

# Utilizing Artificial Intelligence to Enhance Employee Experience and Improve Human Resource Management Efficiency: A Performance Analysis of Companies

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## Abstract

*This research aimed to assess the impact of AI in businesses that have implemented the technology to enhance employee satisfaction and optimize HRM efficiency. Design methodology approach: This study adopted a cross-sectional descriptive research design whereby the respondents' data was collected at a single point in time. Participants included 180 international HR professionals working in organizations that have entities in the US, the UAE, and Jordan. Realize the potential benefits of AI for HRM, it is recommended that companies invest in such knowledge and expertise related to the field, integrate these solutions with other existing frameworks and systems without disrupting the process, prioritize data privacy and security, manage changes that the applications might bring to the employees, and seek affordable AI options that are specific to the needs of the human resource department. Enhanced efficiency and satisfaction, need for strategic investment in AI, data privacy and security considerations and cost-effectiveness and tailored solutions. Providing empirical evidence on the impact of AI in HRM across different international contexts, specifically in the US, the UAE, and Jordan. The originality lies in the cross-sectional descriptive design which offers a snapshot of the current state of AI adoption in HRM and its effect and efficiency and employee satisfaction, furthermore, this research is particularly valuable for HR professionals, business leaders, and policymakers seeking to understand the nuances of AI integration in HRM and its implications for the future workforce.*

**Keywords:** Artificial Intelligence (AI), Employee Experience, Human Resource Management (HRM), Challenges.

## Introduction

Nowadays Artificial Intelligence (AI) has become the basis of human resource management (HRM) because of the fierce competition in a corporate environment. AI will have a cataclysmic effect on HRM procedures when it is enabled to replace existing tasks with automation, to improve the performance of the organization through flow optimization, and to avail specialized solutions to HR managers AI also has the depth to create, assess, performance evaluation, and payroll data. The core of the human resources departments may take the decision-making process into their own hands and become more effective and productive by utilizing AI technologies (Garg et al., 2022).

Human resource management departments may achieve budget reductions and deliver customer service quality at its best by automating processes through AI. AI is becoming more prominent in HRM since it can facilitate a business to be effective in terms of human resources, while it will automatically be leading to employee satisfaction. If HR managers pay attention to employee feedback, they will understand better how a work environment feels and what chances they provide for promotion. It provides HR departments with data-based insights on employee engagement and performance, thus contributing to the overall business effectiveness. This allows the HR departments to use automation when it comes to recruiting and that speeds up the filling of the positions with good candidates (Murugesan et al., 2023).

Artificial intelligence (AI) is transforming human resource management (HRM) by providing prospective solutions for automating tedious jobs and improving HR procedures with reduced bias. Yet, there is a lack of study on the use of AI in organizational management, and this causes disruptions to HR practices within firms. Although artificial intelligence (AI) has the potential to save HR managers time and effort, little is

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known about these technologies' effects on worker and organizational productivity. Adopting AI can result in increased productivity, greater work-life integration, and happier employees (Ghosh et al., 2023).

Due to the beneficial effects that effective management plays in achieving many of the desired organizational outcomes, such as providing the organization with the best employees it needs, working to provide them with the skills necessary to carry out work tasks, and motivating them in every way through compensation, human resources management has drawn the attention of both academics and institutions. Incentives, profit-sharing, rewards, and a focus on occupational health and safety are all ways to safeguard employees. Periodic performance reviews can help to spot shortcomings and prevent them in the future. These initiatives are part of the Corporation's plan to meet its institutional objectives soon and establish the Corporation as a leader in its industry. (Al-Azzam, 2021). Therefore, this study aims to analyze the impacts regarding the utilization of AI technologies in Human Resources management, identify the potential outcome and enhancing employee experience within companies.

### *Statement of the Problem*

Since the development of technology and artificial intelligence can affect the role and future of human resources employees, companies have recently begun to get excited about the idea of artificial intelligence, and this is not to reduce the individual's efforts in completing tasks, but rather to complete them with high accuracy and in less time, and this will affect human resources employees in several ways, including: While bringing about changes in roles due to the emergence of artificial intelligence, it will enable employees to focus on other, more strategic duties. By teaching artificial intelligence to perform repetitive and routine jobs, the emergence of artificial intelligence will increase the focus on the interpersonal capabilities of employees in human resources. The ability to analyze data will the analysis and analysis of artificial intelligence is crucial in the human resources sector. Hence the research question appeared: Utilizing Artificial Intelligence to Enhance Employee Experience and Improve Human Resource Management Efficiency: A Performance Analysis of Companies?

### **Objectives of the Study**

- Learn about the best practices that companies can adopt to successfully implement artificial intelligence in human resources operations
- Identify the potential consequences of adopting artificial intelligence in human resources management
- Identify the challenges of applying artificial intelligence in human resources management.
- Identify the impact of using artificial intelligence on employee engagement, satisfaction, and productivity.

### *Definition of Terms*

The researcher employed several phrases that she believed were essential for a precise definition.

The following terms and concepts will be included in this study, which will need a procedural identification of resources:

Synthetic Intelligence: The study of artificial intelligence focuses on computer control.

to surpass humans in certain tasks. According to Popenici & Kerr (2017), it is procedurally described as the department that utilizes the University of Tabuk in all of its administrative tasks to promote effectiveness and efficiency. It is evaluated based on the respondent's score on the intelligence scale, Materials used in this investigation that are synthetic.

### *Administrative Systems*

According to Al-Ahad (2019), administrative systems are defined as certain tasks completed by officials that streamline institutional workflow in an effort to enhance and improve outputs.

This study refers to it as one of the University of Tabuk's information technology systems and illustrates its components, which gather and process data to turn it into knowledge from which users can make decisions.

### *Study's Structural Framework*

Alongside the advent of the scientific and industrial revolutions, the globe saw many rapid developments in several industries. One of these domains was the advancement of science and technology that it had a significant impact on people's lives as well as society, both positively and adversely. The revolution played a part

Artificial intelligence, a product of industrial technology, has permeated every aspect of our lives and has caused a disdain for life in all spheres—not just science, but also humanitarianism, social work, and general society. and frugal. One of the most crucial pillars upon which societies are constructed is education, which in turn helps societies realize their goals. When arranging society's cognitive ability through endeavors like education, Application and knowledge have both accelerated the adoption of artificial intelligence across all domains. (Abu Awad ,2015)

Education means being aware of the quality of higher education and being open to the worldwide system of scientific knowledge. concentrating on how well artificial intelligence can enhance the learning process the use of technology and intelligent systems that rely on artificial intelligence to enhance and streamline human resources management procedures inside businesses is known as artificial intelligence in human resources. In this context, artificial intelligence seeks to enhance the work environment for employees and streamline the day-to-day operations of human resources management. )Saleh,2019)

This includes enhancing several facets of human resource management through the application of artificial intelligence techniques including big data analysis, machine learning, natural language processing, and intelligent robotics. Artificial Intelligence (AI) in HR may expedite hiring procedures, identify qualified applicants, assess worker performance and offer development recommendations, and enhance the work environment for staff members by offering tailored and interactive solutions.

