Education and Society शिक्षण आणि समाज
ISSN : 2278-6864 UGC Care Group 1 Journal

HR ANALYTICS AND INDUSTRY 5.0: A NEW HR MODEL AT WORK

Dr. Ruchi Srivastava
Professor, Tecnia Institute of Advanced Studies, New Delhi
Dr. Rubeena Bano
Assistant Professor, Tecnia Institute of Advanced Studies, New Delhi

Abstract:
The concept of managing the human resource of the organization has faced the challenge after the emergence of global workforce and the increasing relevance of business analytics as a strategic organizational capability. The industry 5.0 is the new revolution. With this new revolution the current human resource management of the organization has to undergo this transition. This article will discuss about the HR Analytics, which is a new and most demanded HR model for dealing the new challenges and contributing in a factual way for effective HR decision making. The major HR issues in any organization is high employee attrition rates, performance issues, compensation planning, career development initiatives plans etc. The HR analytics through combination of statistical techniques helps in collection, interpretation, measurement, and forecasting of data. HR analytics enlightens solution to the organizational problems and make accurate decisions based on facts and figures instead of intuitions. HR analytics hence aligns HR strategy with overall business strategy to obtain a competitive advantage. This research article is based on secondary data and discuss about various types of HR analytics and its role in workforce planning, competitive advantage, employee acquisition to employee retention, leveraging data, developing insights and developing various models for organization for aligning HR activities with organizational goals and strategy

Introduction:

In the earlier years the role of an HR was limited to merely filling up vacancies as and when required. In the current corporate scenario, HR has a much more substantial role to play. With the significance of the severe reliance on the workforce slowly being comprehended there is escalating stress on uncovering and engaging the most suitable talent. The employees are no longer willing to limit themselves, they are now multi skilled personality and they are constantly on the lookout for better opportunities, hence making the responsibility of HR even more crucial.

The HR are no more confined with hiring, but also identifying the talent and retaining the good employees in the organization As the roles and responsibilities of the HR modify, there has also been a modification in their approach. The decision making which had once been guided by intuition and instinct has now become factual, relying on data analytics and algorithms for arriving at business solutions. The HR analytics is a tool which helps in making right decision making through the facts and figures .The emergence of HR Analytics in organizations helps them in gathering, interpreting, and measuring of HR data in a very easy way. HR Analytics act as a tool which is a combination of statistical techniques that enable collection, interpretation, measurement, and forecasting of data. HR analytics enlightens solution to the organizational problems and make accurate decisions. HR analytics hence aligns HR strategy with overall business strategy to obtain a competitive advantage.

Coordinator
Internal Quality Assessment Cell (IQAC)
Tecnia Institute of Advanced Studies
New Delhi-110085

Objectives:

1. To explain the need of HR Analytics as per industry 5.0
2. To clear the concept of the HR Analytics
3. To explain the types of HR Analytics
4. To discuss about how the HR analytics can be used in organization for effective decision making based on facts and figures

Research Methodology

The research is descriptive in nature. In this article detailed aspects of HR analytics, its importance with reference to industry 5.0 is discussed and how HR analytics is supporting the HR department for effective management of the organization with reference to organizational goals and objectives. The main source of the information was the secondary data which was collected from various websites, magazine, journals and newspaper.

HR Analytics: The New Model

HR analytics is the process of collecting and analyzing Human Resource (HR) data in order to improve an organization's workforce performance. The process can also be referred to as talent analytics, people analytics, or even workforce analytics. This method of data analysis takes data that is routinely collected by HR and correlates it to HR and organizational objectives. Doing so provides measured evidence of how HR initiatives are contributing to the organization's goals and strategies.HR analytics provides data-backed insight on what is working well and what is not so that organizations can make improvements and plan more effectively for the future.

Evolution of HR Analytics

The global competition has created many challenges to the organization, among which having a large amount of data in each function is also challenge to the organization. The Organization uses analytics in all of its functions but HR was lacking behind, so due to difficulty in collecting and analyzing HR data it becomes a necessity for the evolution of HR analytics.

In 1959, E.T.Rennese explained a theory given by Barney namely "Resource -Based View Theory. This theory explained that to achieve a competitive advantage in an organization there is a need to understand the relationship between HRM and Business strategy. Barney also stated VRIO i.e., Valuable, Rare, Inimitable, and Organized framework which was later criticized by scholars as this theory included only human capital and accordingly human capital cannot create any competitive advantage.

In the 1970s HRM-related issues were analyzed and how to use HR metrics and scorecards to measure HR data were discussed. In 1988 Baird and Meshoulam explained the relationship between three important aspects of any organization i.e., HR policies, organization life cycle, and business challenges within the organization. They also explained vertical and horizontal fit which explains how collaborations of the HR function with other functions and HR sub-functions helps in achieving organizational objectives.

