



## **A Study on Role of AI in HRM**

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### **INTRODUCTION**

#### **What is Artificial Intelligence?**

Tecuci (2012) suggests that Artificial Intelligence (AI), an ever-evolving technology facilitated by the Internet, is poised to significantly influence our daily routines. The term "Artificial Intelligence" was formally coined in 1956 (Stuart & Norvig, 2016), referring to the creation of human-like intelligence capable of learning, reasoning, planning, perceiving, and processing natural language. These attributes present both vast socio-economic opportunities and corresponding challenges.

Recognizing AI's Internet-enabled nature, the Internet Society underscores the importance of comprehending the opportunities and challenges inherent in AI for fostering trust in the Internet. With the increasing adoption of machine learning in products and services, user trust in the Internet becomes a significant consideration. Addressing AI involves grappling with various issues, including socio-economic impacts, transparency, bias, accountability, data usage, security, safety, and ethical considerations, as well as its role in shaping new ecosystems.

However, the complexity of AI also brings forth specific challenges. These challenges encompass the lack of transparency and interpretability in decision-making processes, concerns regarding data quality and potential bias, implications for safety and security, questions of accountability, and the potential disruptive effects on social and economic structures.

In response to these considerations and challenges, the Internet Society has formulated a set of principles and recommendations. These guidelines are grounded in the core "abilities" that underpin the value provided by the Internet, aiming to navigate the evolving landscape of AI while upholding principles of transparency, accountability, fairness, and safety.

In recent years, AI has garnered increased attention, with innovation fueled by the Internet bringing it closer to everyday life. The convergence of technological advancements, alongside growing interest in the socio-economic and ethical implications of AI, has propelled it into the forefront of contemporary debates. Notably, industry investments in AI are on the rise, and governments worldwide are actively seeking to understand its potential implications for their citizens.

#### **What is Human Resources Management?**

Human resource management (HRM) is a specialized function integral to managerial roles across all sectors. It encompasses the recruitment, selection, development, and effective utilization of employees to ensure their maximum contribution to organizational objectives. The evolution of HRM can be traced back to the industrial revolution era, marked by significant developments and the emergence of trade union movements. Initially, the role of managing the relationship between management and workers was performed by Labour Welfare Officers, primarily focused on employee welfare activities.

As the factory system expanded, creating a need for more employees, the role evolved into that of a Personnel Officer responsible for recruitment, selection, and placement. Over time, technological advancements necessitated skill development and training for both existing and new employees. The human relations approach recognized employees as the most valuable asset in organizations, leading to the replacement of traditional Labour Welfare and Personnel Management with Human Resource Management.

Presently, HRM encompasses various aspects such as recruitment, selection, placement, training, and labor welfare. The main functions of HRM include determining the number and types of employees required, recruitment, selection, and placement, providing training for performance improvement and career growth, conducting performance appraisals, motivating employees through financial and non-financial incentives, ensuring social security, handling grievances, defending enterprises from legal complications, and establishing amicable relations between unions and management.

In any organization, efficient and competent employees are essential for achieving objectives and ensuring growth and survival. Thus, human resources are considered the most valuable asset. Staffing, a key function of HRM, involves assessing the organization's human resource needs, recruiting, and selecting individuals accordingly. Staffing is regarded as both a line and staff activity, integral to organizational success and functioning as a distinct

functional area of management alongside marketing and financial management. Additionally, the quality and stability of jobs play a crucial role in the success of employees, underscoring HRM's responsibility in ensuring job satisfaction and stability.

### ***Artificial Intelligence in Human Resource Management:***

AI technologies present significant opportunities for enhancing HR functions, including self-service transactions, talent acquisition, payroll management, and reporting. As we navigate an era where AI capabilities are rapidly advancing, there's a growing recognition among human resources executives that integrating AI into HR administration can enhance the overall employee experience. This integration is expected to provide increased capacity, time efficiency, budget optimization, and access to more accurate information for effective people management. Nilsson (2005) suggests that machines should be capable of performing tasks that require human intelligence, advocating for human-level AI.