AI in HR seeks to preserve skilled and contented personnel within the company, boost employee productivity and efficiency, and improve administrative procedure efficiency.

However, integrating artificial intelligence into the organization's systems and the human resources department's workflow necessitates strategic planning, which consists of five fundamental stages, as the following passage from the Senior Professional in Human Resources Certificate course (SPHRi) curriculum illustrates: Defining the parameters of the purpose and performing internal and external analyses to identify strengths, weaknesses, and external factors are necessary steps in creating a thorough strategic plan. Then, in order to choose the best course of action, leaders discuss strategic options. Subsequently, the strategy is implemented effectively, plans are put into action, and progress is tracked. (Abu Awad ,2015)

Based on the insights obtained from these assessments, executives select the best strategy for accomplishing organizational objectives. Implementing strategies entails converting plans into concrete actions and closely observing development. Organizations can overcome complexity and achieve sustained growth by carefully implementing their strategic plans. (Bibio,2016).

### *Human Resources and Artificial Intelligence*

How will human resources evolve in the face of artificial intelligence? According to a study, artificial intelligence was found to play a major impact in 64% of candidate hiring and 85% of time savings by human resources departments that use it.

As of right now, artificial intelligence is growing so quickly that many people are concerned that it may eventually replace humans in numerous occupations. Artificial intelligence techniques are utilized in the human resources area for many activities, the most crucial being candidate recruitment. It provides management with precise results, allowing it to determine which candidate is most suited for a position. (Saleh,2019)

It's anticipated that in the future, artificial intelligence will handle hiring decisions entirely by choosing the best and most deserving applicant on its own, free from the intervention of the HR division. Artificial intelligence is predicted to be crucial in data analysis as well as in monitoring employee performance and assessing each person's performance on an individual basis (Al-Shawabkeh,2017)

The growing reliance on artificial intelligence is consistent with the HR industry's broader tendency of embracing technology and technological systems in general. The human resources information system, or HRIS system, is one of the key systems in the process of implementing technology in the human resources sector. It is integrated technical solutions for contemporary human resources management, according to the curriculum of the Senior Professional in Human Resources Certificate course (SPHRi).

A wide range of technologies are available through Human Resource Information Systems (HRIS) to enhance workforce management. Transactions and other modular hubs make it easier to handle administrative duties like payroll and benefits administration while maintaining operational efficiency and regulatory compliance. Organizations can cultivate a culture of growth and development and nurture talent through learning programs and performance management by utilizing development hubs. Furthermore, workforce analytics offers insightful measurements and data-driven decision-making, and planning tools support cost analysis and strategic alignment—two critical components of organizational success. (Fiancée.,2015)

Moreover, self-service features improve productivity and accessibility by making it simple for managers and staff to obtain HR data and make requests. While recruiting modules expedite the hiring process from talent sourcing to retention techniques, the rewards management hub guarantees equitable compensation and recognition. When taken as a whole, these characteristics show how adaptable and successful HRIS is in updating HRM procedures, which promotes organizational performance in the cutthroat business environment of today. (Bibio, 2016).

In addition to reviewing how to use technological advancements to manage all aspects of human resources with high efficiency and smoothness—from recruitment to training and development, benefits and rewards, planning, measurement, evaluation, and work management the curriculum for the Senior Professional in Human Resources Certificate course (SPHRi) addresses the specifics of the HRS:

The use of artificial intelligence and the future of human resources; Because artificial intelligence can currently do a variety of tasks, it might be said to represent a member of the human resources department. You will find more information about these positions in the lines that follow:

#### *Hiring Fresh Staff*

Hiring new staff members is a difficult task. Instead, it necessitates carrying out several tedious, time-consuming procedures and duties. Therefore, to guarantee a higher degree of efficiency, accuracy, and speed, human resources management uses artificial intelligence to conduct a number of activities by automating them. Among the protocols on which the government depends

### *Training and Development*

Artificial intelligence plays a critical role in employee development and training because human resources management uses it to create programs that help employees grow their talents and increase their productivity at work. These programs are created with the needs of the workforce in mind.

In this sense, the application of AI aids in the accomplishment of each worker's objectives related to skill and ability development. After reviewing their resumes, it also assists the human resources department in determining each trainee's needs by giving it the required reports.

### *Examining Resumes*

The Human Resources Department gets a lot of applications from candidates when it posts a job opening, and it can be challenging to take the time and put in the effort to assess each applicant's resume.

This is where artificial intelligence comes into play, quickly reviewing each applicant's resume and presenting the administration with the best fit. This is done in accordance with predetermined standards for choosing applicants, including those related to education, work history, and skill set. Artificial intelligence then assesses the resume based on these parameters. (Al-Azzam ,2021)

### *Giving Employees Instructions*

Artificial intelligence has made the process of orienting and preparing new hires for their first day of work considerably more efficient. This is a routine task that requires time and effort from management. Programs have been set up to help new hires by providing them with guidance on the most crucial work policies, a detailed rundown of the duties that need to be completed, an introduction to the team, and other information. The employee receives a comprehensive explanation from the other about the company he works for. (Bibio,2016).

### *Overseeing Staff Internal Transfers*

Human resources management uses artificial intelligence to track internal employee movements and select the most deserving employee for advancement by using algorithms and programs built on artificial intelligence and specific performance standards.

It is also possible to determine which workers are the happiest, least happy, and most inclined to quit at any time from their positions using this information.

### *Encouraging Dialogue*

Artificial intelligence technologies have facilitated communication with prospective employees on the external front. The company has also enabled communication via chat bots, which send out automated emails to each candidate with the necessary information about the job and the company.

Communicating with artificial intelligence technology on the outside aids human resources management in creating the necessary policies based on the data at hand.

### *Artificial Intelligence Applications in Human Resources*

The Human Resources Department employs a variety of tools that help it complete jobs more quickly, effectively, and with less effort. Find out which applications are most frequently used:

### *Performance Management Applications*

There are many applications dedicated to employee performance management that analyze the performance of each employee in the roles he performs, in addition to assessing the level and tracking the goals that each employee works towards.

The most popular applications currently used to manage employee performance are the 15Five application and the Reflective application.

### *Recruitment Applications*

These applications aim to facilitate the recruitment procedures for candidates by examining the data of each candidate in the CV according to the specified criteria, in addition to tracking the recruitment steps, in addition to using these applications to organize appointments for personal interviews.

The most popular applications used to recruit employees are Ideal and HireVue.

### *Development and Training Applications*

Human Resources Management relies on these applications to provide employees with training courses that meet their needs in developing their skills and abilities, and provides a customized training course for each employee. The most famous of these applications are NoVo Ed and Ed Cast.

### *Diversity and Inclusion Applications*

These applications help implement the principle of equal opportunities among candidates to achieve neutrality between them, regardless of their different cultures, genders, or ethnicities. They do this by ignoring and deleting unwanted candidate data, such as race or gender, after examining the data.

One of the most famous of these applications is the GapJumpers application.

The impact of artificial intelligence on human resources

We conclude from the above that artificial intelligence has the following advantages for human resources:

#### *Save Time and Effort*

Artificial intelligence performs many routine tasks that take a long time from human resources, such as examining resumes and organizing interviews with candidates. This saving of time and effort helps management accomplish other tasks that require a degree of focus, such as strategic planning.

