

## Strategic Adoption of Artificial Intelligence for Human Resource Management Practices Transforming Healthcare Sector

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### Abstract

The incorporation of Artificial Intelligence (AI) technology into several industries has significantly impacted the usual workflows and processes in recent years, including the healthcare industry. Human Resource Management (HRM) is essential in healthcare businesses as it is responsible for the recruitment, training, and the retention of skilled staff members who are capable of providing high-quality patient care. This paper investigates different methods in which AI is used in HRM in the healthcare industry on the basis of existing research in the area. It analyzes how AI affects recruitment, talent management, workforce optimization, and employee well-being. This paper also discusses the challenges and future prospects of AI-driven approaches in HRM practices. It explores how these approaches are changing the way healthcare organizations operate and improving patient outcomes. The results provide some valuable contributions to the field of artificial intelligence in the healthcare sector. Initially, the paper gives a factual foundation for the current presumptions on the implementation and difficulties of artificial intelligence in the healthcare domain. Further, it shows how artificial intelligence provides numerous opportunities to expedite Human Resource operations by offering automated applicant screening, customized learning systems, optimizing the workforce and enhancing employee engagement. Although AI has the capacity to revolutionize HRM practices in the healthcare industry, it also presents some challenges and obstacles. In order to ensure that AI-driven solutions promote fairness, transparency, and equity, it is crucial to address issues such as algorithmic bias, privacy of data and the impact on the human workforce in a deliberate manner. In addition, healthcare firms need to invest funds for implementing rigorous cyber security measures in order to ensure the privacy of patient and employee data from cyber-attacks and potential breaches.

**Keywords:** Artificial Intelligence, HRM Practices, Healthcare Sector, Human Capital

### 1. Introduction

Artificial intelligence (AI) has emerged as a prominent factor across industries worldwide due to its capacity to automate repetitive operations, enhance decision-making, and boost productivity (Li et al., 2023). It has revolutionized operations in various functional

sectors of healthcare facilities, playing a significant role in today's digital environment. AI is increasingly being used to assist healthcare professionals, such as doctors and nurses, in providing care to patients in various healthcare settings, including in-home care facilities (Khosla et al., 2019) and elderly care facilities (Khosla and Chu, 2013). In Australia, nurse-bots, which are humanoid robots designed to resemble humans, are being employed to assist healthcare professionals. This is in response to the scarcity of healthcare workers. Further, the pandemic has emphasized the continued necessity for organizations to implement AI in the healthcare industry (Cavanagh et al., 2023).

Artificial intelligence (AI) assists physicians in analyzing and managing data, with the goal of reducing the workload and enhancing the standard of patient care and to aid medical professionals in their clinical practice (Liang et al., 2019). As stated by Taylor et al. (2019), upcoming healthcare professionals will be compelled to adjust to emerging technologies such as a part of their job responsibilities. Consequently, these practices are now gaining importance in the healthcare sector to improve effectiveness, innovation, and automation in human resource (HR) functions as they offer innovative opportunities for managing healthcare professionals.

In contemporary environment, the success of modern organizations depends on their workforce - which is their most invaluable resource. Artificial intelligent technologies are exerting a significant influence on various parts of professional lives as it is playing an increasingly important role in streamlining and facilitating various functions of human resource management (HRM). It has been found that artificial intelligence has emerged as a prominent trend in the corporate world, significantly impacting the HR activities of many firms by expediting the process of talent acquisition (Ali et al., 2023). The integration of artificial intelligence into human resource management has been associated with improving the efficiency and efficacy of HR operations. This includes the recruitment and selection process, employee well-being and engagement (Xu et al., 2023).

Through the utilization of machine learning applications, it is possible to enhance the employee experience and optimize organizational operations (Garg et al., 2022). In addition, virtual training assistants powered by artificial intelligence can offer customized instruction to both current and new participants, taking into account their individual requirements and preferred methods of learning (Vrontis et al., 2022). Implementing such strategies can enhance the efficacy of training programs and foster greater employee involvement. Use of AI for improving employee well-being and engagement is also prevalent to enhance productivity and talent retention (Nazareno and Schiff 2021). Hence, it can be asserted that artificial intelligence is a practical way to support HR functions in the context of hospitals as AI technology can enhance healthcare service delivery and boost employee satisfaction when implemented in HR departments.