The collaboration between humans and learning machines is resulting in a vast amount of HR data being generated in the cloud, and the utilization of artificial intelligence analytics offers deeper insights into operational execution. The success of any organization hinges on its ability to intelligently combine people, processes, and technology to deliver transformative value at optimized costs. AI plays a crucial role in efficiently automating back-office functions for reliable HR transactions and service delivery. This document emphasizes conversational AI capabilities for HR transactions, shedding light on intelligent automation through technology-agnostic chatbots. The adoption of AI in HRM and recruiting is termed as 'the new age of HR', as it revolutionizes the recruitment industry by automating routine tasks traditionally performed by human recruiters (Upadhyay & Khandelwal, 2018).

Despite the evident benefits, several barriers impede the widespread adoption of AI technologies. Financial barriers are significant, hindering the broader implementation of tools for HR administrative tasks. Additionally, there's a talent gap, as finding adequately educated or skilled individuals can be costly and challenging. Concerns over privacy and data security also pose barriers, requiring confidential HR data to be accessed securely and made available only to authorized personnel. Ongoing maintenance is essential, as AI technologies require continuous learning, review, and updates. Integration capabilities are limited due to the trend towards SAAS in HR, which affects data availability.

However, the benefits of AI in HRM justify its adoption despite these barriers. AI can significantly reduce the time HR professionals spend on administrative tasks, alleviate the burden on shared service centers, and enhance recruiting and retention efforts. It facilitates measuring return on investments and reduces bias in HR decision-making. To remain competitive in the global economy, organizations must embrace conversational AI for HR transactions in their decision-making processes. By relying on AI for administrative duties, HR departments can become more efficient, allowing HR professionals to focus on strategic planning at the organizational level. AI processes data faster than humans, casting a wider net to identify qualified candidates efficiently and enabling managers to dedicate more time to analyzing HR data and improving strategic planning.

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## **RESEARCH METHODOLOGY**

**TITLE:** "Role of AI in HRM"

**Title of the Study:** A study on "Role of AI in HRM"

### **SIGNIFICANCE OF THE STUDY:**

The role of AI in Human Resource Management (HRM) has undergone significant transformations over time, profoundly impacting traditional HR practices. Historically, HR departments were burdened with manual tasks like resume screening and managing employee data. However, the introduction of AI technologies has automated these processes, allowing HR professionals to focus on strategic initiatives such as talent development and organizational culture. This transition has streamlined operations, enhancing efficiency and overall organizational effectiveness.

In the present day, AI plays a pivotal role in revolutionizing HRM practices across industries. AI-driven tools and algorithms are increasingly utilized for talent acquisition, employee engagement, performance management, and learning and development initiatives. Recruitment platforms powered by AI algorithms help identify top candidates, reducing time-to-hire and improving the quality of hires. AI-powered chatbots and virtual assistants enhance employee experiences by providing personalized support. Additionally, AI analytics provide valuable insights into employee behavior, facilitating data-driven decision-making.

Looking ahead, the future significance of AI in HRM is promising. Advances in AI technologies like natural language processing and predictive analytics will optimize talent management processes and anticipate future workforce needs. Predictive analytics will empower HR professionals to forecast trends and develop strategies for talent retention and succession planning. Integration with emerging technologies such as augmented reality and blockchain will further enhance employee learning experiences and ensure data security. Overall, AI's continued advancement in HRM will drive innovation, agility, and competitiveness in the future workplace.

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## **OBJECTIVES:**

**MAIN OBJECTIVE:** The purpose of this study is to know what impact the Artificial Intelligence has on Human Resource Management

**SUB-OBJECTIVE:**

1. Investigate the current utilization of AI technologies in different HRM functions.
2. Assessing the Impact on Recruitment and Selection:
3. Evaluate the effectiveness of AI-driven tools in enhancing the efficiency and fairness of candidate selection.
4. Investigate the use of AI in employee training, learning, and development initiatives.
5. Assess the effectiveness of AI-based systems in personalizing learning experiences and improving skill acquisition.
6. Analyze the impact of AI on performance evaluation, feedback provision, and goal setting.