#### *Forecasting Employee Conditions*

Human Resources relies on artificial intelligence to evaluate employee data. Through this analysis, the Human Resources Department identifies employees who are likely to leave work and then begins to solve this problem. Therefore, artificial intelligence helps maintain the presence of employees.

#### *Customized Training for Each Employee*

According to the skills needs of each employee, artificial intelligence works to provide customized training programs for each employee that help him meet his requirements, and this results in raising the efficiency of employee performance.

### *Recruiting the Best Candidates*

Artificial intelligence contributes vitally to selecting the appropriate and best candidate for the job, by analyzing the data of each employee in the CV and matching this data with the criteria for selecting candidates in terms of skills and experience.

### *Analyzing Employee Performance*

Artificial intelligence analyzes the performance of employees, through which it identifies weak points that require improvement in skills, experience, and knowledge, and then provides the employee with the training programs he needs in order to improve his performance.

In exchange, we can take advantage of artificial intelligence's sophisticated analytical capabilities to look at data and information related to human resources in order to spot trends and patterns as well as factors that affect employee performance and training needs. We can be sure that the human element is indispensable despite all the applications of artificial intelligence that have already taken off and will continue to do so. This enhances the HRM decision-making process, and when applied, AI can save expenses and conserve resources. (Al-Azzam ,2021)

### *Review of Related Literature Review of Related Studies*

Nawaz et al (2024)`s study explores the impact of Artificial Intelligence (AI) on Human Resources Management Practices. By concentrating on important results including precision, automation, processing power and capacity, real-time experience, personalization, and cost and time savings. The purpose of the study is to determine the possible advantages of adopting AI. 274 IT workers in Chennai City provided information for this well-structured online survey. The researcher proposes the research framework anew and employs the analysis tools such as; IBM SPSS version 21 and AMOS version 21. The results revealed the fact, for all intents and purposes similar to the observations of prior researchers: automation as well as real-time experience do not have any impact on time- and cost-savings but factors such as precision, computing power and capacity, and customization do. It is relevant to note that this study is important as it analyses the specific impact of deploying AI in the execution of HRM practices. Through an emphasis on crucial factors like Precision, Automation, Processing Power & Capacity, Instantaneous Experience, Customization, and Time-Saving & Economic Saving, the study offers a thorough grasp of the anticipated results when integrating AI into HRM and the connections between those result variables.

Imron et al (2024)`s study aimed to ascertain how AI VR is applied or adapted in the workplace for human resource development, as well as how development is aided and how it is used to increase productivity, particularly in the power plant company PT PLN Indonesia Power Suralaya in the province of Bangten. In order to successfully implement AI VR for HR development, a descriptive qualitative methodology using a phenomenological approach is employed to explain the application's utilization, including the use of design and AI VR procedures. The basis for the development of this work was derived from credible national and international magazines. Employee training modules vary as a result of the modification, depending on their particular skill levels, job titles, work levels, and required competences. After then, the AI technology can pair up new projects with workers who have gone through the same training.

Murugesan et al (2023)`s study aimed to identify the roles that artificial intelligence (AI) played in HR digitalization and Industry 4.0 practices. 271 HR experts from the fields of manufacturing, administration, and information technology (IT) were chosen to take part in the review, which focused on three aspects of HR readiness and five AI applications in HR capability. Analysis of Moment Structures (AMOS) and the Statistical Package for Social Sciences (SPSS) program were used to investigate the gathered data. The findings showed that studying hierarchical organizations is essential to achieving sustainable growth. All five of the AI application areas of HR support both human asset capabilities and adaptability. Improvements in safety and well-being were seen as essential elements of the AI application in HR.

Syed et al (2023) study's objective is to create an automated system for gauging job happiness, but it makes use of an enhanced neural network approach. Numerous factors are taken into consideration when performing the data analysis, such as the total number of employees, the total number of employees by industry, the total number of employees by income range (lower, moderate, and greater), the total number of employees by department, and the wage range. The salient features, including the level of comfort, the number of events, the most recent evaluation, the average number of hours worked each month, and employees with somewhat more than ten years of service, are highlighted. The Genetic Algorithm is employed as an enhancement technique to raise the caliber of traits. By providing the best attributes as input data, artificial neural networks are used to predict employee satisfaction levels. The improvement in accuracy, recall, and F-measure of the proposed work has recently been analyzed, in that order.

Wang et al.'s (2023) study employed a multivariable linear regression model to investigate the relationship between AI technology and employee responsibility variation. To enhance the reliability of the study results, the following methods were also used: The analysis of the validity of alternative indicators and the propensity score matching technique. Based on the hypothesis It was found that the effect of AI technology on employees is negative and they are less accountable for their work, the cost of supervision partially mediates the relationship between the two variables. Moreover, while the degree of the product market competition, where this company operates, increases, the inverse relationship between the application of AI technology and involving employee responsibilities weakens. These results signify that this relationship is more widely portrayed in the business entities that are fully owned by the government rather than in the business entities owned by the private sector. Furthermore, enlightenment was also made as regards the application of AI technology and that of employees' responsibility in the elevation of business productivity. Employee responsibility demonstrates a significant positive effect on the output and efficiency of innovation, while AI technology does not show the significant and positive effect that is necessary for increasing the output of innovations.

The purpose of Sofia et al. (2024) was to review the recent practice and research concerning how AI can advance professional competencies and to uncover the solutions to emerging challenges. There is a gap in the literature concerning the impact of AI on human skills and knowledge in workplaces which has been addressed through a narrative review. Using state-of-the-art studies of how a given type of AI will affect the skill requirements and the nature of work in the future, this work contributes to the existing knowledge in the field. It does this by pointing out the importance of transversal skills stressing what it takes to help employees overcome the challenges of upskilling and reskilling; and identifying strategies that can help organizations. In this case, the authors discern that the implementation of AI in organizations is marked by the simultaneous adoption of multiple organizational methods. Before it is possible to explore how such a gap might be closed currently then, it is first necessary to identify the cross-sector competencies that employees need. Second, organizational members can help employees determine the competencies that are required in the implementation of AI systems, improving the existing competencies as well as acquiring new ones. The results also show that businesses have mechanisms in place to ensure that the employee's mental attitude on AI required to be positive and fairly ready for changes in labor market and related issues; where such provisions for ad-hoc training and development are not existing, then such can be introduced for the purpose as a part of necessary measures.

The Tyagi et al. (2023) study shed light on the state of AI and machine learning (ML) awareness today and their implications for the HR sector. This study attempted to explain how AI is used in the modern world and how it affects HRM within businesses. Pie charts, bar charts, and histograms have all been used to aid segregate results and interpretations in order to understand the full potential of AI and ML in HRM. A number of commonly asked issues have been addressed, and opinions on particular topics have also been obtained from a sample of the public. According to the study's findings, HR professionals believe that analytics, attendance, hiring, attendance management, and payroll/compensation offer the most opportunities. AI will greatly broaden the HR industry. Human resources experts must think outside their role.

