Review

Revolutionary Changes by Using Artificial Intelligence (AI) in Green Human Resource Management (GHRM)

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Abstract: Artificial Intelligence (AI), in its broadest sense, is intelligence exhibited by machines, particularly computer systems. It is a field of research in computer science that develops and studies methods and software that enable machines to perceive their environment and use learning and intelligence to take actions that maximize their chances of achieving defined goals. Today we can do many things with the machine. As in the present scenario, everybody is moving towards building smart and environmentally friendly organizations, Green HRM is playing a fundamental role in the integration of corporate environmental management into human resource management. As the economy is moving towards the new era of the Industrial Revolution. Its main focus is profit maximization to business sustainability for which initiating and adopting green HRM practices has become necessary. The AI-green HRM integration has the potential to create a powerful synergy that can help organizations become more sustainable. For example, AI can be used to analyze data and identify areas of an organization where energy and resources being wasted are. This information can then be used to develop and implement more sustainable practices. This paper aims to explore the integration of artificial intelligence in GHRM's recruitment process, elucidate the rationale behind its adoption, and identify associated drawbacks. The methodology employed for this research involves a comprehensive literature review comprising conceptual papers, peer-reviewed journals, and articles.

Introduction

Green artificial intelligence is an AI that uses lower computational costs to help reduce carbon emissions. It combines the immense value of artificial intelligence with the green values we need to lower carbon emissions and protect our planet from further climate change. In the ever-changing environment of modern technology, Artificial Intelligence (AI) stands out as a flexible tool with the potential to transform the way we process information analyze data, and use the insights produced from it to improve decision-making. Artificial intelligence (AI) is defined as the science and engineering of creating intelligent machines, AI revolutionizes diverse fields by simulating human cognitive processes. From automating routine tasks to enabling complex decision-making. Integrating artificial intelligence (AI) into various sectors has undoubtedly revolutionized how businesses operate, bringing about unprecedented efficiency and productivity. However, this rapid advancement raises significant concerns regarding privacy, security, and ethical considerations. As Organizations continue to leverage AI technologies for data analysis, customer service, and decision-making processes, collecting and utilizing vast amounts of data pose inherent risks to individuals.

In the contemporary digital age, companies aspire to excel in innovation global competitiveness, and modern equipment and software. AI technologies have been changing HR processes and systems lately. Optimize

operational efficiency by minimizing workforce while maximizing productivity and profitability. Consequently, companies must invest resources in training new and seasoned employees to adeptly operate HR information systems (HRIS) and utilize AI features, including machine learning, natural language processing, and predictive analytics, more frequently to improve insights, efficiency, and experiences. However, concerns around transparency, ethics, and workforce impacts arise with the integration of AI into HRIS. This research aims to provide a comprehensive look at AI's current and potential future applications in HRIS, exploring this emerging trend's benefits, challenges, and responsibilities.

The concept of "Artificial Intelligence (AI)" is relatively new within the realm of information technology, coinciding with the evolution of "green human resources" practices aimed at environmental preservation and sustainability alongside fostering corporate growth and efficiency gains. Termed as "green HRM," these strategies aim to promote the efficient utilization of environmentally friendly resources within corporate infrastructure while advancing sustainability goals. In addition to serving as a comprehensive platform for various human resource functions such as recruitment, selection, training, development, compensation, and performance management, defined as "an adaptable, rational agent that perceives its environment and takes actions to maximize its chances of achieving a particular goal," AI promises to alleviate employee workloads. Streamline processes, and conduct data analysis, among other capabilities. Human resource departments across developed and developing nations increasingly leverage AI technologies to streamline recruitment, employee engagement, and talent management processes. This adoption has led to significant cost reductions, enhanced candidate selection precision, and, most notably, reduced turnaround time for recruitment procedures.

Understanding Information and Data

This section delves into the nuances of these concepts, highlighting the distinctions between data and information and their implications. While data refers to raw facts and figures, information represents processed data that provides insights and reduces uncertainty.