Furthermore, healthcare organizations are facing a talent shortage and traditional HR methods can be laborious, resource-demanding, and occasionally inadequate in addressing the unique challenges of the healthcare sector (Dwivedi et al., 2021). Thus, artificial intelligence can assist in examining the data related to the performance of employees and detecting the variations and patterns. It can aid in the detection of possible performance problems and offer training and guidance to enhance employee performance (Secinaro et al., 2021). Technological awareness in healthcare facilities has led to the adoption of advanced artificial intelligence systems in HR administration. These systems now do tasks that were previously done by humans, in a complex and demanding medical setting (Pillai, 2023). Therefore, the adoption of artificial intelligence (AI) in the healthcare industry is crucial not only for smooth human resource management, but to mitigate the workload of available staff so that they can efficiently focus on more important functions.

Although globally organizations have implemented technology tools and software to effectively and systematically manage their functional departments, ensuring long-term sustainability but only a few healthcare organizations are currently in the process of adopting these tools (Shahjad et al., 2023; Sharma & Khan, 2022). Previous studies have established a connection between artificial intelligence, and their overall influence on human resources operations in many industries (Secinaro et al., 2021; Vrontis et al., 2022; Trocin et al., 2021). Hence, it is imperative to conduct a thorough and complete investigation that discuss how artificial intelligence can be integrated in the HR operations of healthcare sector to aid the researchers, designers, and HR managers in comprehending the functions of artificial intelligence and formulating ways to effectively handle faults and enhance their functionalities. The primary aim of this paper is to provide guidance to health sector firms on utilizing IA technologies in their HR department to enhance employee engagement and productivity. This paper offers novel perspectives on the modernization and digitization of HRM practices from a theoretical perspective. From a managerial standpoint, it provides healthcare administrators with a valuable instrument to revolutionize their business models and human resource management processes. The conclusion, limitations, and future research direction of this are presented towards the end.

## 2. Literature Review

This section throws light on the basic concept of artificial Intelligence and scholarly literature demonstrating the adoption of artificial intelligence (AI) in the healthcare industry for the effective performance of the human resources (HR) functions. Challenges in the way of AI adoption are also described.

### 2.1. Artificial intelligence

Artificial Intelligence (AI) is a broader term that is generally known as the built-in intelligence of computers and machines. Despite the fact that AI has been discovered several years ago, still individuals are uncertain about the specific concept of AI, prompting them to frequently question its true nature (Kaplan & Haenlein, 2019). AI lacks a precise and fixed definition, and its understanding varies based on the unique context, usages, and degree of intelligence involved. AI is known as a system that can replicate several human abilities, such as problem-solving, interaction, and communication, in order to exhibit intelligent behavior similar to that of a human (Jarrahi, 2018). AI systems are trained to analyze and derive knowledge from external inputs in order to accomplish specified tasks by adjusting to the circumstances (Kaplan & Haenlein, 2019).

The definition of AI requires it to possess both rapid and precise, analytical and problem-solving capabilities, as well as the capacity to imitate and cultivate intelligence that normally human possess, encompassing intellectual, interpersonal, and emotional skills. AI can achieve specific goals either through human support referred as supervised learning or using autonomous machine learning known as unsupervised learning. These learning process involves evaluating massive datasets (Walsh et al., 2019). While most existing types of AI are limited to performing specific activities inside a single domain, they excel at certain tasks, such as pattern recognition, surpassing human capabilities in these areas (Bankins, 2021). Bostrom (2016) divided AI in three categorized.