AlQahtani's (2023) study looked into the benefits and drawbacks of using artificial intelligence to the human resources domain. Many groups participated in the interviews that were used to gather the data. There were



540 employees in the sample, representing a range of roles. According to the findings, more than 56.16% of the participants had previously used AI services. 40% of respondents highlighted that skill development for the age of artificial intelligence includes analytical thinking, data-driven decision-making, as well as programming. From among the responses provided in the survey, the above factors received the highest incidence. In addition, according to the responses, across years one to three, respondents were asked about the importance of intensive skill courses, and 55.44% of the participants agreed. In addition, 56% of the participants highlighted concerns regarding morality and human values, as well as awareness of the skills that may not be impeccable. To enhance the strategies that are used in managing human resources, the study recommended that businesses should ensure that they have reached a certain standard regarding the utilization of artificial intelligence in the field, and the employees should be on the knowledge and practices concerning this technology.

The study by Nadhiya et al. (2023) proceeded with purely literature-based approach to analyze potential advantages and limitations of AI implementation in HRM. The increased interest in AI-based HRM practices in the last decade has brought joy to the new 10-year wave of research on the impact of the adoption of AI on business and people's outcomes and the assessment of AI-based HRM practices. The integration of these technologies has changed the structure of how businesses operate. Artificial Intelligence has the ability to drastically alter our way of life and work. AI presents benefits as well as challenges for HRM. HR professionals of today are primarily concerned with optimizing the interplay between human and automated labor to create a clear, intelligible work environment that affords sufficient time for employees to enhance their performance. The real issue at hand is how each HR department is going to retrain and reshape its workforce to understand AI, work together, and communicate with AI and cutting edge machinery in order to maximize productivity.

The study conducted by Vrontis et al. (2022) examined the effects of modern technologies, robots, and artificial intelligence (AI) on human resource management (HRM). The study emphasized how those technologies have changed HRM procedures, especially in the areas of e-training and e-recruitment. It highlighted the complexity of the research and went into detail on the entry of new players, such as social robots, in HRM practices. The emphasis was on intelligent automation strategies for the business and the workers, evaluating the pros and cons in the short- and long-term. It was investigated how traditional HRM gave way to technology-driven HRM. To guarantee that the studies that were retrieved were relevant, the study used improved search methods. The results showed that businesses were implementing e-recruitment platforms to improve efficiency, affordability, and visibility. Even though technology had benefits, its effects varied depending on the business and type of work. It was highlighted that human skills and robotic technologies must be combined in HRM, and that technology should be used to support making choices rather than substitute for HR specialists.

The study carried out by Pan et al. (2022) aimed to furnish empirical proof for the validity of the TOE model and its extension through its integration with the transaction cost theory. The study also aimed to accomplish several theoretical advancements concerning high-tech HRM instruments. The study discovered that technical efficiency positively impacted the usage of artificial intelligence in the organizational environment under discussion. The study found that the adoption of AI in staff recruitment was influenced by a variety of contextual factors related to technology, organizations, and environment. These connections were shown to be partially modified by transaction costs. In order to comprehend the antecedents and boundary conditions for the application of artificial intelligence in hiring, the study also created and evaluated an empirical model. Findings from China showed that the application of artificial intelligence was directly impacted by several aspects of the organizational, technological, and environmental contexts. The research underscored the importance of governmental backing and associated technology assets in fostering the uptake of artificial intelligence.

In the study by El-Menawy & Abdelaziz (2022), the authors aimed to explore the perceptions of HR staff members regarding gamification (GF) and artificial intelligence (AI) in terms of human resource management practices (HRMP). Additionally, there is an opportunity to focus on the influence of gamification and artificial intelligence on the JOBINS of workers. The research being quantitative employed data analysis as its research application. A total of 450 individuals responded to the survey being conducted

for this study, but the survey was only administered to a subgroup of 400 participants due to certain inclusion criteria. The respondents belong to the human resources departments in various sectors. To evaluate the study hypotheses, the methods that have been used included: regression analysis and correlation. In terms of human factors, the research results stressed that the integrated adoption of gamified elements and artificial intelligence dramatically minimized employees' perceived job insecurity. Moreover, the inclusion of AI in the training and/or the development process of an organization may go a long way in ensuring that the staff members spend less time in searching for and, or, selecting the most suitable applicant. It may also assist the individual to improve productivity since they can focus on the training instead of peripheral tasks. Furthermore, the use of GF to approach and organize the HRMPs (human resource management practices) may promote increased participation and incentives among the workers.

The study by Palos-Sánchez et al. (2022) aimed to perform a bibliometric analysis of the scientific papers considering the application and consequences of AI in the subject area of human resource management in a linked manner. The databases used were Web of Science and Scopus; these gave a total of 156 articles initially that were reduced to seventy-three for further analysis. The Bibliometrix program was utilized to process the data, offering insights into annual production, journal analysis, authors, documents, keywords, and more. The findings demonstrate that AI applied to HRM is a rapidly expanding field of study with a promising future. However, it should be noted that the field is highly specialized because the majority of research focuses on using AI in recruitment and selection processes, ignoring other subfields with significant application potential.

The focus of Aldulaimi et al.'s (2021) study was on the artificial intelligence dimensions that are reflected in technological skills, automation, and expert systems in order to boost the effectiveness of hiring and selecting human resources workers. Owing to the nature of the research, a qualitative methodology was determined to be more suitable for achieving the study's goals. As a result, a sample of twenty-five human resources management specialists from Zain Telecom Company in the Kingdom of Bahrain participated in semi-structured interviews. According to the findings, artificial intelligence (AI) technology has proven to be highly effective at Zain Telecom Company. It also plays a positive qualitative role in enhancing the efficacy of hiring and selection processes at an entrepreneurial organization that operates in Bahrain (i.e., Zain Telecom Company) by leveraging its technological skills, automation, and expert systems. The conclusion is that AI can help the world of scouts to improve the ability procurement through moving some long-term processes and eradicating such unnecessary tasks as construction and screening of the candidates, thus optimizing the hiring processes, and eradicating biases of people.

The research by Johansson & Herranen (2019) aimed at analyzing the evident impact of technological advancements, specifically AI, on the hiring process. It attempts to look into areas where artificial intelligence (AI) can be used in the conventional hiring process to potentially improve it and what the consequences would be of doing so. This thesis employs a qualitative research design utilizing semi-structured interviews with eight global multinational corporations. It is interpreted using an inductive research methodology and the interpretivism research philosophy. The findings indicate that the use of AI in hiring is still in its infancy and that few businesses fully integrate AI into their hiring procedure. The best areas to integrate AI into traditional recruitment are the elements that deal with pre-selection, candidate communication, and informing applicants of their results. The primary advantages of AI were seen to be the accelerated quality and removal of repetitive jobs, while the primary obstacle was thought to be the organizations' general preparedness for new technology.

The study (Alazzam 2022) aimed to identify the role of artificial intelligence in raising the efficiency of administrative systems, Human Resources Department at the University of Tabuk. The study tool consisted of (66) items to measure the effectiveness of the program based on artificial intelligence in raising the efficiency of administrative systems for human resources management at the University of Tabuk. Results presented in the study: There are no statistically significant differences ( $\alpha=7.70$ ) in the study tool due to the variables, The study (gender, educational level, number of years of experience) has a significance level of (7.70) and is blind. In light of the study results, the researcher recommended several recommendations It is necessary to conduct more studies on artificial intelligence and its relationship to the efficiency of

administrative systems, Human resources management to include larger samples of universities throughout the Kingdom.