In the 1990s organizations found that to achieve objectives and goals of any organization to create a competitive advantage it is important to value employees and they started viewing their employees as material resources. During the first half of the 2000s, various new tools and techniques were introduced to measure the impact of HR activities and practices on organizational

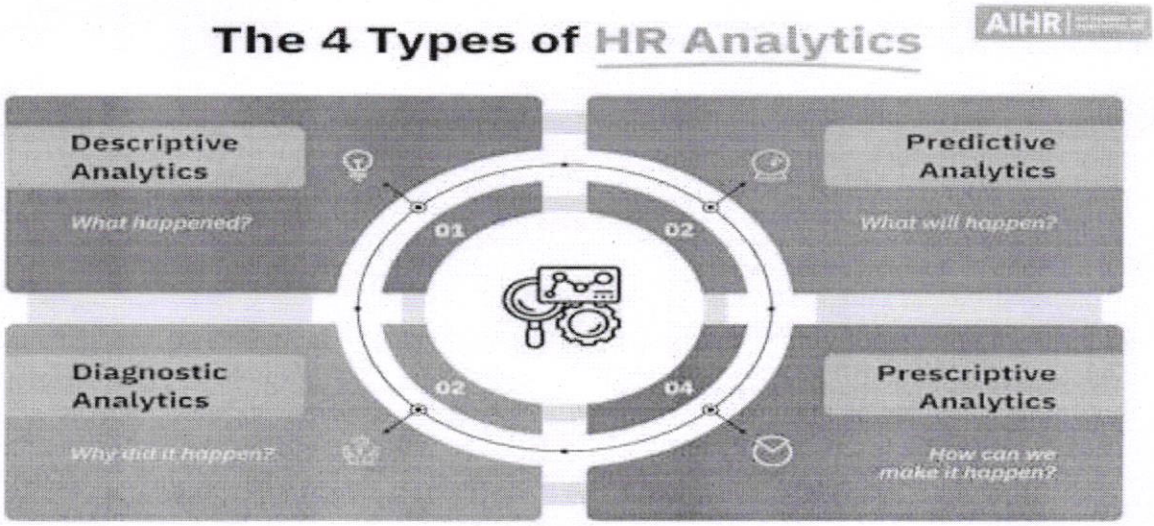
Coordinator
Internal Quality Assessment Cell (IQAC)
Tecnia Institute of Advanced Studies
New Delhi-110085

performances such as HR scorecards or workforce scorecards. Later in mid of 2000, there was the exposure of HR accounting and utility analysis which later showed a shift towards the development of a more scientific and evidence-based approach to HR.

In 2002 Oakland A found more advanced perceptive use of metrics and based on this experiment Lewis in 2003 found a concept called "Moneyball Concept" which showed growth on a large scale in 2006. In 2009 GOOGLE worked on finding out the best competent traits that are needed to be an effective manager and doing this Google developed "Project Oxygen" which bought a tremendous shift from traditional HR measurements to HR analytics. Google also highlighted the benefits of using HR analytics in organizational performances. Since then HR analytics has received a certain amount of attention but still, it has not reached its final stage. Researchers on HR analytics recently have been started which mainly focuses on the use of HR analytics, it was a decision support tool, the capability of this tool, or awareness of HR analytics.

HR analytics is developed after the development of big data and now it uses a large amount of HR data to provide the organization with decision making.

Types of HR Analytics



1. Descriptive analytics

The first type of HR analytics on the list is descriptive analytics. This is the most basic type that analyzes data patterns to gain insight into the past. It is known as decision analytics, and uses statistical analysis techniques to explain or summarize a particular set of historical, raw data. It focuses on past data to account for what happened but doesn't make predictions for the future.

They rely on the past and aim to explain why something already happened. Only focusing on descriptive analytics is very reactive. Descriptive analytics can use a combination of numerical data and qualitative data. It involves performing mathematical calculations, such as central tendency, frequency, variation, ranking, range, deviation, etc. This allows HR to see patterns and inconsistencies to improve planning.

The two main methods in which data is collected for descriptive analytics are data aggregation and data mining. Before data can be made sense of it must first be gathered and then parsed into

Coordinator
Internal Quality Assurance Cell (IQAC)
Tecnia Institute of Advanced Studies
New Delhi-110085

manageable information. This information can then be meaningfully used by management to comprehend where the business stands. Descriptive analytics can use a combination of numerical data and qualitative data. It involves performing mathematical calculations, such as central tendency, frequency, variation, ranking, range, deviation, etc. This allows HR to see patterns and inconsistencies to improve planning.

