

HR ANALYTICS: THE BUSINESS NEEDS TO IMPROVE ORGANIZATIONAL PERFORMANCE

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ABSTRACT

Human Resources plays a demanding role in any organization. In the competitive market with transitional social and political conditions, success of organizations depend on the linkage between business strategies and HR strategies. Organizations can achieve goal by aligning human resource functions with the business goals. Human resource management is developing fast by integrating the data analytics tools which are introducing analytical thinking in organizational set up. Now a days business leaders are more focusing on creating a high performing workforce. In this digital era of growth and expansion, it is very much essential to enhance economic output of the employees for gaining organizational excellence. For this purpose, the organizations are interested in implementing Human resource analytics. HR analytics refers to use of statistical tools to evaluate employees' data which can be useful in developing HR strategies. HR analytics supports HR managers in performing all the HR functions. HR analytics helps organizations in creating, analyzing and storing large amount of employees' data which helps managers in filtering the performance of employees. It aids in analyzing the employees' problems using the data. By using HR analytics, organizations can manage workforce more effectively and can improve organizational performance by predictive decision making. The goal of this research is to investigate how HR analytics tools can help organizations to improve the performance of the employees and organizations as well. The present research paper explores the existing literature on HR analytics, its impact on the HR related tasks and organizational performance.

Keywords: HR Analytics, Human Resource Management, Organizational Performance

INTRODUCTION

Human Resources have always been the important asset and critical part in organizations' success. Employees are treated as resources by aligning HR activities with the business goals. Human Resource Management ensures success through performance of manpower. HRM functions are recognized as the strategic partner of the organization, as it provides way to achieve goals through proper direction to HR actions.

Business organizations need accurate information, on which major business decisions can be taken. Decision making for business activities is linked with HR activities. Organizations like to take decision by analyzing HR data which subsequently influence the organizational performance. Manpower measurement is demanded by organizations to measure the contribution of employees to bring business success. For this purpose, organizations are moving towards HR analytics. Previously organizations were using descriptive metrics for analysis of HR activities which is shifting towards predictive analysis which helps organizations in decision making.

Generally, HR department in organizations focus on collecting data and reporting data analysis in simple manner. This helps in analyzing HR activities but not outcomes. In today's corporate world, organization's success depends on a motivated, skilled, productive, engaged and well managed workforce. In HR analytics raw data of employee is collected, analyzed and insights are used for improving employee compliance and performance. According to Ulrich (2010) HR needs to develop itself from descriptive metrics to predictive analysis. HR analytics benefits the organizations by identifying and addressing the pitfalls which affects the organizational performance. It gives correct suggestions to overcome the problem for better organizational performance. According to Becker, Huselid & Beatty (2009), organizations need to focus on HR Analytics in order to gain and sustain competitive advantage. HR analytics can be defined as an evidence based approach that can be useful to analyze HR activities which can be used in predictive decision making to enhance HR outcomes and organizational effectiveness.

Main aim of HR analytics is to take better strategic decisions for business growth. As per the globalization and technology advancement, economic scenario is changing rapidly. Human Resource department has to acclimatize this change to retain top performers. Outcome based HR strategies and its execution is need of today's business. Due to rapid socio-economic changes, HR department has been facing tremendous challenges to survive in business and sustaining competitive advantage. Hence HR analytics is crucially important for taking accurate decisions from predictive analysis.