This study (Al Shawabka,2017) aimed to identify the role of artificial intelligence applications (expert systems) in making administrative decisions in Saudi banks operating in Taif Governorate. To achieve the objectives of the study, the researcher designed a questionnaire that included (28) items to collect primary information from the study sample consisting of (83) employees. The study reached a set of results, the most important of which are: - All dimensions of the independent variable for artificial intelligence applications “expert systems” (suitability of the system, training and development, the smart program used, and the security system) were high. Suitability of the system, the training and development process, and the effectiveness of the smart program used and the security system. Recommendations: Focus on selecting the people to be appointed based on their scientific and practical experience in the field of information systems in general and expert systems in particular. 2. Training employees and enhancing their administrative and technical expertise by holding training courses on best practical practices to benefit from the outputs of expert systems existing in banks. The necessity of paying attention to the applications of artificial intelligence (expert systems) in its various four dimensions through continuous training and development of employees with the aim of improving administrative decision-making.

The discursive study (2015) aimed to reveal the degree of satisfaction among academic leaders with the application of electronic management and its relationship to the quality of performance in Jordanian public universities in the northern governorates. The results of the study showed that academic leaders in Jordanian public universities in the northern governorates were highly satisfied with the application of electronic administration, and that there was a positive, statistically significant relationship in Jordanian public universities with the application of electronic administration and the quality of performance. The results also showed that the use of electronic management greatly increases the effectiveness and efficiency of job performance, by working to speed up completion, raise employee productivity, speed and accuracy of delivering instructions, and save time and effort. In light of these results, the researcher made several recommendations, the most important of which were: allocating financial expenditures to support electronic management through device maintenance, hiring specialized trainers with experience to train workers on applying the electronic work mechanism, and constantly following up on developing and updating the infrastructure of devices, programs, and networks to ensure its suitability to implement electronic management.

### *Chapter 3 Methodology*

#### *Research Design*

The study utilized a descriptive research design that follows a cross-sectional approach. Because the research methodology enables the collecting of data from a wide population at a precise point in time, it is suitable for examining the influence of AI on the digitization of human resources in Industry 4.0.

#### *Research Instrument*

A questionnaire was selected because the research technique because it is an efficient way to gather information from many participants. The questionnaire's organized format guarantees data collecting uniformity and makes quantitative analysis easier. It is also regarded as one of the most extensively utilized instruments and techniques for gathering and acquiring data and information from people.

The questionnaire was divided into five sections:

- Demographic characteristics
- Artificial Intelligence applications

- Employee Experience
- Human Resource Management Efficiency
- Challenges of applying artificial intelligence techniques in human resources management in companies

Participants were able to express how much they agreed or disagreed with particular assertions by answering questions on a five-point Likert scale (Strongly disagree, disagree, neutral, agree, strongly agree).

#### *Validation of Instrument*

The Cronbach's alpha coefficient was calculated to verify the validity of the study tool, and it was found that the value of the reliability coefficient Alpha was greater than 0.72 for all axes of the study tool, which is the accepted standard ratio (Church, 1993). All reliability ratios were high, with reliability values ranging between 0.602 and 0.759. This confirms the validity and relevance of the study tool statements and the high level of reliability of the tool used in the study.

#### *Sampling Procedure*

The research employed a basic random sampling technique to choose participants from the study population, which comprised human resource management officials and employees of multinational corporations located in the United States, Jordan, and the United Emirates. In order to guarantee representation, a random selection process was employed, given the challenge of doing an exhaustive inventory of every member of the population.

#### *Locale of Study*

Multinational companies with headquarters in Jordan, the United Arab Emirates, and the United States of America participated in the study. These locations were picked in order to offer a varied sample of businesses from various geographical areas.

#### *Respondent of the Study*

180 employees from the selected multinational corporations, both Arab and international, who were knowledgeable and experienced with the effects of artificial intelligence technologies on worker satisfaction and the effectiveness of human resource management, made up the participants.

#### *Data Collection Procedure*

The link to the questionnaire was sent via email and the WhatsApp application to the companies. The participants received comprehensive instructions on how to fill out the questionnaire, along with a deadline for submitting their answers. The survey or online form used for the questionnaire made it convenient for people to respond.

#### *Data Analysis*

The collected data will be analyzed using Spss 28. Descriptive statistics, such as frequencies, percentages, means, and standard deviations, in addition to regression analysis were employed to examine the relationships between variables.

#### *Ethical Consideration*

The researcher ensured that ethical considerations were taken throughout the entire investigation. The participants were informed of the purpose of the study, the voluntary nature of their participation, and the

confidentiality of their responses. All participants provided informed consent, and their identities will remain confidential. The study conforms to ethical guidelines and legal requirements to protect the rights and welfare of participants.

#### Chapter 4

#### Data Representation

**Table 1. Demographic Characteristics**

Demographic characteristics		Frequency (N)	Percent %
<b>Age</b> .1	Less than 30 years ·	34	18.89%
	30 - 39 years ·	65	36.11%
	40 - 49 years ·	35	19.44%
	50 years and over ·	46	25.56%
<b>Gender</b> .2	Male ·	105	58.33
	Female ·	75	41.67%
<b>Educational level</b> .3	Bachelor's degree ·	145	80.56%
	Master's degree ·	25	13.89%
	Doctoral degree ·	10	5.56%
<b>Job Position</b> .4	Entry-level employee ·	45	25%
	Manager ·	56	31.11%
	Supervisor ·	64	35.56%
	Executive ·	15	8.33%
<b>Years of Experience</b> .5	Less than 1 year ·	3	1.67%
	1-3 years ·	48	26.67%
	4-6 years ·	63	35%
	7- 10 years ·	43	23.89%
	More than 10 years ·	23	12.78%

Table 1 summarizes the demographics of the study's participants. The data reveals information about the distribution of participants depending on age, gender, educational level, work position, and years of experience.

Most participants (36.11%) were between the ages of 30 and 39. Participants over the age of 50 made up the second largest group, accounting for 25.56%. Those under 30 and those aged 40 to 49 made up 18.89% and 19.44% of the sample, respectively.

Gender distribution among participants revealed a small majority of males (58.33%), with females representing 41.67% of the sample.

In terms of education, the majority of participants (80.56%) had a Bachelor's degree. Participants with a Master's degree and a Doctoral degree made up 13.89% and 5.56%, respectively.

Examining employment positions, participants were assigned to various responsibilities within organizations. Entry-level employees accounted for 25% of the sample, followed by managers (31.11%), supervisors (35.56%), and executives (8.33%).

The proportion of participants according to years of experience found that the largest group had 4-6 years of experience, accounting for 35% of the sample. Participants with 7-10 years of experience represented

23.89%, while those with 1-3 years and more than 10 years of experience made up 26.67% and 12.78%, respectively. Particularly, just 1.67% of the participants had less than one year of experience.

