



A Quantitative Analysis Of Both The Advantages And The Challenges Associated With Transforming Human Resource Management Through The Use Of Hr Analytics

*Mahalakshmi G, Research Scholar, Mansarovar Global University, Sehore, Madhya Pradesh.

**Dr. Swati Sisodiya, Assistant professor, Mansarovar Global University, Sehore, Madhya Pradesh.

ABSTRACT:

The introduction of digitalisation and technology has increased the requirement for strong and automated systems that require less human intervention. Human resource departments are in charge of managing highly complicated duties such as talent acquisition, performance management, remuneration, benefits, and other critical employee-related functions. Manually managing a large staff database is not always straightforward. Previously, the Human Resources function was mostly transactional and administrative. However, as jobs and job descriptions changed, so did the way things were done. Businesses have recognised the importance of Human Resource Management in harnessing existing resources to help organisations gain a competitive advantage. HR analytics has become critical for firms to complete difficult jobs and identify trends for future initiatives. HR analytics is a buzzword among HR practitioners today. It aids in identifying gaps in individual and team performance and recommending ways to close them using Artificial Intelligence or other similar technologies. The goal of this study was to better understand the role of HR Analytics in transforming human resource functions. A sample of 197 HR professionals from various organisations were polled to learn about the benefits, obstacles, and impact of transforming human resource management with HR analytics. Transforming Human Resource Management using HR Analytics has a tremendous influence on an organisation.

Key Words: HRM, HR Analytics, People Analytics, Advantages, Challenges, Solutions, Human Resource Functions.

1. INTRODUCTION:

With countless signals of advancement in technology, innovation, and cloud computing, there are now several information sources available to guide navigation and drive the success of diverse organisations. Gathering the proper type of information is typically on the bucket list of HR departments that have strong scientific abilities. High-performing HR organisations understand that they can utilise information to generate possibilities by identifying certain connected indicators or information that expresses a certain idea for developing strategies (Schuler, 2015), these methods are then implemented to promote organisational growth and progress. HR should ensure that precise metrics and measures are used by organisations to achieve critical objectives. HR Analytics, often known as people analytics, is the process of gathering and analysing information on employees in order to improve the performance of individuals and teams within a company. The cycle can also be known as talent or workforce analytics.

(Vu, 2017), this technique comprises analysing the available information about employees that is regularly documented by HR and is relevant to HR as well as the organization's goals.

This provides approximated proof of how HR activities contribute to the organization's goals and existing systems. For example, if a programming firm experiences significant attrition or personnel turnover, the organization is not operating at peak efficiency. Investment and technical interventions are required to elevate workers to a collaborative and efficient level.

HR Analytics provides an information-supported understanding of what is going effectively and what isn't, allowing firms to make significant changes as needed using analytical tools. Knowing why an organization's attrition rates or turnover levels are high can provide a major insight of how they can be reduced. Reduced turnover allows the firm to produce more income while also improving staff efficiency.

In today's data-rich corporate landscape, Human Resource (HR) departments are undergoing a substantive transformation—shifting from traditional, administrative-focused operations to strategic, analytics-driven decision-making hubs. At the heart of this shift lies HR analytics, the practice of collecting, analysing, and applying workforce data to optimize HR functions, improve employee experiences, and align HR with overarching business objectives. This transformation carries profound implications for talent acquisition, retention, performance management, workforce planning, and employee well-being. Below, we explore these dimensions in-depth—with real-world case studies, best practices, challenges, and forward-looking trends.

Key Applications of HR Analytics

1. Talent Acquisition

Predictive analytics enables organizations to identify candidates who are most likely to succeed by analysing historical hiring data and performance metrics. Companies like Unilever have utilized AI-powered assessments to streamline their recruitment processes, reducing time-to-hire and improving candidate quality.

2. Employee Engagement and Retention

By analysing employee feedback, performance data, and engagement surveys, HR analytics helps identify factors contributing to employee satisfaction and turnover. For instance, IBM's application of predictive

analytics has allowed them to anticipate employee departures with high accuracy, enabling proactive retention strategies.

3. Performance Management

HR analytics facilitates continuous performance monitoring by providing real-time feedback and identifying skill gaps. Google's use of data analytics in their Project Oxygen initiative led to the identification of key managerial behaviours that enhance team performance, resulting in targeted training programs.

4. Workforce Planning

Analysing workforce data allows organizations to forecast future talent needs, plan for retirements, and identify areas requiring up skilling. This strategic approach ensures that the organization is prepared to meet future challenges and opportunities.