The collection and utilization of data by organizations for AI training and decision-making purposes present opportunities and challenges, particularly concerning privacy and security. In order to address these concerns, robust privacy policies and regulations are necessary to ensure transparency, accountability, and individual control over their data algorithms can sift through historical data, current market trends, and even external factors like economic indicators or weather patterns to predict future demand with high accuracy. This predictive capability enables businesses to plan better, reduce waste, and allocate resources more efficiently.

Organizations must prioritize data protection measures, such as encryption and access controls, to safeguard against cyber threats and unauthorized access. Moreover, transparency in AI usage, including how algorithms are trained, and decisions are made, is essential for building trust and ensuring ethical AI practices.

Review of Literature

Artificial Intelligence (AI) is not a new concept anymore for developing or developed economies. AI is the science and engineering of making intelligent machines, especially intelligent computer programs (Me Carthy 1988). Geetha and Bhanu Sree Reddy (2018) investigate the influence of artificial intelligence (AI) on hiring practices. Their study aims to explore AI's impact on recruitment processes within businesses. The researchers utilize secondary data from various sources such as websites, journals, and newspapers to analyze alternative approaches for employing individuals through AI. In recent decades, computer science has covered many fields related to this like Machine Learning (ML) it's the process of teaching machines how to learn from experience, examining large data sets, and finding hidden patterns, reviving the Artificial Intelligence. Machine language, which is at the crossroads of information technology, statistics, math, etc. for decision–making under conditions of uncertainly shows that artificial intelligence in the sense of a learning machine it's an insoluble task in the sense that a learning machine it's an insoluble task in the coming decades like " while the " Deep Blue"

computer of IBM won the world chess Champion Garri Kasparov, it was not really an artificial intelligence included as a method of choice within the AI for a range of applications and extended to different scientific fields like psychology, genomics, astrophysics, etc. (IBM 2019).

Numerous studies suggest that AI augmentation can significantly benefit HR processes and systems. Advantages include faster processing and response times, reduced HR staff workload, data-driven strategic decision-making, enhanced employee engagement, cost savings from automating high-volume administrative tasks, and improved candidate experience (Votto et al. 2021, Makarius and Srinivasan 2017). Through secondary data analysis, the study evaluates the application and scope of AI in various facets of human resource management. AI has changed the pattern of work and decision-making abilities for many organizations with its smart technological approach such as genetic algorithms, neural networks, data mining, text mining, sentiment analysis, and interactive voice recognition applications (Lauterbach 2019, Strohmeier and Piazza 2015). It improves the decision-making ability and cost-effectiveness of the organizations by making decisions on real-time data (Kaya and Kahraman 2011, Rana and Sharma, 2017, Meeker and Elliot 1996). However, the question arises: What is artificial intelligence? Is it a tool, an application, software, a methodology, or a thought? AI cannot be defined in terms of a written definition, but various researchers defined artificial intelligence in technical & sociological terms. The research investigates how AI reshapes various management functions, including HR, marketing, finance, and manufacturing.

The study concludes that HR managers can leverage AI technology across diverse HR activities such as recruitment, selection, training, development, compensation, and rewards management. Data privacy of employee information is a top concern, as is cyber security (Khan et al. 2020). This paper aims to synthesize and extend current knowledge by examining the trajectory of AI integration in HRIS. Beyond screening, sourcing, and recruiting, the study examines HR operations such as performance management systems, training, learning, and development, highlighting the transformative potential of AI & ML technology.

Research Methodology
This paper adopts a descriptive approach to study the integration of Artificial Intelligence (AI) in the recruitment process within Green Human Resources Management (GHRM). Research is conducted based on secondary data collected through various articles journal publications, newspapers, theses, websites, case studies, reports, and magazines. Artificial Intelligence has played a major role in all sectors of society, majorly Human resource management or HRM. Human resource management has grown in various areas and now it is also contributing to pollution control of society. The research involves qualitative and quantitative data collection and analysis to develop a holistic understanding of the topic. To gather qualitative data, the study uses a qualitative descriptive design that involves semi-structured interviews with HR executives & technology leaders at organizations that have implemented AI capabilities in their HRIS.
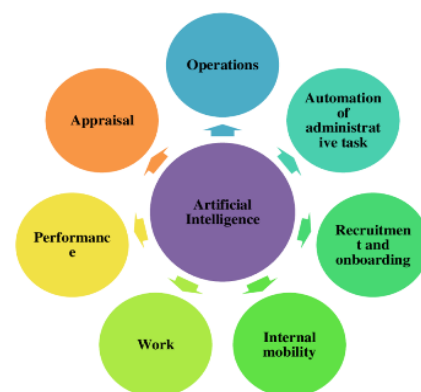