**Table 2. Artificial Intelligence Applications**

No	Statements	Mean (M)	SD	Level of agreement
1	Artificial intelligence is used to automate repetitive administrative tasks in an organization.	3.506	0.729	High
2	Artificial intelligence-powered chatbots are available to assist employees with HR-related queries.	3.279	0.881	Moderate
3	Artificial intelligence is used to personalize employee experiences and provide tailored recommendations for career development.	3.512	0.635	High
4	The company utilizes artificial intelligence for predictive analytics in workforce planning and talent management.	3.669	0.496	High
5	Artificial intelligence is utilized to enhance the accuracy and fairness of recruitment and selection processes.	3.552	0.642	High
6	The company utilizes artificial intelligence algorithms to analyze employee data and generate insights for decision-making.	3.506	0.729	High

The responses of participants about the use of artificial intelligence (AI) in several facets of human resource management are shown in Table 2. First, participants expressed strong agreement ( $M = 3.506$ ,  $SD = 0.729$ ) that AI is utilized in businesses to automate tedious administrative duties. This implies that a large number of businesses have adopted AI technologies to optimize and streamline administrative procedures, lowering labor costs and raising productivity.

Second, a moderate degree of agreement was found about the employment of AI-powered chatbots to help employees with HR-related inquiries ( $M = 3.279$ ,  $SD = 0.881$ ). This implies that while some firms have adopted the use of chatbots, it is possible that it can still be useful and effective for them.

Thirdly, the response was quite moderate and the mean ( $M$ ) of the response was obtained as 3.512,  $SD = 0.635$ . This involved the participants and how they demonstrated AI was applied to human experience in the workers' company and rendering of specific advisory services to the career paths of their labor force. This implies that organizations are being lax on using the AI technology to make ensure that the staff members they are training are offered unique training and an opportunity to grow and develop in a way that will suit them best.

Furthermore, the participants rated high their perceived social support; more specifically,  $M = 3.669$ ,  $SD = 0.496$ ). The data supports of the statement that organizations apply AI for predictive analytics in personnel management and workforce planning. They reveal that companies are employing AI applications and analysis to forecast future shortages of labor or employment demand and supply, to plan better and more effectively.

Moreover, the analysis of the participants' response indicated that those participants had a high level of agreement on the average scale ( $M = 3.552$ ,  $SD = 0.642$ ) which provides a optimistic outlook towards the improvement of the deficiency of bias and the precision in selection and hiring and selection. This proves that organizations are turning to artificial intelligence technologies to eliminate bias improve the quality of candidate assessments and provide fair and equal treatment throughout the hiring process.

Finally, there was a moderate level of perceived agreement ( $M = 3.506$ ,  $SD = 0.862$ ) (Page 729) that information on AI algorithms employed by their organizations to analyze data related to their employees for decision-making was provided. This indicates that the departments of businesses are using AI technologies to gather insightful information from employee data to help businesses make sound decisions in many of the employee-related procedures.

**Table 3. Employee Experience**

No	Statements	Mean (M)	SD	Level of agreement
1	AI-powered tools and platforms have improved the efficiency and speed of accessing relevant information and resources for work.	3.314	0.862	Moderate
2	The use of AI technologies has improved the timeliness and effectiveness of communication within the organization.	3.698	0.553	High
3	The utilization of artificial intelligence has improved the accuracy and efficiency of our employee scheduling and workforce management processes.	3.628	0.508	High
4	AI-driven personalization has improved the relevance and effectiveness of learning and development opportunities provided by the company.	3.384	0.744	Moderate
5	AI-powered chatbots have helped address HR-related queries about employees and provide prompt assistance.	3.169	0.810	Moderate
6	Artificial Intelligence has contributed to a better understanding of employee needs and preferences, leading to more personalized employee engagement initiatives.	3.438	0.695	Moderate
7	Artificial Intelligence has enhanced the accuracy and effectiveness of performance evaluations and feedback received from my supervisors.	3.314	0.862	Moderate

Table 3 shows participants' answers about how artificial intelligence (AI) has impacted the work experience in their companies. First, participants ( $M = 3.314$ ,  $SD = 0.862$ ) moderately agreed that AI-powered tools and platforms had increased the speed and efficiency of finding work-related information and resources.

Second, participants' answers about applying AI technology in the improvement of the speed and efficiency of internal communication were also quite high ( $M = 3.698$ ,  $SD = 0.553$ ). This shows that there is an improvement in communication platforms or what passes as communication tools that are based on artificial intelligence so that communication processes get boosted in terms of their effectiveness and efficiency from the side of companies.

Third, participants reported a high level of acceptance ( $M = 3.628$ ,  $SD = 0.508$ ) of how AI technology can enhance the accuracy and effectiveness of the current methods for workforce management and employee scheduling. From this, we can infer that HR management and time management have enjoyed the advantages that artificial intelligence algorithms and systems offer with higher efficiency and accuracy.

Further, participants reported moderate levels of agreement ( $M = 3.384$ ,  $SD = 0.744$ ) Current opportunities for learning and development are

significantly more important, as well as better due to artificial intelligence–created personalization. In addition, it was established that there was a moderate level of consensus on using artificial intelligence-based solutions to offer promptly requested HR information and respond to any questions chatbots may receive ( $M = 3.169$ ,  $SD = 0.810$ )

In addition, there was a moderate degree of agreement among participants ( $M = 3.438$ ,  $SD = 0.695$ ) about the contribution of AI to better knowledge of employee requirements and preferences, leading to more individual employee engagement activities. Finally, participants expressed a moderate degree of agreement ( $M = 3.314$ ,  $SD = 0.862$ ) that AI has improved the effectiveness and accuracy of supervisor feedback and performance reviews.

**Table 4. Human Resource Management Efficiency**

No	Statements	Mean (M)	SD	Level of agreement
1	Artificial intelligence tools are utilized to automate routine HR tasks, such as payroll processing and leave management.	3.157	0.888	Moderate
2	AI has reduced the administrative burden on HR professionals, allowing them to focus on more strategic and value-added tasks.	3.419	0.830	High
3	AI improved the speed and efficiency of HR-related decision-making within your organization	3.558	0.574	High
4	Artificial Intelligence has contributed to better compliance management in HR processes, such as ensuring adherence to labor laws and regulations.	3.424	0.802	High
5	Artificial Intelligence has enhanced the effectiveness of employee communication and collaboration platforms, leading to improved teamwork and productivity.	3.360	0.779	Moderate
6	AI-driven predictive analytics has helped us identify potential employee performance issues or areas for improvement in a proactive manner.	3.541	0.712	High
7	AI tools helped the HR department foster a culture of continuous learning and development in the organization.	3.640	0.581	High

The responses of participants about how artificial intelligence (AI) is affecting the effectiveness of human resource management (HRM) in their companies are shown in Table 4. First, participants agreed ( $M = 3.157$ ,  $SD = 0.888$ ) to a moderate degree that AI solutions are used to automate regular HR functions including processing payroll and managing leaves.

Second, participants strongly agreed ( $M = 3.419$ ,  $SD = 0.830$ ) that AI has relieved HR professionals of some of their administrative responsibilities, freeing them up to concentrate on more strategically important and value-added work. This suggests that administrative jobs have been successfully automated by AI technology, giving HR practitioners more time to focus on higher-level duties that support corporate performance.