2. LITERATURE REVIEW

(Hejase, et al., 2016), HR Analytics may be valuable to the organization if there are tools for understanding and utilizing the relevant information. Furthermore, having new innovation does not guarantee that managers will be able to extract relevant and meaningful data from the company's HR information. A poll conducted by the firm "Deloitte" showed that 74% of HR and IT personnel who participated in the survey believed technology such as AI, cloud-based data, ML, and so on were beneficial. However, only 26% of the respondents used technology and analytics in their professions. To make HR data truly relevant and gain the most value from it, it is vital to explore the different ways HR analytics may support managers in engaging with employees on a daily basis.

(Mishra, et al., 2016), Rewards and recognition play a significant part in motivating employees and assisting them in achieving a high level of job satisfaction, allowing them to feel responsible and accountable for their work. Employees' performance levels often drop when they are not motivated enough, which has a negative impact on the organization. Employees must be motivated to a particular level in order to carry out their obligations with the highest effectiveness.

(Jogaratham, 2017), A team of analytics personnel is not necessary to solve difficult management problems, but basic efforts to master new HR analytics abilities may benefit managers significantly. HR analytics can be utilized in a variety of human resource management operations, including recruiting and talent selection, to attract and hire individuals. Many procedures involved in the recruiting process can be automated, and the data generated by the system can be used for improved analysis of candidates applying, employees joining and departing the firm.

(Kaur & Fink, 2017), Employee engagement has become a buzzword in the human resource area, and numerous studies by academics and business executives have underlined its importance in increasing motivation and job satisfaction levels within an organization. Human resource analytics has contributed to employee engagement in a variety of ways. One of the most common activities facilitated by HR analytics is the measurement and comparison of engagement levels across roles, departments, regions, and industries.

This evaluation has shown that poor engagement levels have resulted in increased turnover, absenteeism, and attrition in organizations.

(Tursunbayeva, et al., 2018), the attrition rate can be assessed using HR analytics, and appropriate decisions can be made depending on the reasons for attrition within the firm. Another human resource function is compensation and benefits. HR analytics can be used to develop measurements and compare pay packages to peer organizations in order to determine industry standards.

(Al Khajeh, 2018), HR administrators' decisions have a direct impact on organizational decision making; yet, there is a gap in the existing literature regarding dynamic cycles of decision making by these supervisors, particularly in terms of the emotional components involved. The most current breakthroughs and improvements in technology and innovation imply the ability to approach dynamic instruments that aid in a more thorough examination of the employee's knowledge. Indeed, HR information and monitoring can provide managers with a more prominent perception of the workforce in place, allowing them to make more focused and information-driven decisions about any HR initiatives implemented in the firm.

Stieglitz, et al., 2018), Overall, individual information can be gathered and reported to aid in a more accurate assessment of the current workforce. One can also use HR information analysis to discover patterns and use them to make judgments for improvement in procedures connected to employee remuneration or salary, career promotions, performance reviews, and so on.

(Ruparel, et al., 2020), Human Resource Analytics refers to the amount of data that supports HR-related decision making. With the use of HR analytics or people analytics, one may not have to rely on sporadic perceptions or any other type of observation to work on the feasibility of HR operations.

(Mohanty & Mishra, 2020), Thus, human resource analytics may be effective in leveraging human resource data to evaluate individual performance and commitment levels, as well as to offer ways for increasing performance. The human resource functions inside a business are interconnected because if the performance of an individual is frequently identified, it will lead to finding out the areas of improvement.

(Shrestha, et al., 2021), People analytics benefits the firm in a variety of ways. In a market where talent is valuable and organizations compete fiercely for the best employees, a streamlined recruitment process would save the organization from losing a talented workforce while also obtaining the experience of more such individuals in the long term. Organizations can utilize people analytics to uncover the best practices in sourcing the proper kind of applicants, analysing their qualifications, and selecting the most relevant candidates for the organization.

3. OBJECTIVE OF THE STUDY

1. To have an understanding of the advantages and difficulties associated with improving human resource management through the use of HR analytics.
2. To assess the impact of HR Analytics on Human Resource Management in an organization.

4. RESEARCH METHODOLOGY

A sample of 197 HR professionals from various firms were polled to learn about the benefits, obstacles, and impact of transforming human resource management with HR analytics. The current study is quantitative in nature, with primary data acquired by the random sample approach. Mean and t-test are statistical procedures used to analyse data and arrive at final results.