Fig. 1. Model showing the relationship of AI with Green HRM

In this model, it is clear that artificial intelligence is helpful in various areas of the Green HRM and is directly supporting all the HR practices. Organizational interests are best served by a system that attends to the employee's ability, motivation, and opportunity.

A model was prepared by Appelbaum et al. (2000) which clearly defines that the entire HR study depends on the ability of selecting,

training, and remuneration based on an individual's profile and experience. This model is a revised version of the above-mentioned model in relation to the current scenario.

Understanding HR Activities in Recent Trends

Fig. 2. HR Trends of 2024.

An Alternative framework using constructs of quality, commitment audit is said to be used for the growth of human resource management, in which this area is widely acceptable. In this case, remuneration, benefits, extra bonuses, motivation, and commitment are the most effective tools for employees that upgrade the performance of every firm.

The Role of AI in Adopting Green HRM
AI can help HR professionals make data-driven decisions about which candidates are most likely to succeed in a given role by analyzing factors such as employee tenure, performance ratings, and engagement levels.
Artificial Intelligence (AI) has significantly transformed operations within the Green Human Resources department, substantially benefiting organizations. By organizing data sets and aligning candidate profiles with job requirements, AI streamlines processes, reduces operational costs, and enhances overall efficiency. Artificial Intelligence (AI) is indispensable in addressing the growing demands of a rapidly expanding population and evolving customer needs. In Human Resource Information Systems (HRIS) artificial intelligence (AI) finds multifaceted applications across various pivotal functions. Recruiting and Hiring represent a domain where AI significantly enhances efficiency and precision.

Collecting and tagging data, assessing and analyzing data for manufacturing and service industries. Natural language processing is a form of AI whereby individuals can speak with machines and get their work done; for example, the virtual personal assistant Alexa (Amazon Echo), and call center agents. AI technology is adopted and implemented by organizations to improve their processes and services. These AI technologies are not only changing human effort but also generating more opportunities to leverage human skills. AI is not limited to manufacturing or service organizations but is also implemented to improve organizational efficiency and effectiveness. Companies are employing AI tools and techniques for various administrative and HRM functions including recruitment, training and development, performance, appraisal, career development, and talent retention.
AI plays a great role in turning imagination into reality. With its smart and digitally equipped applications.

Conclusion
This study delved into the extensive current applications and future potential of incorporating artificial intelligence capabilities into human resource information systems. Artificial Intelligence (AI) has significantly impacted human resource management (HRM) practices and operations. Nowadays, every company is moving forward by constructing innovative and ecologically friendly firms; Green HRM plays a critical role in integrating corporate environmental management with human resource management.
AI is helping companies to perform effectively and efficiently. AI helps to do automation of work because this category of jobs is also changing in the market. More brain jobs are demanded in the market as compared to muscle jobs GRHM can help organizations contribute to sustainable development by promoting environmentally-conscious behavior among employees, implementing environmentally- friendly policies, and incorporating sustainability into recruitment and hiring practices. Although this research synthesized relevant literature and market trends, it primarily relied on scholarly sources

over direct data collection. This can not only reduce the organization's environmental impact, but also improve employee engagement and satisfaction, and potentially gain a competitive advantage in the marketplace. Addressing the challenges posed by AI in green HRM requires the development of new machine learning algorithms, pattern recognition techniques, user-friendly platforms, and enhanced system security. Evidently, "Artificial Intelligence is poised to shape the future of Human Resources (HR)" in the years to come, offering transformative possibilities for recruitment and HR management practices.

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