First is referred as artificial narrow intelligence (ANI) as it excels in executing certain tasks, such as playing chess, poker, providing purchase recommendations, doing web searches, making sales projections, and forecasting weather. The second category comprises of artificial general intelligence (AGI) which is known as human-level AI, possesses the ability to

comprehend and analyze its surroundings in a manner comparable to a human. The most advanced form of AI is artificial super intelligence (ASI) because it surpasses the most exceptional humans in all domains, ranging from scientific innovation to comprehensive expertise and interpersonal abilities. Meskó et al. (2018) emphasized that artificial narrow intelligence might be introduced first in healthcare to leverage its advantage for dealing with voluminous patient data including analysis of patient history and the advanced types of AI can be incorporated in medical practices after thorough understanding of their implications and challenges.

## 2.2. Artificial Intelligence and HR Practices

Artificial intelligence is employed across multiple domains, including HRM, in recent years as a result of a higher need for automation, digitization, and agility in HR procedures. AI has the potential to improve efficiency and to aid decision-making in various HR functions areas such as starting from the talent acquisition to workforce optimization (Bankins, 2021; Hazarika, 2020; Murugesan et al., 2023). Incorporation of AI tools in different functions of HR is shown in Figure 1. The detailed discussion related to each function is provided as follows:

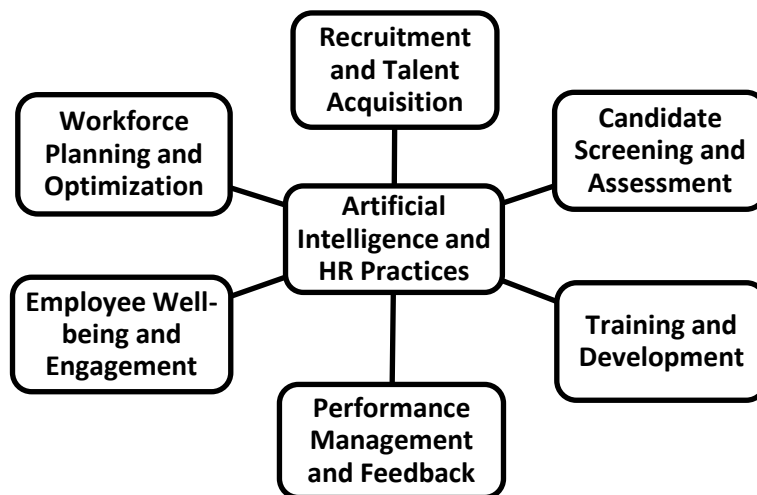


Figure 1. Application of AI to different HR Practices

## 2.3. Recruitment and Talent Acquisition

The integration of AI tools in the recruiting process has altered the job market by providing novel solutions. Since 2018, artificial intelligence has been extensively utilized in the recruitment process of professionals across different firms, eventually becoming a significant trend in the industry (Upadhyay and Khandelwal, 2018). AI-driven recruiting systems and algorithms have proven to be immensely beneficial in professionally picking competent candidates from a wide pool of applicants with diverse profiles as it facilitates the automation of candidate sourcing and search, as well as the pairing of candidates with employers (Sekhri & Cheema, 2019). In addition, the process of reviewing and assessing numerous job applications requires organizations to devote many recruiters, resulting in high costs but digital tools have proven to be highly effective and efficient in such scenarios (van Esch & Black, 2019).

Furthermore, human biases are always bound to be there while AI is fundamentally unbiased and recruit appropriate applicants according to predetermined criteria (Black & van Esch, 2020). Recruitment is witnessing a rise in popularity of AI-powered chat bots. These chat bots have the ability to connect with applicants, respond to their questions at any time of the

day, and facilitate immediate and personalized communication through multiple methods that includes text messaging, email, social media, and online communities (Upadhyay and Handelwal, 2018). Through the utilization of natural language processing, these bots has the capability to comprehend and engage with individuals throughout the recruitment process in a human manner by incorporating contextual terms, shorthand, emotions, and other elements (Nawaz & Gomez, 2019). Thus, employing AI tools can enhance the hiring process by removing limitations associated with time and geography.

#### **2.4. Candidate Screening and Assessment**

Selecting the most appropriate candidate from a large pool of applicants has consistently posed a difficulty. Application of automated screening algorithms can efficiently analyze large volumes of resumes, quickly selecting the most qualified candidates in a significantly shorter period compared to a human recruiter (Gonzalez et al., 2022). These AI-powered assessment systems utilize algorithms of machine learning coupled with natural language processing systems to assess candidates' qualifications, abilities, and compatibility with the requirements of the organization as these systems can assess applicant data and make predictions about which candidates have the potential to assume a specific role.

