



**Shikha Jalan<sup>1</sup>, Hemant Gaur<sup>2</sup>**

<sup>1</sup>Assistant Professor of Management & Commerce

<sup>2</sup>Assistant Professor, Faculty of Engineering and Technology  
Jayoti Vidyapeeth Women's University, Jaipur, Rajasthan, India

**Abstract** - Analytics is the process of analyzing data, information or statistics to identify trends, describe or study the impact of events or to provide information, in order to improve effective decision making. It involves the application of computer programming and use of specialized systems. Human Resource (HR) Analytics is the application of analytics to the procurement, development, compensation, integration, maintenance and separation function of human resources for improving the performance of employees and organization. Employees are the ones who help organizations in gaining a competitive edge over their competitors. Without efficient human resources survival of an organization cannot be imagined. In order to achieve competitive advantage for the organization and make employees satisfied, the managers need to study and understand the typical traits, events, expectations and problems related to employees. HR Managers uses, HR analytics as a catalyst to develop an insight into different people elements or processes and HR strategy to make relevant decisions for improvement and management of these processes. The study attempts to find the impact of application of analytics on employee related information, on the performance of employees and organization. It tries to find whether HR Analytics helps HR Managers to bring a change in an organization's HR department i.e to bring a shift from an operational HR department to a tactical, or even strategic cum data driven decision making, or not. It attempts to identify whether HR Analytics burdens or simplifies the management of Human Resources of an organization.

**Keywords:** Human Resources, HR Analytics, performance, workforce, employees, Human Resource Management,

## 1 INTRODUCTION

A company's success depends on the strategies formulated and its implementation by all the departments. Employees are the one who implements the strategies. Thus, the functioning of HR department determines the working environment, work culture, systems, set up and efficiency of the workforce. In current business scenario, human resources are the keys to success. But managing employee data, is a tedious and complex task. That's why managers use Human Resource (HR) Analytics.

HR analytics is also termed as people analytics, workforce analytics, or talent analytics. It is about analyzing organizations human resources problems using data, information or statistics. It enables managers to find solutions of critical issues of an organization. HR analytics does not just deal with gathering data on employee efficiency. Instead, it aims to provide insight into each process by gathering data and then using it to make relevant

decisions about how to improve these processes.

### 1.1 Types of HR Analytics

There are four types of HR Analytics, each type addresses gaps in employee competency and HR strategies & programs.

#### 1. Descriptive

Descriptive analytics provides information about planning, organizing, directing and controlling function of human resources in an organization including facts, figures and other relevant information about procurement, compensation and integration function in order to create basis for different types of workforce.

#### 2. Diagnostic

Diagnostic analytics provides the reasons of success and failures of HR strategies, they provides the reasons behind certain patterns of workforce. HR Managers uses data mining, data discovery and other pertinent techniques to identify the loop wholes in ideal performance of existing human resources.



### 3. Predictive

This type of HR analytic takes the result of first two types of analytics as its input to anticipate future event/s.

### 4. Prescriptive

Prescriptive type of HR analytic provides remedies against specific actions. The outcome of such analytics helps in providing solutions for controlling or stimulating certain actions, behaviour or events for improving the performance of employees.

### 1.2 HR Analytics Tools

Among the tools available organizations uses the tools which correlate with organization work and workforce base. Programming languages, browser-based business intelligence applications, statistical analysis solutions, advance systems and software programs are used as the analytics tools. R Studio python, excel, Power BI, SPSS, Oracle HR Analytics, PeopleInsight, Crunchr, Aurion Analytics, Talentsoft Analytics, Hyphen, Optimity, People Analytics and sumHR are some of the examples of HR Analytics tools which majority of organizations are using.

## 2 REVIEW OF LITERATURE

Lawler et al. (2004) analyzed that the HR related data is still often defined as hard to define, difficult to measure and not critical when it comes to business strategy. In addition to this, the data collecting in the past has been more operational and it concentrated more on the HRM itself, and not its effect on the business. Rousseau (2005) analyzed that HR departments often pursue one-size-fits-all standardization in their policies, despite considerable evidence that programmes promoting flexibility benefit people and firms. Stevens (2009) identified that employees are motivated by a basic fact: faulty practices and decision making abound in HR. Companies persist in using unstructured interviews to try to assess a job candidate's fit, even though there is little evidence that typical interviews can do that.

Boudreau and Ziskin (2011) identified that HRM decisions has transformed from supervision, people instinct based decisions to proper evidence based

decisions for promised results. Traditionally, HR has been defined in terms of persuading people to apply a specific initiative HR programme.

