The Future Role of Artificial intelligence Based Human Resource Organizations and Employee

Pushpalatha S¹ and R. Duraipandian² {srimeenakshirs@gmail.com¹, dp.professor@gmail.com²}

Research Scholar, Saveetha School of Management, Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai, Tamil Nadu, India¹
Principal, Saveetha School of Management, Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai, Tamil Nadu, India²

Abstract. The based-on interviews with surveyed firms and a review of pertinent literature, this study attempts to uncover Industry 4.0 solutions and anticipated changes in the HR and employee fields. It also outlines emerging trends of Industry 4.0 that affect HR. In this study, structured interviews were used. Each interviewee's response was processed separately, and then the responses were developed considering all of the interviews. According to this study, the fourth industrial revolution is having the biggest impact on HR in terms of hiring and training, and it has already started to alter competences and the procedures by which they are developed. It is hoped that the linkages found would stimulate additional study and offer valuable insights into the domains of HR and Industry 4.0. The competency-based HRM model in the framework of new age intelligence mobile locating technology, face recognition technology, twodimensional coding technology, artificial intelligence technology, and other new technologies are emerging in this new period of rapid technological growth. According to current trends, people's social habits and everyday lives are being impacted by these new technologies. Artificial intelligence is one of the emerging technologies that has already cast a shadow over organizational behavior and human resource management.

Keywords: AI, HR, Jobs, Talent, Industry.

1 Introduction

The use of these technologies will undoubtedly encourage changes in these areas and have a dual effect on these areas[1]. On the one hand, new technologies like artificial intelligence open up new avenues for human resource development, which can speed up the shift to enterprise management mode and enhance the effectiveness of HRM management as well as optimize HR organizational behavior[2]. However, the use of these new technologies also creates new problems for HR development and management: enterprises' demand for entry-level jobs declines, increasing the pressure on talent markets for employment; enterprises development undergoes transformation and correction, making it harder for small businesses to survive and HR departments' employment challenges and development prospects are uncertain[3].

2 Artificial intelligence

Emerging technologies will undoubtedly have a greater impact on organizational behavior and human resource management in the context of the new era of intelligence[4]. As a result, businesses should come up with creative ideas and incorporate fresh approaches to modernize the conventional HRM model and take advantage of the chance to encourage HRM reforms[5]. Artificial intelligence, for example, has the potential to revitalize HRM in the modern era. In light of this, this article suggests an enterprise HR management strategy based on the

competency model and integrates it with a real-world case study. It discovers that 91% of the company's employees acknowledge the strategy, which has successfully increased HR management's efficiency.

3 Proposed Methodology

The early HRM risk warning using a hybrid decision tree and support vector machine approach the survival and creative growth of businesses are largely dependent on human resource management, which is also a key component of achieving the strategic development objectives of businesses [6]. However, given the quickly evolving internal and external world of today, businesses' HRM (human resource management) operations could be at risk at any time. Thus, this paper develops a decision tree and support vector machine based HRM risk warning scheme that can more accurately identify all categories by combining the features of support vector machine binary classification and recombining each multicategory classification category in accordance with decision tree multi-sub-category classification[7]. Simulation tests demonstrate that the network's convergence is generally stable and that the early warning system's performance for businesses satisfies the required level.

The dynamics modeling approach using performance metrics (PM) to enhance overall organizational performance has been the main focus of many businesses in recent years. Increasing the contributions of high-reforming individuals is one of the most important ways to improve organizational performance [8]. The difficulty lies in implementing HRM practices in a way that empowers employees to be high-performing individuals. The ways in which HRM practices improve overall organizational performance, however, are not well understood [9]. It is true that the strategy employed in HRM practices must be in line with the strategic goals of the firm. In order to facilitate future research in examining HRM practices in terms of their contribution to organizational growth and development, this work attempts to construct a conceptualization model in the form of a causal loop diagram [10]. The causal loop diagram created by this study will assist management and pertinent researchers to a higher degree in utilizing a system dynamic approach to accomplish corporate goals and objectives through the use of strategic HRM practices

Furthermore, a thorough examination of the new HR metrics that are created throughout the transition as well as the ones that are currently in place is conducted[11]. Interviews with HR specialists who have a great deal of expertise implementing and utilizing the new technology constitute the basis of the study[12]. The success of the HRM project involving digital transformation depends on the HR department's active participation.