Moreover, AI-powered solutions have the capability to lessen the administrative workload linked to interview scheduling and coordination, which is sometimes a difficult aspect of the selection process (Johnson et al., 2021) and significantly accelerate this process by optimizing several facets of assessment. Automated interviews, carried out using speech or text-based interfaces, have the capability to evaluate candidates' fitness for particular positions by analyzing their responses, facial expressions, and tone of voice (Langer et al., 2021). Furthermore, the association of predictive analytics models have the capability to forecast candidates' performance and likelihood of staying with the firm, allowing organizations to make final decisions about hiring based on data (Michailidis, 2018). Therefore, the use of AI can be substantial for HR to efficiently select the most suitable candidates within the required time frame.

#### **2.5. Training and Development**

Training and development play equip a competent and well-informed workforce. Regular learning of healthcare workers is crucial to keep up with the latest breakthroughs in medical research and technology (Kaul & Kumar, 2020). The HR department can enhance its operations by improving the employee experience, through promoting employee growth and up-skilling by offering through digital platforms (Reddy et al., 2019). AI algorithms can be used to examine employees' skill sets and area of improvement on the basis of feedback received from patients, and past records of employees (Cristofaro et al., 2022). This information can be employed to provide appropriate learning opportunities that align with evolving business needs.

These technologies provide healthcare workers with up-to-date knowledge and optimal strategies to adapt their learning and enhance the quality of care (Clark, 2020). AI tools can also be utilized to augment learning and development initiatives for employees through the analysis of employee data, to detect areas of knowledge deficiency and provide recommendations for training programs to address these gaps (Fan et al., 2020). These adaptive learning algorithms modify the content, speed, and method of delivering training materials in order to optimize the retention and engagement of learners, resulting in improved skill development and information transfer (Clark, 2020). Individual resourcefulness can aid HR managers in identifying and cultivating a workforce more adept at tackling the challenges of the healthcare industry and improving healthcare outcomes.

## 2.6. Performance Management and Feedback

Technology aid the HR managers in monitoring performance of employees and delivering constant feedback accordingly. Healthcare organizations use AI to track the information about their staff members' performance including patient outcomes, productivity, and adherence to protocols, emphasizing their strengths and areas for improvement employee (Sahlin & Angelis, 2019). Subsequently, this evidence can be utilized to design focused performance enhancement strategies for each individual. AI can be utilized to enhance performance management by analyzing data from diverse sources like electronic records on patient satisfaction and regular assessment of employee performance (Li et al., 2023).

HR managers can easily use this information to provide rewards and acknowledgments to best employees, thereby inspiring others to enhance their own innovative capabilities (Sardi et al., 2020). AI solutions have the capability to offer immediate feedback to employees and pinpoint areas that need improvement, thereby facilitating ongoing professional growth. Adoption of digital technologies improves collaboration and exchange of information between all parties involved, resulting in enhanced organizational performance (Samson & Bhanugopan, 2022). As a result, artificial intelligence significantly influences performance management by providing instant and customized solutions to improve employee performance.

## 2.7. Employee Well-being and Engagement

AI has revolutionized the workplace by enabling employees to work without limitations, such as having the option to work remotely or from home. This flexibility has resulted in increased employee productivity, improved sense of identity, and greater career success (Oosthuizen 2019). The shortage of talent in healthcare has resulted in heightened job requirements, the need for multitasking, and increased performance standards (Meskó et al., 2018). Consequently, individuals are experiencing elevated levels of stress, overload, weariness, and burnout, which have detrimental effects on their emotional, mental, and physical well-being (Johnson et al., 2020). Artificial intelligence has a substantial impact on reducing the workload of employees and enhancing their engagement as by leveraging AI technologies, staff are able to effortlessly complete challenging jobs without the need for significant human exertion (Shaikh et al., 2023).