Ulrich & Dulebohn (2015) identified that as the understanding of employee efficiency and the potential contribution of HRM in it increased, more diverse data started to be collected and, gradually, the role of HRM began to change. Weena Yancey and Taruna (2015) identified that HR analytics are helping organizations in improving their performance by creating a network of individuals to function as a strategic partner.

Bright (2016) identified that the capabilities of HR business partner are important in the execution of analytical outcomes. According to his studies 87% of the organizations who are most likely to win report analytics to be part of the HR roles description. Rosslyn (2017) reported that only 20% lacks in skills used to analyze data and considers it as one of the biggest challenge and only 9% of senior HR executives rely on the quality of their HR data.

### 2.1 Objectives Of The Study

- To study the impact of HR analytics on operative functions of human resource management.
- To identify which technique of recording and analyzing employee related data is preferred by HR Managers between manual and computerized or software based.
- To identify which type of HR analytic helps in enhancing the performance of employees the most.
- To identify whether HR Analytics is a boon or a bane for Human Resource Managers.
- To study the impact of HR analytics on employee performance.

## 3 RESEARCH METHODOLOGY

The research design used for the study in this study is descriptive. Descriptive studies are related to portray accurately the characteristics of a particular individual situation or group. The sample size taken was 200. Questionnaire was used for the purpose of collecting facts and for other purposes secondary data



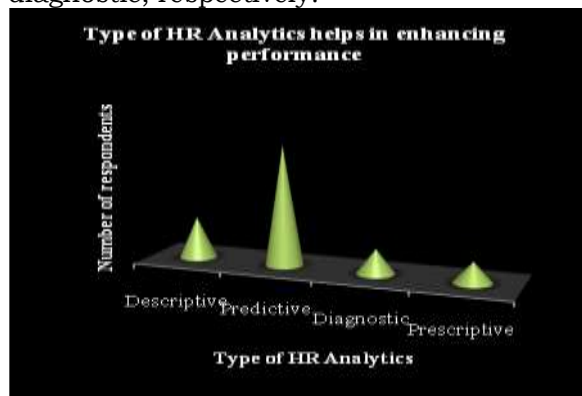
methods of data collection were used. The questionnaires were filled by HR Managers working in different organizations and with different experience level with private sector .The sampling method used is random sampling.

4 ANALYSIS AND INTERPRETATION

Quantitative data was analyzed by using different statistical analysis tools like SPSS. The results were presented in graphical form with a detailed description. Statistical tools used for data analysis were also used like percentages, tables. The table given below shows the respondents opinion with reference to one of question asked from the managers about the type of HR analytic which helps in enhancing the performance of employees the most.

S.No.	Type of HR Analytic	No. of respondents in favour	Percentage
1	Descriptive	40	20
2	Predictive	116	58
3	Diagnostic	24	12
4	Prescriptive	20	10

It has been analysed that 58% of the respondents felt that predictive type of HR analytic helps in enhancing employees performance.20% of the respondents felt that descriptive analytics helps in enhancing employees performance and for the rest 10% and 12% managers the type of HR analytic which helps in enhancing performance is prescriptive and diagnostic, respectively.



The graph represents HR Managers preference with the type of HR Analytics which helps in enhancing performance

5 FINDINGS

- HR analytics are helpful in comparing selection decision of interviewers with the actual performance of employees hired.
- The information received from the analytics are used by HR Managers to determine and establishing relationship between jobs and operative functions of HR like between the type of candidate to be recruited and different job & designation.
- Among the respondents majority of the respondents were of the opinion that diagnostic type of HR analytic helps in retaining employees by establishing a relationship between job related factors and other factors and employee stability.
- Computerized technique of recording and analyzing employee related data is preferred by HR Managers between manual and computerized or software based, according to all the respondents with application of analytics their working has become easier and faster.
- HR analytics has simplified and streamlined the HR function of an organization, as majority of the managers were of the opinion that Hr analytics are a boon for a HR Manager.
- Predictive Analytics helps HR Managers the most in establishing relationship between employee competence, behaviour, events and performance, and thus helps in enhancing the performance of employees the most.
- HR Managers are able to develop different salary packages, training programs, growth opportunities for different type of employees as for HR analytics provides information about high performers and low performers and establishing relationship between performance and type of training. opportunities, etc to be given for increasing performance.
- The analytics are helpful in establishing relationship between productivity and salary.
- Analytics are helpful in developing relationship between an employee



educational qualification, experience, performance and type of job.

- HR executives lacks in skills to analyze data using analytics, according to the respondents HR department staff needs to be trained for applying analytics to people related data.
- With the application of HR analytics to employee data HR Managers are able to predict and control absenteeism, attrition, turnover rate and performance of employees.