Thirdly, participants' perceptions of the scale confirmed their overall satisfaction ( $M = 3.558$ ,  $SD = 0.572$ ) AI that helped HR decisions in their companies become more effective and faster. This means that



decision-making on HRM issues is now quicker and better informed using the tools developed based on AI data analysis.

Furthermore, a moderate level of compliance was observed that was slightly higher than the mid-point ( $M = 3.424$ ,  $SD = 0.802$ ) Concerning the benefits of AI use in the HR process, participants indicated that AI contributed to the enhancement of compliance management of the process, which comprised elements on labor laws and regulations.

In addition, there was a moderate level of awareness of how AI impacts internal communication and collaboration tools ( $M = 3.360$ ,  $SD = 0.779$ ). Further, participants showed a relatively high level of consistency with the proposed statement ( $M = 3.541$ ,  $SD = 0.712$ ) reactive possibility for difficulties with the employee's performance or for further development which was made possible using AI predictive analysis. This means that artificial intelligence (AI) models and algorithms have been effective in analyzing data and providing useful information for future performance management and improvement initiatives.

Finally, high level of agreement was observed ( $M = 3.640$ ,  $SD = 0.581$ ) was mentioned by participants on how AI technologies have helped the HR department to keep on creating a culture of learning in the organization. This means that, by applying AI techniques in learning and development programs, possibilities have been offered to develop new skills and promote career progression continuously.

**Table 5. Challenges of Applying Artificial Intelligence Techniques in Human Resources Management in Companies**

No	Statements	Mean (M)	SD	Level of agreement
1	Lack of expertise and knowledge in implementing artificial intelligence techniques in HR management.	3.552	0.642	High
2	Difficulty integrating artificial intelligence systems with existing HR systems and processes.	3.314	0.862	Moderate
3	Concerns about data privacy and security when utilizing artificial intelligence in HR processes.	3.698	0.553	High
4	Resistance from employees due to fear of job displacement by artificial intelligence technologies.	3.628	0.508	High
5	Limited availability and high cost of suitable artificial intelligence solutions for HR management.	3.384	0.744	Moderate

The answers of the participants regarding the challenges that they encountered with the use of AI techniques in their organization's human resources or HR management are presented in Table 5. To begin with, respondents exhibited a high level of consensus ( $M = 3.552$ ,  $SD = 0.642$ ) concerned with the challenges of applying AI techniques in HR management since most of them had minimal experience in the field.

Second, a moderate degree of agreement ( $M = 3.314$ ,  $SD = 0.862$ ) Participants' attitude towards the implementation issues revealed the fact that the integration of AI technologies with the existing HR systems and practices presents a major concern. This indicates that some challenges that arise as organizations try to implement AI technology in an easy, seamless manner require technical changes to the existing HR systems and processes.

Thirdly, the results demonstrated a high level of concern regarding data protection and privacy issues linked to AI in the framework of HR operations (Mean = 3.698,  $SD = 0.553$ ). This is the reason why strict measures of data privacy and security are pertinent going by the fact that through this, business entities

recognize the importance of protecting employee information and the potential risks that accompany the application of AI technologies in the practice of HRM.

Further, the mean response was moderately high indicating the participants' level of agreement (Mean=3). 628, SD = 0. 508) where they pointed out that one of the challenges of implementing AI is that employees become afraid that their jobs will be taken over by the technologies. They might be concerned about how they are going to retain their jobs in midst of AI advancements hence the need to put in place the right measures so as to ensure workers feel championed by this new change.

Additionally, the mean of the percentage of agreement was moderate (M = 3. 384, SD = 0. 744) on the downside, participants reported that AI solutions appropriate for customized HR administration are expensive and hard to come by. This seems to mean that companies suffer from the lack of special AI solutions suitable for their HR needs and that some of the companies would consider the costs associated with implementation of such systems to be prohibitive.

## Results and Discussion

The study revealed that AI has helped enhance automation, personalization, predictive analytics, recruitment, and data-driven insights in HRM. While it does vary as to how much of an impact it has on some sectors, there is much agreement as to positive outcomes in areas such as scheduling, communication, and the management of labor. Some of these types of uses include information access, learning, and development personalization, employee inquiries and concerns, identifying employee needs, and performance evaluations that are moderate /moderately significant. The effectiveness and efficiency of the HRM in the business have also been enhanced through the use of AI technology in decision-making, reduction of paperwork, ability to predict trends, and boosting a learning culture in the organization.

These results align with a comprehensive review of the existing literature on the use of artificial intelligence (AI) in human resource management (HRM) by Qamar et al. (2021). They offered a comprehensive review of the uses of AI in the scholarly HRM literature. They noted that information technology has influenced HRM research and practice by changing both the mechanical and adjusted function tasks of each HRM. This shift from personnel records administration for administrative personnel to an organization's strategic management of its people occurred progressively. This way, AI collects many other databases of information to enable robots to perform tasks in like manner to human beings. By utilizing a variety of emerging technologies that allow robots to accomplish tasks like people do, human resource managers can employ artificial intelligence (AI) to organize their efforts toward their intended objectives and undertake productive data analysis.

The goal of the study (Kumari & Hemalatha, 2021) was to find out if AI techniques might be applied to HRM in general. The authors provide a brief overview that uses the task-technology fit methodology as the foundation for the debate, outlining the key features of AI approaches and the basic needs of HRM. They selected six use cases—turnover prediction, applicant search, staff assigning, HR sentiment analysis, resume data collection, and employee self-service—to explore the potential of AI in HRM. Furthermore, they looked into and compiled the foundational and exploration-based knowledge gained.

The goal of the research (Nawaz, 2020) is to learn more about the application of AI in HRM. The study examined 23 relevant publications published between 1991 and 2020 that were included in the Scopus online database. The study's conclusions indicate that using AI technology to nine distinct HRM tasks could improve efficiency and productivity and better enable companies to cater to the requirements of their clientele.

The 45 papers in the systematic search (Vrontis et al., 2022) were centered on the application of AI technology in HRM. It was underlined that intelligent automation technologies offer a fresh perspective on managing employees and enhancing organizational performance. There are several opportunities for human resource management with this technology. They provided an overview of several significant issues as they exist in terms of technology and ethics. They outlined how current reforms in the field of AI technology

are influencing the dynamics of human resource management. The study was comprehensive addressing the prospects in great detail and there were some crucial accomplishments attained in both theory and practice.

The study also outlined the challenges of implementing AI with some of them being the lack of expertise, integration issues, issues of data privacy and security, resistance to change, high costs, and limited availability of the right solutions. The aim of the research by Garg et al., (2022) was to understand how workers perceived the various AI applications used in HRM processes. To design this study, among the methods employed was the sociological survey which was used to administer questionnaires among HR professionals and other IT industry employees sampled from Chennai. Following are the challenges that were depicted by the businesses – Lack of experience in AI, integration problems, data security and privacy concerns, employee resistance to change and job loss, and scarcity and high cost of suitable AI solutions that they require. Instead, they noticed that the AI system's attitude toward the use of AI technology within the workforce was quite negative.