HR departments are utilizing AI-driven chat bots and virtual assistants to provide customized assistance and employees are not required to physically oversee and manage daily chores that are time-consuming and require a lot of effort so that individuals can concentrate on significant tasks which enhances their engagement in the workplace (Rožman et al., 2023). These tools offer 24/7 access to self-care advice, relaxation methods, and counseling services, which help to foster a healthier and more resilient staff (Malik et al., 2021). It provides employees with additional time to learn about novel practices, enhance their abilities, and further increase their productivity in more dynamic job positions. Therefore, it can be inferred that AI tools boost confidence of employees by enabling them to take autonomous decisions and leading to favorable effects on their emotional, mental, and physical well-being.

## 2.8. Workforce Planning and Optimization

Workforce optimization is crucial for maximizing the efficiency and productivity of an organization's employees. Healthcare firms face a continuous struggle in optimizing personnel numbers to align with patient demand and manage expenditures effectively (Park & Park, 2019). Artificial intelligence algorithms can examine past data on patient volumes, seasonal fluctuations, and other relevant elements to anticipate future staffing demands (Sharma &

Khan, 2022). These algorithms allow firms to optimize labor allocation and maintain sufficient coverage across various departments and shifts by optimizing the allocation of personnel and ensuring sufficient staffing levels to satisfy the demands of patients. AI tools offer the HR department the necessary information to make well-informed decisions and develop strategies that improve the entire employee experience (Rožman et al., 2023).

The HR may also detect recurring trends of subpar performance, frequent absences, and other variables that impact overall productivity. For instance, statistics can uncover that a particular department frequently encounters elevated rates of employee attrition, which may be correlated with specific managerial strategies or working circumstances (Fallucchi et al., 2020). Thus, the HR department can subsequently intervene to resolve these concerns, thereby enhancing workforce performance and mitigating attrition. As workforce optimization encompasses the enhancement of skills and training, the HR department can utilize data to discover the skills that are now in high demand and those that are becoming outdated (Sharma & Khan, 2022). This enables the HR department to align their training activities as per the changing demands of the organization taking into account characteristics such as employee preferences, certifications, and skillsets.

### **3. Challenges in Implementation of AI**

In spite of the numerous advantages offered by artificial intelligence in the effective performance of HR functions, its implementation is still in the nascent stage. Below, we present the major challenges identified from existing literature:

#### **3.1. High Implementation Cost**

The most common challenge in AI adoption is associated with scarcity of monetary and infrastructure. Meskó et al. (2018) specially highlighted that Innovative technologies come at excessively high cost and hence worsening current gap in healthcare advancement for the developing countries who are already far behind in providing medical facilities. Sometimes, organization may invest in innovative technology but the continuous updating and maintenance is itself challenging in this era where technology changes at the speed of light. Hence, for the organizations having less access to resources, mere availability of latest AI technology is not sufficient but it would be relevant if we take into account that the utilization of innovative technology has the potential to be economically advantageous for a long time period.

#### **3.2. Reliability of Outcomes**

The reliability of the results derived from AI is often questioned. Concerns are being raised by different stakeholders about the presence of biases in datasets used to train AI systems, as well as their lack of representation of the broader population. The behavior of AI systems is challenging to analyze and explain, as they are primarily viewed as machines without any discretion of their own. The challenges associated with verifying the outputs of artificial intelligence systems resulted in issues over reliability, openness, and human intervention (Hazarika, 2020). Hence, in order for AI systems to be successfully applied in healthcare for HR management, both HR managers and employees must have confidence in their reliability and trustworthiness.

#### **3.3. Lack of Support from HR Department and Employees**

Another challenge that hinders AI implementation in HR operations is the HR managers and employees themselves. The human mind is generally afraid of adopting changes due to its

constant habit of doing things in old ways. As technology continues to grow, opposition from healthcare administrators is encountered when it comes to implementing novel techniques. It is found that top-level management at healthcare institutes is deterred from applying technological practices to improve HR functions due to their limited awareness, understanding, and experience with them (Shahjad et al., 2023). HR managers are also less inclined to adopt artificial intelligence methods if they perceive a significant level of risk. Similarly, Bankins (2021) pinpointed that employees become hostile to the application of AI tools in some cases due to their fear of losing jobs as a result of automation.