4 Result and Discussion

The techniques and frameworks classification using community detection algorithms an HRM research case study methods and models are always important because they are typical of study in many scientific fields [13]. These approaches and models are many and diverse, and they typically need human sorting and systematic classification, which can be time-consuming and difficult[14]. In light of this, this research suggests an automatic categorization approach and model based on community identification algorithms in the scientific sector[15]. Several communities might be formed from the co-words network that was taken from the literary data using various detection algorithms. In the meantime, methods and model keywords are automatically categorized into various groups. This work examined data from the human resource management (HRM) literature as a case study. Technical indicators and expert validation were used to compare the outcomes of six community discovery methods, including

Girvan Newman (GN) and Louvain. Finally, the HRM domain's methodologies and models' keywords were categorized into communities. The findings demonstrated that our study offers a useful technique for automatically classifying models and procedures in the scientific field.

The ability motivation opportunity framework an examination of the associated impacts of leadership style and HRM practice on organizational results the ability, motivation, and opportunity (AMO) paradigm is used in this study to build HPWS. These dimensions are related to one another, and their implications on employee-level organizational outcomes for improved performance, productivity, and satisfaction are examined. Three commonly used leadership philosophies transformational, transactional, and laissez-faire as well as the ways in which the AMO framework and leadership philosophies interact in concert and independently to improve organizational outcomes are examined. Utilizing survey data from mid-career professionals in India quantitative research approach is used. The PLS-SEM approach is applied in two stages. The findings point to a close connection between organizational outcomes, HRM practices, and the AMO framework.

5 Result and Analysis

Data visualization analysis for big data-based employment hiring the recruiting sector must use big data technologies to accomplish data analysis activities as a result of its development in the internet age. This project uses a big data platform to create and implement an automated system for analyzing recruitment data. The system collects, stores, cleans, analyzes, and visualizes data using big data technology. Distributed web crawler technology is employed in data collecting to guarantee data acquisition efficiency. Relational databases and distributed file systems are combined for data storage. recruiting data is gathered and filtered using algorithms based on information rules from well-known recruiting websites, which serves as the foundation for data visualization in terms of data cleaning and analysis. Last but not least, a variety of viewpoints, including bar charts and heat maps based on geographic area, are utilized to depict the pay, prerequisites, and demand levels of employment openings, among other things, giving experts and job seekers a foundation for big data research. Output of Industry HR Trends Shown in Fig

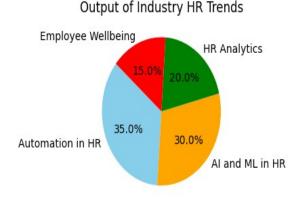


Fig.1. Output of Industry HR Trends.

The automated confirmation and reminder because of the great variety of data sources, some of which are transmitted through other channels rather than their own systems. Some are the result of no data entry as all, rather than data errors. Table 1 Shows the Verification.

Table 1. Verification.

Human Resource S.No Automation **Employees** Closed loop design and promotion power employees would naturally Manual control despite our best not place a high importance on efforts to minimize manual control maintaining and updating data on in data quality control, human error time if it does not directly affect must be minimized due to flawed them. The scenario in which the technology and procedures. The design really makes use of this data following methods can be used selfmust be considered. review: give a checklist to every employee who enters data and Error analysis and continuous remind them to use it to perform improvement by verifying the self-inspection. To lower the chance system's data, we may conduct more of error, we should think about analysis, identify the process stages 1 whether it is feasible to streamline that are problematic, and implement the process design and cut out the necessary ongoing pointless data transfer processes. For improvements. instance, you can allow the worker Process review and implementation to enter data into the system occasionally issues occur as a result independently, and HR can monitor

the quality of the data by looking

over the worker's identification

certificate. In this manner, there are

verification procedures that further

guarantee the quality while lowering

the data transmission connection

of loosely applied procedures. As a

result, regular reviews of the process

design and implementation are

possible.