Descriptive analytics can help with:

- Assessing behavior
- Comparing characteristics across time
- Spotting anomalies
- Identifying strengths and weaknesses

2. Diagnostic analytics

Diagnostic analytics takes descriptive analytics to the next level by providing an explanation for what has been revealed. It aims to determine the underlying reasons for what the data exposes. Diagnostic analytics present the *causes* of the events revealed by the descriptive analytics.

There are multiple diagnostic analytics techniques, including:

- Data drilling: Taking information from a more general overview and providing a more granular view of the data.
- Data mining: Extracting patterns from data to help predict future events
- Probability theory: Quantifying uncertain measures of random events
- Regression analysis: Determining which variables will impact an outcome
- Correlation analysis: Tests the relationships between variables
- Statistical analysis: Collecting and interpreting data to determine underlying patterns

Predictive Analytics

Predictive analytics focus on what might happen in the future, based on the details of past events. This may be a forecast of which salespeople are likely to resign within the next 90 days. Predictive data is gained through data modeling, machine learning and artificial intelligence. If you know what's going to happen, you can prepare for it in advance. Much like if you know that it's going to rain tomorrow, you can pack an umbrella in your brief case tonight. Similarly, if you know which salespeople are flight risks in the next 90 days, you can advise their managers to approach them now, before it's too late.

Prescriptive analytics

Prescriptive analytics deals with proposing suggestions for future actions according to the prediction made via predictive analytics. The suggestion proposed by prescriptive analytics is based on data analytics and thus more reliable. Prescriptive analytics suggest decision options and actions you can (should) take, based on the predictions. And unlike purely human decisions that are often subject to illogical biases, the decisions recommended by prescriptive analytics are

based on data, and therefore, more reliable. In our example of the flight-risk sales reps, prescriptive analytics may recommend a particular training regimen be offered to certain sales reps at a specific

Coordinator
Internal Quality Assessment Cell (IQAC)
Tecnia Institute of Advanced Studies
New Delhi-110085

time before their productivity is likely to decline.

HR Analytics in Practice

ROLE OF HUMAN RESOURCE ANALYTICS IN HUMAN RESOURCES

HR analytics plays a significant role in human resources. Using analytical techniques HR functions can grow at a faster pace and can have evidence-based decision making. HR analytics gathers, assess previous information which provides organizations with positive and negative trends. It evaluates the organizational performances against its competitors easily. HR analytics plays a major role in workforce planning, competitive advantage, employee acquisition to employee retention, leveraging data, developing insights and models for organization,
helps in performance management, data manipulation, selecting suitable modeling techniques, and others. Some of the key roles of analytics in Human Resources are discussed below:

1. **Employee Management:** Human resource analytics plays an important role in managing employees of the business. This stool stores relevant data of employees profiles including experiences, skillset, knowledge etc. It includes data that help the HR department in the hiring process as it analyses resumes and other relevant details using various metrics. HR analytics evaluates the reason for the increase or decrease in attrition rates of organizations. This keeps records of employee or job satisfaction, job involvement, years in the role, and every other relevant information about the employee.

2. Company culture

Having a positive company culture is important for all members of the team. Both the physical environment and the mentality of staff are important factors in keeping the company culture balanced. The behaviors and attitudes of staff can change at any time, having an impact on the culture. By using HR analytics, employee wellbeing, satisfaction and engagement can be tracked and monitored. Improving the company culture can increase the health, both physical and mental, of employees. It can reduce the turnover rate, increase loyalty and improve performance outcomes. By monitoring this closely, all employees and the company would benefit. This would be done by using descriptive analysis to observe the workplace closely, followed by diagnostic analysis to narrow down the reason behind any negative company culture.

3. Turnover rate

The HR team will know their current turnover rate but they will not know the reason of leaving or they may not know of any current employees planning on leaving or what percentage of employee turnover in the last year had a large impact on the company. By using HR analytics, a company could identify patterns to find out if there are consistent reasons that employees are leaving. They can also gain an understanding of current employees' behavior and attitude towards work to identify if anyone else is considering leaving. Using diagnostic analysis to understand the why is crucial here, as employees may leave for a variety of reasons, but using the analysis to identify the patterns can help improve them. By correlating the data of why people have left previously and what current employees like and dislike, HR can implement changes to reduce the negative factors leading to a high turnover rate.

4.Performance Management: HR analytics helps in building a road map to evaluate the performance of employees as it can provide high and low-performance indicators. HR analytics provides current performance, and improvements required in their performance for development.

