy and Clara are used to scheduling interviews, working meetings.

3. Reduce Administrative burden: - In an organization HR have to play multitasking roles where using technology and Artificial intelligence companies try to reduce workload. AI provides solutions of problems and it helps to increase the efficiency of HR in an organization.

4. Selecting: - The researcher (Rajesh, Kandaswamy, & Rakesh, 2018) has examined that through AI human resource manager can able to trace right candidate in short time of span and technology will helps out to identify the suitable candidates as per required skills sets.

5. Reduce Discriminations: - Nowadays, AI is being used to reduce the favoritism and will help to increase the transparency at workplace. In such a way organization can able to select the resume. AI applications can be used to analyze job descriptions (Rathi, 2018).

6. Increase Efficiency: - Artificial Intelligence will helpful to reduce the redundancy of employees at workplace. Various robotic task has been carried out to increase the efficiency at workplace. Robotic task includes collecting data, filing reports, copying data, identifying required data from available data, processing, collecting data for HR and payroll systems etc.

7. Enrich workplace learning: - Now a days, computers and digital technology can do the behind the scenes role in industry. Through computers and modern technology industries can able to manage data analysis and provide real-time feedback during training, alteration of course of actions based on progress and responses which industries got (Riebli, 2018). To save a time companies used Microsoft 365 which helps employees to work and increase the efficiency at workplace. AI tools like Engazify (To Provide feedback), Obie and Niles (For knowledge sharing), Wade&Wendy (For Career advancement), and Duolingo (Learning domain) are used (Amla & Malhotra, 2017).

Benefits of Artificial Intelligence in HR
 1. Reduce the burden on administrative staff in company.
2. It will helps in talent acquisition and identify the right candidates for the job.
3. AI helps to predict the rate of employee retention at workplace.
4. It can overcome the limitations of human and work accordingly
5. The chance of error will be less.
6. It will maintain the workflow in various department.
7. Through AI companies can able to get accurate results. 8. It will increase the employee engagement at workplace.
9. It will minimize the bias behaviour in decision making.

Challenges of Artificial Intelligence in HR
The widespread adoption of Artificial Intelligence (AI) is expected to lead to significant changes in the workforce, including job displacement and a flattening of organizational structures. Many routine tasks in areas such as data analysis, employee relations, recruitment, compensation, and training will be automated, potentially making traditional managerial roles redundant. This shift could result in increased unemployment, especially in low-end jobs, as seen with examples like Foxconn's use of robots and driverless cars. However, while AI reduces the need for manual labor, it also raises costs related to equipment maintenance and increases demand for skilled AI professionals. The shortage of AI talent, particularly those with expertise in core technologies, poses a challenge to its widespread application. Companies must address this talent gap to ensure AI's successful integration. Moreover, AI's growing influence on human resource management is reshaping traditional roles, requiring HR professionals to adapt to more strategic, digital, and data-driven models. As AI excels in information processing but lacks human emotional intelligence and decision-making capabilities, employees will need to develop new skills, with a greater emphasis on value judgment, decision-making, and innovation. In this evolving landscape, the ability to "do the right thing" will become more important than simply "doing things right."

Conclusion

In today's competitive landscape, the industrial sector has experienced significant growth, presenting new challenges, particularly in managing continuous improvement. To increase speed and efficiency in routine tasks, many industries are adopting modern technologies. Researchers and experts alike recommend the use of Artificial Intelligence (AI) and digital tools to optimize operations. AI and machine learning have become integral in the Human Resource (HR) department, where they play a crucial role in recruitment, selection, and hiring processes. Additionally, AI helps in analyzing employee performance, collecting and managing data, providing real-time insights, and delivering accurate information. The implementation of AI in HR is proving to be a game-changer, driving efficiency and enhancing decision-making processes in organizations.

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