To make sure the procedure is

carried out correctly, for instance,

review the previous outcomes of data verification and correction

6 Future Scope

The HRM practices' impact on organizational performance HRM and practices were examined in this article. Human resources contribute to the accomplishment of corporate goals. This page also provides a detailed analysis of the chronological evaluation according to each publication. Additionally, each study paper's analysis results are shown. The subject knowledge in this study was reviewed and focused on by a review of the literature. Lastly, it elaborates on a number of research issues that could help scholars do additional research on HRM practices. Output of Comparative Analysis HR Fig 2.

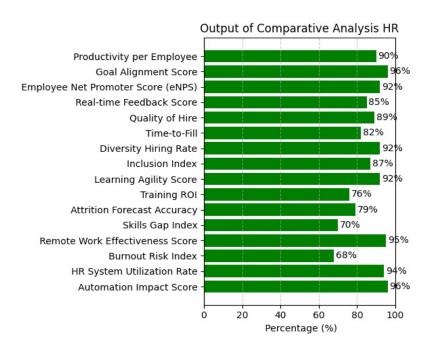


Fig.2. Output of Comparative Analysis HR.

7 Conclusion

The finding HRM Practices to Enhance Information Security Performance a performance map analysis of importance from the viewpoint of IT professionals, this essay focuses on identifying the essential HRM practices required to improve information security performance. The Map Analysis of Importance and Performance A total of more number samples were gathered from IT experts in more organizations using IPMA via Smart PLS .According to the analysis, monitoring, background checks, and information security training are crucial HRM procedures that could enhance organizational information security performance. The survey specifically identified background checks, monitoring of prospective, existing, and former employees, and training on mobile device security and malware as being of high relevance but with low performance. Therefore, improving these crucial areas must be a major concern. On the other hand, the study discovered that the organizations placed an excessive amount of emphasis on employee relations and accountability. For HR and IT executives to take into account in their future information security strategy, the findings brought up some helpful insights and information.

References

[1] R. H. Pillai, S. S, A. Sastri, R. Adarsh and P. P, "Artificial Intelligence-Based Green Human Resource Management for Organization's Operation Model," 2024 5th International Conference on Recent Trends in Computer Science and Technology (ICRTCST), Jamshedpur, India, 2024, pp. 35-40, doi: 10.1109/ICRTCST61793.2024.10578475.