**RESEARCH DESIGN:**

The research design is the conceptual structure within which research will be conducted. Research design is a framework or blueprint for conducting the research. It is a logical and systematic planning and directing of a piece of research. Descriptive research has been applied, which is also known as statistical research, and describes data and characteristics about the population or phenomenon being studied.

**TOOLS FOR DATA COLLECTION:**

A structured questionnaire in the form of a Google Form has been created to conduct employee interviews and surveys.

**UNIVERSE:**

The research was centered in Exemed Pharmaceuticals Ltd. located in Luna, Padra focusing on AI's impact on HR practices. has around 300 employees.

**SAMPLING METHOD:**

The Random sampling method used in the survey is the Random Sampling method. SAMPLE: The number of respondents for the study is 20 among 100 employees.

**VARIABLE:**

Dependent variables include employee engagement, workplace culture, and employee performance. Independent variables are AI implementation in HR, ethical considerations, and organizational context.

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**Limitations:**

Limitations of the Research Methodology for the Topic "Role of AI in HRM":

1. Time Constraint: The research may have been conducted under time constraints, limiting the depth and breadth of data collection and analysis. As a result, certain aspects of the role of AI in HRM may not have been thoroughly explored or adequately addressed.
2. Concerns Regarding Confidentiality: Employees may hesitate to provide their personal and professional details, including experiences with AI in HRM processes, due to concerns regarding confidentiality and privacy. This reluctance could have impacted the quality and quantity of data collected, potentially leading to incomplete or biased findings.
3. Limited Scope to Exemed Pharmaceuticals: The research is confined to a specific industry, namely exemed pharmaceuticals. This limited scope may restrict the generalizability of findings to other industries or sectors, as the role and impact of AI in HRM can vary significantly across different organizational contexts. Therefore, conclusions drawn from the research may not be applicable to organizations outside the pharmaceutical sector, limiting the broader implications of the study.

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**Findings:**

The findings reveal a well-balanced gender distribution within the surveyed population, with males constituting 55% and females 45%, totaling 20 individuals. This balanced representation suggests a concerted effort towards inclusivity in HRM processes, fostering diverse perspectives in decision-making and resource allocation. Additionally, the equal distribution across age groups, with half of respondents falling between 18 and 25 and the other half between 25 and 50, indicates a diverse yet concentrated demographic, with representation among both young and middle-aged adults. This diversity can offer valuable insights into tailoring HRM strategies to cater to the needs of different age cohorts.

The primary objectives of integrating AI into HRM are outlined, with 65% focusing on automating routine tasks, 20% on strategic decision-making, and 15% on cost reduction. Notably, there's a lack of emphasis on employee engagement, indicating a potential area for improvement. AI predominantly contributes to recruitment by identifying suitable candidates, representing 70% of its role, while also streamlining candidate selection processes and potentially mitigating biases. In employee onboarding, AI offers advantages such as decreased paperwork and faster orientation, although concerns about higher training costs or increased engagement are minimal.

Further analysis highlights AI's multifaceted contributions across various HRM functions. These include HR analytics, employee experience enhancement through Robotic Process Automation (RPA) and engagement surveys, diversity and inclusion efforts through bias reduction in hiring and ensuring privacy, and employee performance management through productivity prediction and training development. AI also plays a significant role in managing employee benefits and fair compensation practices, addressing privacy concerns, and enhancing feedback processes. However, there are mixed perceptions regarding AI's role in diversity and inclusivity, with concerns about bias reinforcement and favoritism in promotions.

Overall, the findings underscore AI's significant impact on optimizing HRM processes, streamlining operations, and fostering diversity and inclusion. Moving forward, organizations can leverage these insights to further integrate AI solutions into HRM practices while addressing concerns and ensuring equitable and transparent implementation to meet the evolving needs of the workforce.

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