Artificial Intelligence of Leadership Resource Management and Talent System

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Abstract: The first thing the paper does is use the Java EE or Python programming language to develop and implement a human resources management system with a solid human-computer interface. The goal of human resource management is to remove obstacles that stand in the way of business expansion. By doing this, the company's human resource development may operate in an environment that is conducive to growth. The coupling issue between multiple levels can be effectively resolved by it. The system's benefits include an easy-to-use interface, secure functioning, and effective human-computer interaction. It fulfils numerous purposes. This paper then suggests a method for estimating the cost of human resources. The research employs the chaos principle to gather the enterprise's data for human resource cost estimation, restructure it, and bring back its evolving features. The "extreme learning machine" was employed to assess the performance of the organization and the expenses related to its human resources. The study's findings demonstrate that this approach can enhance the effectiveness of enterprise performance evaluation and more accurately reflect the cost-changing characteristics of enterprise personnel.

1 INTRODUCTION

Human resource management has grown in importance and necessity as a crucial component of enterprise management as a result of the economy's rapid development and the rising level of management (Uriarte,S.,et al., 2025). However, a lot of conventional HRM techniques still rely heavily on experience and subjective assessment rather than statistical or data analytic support, which can easily result in poor decisions and resource waste. The goal of this article is to provide a decision support system for human resource management that can lessen related issues.Advanced technologies, organizational strategy, and sustainable human resource [HR] practices are coming together to change the field of human resource management (Köchling, A., 2024). By highlighting the importance of managing crucial data, ethical issues, and responsible AI governance all of which would develop a means to enhance and attain HR excellence the study provides the foundation for successful HR analytics. It also examines how cutting-edge analytical techniques and artificial intelligence (AI) technology might raise the efficacy and sustainability of HR management procedures.

Investigating these technologies' revolutionary potential is its goal. By streamlining decision-making procedures, boosting employee productivity, and creating long-lasting HR practices, the research seeks to advance HR excellence. In order to foster excellence in the field of HR management as a whole and aid in the development of sustainable HR practices, this article aims to offer important insights and theoretical underpinnings. It offers a theoretical, integrated paradigm to aid in the comprehension of the aforementioned viewpoint.

1.1 Integration of Human-AI Teams with Human Systems

These days, given that artificial intelligence (AI) is included into the majority of vital systems, human systems integration (HSI) needs to be expanded. Block Diagram Shown in Figure 1.
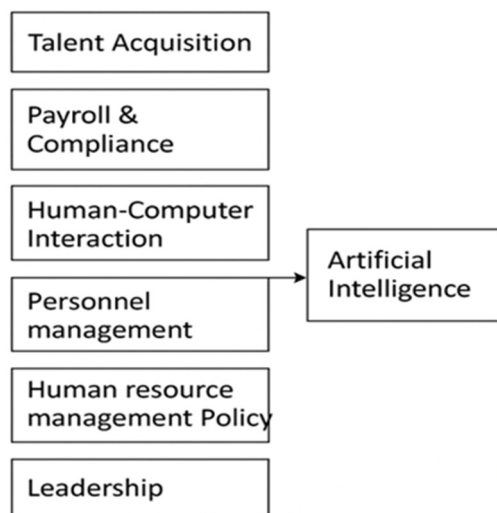
Figure 1: Block diagram.

As a result, the new viewpoint of human-AI teaming (HAT) must guide the development of systems engineering and AI. In order to tackle this task, this essay takes into account human aspects like situation awareness, risk-taking, and decision-making (Halid, H.,2024). It brings up questions about the division of labor, the flexibility of design and operations, and the incremental design of organizations, technology, and human capital. More precisely, it raises the significant problem of AI systems' need for qualification and the impossibility of certification, turning them from partners into tools. Consequently, research on human resource management and predictive models is evaluated, and a Neural Network Algorithm-based study on these topics is presented. In order to reduce interference factors in the management and prediction models, the influencing aspects are first found using the gradient descent theory, and the indicators are then divided accordingly. Then, a neural network algorithm management and prediction model scheme is developed using the gradient descent theory, and the results of the management and prediction models are carefully scrutinized (Jonczyk, N.,. et al., 2025). The MATLAB simulation results show that the neural network algorithm performs better than the typical neural network algorithms in specific assessment conditions with respect to time of influencing variables, accuracy of prediction models, and management (Ribeiro, M.F,. et al., 2024). The rules of the enterprise's employment demand provide a more informative basis for the enterprise to present the correct strategy, which has greater practical value. The human resource demand prediction model is established based on the RBF neural network, and a

significant amount of disordered data are trained, learned, and tested.