### **3.4. Issues in fixing Responsibility**

The consequences of decisions is attributed naturally to those who made the decisions and, typically, qualified and licensed healthcare providers are responsible for medical decision-making. But the employment of AI decision support systems in medical procedures may impact the responsibilities of healthcare professionals towards their patients. Given the possibility of AI making incorrect conclusions, the legal responsibility for decisions assisted by AI is often unclear (Hazarika, 2020). This is further compounded by the fact that the creation of suitable legal principles and advice often lags behind the rapid advancement of technology. Another fear is that AI could induce a sense of carelessness among healthcare providers, reducing their likelihood of verifying results and questioning faults.

### **3.5. Ethical Concerns**

AI has the capacity to revolutionize organizations by modifying the process of making decisions and reshaping management approaches. However, the growing utilization of AI is causing apprehensions and ethical dilemmas regarding its reliability particularly when AI implementation affects individuals' privacy (Bankins, 2021). For example, the gathering of biometric information, data pertaining to an individual's health and physique of employees is utilized either for selection or assessing their ability to perform certain task. But, the application of AI raises a significant concern regarding breaches of employee data and, compromised fairness and justice in determining the abilities and qualifications for a job. The author also acknowledged the concerns regarding bias and job displacement in order due to adoption of AI in workflows.

## **4. Research Methodology**

This research is purely descriptive in nature and has used secondary resources to arrive at the conclusion. Relevant literature on different aspects discussed in the study is extensively reviewed to present clear and comprehensive details of the researched topic. An examination of extant literature is a fundamental part of any research project. An effectively conducted review establishes a strong foundation for the advancement of knowledge. It facilitates in clarifying the concept, identifying gaps in existing research, and it reveals areas that require more investigation. The use of AI in Human resource management in reference to the healthcare sector is a latest research area, with ongoing research aimed at evaluating the benefits and obstacles associated with its implementation in different HR operations. Nevertheless, there is limited evidence when it comes to HR managers comprehending the inner workings of the AI algorithm and how it aids them in maximizing the advantages of utilizing AI.

A literature review is an effective method to address this issue as it encompasses crucial details on the subject matter and is not restricted to a single search approach, a certain selection

of publications, or a particular geographic region. Present study is organized based on concepts, where the concepts serve as the framework for the study. However, some authors choose an approach that focuses on specific authors and provide a summary of pertinent publications, but this review focuses on the implementation of AI in HR functions in the healthcare sector, and follows a narrative approach to discuss the concept. The chosen literature provides insights on the utilization of AI in HR and its effects on the healthcare sector. It also throws light on the challenges that impede effectively harnessing the capabilities of AI in HR functions.

#### **4.1. Findings & Implications**

This paper has several implications in terms of theory, management, and policy. From a theoretical perspective, it provides fresh perspectives for scholars in the field of healthcare as well as management. The study emphasizes the necessity of reevaluating HRM practices in light of the significant impact of artificial intelligent. It adds to the management discipline by addressing one of the most prominent subjects in the field, which is the modernization and digitalization of HR. Specifically, this paper focuses on the concept of integrating AI technologies into human resources practices in order to shift HR from a supportive function to an operational and strategic tool. The application of AI extends beyond conventional responsibilities like hiring and selecting new employees, managing employee relations through employee well-being, and overseeing performance. Automation and artificial intelligence are crucial for transforming HR and elevating it to a higher standard. This can be achieved by fostering employee development, improving engagement, increasing retention, and ultimately enhancing overall performance of the organization as whole because human resources play a crucial role in coordinating the strategic and operational activities of healthcare businesses to streamline duties and deliver exceptional service.