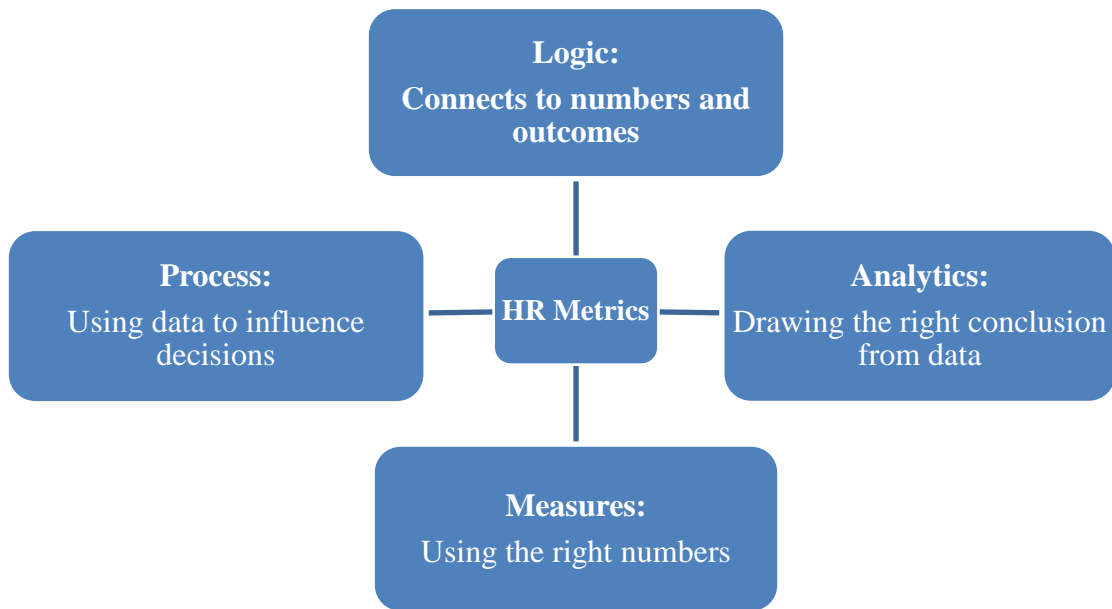
In this fast growing technological business world, organizations are struggling for achieving highest organizational performance. It is the major reason why analytics matter. As reported by IBM (2009) in today's business climate is forcing organizations to make complicated decisions about how to maximize the productivity and effectiveness of various assets. This research focuses on HR analytics tools and its use to improve performance of the employees and organizations as well. The present research paper explores the existing literature on HR analytics, its impact on the HR related tasks and organizational performance.

LITERATURE REVIEW

HR analytics is making transformation in human resource management as big data is become buzzword and changing the HR industry. HR analytics is an integrative method to improve quality of decisions taken for improving organizational performance. HR analytics is also known as workforce analytics, talent analytics and people analytics. HR analytics is based on data of employees linking to various HR activities e.g. recruitment and selection. It is the systematic process of gathering, organizing, tracking, recording, analyzing and linking the data related to HR functions like procurement, training and development, performance and compensation management, employee engagement, talent management, succession planning and retention of employees. It involves tables, reports, metrics, ratios, statistical analysis etc.

Cascio Wayne and John Boudreau reported the four major elements of HR measurement system i.e. Logic, Analytics, Measures and Process. They had given the LAMP framework (Figure-1). In the LAMP framework, 'L' stands for logic, it describes various reasons for which data is measured and its expected outcome. 'A' stands for Analytics which is used to draw right conclusions from data. 'M' stands for Measures, they suggested that measures must be selected considering the quality, timeliness, consistency and reliability. 'P' stands for Process, which is last component of the framework which influences the decision makers.

Figure 1: The LAMP framework



As HR analytics is data driven, it uses statistical techniques, data mining models and machine learning method which helps organization to make predictions on the basis of performance related data at individual and organizational level. Organizations can predict the employee turnover rate by analyzing past data. HR analytics ensures better decision making in all HR activities. According to Masese Omete Fred (2017), HR Analytics is the fusion of quantitative and qualitative data. In his study he concluded that HR Analytics is significantly needed as organizations are experiencing rapid changes which are leading to competition among competitors.

Many organizations use HR metrics to audit their HR programs and activities. The report presented by Society of Human Resource Management (2010) stated that number of metrics can be used to measure effectiveness of HR functions and activities. Mondore et.al. (2011) suggested that it is essential to maximize the utilization of HR analytics in more effective way to drive business outcomes.

Davenport et al., (2010b) reported that there is increased use of new sophisticated methods of analyzing employees' data for gaining competitive advantage. They categorized analytics in a systematic way which represents different applications of workforce Analytics having maximum impact on business performance.

Davenport et al., (2010 a) stated that effective use of Analytics at Work helps in taking Smarter Decisions and achieving Better Results. Rousseau and Barends (2011) reported that talent decisions should be followed by evidence based management. They represented that HR analytics is a major step in maximizing the involvement of HR functions in organizational decision making.

Richard and Nickson (2016) in their research described HR experience and how analysis is important while taking any decision. They classified factors for analysis like organizational structure, business strategies and workload. It was reported that decisions related to all above mentioned factors are important for maintaining financial health of the organization which finally leads to organizational performance.