1.2 Computer-Based Network Management System for University Human Resources

The business process of the university's personnel information management system is examined in this essay. The university personnel management system was then created using the university cloud platform, big data, business services, and diversified business services (Kanade A,., 2024). This system creates a new kind of university human resource management system based on Microsoft Biztalk server. A service mode based on Microsoft Biztalk Server is suggested as a solution to the issues with the way university people are currently working. A genetic algorithm-based optimization technique is suggested as a solution to this issue. A novel intelligent sorting algorithm is suggested based on this foundation.

A novel intelligent sorting algorithm is suggested based on this foundation. This approach reduces the operating time by 7.261 seconds when compared to the current algorithm. The algorithm is put into practice on the Biztalk server, and its applicability is confirmed (Schlichte., 2024). Through experimental testing, the suggested optimization technique can reduce the inference time when compared to the current algorithms. The Biztalk server is optimized in this study using an optimization technique based on genetic algorithms. The algorithm runs faster, according to experimental results. This has some reference value to the BizTalk server design. In a situation with large data, this technique can significantly lessen the manual allocation burden (Wang, et al., 2025). The thesis holds some reference value in advancing the process of informatizing school personnel work. Task distribution, system maturity, and human expectations for flexible Human Liberty Collaboration (Muss, C.,, 2025). The propose to investigate, in turn, the consideration of Human cognition, System maturity, and Task allocation in order to achieve adaptable Human Autonomy Teaming. We suggest current, real study projects done by our research team for each of these three courses.

2 TALENT ACQUISITION

The improving HRM through ai-driven talent acquisition approach employing deep ResNet Artificial intelligence (AI) is gaining popularity as a

technology in human resource management (HRM) to help businesses expedite and enhance their talent acquisition procedures. Analysis Output of AI-Driven Talent Acquisition in HRM S Shown in Figure 2.

It is challenging to swiftly and efficiently find and hire excellent people when using the traditional HRM approach. The suggest that the existing systems be integrated with Deep ResNet, a state-of-the-art deep learning architecture with remarkable feature extraction capabilities, as a solution to this issue. The application of artificial intelligence to human resource management is gaining popularity, however research into how Deep ResNet might be utilized to the talent acquisition process is trailing behind. This study uses Deep Residual Networks (ResNet) to offer a fresh way to talent acquisition in HRM.
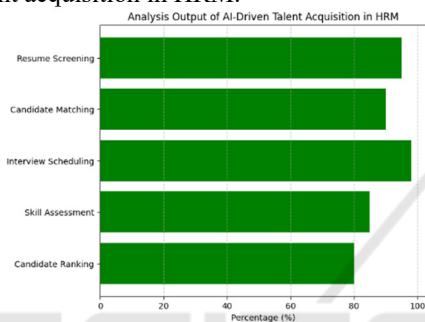

Figure 2: Analysis output of AI-driven talent acquisition in HRM.

The study uses a rigorous methodology that combines real-world case studies, machine learning approaches, and data analysis. This methodology's goal is to determine the viability of the suggested AI-powered talent acquisition plan. To improve its search and grading capabilities, Deep ResNet will be trained on many datasets. This directly leads to a considerable improvement in the accuracy and efficiency of the process of acquiring new talent.The aim of this research is to present empirical data that validates Deep ResNet's effectiveness in enhancing HRM procedures.

3 HRM EFFECTIVENESS IN THE CONTEMPORARY WORKPLACE

This study, "Strategic Leadership: A Driver for Enhancing Human Resource Performance in the Contemporary Workplace," explores the complex relationship that exists between HR performance and strategic leadership. Through a thorough assessment of pertinent academic literature and the use of comparative analysis, this research illuminates the significant influence of strategic leadership on worker engagement, HR innovation, and the overall health of companies. The study's main findings show that strategic leadership generally has a positive impact on HR performance. It is imperative to acknowledge that the effectiveness of strategic leadership in this context varies between organizational environments and cultures. The study also highlights the challenges faced by strategic leaders, specifically when it comes to balancing organizational objectives with the diverse needs of workers in a global business environment. A comparative analysis of leadership styles highlights the importance of adaptation and context-specific techniques. By providing fresh insights on the expanding role that strategic leadership plays in enhancing the performance of human resources in modern work settings, the study contributes to the ongoing scholarly discussion on the topic. The article offers helpful advice on how to improve leadership abilities and highlights the necessity of constant adaptation and academic research in this field that is always changing. Academics and experts in the domains of organizational leadership and human resource management will find great value in this research.