The empirical research on AI in the healthcare sector is limited and primarily focuses on highlighting pilot projects that have implemented AI and presenting some data on the purported effects of these initiatives. Our work extends the existing knowledge on the effects of AI in the healthcare sector by using a thorough examination of empirical as well as theoretical research to identify the latest trends in AI implementation in HRM of healthcare organizations. Additionally, the issues faced in the successful incorporation of AI are also uncovered. The key objective of healthcare institutions is to reduce the burden of employees by optimizing duties, which can be accomplished by integrating AI algorithms into human resources activities. This principle also extends to the process of attracting and the acquisition of exceptionally talented individuals; which is a crucial metric for all esteemed healthcare organizations. It can only be accomplished by implementing advanced AI software that manages the entire recruiting process, from initial screening to the final selection in the most effective way. Furthermore, the outcomes would be advantageous for addressing significant challenges in the HR domain, including recruitment, training, and employee engagement concerns. The study specifically examines the situation in healthcare organizations, its findings can be applied to elevate the basic functions of HR in the healthcare sector.

Further, this paper serves as a means to integrate several study threads, because it not only contributes to HR in the healthcare sector, but it also adds to the theory examining the opportunities for utilizing AI in HR across industries and challenges associated with its implementation. Practitioners consistently place a high priority on the reduction of costs and the enhancement of organizational performance. Our discussion demonstrates that AI implementation in various HR functions, substantially reduce the workload of not only HR managers but also the workforce by automating the repetitive task. Hence, the number of employees needed for less important tasks automatically diminishes which further lowers the cost and enhances convenience. Again, it is notable that the healthcare jobs which can be automated would be only those either related to regular communication purposes or dealing

with digital information. Because the limited use of AI into the healthcare industry for work automation so far is rather an issue that demand attention. The challenges in the way of adopting AI into medical workflows and systems may be held responsible for the lack of interest in incorporating AI tools.

The existing research in the field of HRM and technology has primarily focused on the practical applications of AI in specific functions and the potential impact of big data on HRM. However, there has been limited exploration of the challenges associated with the use of AI in HR management, with only a few exceptions. This allows for exploration of the potential applications of AI in HR functions and identifying important ways to address any possible drawbacks of AI such as carelessness of HR managers or hindrance in its application, such lack of awareness about the benefits of AI. For example, the descriptive nature of this study limits the application of its findings as it is. Hence, we suggest future researchers to further empirically explore this topic and develop solutions for the complete integration of AI tools into all HR practices.

The fact that AI might lead to job automation and substantial displacement of workers has warranted attention. But it is to be noted although certain tasks can be automated to some extent, but some external factors other than technological advancements, could restrict the employment of AI. These factors include the cost of automation technologies, administrative support, the reliability and acceptance of technical advancements in society. Additionally, it is conceivable that novel employment opportunities will emerge specifically dedicated to collaborating with and advancing AI systems processes. The advent of the Internet of Things has led to a shift in society towards digitization, with an increasing reliance on technology; hence, more empirical studies are required to address the swift technological changes and challenges associated with them. Also, this study has only drawn attention to the challenges in the way of AI implementation; further research can offer comprehensive solutions to these challenges.

## 5. Conclusion

Artificial intelligence is increasingly integrated into our everyday lives, including the healthcare system. As artificial intelligence progresses, its capabilities have the potential to revolutionize the healthcare industry. To maximize the advantages of AI, it is necessary to adopt a well-rounded strategy that promotes transparency, responsibility, encourages innovation, facilitates ethical use to data, and establishes confidence among providers, patients, researchers, and innovators. By examining the past advancements in automation, it is evident that AI will not replace humans but rather redefine their responsibilities and become an essential cognitive aid. Consequently, there is a need for additional information and study in this field.

Considering the wide range and intricacy of the challenges, as well as the dearth of organized and evidence-based research on HR and AI in the healthcare sector, further research should be conducted to broaden our knowledge and enhance our understanding of how organizations can effectively utilize AI to oversee healthcare personnel in the workplace. It is evident that the utilization of artificial intelligence in human resource management requires focused attention to advance both the theoretical and empirical aspects of HRM in this emerging domain. The aim of our study is to enhance the theoretical and conceptual foundation concerning the utilization, execution, and influence of AI on HR in the healthcare sector. Although there are concerns raised about AI implementation, there is a lack of clear guidance on how to optimize the advantages and avoid the drawbacks of using AI in HRM.

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