- [2] A. Yassin Alzyoud, "Artificial Intelligence for Sustaining Green Human Resource Management: A Literature Review," 2022 ASU International Conference in Emerging Technologies for Sustainability and Intelligent Systems (ICETSIS), Manama, Bahrain, 2022, pp. 321-326, doi: 10.1109/ICETSIS55481.2022.9888840.
- [3] H. Fazlurrahman, B. Setyo Nugroho, M. J. Asha'ari, M. Mat Deli, W. Noordiana Wan Hanafi and S. Binti Daud, "E-Recruitment with AI in GHRM for Corporate University Sustainability to Improve Organization Performance: Systematic Literature Review," 2024 12th International Conference on Cyber and IT Service Management (CITSM), Batam, Indonesia, 2024, pp. 1-5, doi: 10.1109/CITSM64103.2024.10775838.
- [4] S. M. A. Alnajdawi, "The Impact of GHRM Practices on Sustainable Development Goals," 2024 ASU International Conference in Emerging Technologies for Sustainability and Intelligent Systems (ICETSIS), Manama, Bahrain, 2024, pp. 165-170, doi: 10.1109/ICETSIS61505.2024.10459585.
- [5] M. Shinde, A. B. Bhardwaj and V. K. Shukla, "Performance Evaluation and Impact Analysis of Green Technology-Based Organizations," 2021 9th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions) (ICRITO), Noida, India, 2021, pp. 1-5, doi: 10.1109/ICRITO51393.2021.9596304.
- [6] M. Singh, S. Singh and A. Jandwani, "Application of Machine Learning in Investigating the Impact of Green HRM Practices in Sustainability of an Organization," 2023 International Conference on Advances in Computation, Communication and Information Technology (ICAICCIT), Faridabad, India, 2023, pp. 1001-1005, doi: 10.1109/ICAICCIT60255.2023.10465789.
- [7] S. B. Lekhi, M. Malhotra, A. Pushp, R. S. Gautam, S. Sharma and S. Rastogi, "The Study Provides a thorough Examination of Green Human Resource Management Practices within the Indian IT Sector," 2024 Second International Conference on Advances in Information Technology (ICAIT), Chikkamagaluru, Karnataka, India, 2024, pp. 1-5, doi: 10.1109/ICAIT61638.2024.10690791.
- [8] M. W. Rana, Z. Sufang, K. Jamil, N. R. Jaffri and I. Hamid, "Eco-Innovation and its impact on Environmental Performance in the context of Green Technology," 2021 International Conference on Engineering and Emerging Technologies (ICEET), Istanbul, Turkey, 2021, pp. 1-5, doi: 10.1109/ICEET53442.2021.9659774.
- [9] K. Vishrutha, "A Green Infrastructure for HCI and IT- A Review," 2020 International Conference on Emerging Trends in Information Technology and Engineering (ic-ETITE), Vellore, India, 2020, pp. 1-7, doi: 10.1109/ic-ETITE47903.2020.4.
- [10] V. Agarwal, K. Sharma and A. K. Rajpoot, "A Review: Evolution of Technology towards Green IT," 2021 International Conference on Computing, Communication, and Intelligent Systems (ICCCIS), Greater Noida, India, 2021, pp. 940-946, doi: 10.1109/ICCCIS51004.2021.9397173.
- [11] A. R. A. Pascua, M. Rivera, M. Guillermo, A. Bandala and E. Sybingco, "Face Recognition and Identification Using Successive Subspace Learning for Human Resource Utilization Assessment," 2022 13th International Conference on Information and Communication Technology Convergence (ICTC), Jeju Island, Korea, Republic of, 2022, pp. 1375-1380, doi: 10.1109/ICTC55196.2022.9952691.
- [12] M. Nadir, K. Akram, Z. Iqbal and M. Abrarulhaq, "A Nexus Between Green Human Resource Management, Environmental Values, and Green Service Behavior: The Moderating Role of Environmental Commitment," 2023 International Conference on Sustainable Islamic Business and Finance (SIBF), Bahrain, 2023, pp. 386-390, doi: 10.1109/SIBF60067.2023.10379902.
- [13] M. Yadav and B. Siddiqui, "Do Biophilic Design Elements Impact Human Resource Productivity in a Corporate Environment?," 2024 ASU International Conference in Emerging Technologies for Sustainability and Intelligent Systems (ICETSIS), Manama, Bahrain, 2024, pp. 1560-1565, doi: 10.1109/ICETSIS61505.2024.10459437.
 S. A. Estherita, S. Vasantha and D. Sungeetha, "Artificial Intelligence and HR Digitalization
 - S. A. Estherita, S. Vasantha and D. Sungeetha, "Artificial Intelligence and HR Digitalization Facilitated by Transformational Leadership," 2023 Intelligent Computing and Control for

- Engineering and Business Systems (ICCEBS), Chennai, India, 2023, pp. 1-6, doi: 10.1109/ICCEBS58601.2023.10448700.
- [14] J. Shanmugalingam, D. Lario and Y. Ma, "Feature Based Statistical Model of Employee Productivity with Real Time Checked Data," 2021 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM), Singapore, Singapore, 2021, pp. 925-932, doi: 10.1109/IEEM50564.2021.9672783.
- [15] B. M. El Amine and S. -T. Lamia, "Blockchain Adoption for a Sustainable Agricultural Supply Chain: Opportunities and Challenges for the Dairy Industry," 2023 International Conference on Decision Aid Sciences and Applications (DASA), Annaba, Algeria, 2023, pp. 331-336, doi: 10.1109/DASA59624.2023.10286692.
- [16] X. Zhaodi, "Research on the Application of Supply Chain Management Under Big Data and Blockchain Technology," 2024 International Conference on Electrical Drives, Power Electronics & Engineering (EDPEE), Athens, Greece, 2024, pp. 497-503, doi: 10.1109/EDPEE61724.2024.00099.