4 ARTIFICIAL INTELLIGENCE BASED HUMAN-COMPUTER INTERACTION

It is challenging to accomplish effective task allocation and resource scheduling with traditional scheduling algorithms when dealing with complicated workloads and dynamically changing resource settings. This study describes the research methods used in the development of an artificial intelligence-based data scheduling algorithm for human-computer interaction. By analyzing historical and real-time data, the algorithm learns and optimizes resource allocation tactics, increasing resource utilization and scheduling accuracy. This is accomplished through the use of intelligent optimization technology and machine learning. The algorithm can dynamically adapt to task characteristics and resource status to determine the best scheduling approach. It also possesses the features of adaptive adjustment and decision-making optimization. Figure 3 Shows the Artificial Intelligence HRM Management System.
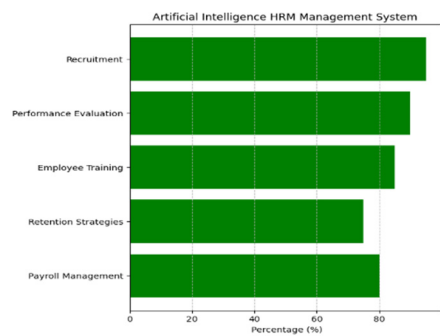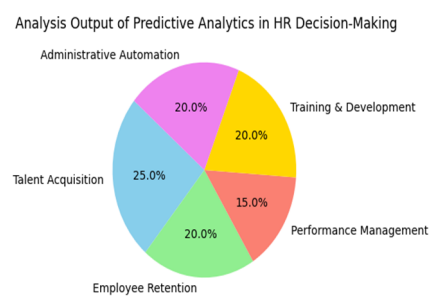
Figure 3: Artificial intelligence HRM management system.

Figure 5: Analysis output of predictive analytics in HR decision-making.

5 RESULT AND DISCUSSION

This paper obtains research results by comparing and experimentally evaluating the traditional scheduling algorithm and the artificial intelligence-based human-computer interaction data scheduling algorithm. AI-Based HCI Scheduling Algorithm Shown in Figure 4.
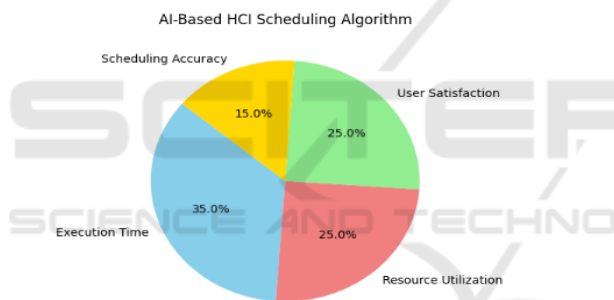

Figure 4: AI-based HCI scheduling algorithm.

The algorithm's mean square error is maintained within the range of. The algorithm presented in this research has clear advantages in terms of resource usage. It can forecast job resource requirements precisely and prevent idleness and waste of resources. Figure 5 Shows the Analysis Output of Predictive Analytics in HR Decision-Making.

This approach can better match jobs and resources, increase task execution efficiency, and enhance reaction time in terms of scheduling accuracy. By defining task requirements and resource allocation models, the algorithm in this research enhances system stability and performance while reducing prediction mistakes in terms of mean square error.

6 CONCLUSIONS

This is accomplished by utilizing data-driven methodologies and predictive analytics, which enable well-informed decision-making processes. The report highlights how these technological tools can improve operational efficacy and help HR professionals move from handling administrative tasks to taking on strategic roles in talent management, workforce planning, and organizational expansion. This study examines how technological innovations affect both employers and employees, with a particular emphasis on the benefits and drawbacks of integrating technology into human resource management. This research attempts to build a link between theoretical ideas and their practical application through an extensive review of current scholarly literature and empirical investigations. Researchers, organizational leaders, and human resource professionals can all benefit greatly from this resource. It supports them in successfully navigating and handling the complex difficulties of contemporary HRM in a high-tech setting.

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