Coordinator
Internal Quality Assessment Cell (IQAC)
Tecnia Institute of Advanced Studies
New Delhi-110085

5. Absenteeism

Absenteeism tracks the amount of time and frequency that an employee is absent from their job. If an employee is regularly absent or absent for a long time, it could have a direct impact on their engagement, wellbeing or ability to complete tasks.

High absences can be looked into by HR to ensure that there is a valid reason. Monitoring the reasons why employees take regular absences could offer HR a chance to improve any work-related causes, such as negative work culture.

Absenteeism can often be expensive, therefore by using diagnostic analysis and identifying the cause of each employee's absence, it offers the company a chance to show support to employees who may need it, as well as hold all employees to their code of conduct and compare to the average amount of leave.

6. Statistical Analysis: The information collected through the use of HR analytics is collected to analyze data. HR analytic help in data integration and provide input-output analyses related to employees, cost-benefit, social-networking analysis can be evaluated through using statistical analysis of HR analytics. This tool also helps in providing satisfaction, performance of employee's evaluation. This plays a significant role in project planning and utilization and also provides communication and interaction schemes. For example: risk level attrition can be evaluated through HR analytics.

7. Develop and Provides Insightful Models: HR analytics tool uses statistical measures that help in leveraging data to show an impact on the organization. This creates models that provide visual insights to identify the performance gaps, factors boosting or decreasing productivity etc.

8. Data Privacy: Privacy of any data is of utmost importance for any organization to protect itself from threats. HR analytics maintains and stores a huge amount of data with security. Data cannot be manipulated and unauthorized use of data is not possible if an organization uses HR analytic

Conclusion:

The HR management teams of every organization have some challenges and problems in common. Few of the major HR issues in any given company are higher employee attrition rates, performance issues, compensation planning, career development initiatives plans etc. There might be instances where an employee might have performed well consistently but due to lack of appreciation has left the organization. This is a serious concern for any organization that values its employees. Lack of proper HR decision making leads to employee dissatisfaction and disengagement. The usage of data analytics has therefore helped a lot in effective human resource management. Companies are leveraging the benefits of HR analytics to plan bonuses, salary jumps, promotions as per the performance of the employees. Also, since data analytics helps in a data-driven HR decision making, you can better understand and relate to your workforce.

References:

1. Bhattacharyya, D.K. (2017), HR Analytics: Understanding Theories and Applications. New Delhi: SAGE Publications
2. Jabir, B., Falih, N. and Rahmani, K. (2019), "HR analytics a roadmap for decision making: case study", Indonesian Journal of ElectricalEngineering and Computer Science, Vol. 15, No. 2, pp. 979-990
3. Jain, A. and Nagar, N. (2015), "An Emerging Trend in Human Resource Management", SS International Journal of Economics andManagement, Vol. 5, No. 1, pp. 1-10.

Coordinator
Internal Quality Assurance Cell (IQAC)
Tecnia Institute of Advanced Studies
New Delhi-110085

4. Kiran K.S., Sharma, N. and Brijmohan D.R. (2018), "HR analytics: transactional to transformational HR approach", International Journalof Advance and Innovative Research, Vol. 5, No. 3, pp. 1-11.
5. Kirtane, A. (2015), "corporate sustainable HR Analytical practices", Journal of Management & Administration Tomorrow, Vol. 4, No. 1,pp. 33-40
6. Levenson, A.R (2005), "Harnessing the power of HR analytics: why building HR's analytics capability can help it add bottom-line value",Center for Effective Organizations, Vol. 4, No. 3, pp. 3-12.11
7. Malla, J. (2018), "HR Analytics Center of Excellence", International Journal of Business, Management and Allied Sciences, Vol. 5, 282-284.
8. Momin, W.Y.M. and Mishra, K. (2016), "HR analytics: Re-inventing human resource management", International Journal of AppliedResearch, Vol. 2, No. 5, pp. 785-790.
9. Opatha, H.H.D.P.J. and Uresha, K.I. (2020). HRM and its impact on employee happiness: An empirical study on Sri Lankan employees,Asian Journal of Social Sciences and Management Studies, Vol. 7, No. 2, pp. 114-123
10. Reena, R, Ansari, M.M.K. and Jayakrishnan, S.S. (2019), "Emerging trends in human resource analytics in upcoming decade", International Journal of Engineering Applied Sciences and Technology, Vol. 4, No. 8, pp. 260-264.
11. https://www.picked.ai/magazine/the-4-types-of-hr-analytics/
12. https://blog.neocasesoftware.com/4-types-analytics-mean-hr
13. https://hr.university/analytics/hr-analytics/
14. https://blog.talview.com/key-benefits-of-hr-analytics

Coordinator
Internal Quality Assessment Cell (IQAC)
Tecnia Institute of Advanced Studies
New Delhi-110085