5. ANALYSIS AND DISCUSSIONS:

Table 1- Demographic Details

Variables	Respondents	Percentage %
Gender		
Male	119	60.4
Female	78	39.6
Total	197	100
Age		
32-36 yrs.	69	35.0
36-42 yrs.	71	36.1
Above 42 yrs.	57	28.9
Total	197	100
Department		
Recruitment	49	24.9
Training and Development	60	30.5
Administration & Management	58	29.4
Others	30	15.2
Total	197	100
Designation		
HR Director	50	25.4
HR Manager	63	32.0
Recruiter	55	27.9
Others	29	14.7
Total	197	100

Interpretation:

Table 1 displays demographic information about the respondents, revealing that of the 197 respondents, 60.4% are men and 39.6% are women. 35.0% of them are 32-36 years old, 36.1% are 36-42 years old, and the remaining 28.9% are over the age of 42. 24.9% of respondents work in the recruitment department, 30.5% in training and development, 29.4% in administration and management, and the remaining 15.2% work in other human resources departments. 25.4% of responders are HR Directors, 32.0% are HR Managers, 27.9% are Recruiters, and the remainder 14.7% of respondents hold a different designation in the HR department.

Table 2-Benefits and challenges of Transforming Human Resource Management with HR Analytics

S. No.	Benefits and challenges of Transforming Human Resource Management with HR Analytics	Mean score	t value	Sig
	Benefits			
1.	HR Analytics that help managers make better decisions in difficult situations	3.29	3.00	0.002
2.	HR Analytics gives information that helps to understand of the thing that is functioning in its full capacity and what is not	3.37	1.87	0.032
3.	HR Analytics gathers and deciphers employee related information and help them to perform better	3.77	3.94	0.000
4.	HR Analytics finds and help to fill the gaps in performance of individuals and teams throughway or other related technologies	3.23	3863.00	0.000
5.	HR Analytics carry out complex tasks and help to prepare future strategies	3.63	1.89	0.030
	Challenges			
6.	Lack of communication between the clients and the HR system of measurement and analytics team	3.29	3.00	0.002
7.	Lack of statistical skills and analytical skills in HR team	3.90	5.77	0.000
8.	Lack of tools to handle multiple data sources and make statistical predictive analytics	3.81	4.49	0.000
9.	Lack of training skill development program to handle HR Analytics	4.00	7.16	0.000
10.	Lack of interest and support from the business and management	4.01	0.15	0.442

Interpretation:

Table 2 depicts the benefits and challenges of transforming human resource management with HR analytics, and it is observed that the respondent states that the challenge faced in human resource management transformation with HR analytics is a lack of interest and support from the business and management (mean value 4.01), as well as a lack of training skill development program to handle HR Analytics (mean value 4.00). The HR team lacks statistical and analytical abilities, with a mean value of 3.90, as well as instruments for dealing with different data sources and doing statistical predictive analytics, with a mean value of 3.81. The responder also claims that HR Analytics collects and deciphers employee-related information to help them perform better (mean value 3.77), and that HR Analytics performs complex jobs and assists in the development of future strategies (mean value 3.63). HR Analytics provides information that helps managers make better decisions in tough situations, with a mean value of 3.29. It is also discovered that there is a lack of communication between clients and the HR system of the measurement and analytics team (mean value 3.29), whereas HR Analytics finds and helps to fill gaps in performance of individuals and teams through AI or other related technologies (mean value 3.23). Further t-testing was performed to determine the significance of the claims, and it was discovered that the value in the significance column for all of the statements is less than 0.05, with the exception of the statement Lack of interest and support from the business and management, which has a value of 0.442.

6. FINDINGS:

According to the study's findings, there are a number of advantages and difficulties associated with integrating HR Analytics into human resource management. These include a lack of interest and support from the business and management, a lack of training programs for skill development, the fact that HR Analytics collects and interprets employee-related data to improve employee performance, the ability to perform complex tasks, and the assistance in developing future strategies. An organization's transformation of human resource management using HR analytics is also found to have a major influence.

7. CONCLUSION:

The facts presented in the study demonstrate that HR Analytics can provide an understanding of business capacities and assist HR experts in developing plans that optimise ability speculations while actually observing and improving various HR functions such as talent acquisition, employee engagement, performance management, compensation and benefits, and several others. HR plays an important role in corporate outcomes, and employing information provides a substantial advantage when making business decisions. Organisations are developing groups of analytics experts, fast supplanting old administrative frameworks and integrating analytics into HR to make better-informed judgements and strategies. Human Resources is currently transitioning from an administrative function to a collaborative system, suggesting that innovation is having a big impact on how HR engages with representatives and partners. However, the use of analytics is far from new; an ever-increasing number of businesses have recognised in the last two years that information may help to strengthen both HR capabilities and company processes in general.