## 6 CONCLUSION

HR Managers keeps on developing different permutations and combinations between a job, job related factors, employee performance and organization strategy. But managing employees is a complex and difficult task as it involves management of human beings who have emotions, intellect and certain rights unlike the case of machine. Earlier the HR managers used to draw conclusions and develop strategies of employee related data manually but with the advent of HR analytics tools their work has become simpler and faster.

HR Managers can easily compare different locations, business units, jobs and groups of employees with performance by applying simple visual analyses. Descriptive analytics helps HR managers in anticipating likelihood behaviour of employees towards resignation, career progression, learning opportunities, retirement, salary, incentives, working shifts, promotions and transfer at lower cost and right time.

The HR managers task of recording, analyzing, predicting future events, behaviour, outcome and developing conclusions about recruitment, selection, job analysis, employee training, development, performance management & appraisal, compensation and maintenance is providing more value to organization by improving return on investment with anticipated performance of employees, with the aid of HR Analytics.

Application of analytics in HR function of an organization helps in identifying the job related factors and other factors, the reasons because of

which employees serve organization for long term. It has changed the working of HR managers from mere an operative one to strategic cum data driven and resulting in effective and efficient management of human resources.

## REFERENCE

1. **Sinha, V., Subramanian, K. S., Bhattacharya, S., & Chaudhary, K.** (2012), The contemporary framework on social media analytics as an emerging tool for behavior informatics, HR analytics and business process, Management, Journal of Contemporary Management Issues, 17(2), 65-84.
2. **Rasmussen, T., & Ulrich, D.** (2015), Learning from practice: how HR analytics avoids being a management fad. Organizational Dynamics, 44(3), 236-242.
3. **Dulebohn & Johnson** (2013), Human Resource Metrics and Decision Support: A Classification Framework, Human Resource Management Review, 23 (2013), 71-83
4. **Kapoor, B., & Sherif, J.** (2012), Human resources in an enriched environment of business intelligence, Kybernetes, 41(10), 1625-1637.
5. **Lakshmi Madhvi, P. & Pratap, Siva, P.** (2016), HR Analytics - a Strategic Approach to HR Effectiveness, International Journal of Human Resource Management and Research (IJHRMR) ISSN(P): 2249-6874; ISSN(E): 2249-7986 Vol. 6, Issue 3, Jun 2016, 21-28
6. **Jalan, Shikha** (2018), Impact of Compensation on The Performance of Generation Y Employees, International journal of innovation in engineering research & management, 5(1).
7. **Reddy, Raghunatha, Dr. P., Lakshmikeerthi, P.,** 'Hr Analytics' - An Effective Evidence Based HRM Tool, International Journal of Business and Management Invention, 6(7), 23-24
8. **Jalan, Shikha and Pareek Shikha** (2017), Employees Job Satisfaction and its Components In A General Insurance Company: A Study, Inspira- Journal of Modern Management & Entrepreneurship (JMME), 2(4), 225-228.
9. **Singh, Priyanka, Upadhyay Kumar, Rajesh, Srivastava, Dr. Monika** (2017), The Role of HR Analytics In Higher Education Institution, International Journal Of Engineering Sciences & Research Technology, 6(7), 92-100.
10. **Pareek Shikha and Jalan, Shikha** (2017), Employees' Discrimination at Work Place: An Analytical Study, Inspira-Journal of Commerce, Economics & Computer Science (JCECS), 3(3), 118-120.
11. **Momin, M., Yancey, Weena and Taruna** (2015), HR analytics transforming human resource management,



- International Journal of Applied Research,1(9),688-692.
12. **Vulpen,Ven,Erik**, (2017) Top 5 HR Analytics tools,Retreived from-<https://www.analyticsinhr.com/blog/hr-analytics-tools>.
  13. Top 10 HR Analytics tools in 2018,Retreived from-<https://bigdata-madesimple.com/top-10-hr-analytics-tools-in-2018>.
  14. **Lawler EE III, Levenson A, & Boudreau JW** (2004),“HR Metrics and Analytics – Uses and Impacts,” Human Resource Planning 27(4): 27-35.
  15. **Boudreau JW & Ramstad PM (2003)**, “Strategic HRM Measurement in the 21st Century: From Justifying HR to Strategic Talent Leadership.” In HRM in the 21st Century, M Goldsmith, RP Gandossy, & MS Efron (eds.), New York: John Wiley, 79- 90
  16. **Rousseau & Barends (2011)**,“Becoming an evidence-based HR practitioner”, in Provocation series papers: hrm in the 21st century, Human Resource Management Journal, 21(3), 221–235.