## *Chapter 5*

### *Summary*

AI technologies have continually influenced all the different aspects of HRM practices including the human resources strategy formulation and planning, the identification and hiring processes, the training and development processes as well as the performance appraisal as well as the remuneration processes. The conclusion provided valuable data about the use of artificial intelligence (AI) that provides knowledge of how it is implemented and its implications for human resource management (HRM) in organizations. According to these findings, it was revealed that with moderate levels of AI, the typical HR processes have been largely integrated which means that the core, operational competencies of HR practitioners have been shifted to more value-added activities. It has also supported compliance management, decision-making, and performance analysis with problems identified by staff. In addition, AI tools have phased in a change of organizational culture by embracing education and training as an ongoing process.

Additionally, the findings have discovered the challenges experienced in implementing AI in HRM strategic development. The challenges include inadequate familiarity with AI and its applications, issues in the implementation of AI solutions in existing HRM processes, concerns regarding the protection and confidentiality of records, apprehensions from employees regarding potential job loss, and issues with access to efficient yet affordable AI technologies.

In the overall picture, it indeed shows a positive trend toward adopting and applying AI in HRM although these problems exist. Organizations are getting that AI can drastically automate their responsibilities whilst also enhancing choices and HR techniques.

By addressing those challenges, and carefully leveraging the opportunity the AI presents, organizations can enhance the general landscape of HRM and its specific components which pertain to the improvement of the employee experience and the overall organizational success from the strategic HRM standpoint in today's increasingly digital economy.

## **Conclusion**

Human resource management (HRM) in today's rapidly growing business world cannot ignore the role of artificial intelligence (AI) in handling it. The application of AI can transform the work of HRM by making routine tasks more efficient, orienting the processes, and offering the opportunity to choose the best option for the HR manager. Concerning HRM activities, AI can also enhance functions like recruitment, training, performance management, and the management of compensation. Through AI, labor relations have the opportunity to be useful, easy, and productive for the departments of HR. By implementing AI solutions, the departments of human resources can improve the helping the employees serve and reduce the expense at the same time. AI in HRM is rapidly becoming more valuable as the technology contributes both to

productivity and the happiness of the workforce. There are benefits for the HR departments through AI technologies as they can provide insight into engagement and productivity levels due to the analysis of the feedback received from the employees regarding the work environment as well as their work opportunities. This makes the selection of the most suitable candidate for the job easier since the HR departments can automate this process.

### Recommendation

- Invest in HR and AI knowledge and abilities.
- Ensure that AI solutions are easily incorporated into the HR processes that are in place.
- Keep data security and privacy considerations in mind while implementing AI.
- Implement proper change management strategies for employee-related problems.
- Look at reasonably priced AI solutions that fit HR requirements.
- Tailor AI applications to enhance each employee's working environment.
- AI HR administration applications should always be evaluated and improved.
- Promote a culture in HR where AI is embraced at work.
- Collaborate with colleagues and professionals in the field to gain insights from their experiences.

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*Appendix:*

*Section one: Demographic characteristics*

1. Age:
  - Less than 30 years
  - 30 - 39 years
  - 40 - 49 years
  - 50 years and over
2. Gender:
  - Male
  - Female
3. Educational level:
  - Bachelor's degree
  - Master's degree
  - Doctoral degree
4. Job Position:
  - Entry-level employee
  - Manager
  - Supervisor
  - Executive
5. Years of Experience:
  - Less than 1 year
  - 1-3 years
  - 4-6 years
  - 7- 10 years
  - More than 10 years

*Section Two: Utilization of Artificial Intelligence*

No	Statements	Strongly disagree	disagree	neutral	agree	Strongly agree
1	Artificial intelligence is used to automate repetitive administrative tasks in an organization.					
2	Artificial intelligence-powered chatbots are available to assist employees with HR-related queries.					
3	Artificial intelligence is used to personalize employee experiences and provide tailored recommendations for career development.					
4	The company utilizes artificial intelligence for predictive analytics in workforce planning and talent management.					
5	Artificial intelligence is utilized to enhance the accuracy and fairness of recruitment and selection processes.					
6	The company utilizes artificial intelligence algorithms to analyze employee data and generate insights for decision-making.					

*Section Two: Utilization of Artificial Intelligence*

No	Statements	Strongly disagree	disagree	neutral	agree	Strongly agree
1	Artificial intelligence is used to automate repetitive administrative tasks in an organization.					
2	Artificial intelligence-powered chatbots are available to assist employees with HR-related queries.					
3	Artificial intelligence is used to personalize employee experiences and provide tailored recommendations for career development.					
4	The company utilizes artificial intelligence for predictive analytics in workforce planning and talent management.					
5	Artificial intelligence is utilized to enhance the accuracy and fairness					

	of recruitment and selection processes.					
6	The company utilizes artificial intelligence algorithms to analyze employee data and generate insights for decision-making.					

*Section Three: Employee Experience*

No	Statements	Strongly disagree	disagree	neutral	agree	Strongly agree
1	AI-powered tools and platforms have improved the efficiency and speed of accessing relevant information and resources for work.					
2	The use of AI technologies has improved the timeliness and effectiveness of communication within the organization.					
3	The utilization of artificial intelligence has improved the accuracy and efficiency of our employee scheduling and workforce management processes.					
4	AI-driven personalization has improved the relevance and effectiveness of learning and development opportunities provided by the company.					
5	AI-powered chatbots have helped address HR-related queries about employees and provide prompt assistance.					
6	Artificial Intelligence has contributed to a better understanding of employee needs and preferences, leading to more personalized employee engagement initiatives.					
7	Artificial Intelligence has enhanced the accuracy and effectiveness of performance evaluations and feedback received from my supervisors.					

*Section Four: Human Resource Management Efficiency*

No	Statements	Strongly disagree	disagree	neutral	agree	Strongly agree
1	Artificial intelligence tools are utilized to automate routine HR					



	tasks, such as payroll processing and leave management.					
2	AI has reduced the administrative burden on HR professionals, allowing them to focus on more strategic and value-added tasks.					
3	AI improved the speed and efficiency of HR-related decision-making within your organization					
4	Artificial Intelligence has contributed to better compliance management in HR processes, such as ensuring adherence to labor laws and regulations.					
5	Artificial Intelligence has enhanced the effectiveness of employee communication and collaboration platforms, leading to improved teamwork and productivity.					
6	AI-driven predictive analytics has helped us identify potential employee performance issues or areas for improvement in a proactive manner.					
7	AI tools helped the HR department foster a culture of continuous learning and development in the organization.					

*Challenges of applying artificial intelligence techniques in human resources management in companies*

No	Statements	Strongly disagree	disagree	neutral	agree	Strongly agree
1	Lack of expertise and knowledge in implementing artificial intelligence techniques in HR management.					
2	Difficulty integrating artificial intelligence systems with existing HR systems and processes.					
3	Concerns about data privacy and security when utilizing artificial intelligence in HR processes.					
4	Resistance from employees due to fear of job displacement by artificial intelligence technologies.					
5	Limited availability and high cost of suitable artificial intelligence solutions for HR management.					