References

- Al Khajeh, E. H. (2018). Impact Of Leadership Styles on Organizational Performance. *Journal Of Human Resources Management Research*, 2018, 1-10.
- Gubbins, C., Harney, B., Van Der Werff, L., & Rousseau, D. M. (2018). Enhancing The Trustworthiness and Credibility Of HRD: Evidence-Based Management to The Rescue. *Human Resource Development Quarterly*, 29(3), 193-202.
- Hejase, H. J., Hejase, A. J., Mikdashi, G., & Bazeih, Z. F. (2016). Talent Management Challenges: An Exploratory Assessment from Lebanon. *International Journal of Business Management & Economic Research*, 7(1).
- Jogaratham, G. (2017). The Effect of Market Orientation, Entrepreneurial Orientation and Human Capital on Positional Advantage: Evidence from The Restaurant Industry. *International Journal of Hospitality Management*, 60(1), 104-113.
- Karikari, A. F., Boateng, P. A., & Ocansey, E. O. (2015). The Role of Human Resource Information System in The Process of Manpower Activities. *American Journal of Industrial and Business Management*, 5(06) , 424.

- Kaur, J., & Fink, A. A. (2017). Trends And Practices in Talent Analytics. *Society For Human Resource Management (SHRM)-Society for Industrial-Organizational Psychology (SIOP) Science of HR White Paper Series*, 20.
- Leicht-Deobald, U., Busch, T., Schank, C., Weibel, A., Schafheitle, S., Wildhaber, I., & Kasper, G. (2019). The Challenges of Algorithm-Based HR Decision-Making for Personal Integrity. *Journal Of Business Ethics*, 160(2), 377-392.
- Malik, A. (2019). Creating Competitive Advantage Through Source Basic Capital Strategic Humanity in The Industrial Age 4.0. *International Research Journal of Advanced Engineering and Science*, 4(1), 209215.
- Mishra, S. N., Lama, D. R., & Pal, Y. (2016). Human Resource Predictive Analytics (HRPA) For HR Management in Organizations. *International Journal of Scientific & Technology Research*, 5(5), 33-35.
- Mishra, S. N., Lama, D. R., & Pal, Y. (2016). Human Resource Predictive Analytics (HRPA) For HR Management in Organizations. *International Journal of Scientific & Technology Research*, 5(5), 33-35.
- Mohanty, S., & Mishra, P. C. (2020). Framework For Understanding Internet of Things in Human Resource Management. *Revista ESPACIOS*, 41(12).
- Momin, W. Y. M., & Mishra, K. (2015). HR Analytics as A Strategic Workforce Planning. *International Journal of Applied Research*, 1(4), 258-260.
- Rasmussen, T., & Ulrich, D. (2015). Learning From Practice: How HR Analytics Avoids Being a Management Fad. *Organizational Dynamics*, 44(3), 236-242.
- Ruparel, N., Dhir, A., Tandon, A., Kaur, P., & Islam, J. U. (2020). The Influence of Online Professional social media In Human Resource Management: A Systematic Literature Review. *Technology In Society*, 63, 101335.
- Schuler, R. S. (2015). The 5-C Framework for Managing Talent. *Organizational Dynamics*, 44(1), 47-56.
- Shrestha, Y. R., Krishna, V., & Von Krogh, G. (2021). Augmenting Organizational Decision-Making with Deep Learning Algorithms: Principles, Promises, And Challenges. *Journal Of Business Research*, 123, 588603.
- Sivarajah, U., Kamal, M. M., Irani, Z., & Weerakkody, V. (2017). Critical Analysis of Big Data Challenges and Analytical Methods. *Journal Of Business Research*, 70, 263-286.
- Stieglitz, S., Mirbabaie, M., Fromm, J., & Melzer, S. (2018, June). The Adoption of Social Media Analytics for Crisis Management-Challenges and Opportunities. In *ECIS* (P. 4).
- Tursunbayeva, A., Di Lauro, S., & Pagliari, C. (2018). People Analytics—A Scoping Review of Conceptual Boundaries and Value Propositions. *International Journal of Information Management*, 43, 224-247.
- Vu, G. T. H. (2017). A Critical Review of Human Resource Competency Model: Evolvment in Required Competencies for Human Resource Professionals. *Journal Of Economics, Business and Management*, 5(12), 357-365.