Strategic HR initiatives are taken by senior leaders and executives. Traditionally organizations are using HR metrics to measure HR functions. According to J. Miller-Merrell (2012), HR functions can be observed and scaled by using metric values. Strategic HR decisions and initiatives can be taken by studying time of recruitment, attrition level, employee turnover, compensation and benefits and probability of organizational success. HR initiatives can be taken based on the predictive analysis data. They had given 13 famous HR metrics which are as follows:

1. Monthly turnover rate
2. Revenue per Employee
3. Yield Ratio
4. Human capital cost
5. HR to staff ratio
6. Return on investment
7. Promotion rate
8. Percentage female at management level
9. Employee absent rate
10. Worker's compensation cost per employee
11. Worker's compensation incident rate
12. Overtime per individual contributor headcount
13. Average employee age.

HR analytics is becoming a vital for analyzing the current data to anticipate future return on investment that serves as a major source for competitive advantage. According to P. Madhavi Laxmi and P. Siva Pratap (2016) HR analytics will help the organization to balance the costs & benefits of decisions. They reported that it will help organizations to study current operational and strategic data and can convert it into a meaningful insight which can resolve the future HR issues.

NEED FOR HR ANALYTICS

Decisions taken by Human resource department in an organization plays crucial role in organizational performance which ultimately leads to organizational success. The way Human resource functions are managed by HR team determines the organizational set up, the levels of workforce and their importance in the organizational functions. In any organization employees are important resource and key to organizational success. As organizations grow, number of employees also increase adding to employee data. It becomes difficult to manage the large employee data. Here HR managers need HR analytics and that is why it come into play.

HR analytics tools aids organizations in selecting right person at right place and at right time. HR managers need to provide justification before taking any decision or while changing the policies or restructuring the organizations. Senior executives can take talent related decisions on the basis of predictive analysis provided by HR managers. So, HR analytics is needed for taking decisions considering the past data and look forward to develop trends in HR activities.

Every organization is different in terms of employees, their talent, environment and business strategies and type of challenges it faces, hence it is not possible to apply any fixed model for the HR functions and related decisions. Only past data of the organization can help in taking correct HR decisions as organizational culture identical. James C. Sesil, (2014) stated that there is need of applying advanced analytics to HR management decisions. He insisted that

the HR managers require skills of technology and management. HR analytics enables HR manager to create insights into data and develop predictive models that enhance the organizational performance.

Harvard Business Review Analytic Services of HR and other executives (2014) reported that organizations are not utilizing predictive analytics on regular basis. In their survey, one-third of respondents were HR professionals. According to them, only 9% companies under their study were making predictions about their workforce based on analysis and 40% companies had used data reactively to inform critical workforce decisions.

Sujit Mishra et.al (2016) reported that Human resource predictive analysis is demanding in the organizations. They concluded that predictive analytics is essential and industries cannot survive in the long run without human resource predictive analytics skills as it helps in HR-related costs.

TYPES OF HR ANALYTICS

HR analytics is classified into four types. First is Descriptive analytics, it gives idea about what already happened or what is presently happening. Second is Diagnostics Analytics which presents the various causes of events those are revealed in the descriptive statistics. Third is Predictive analytics which focuses on future happenings based on the past events. Fourth is Prescriptive analytics which suggests decision options based on the prediction analytics.

Type	Focus	Objectives	Example
Descriptive	What happened?	To understand what is happening in the organization at a basic level.	What was your employee turnover for the past month and how has that been trending for the year?
Diagnostic	Why did it happened?	To analyze the performance of team members.	What factors drove your employee turnover or trends in employee turnover?
Predictive	What will happen?	To predict what is the prospect if this will happen in the future.	What is the likelihood that employee turnover will continue amongst this group?
Prescriptive	How can we make it happen?	To turn predictions into actions.	What do I need to do to prevent or encourage specific actions in my employees?

According to Oliver Pestel (2016) each type of HR analytics helps in addressing gaps in leadership by providing information. Employee competency status provided helps HR managers to design developmental programme to improve workforce performance.

CHALLENGES FACED BY HUMAN RESOURCE ANALYTICS

Organizations need to consider HR analytics as a major requirement of Human Resource Management. HR managers need to provide simple, presentable and actual actionable data to top management to work upon for better utilization of resources. Smeyers (2011) reported in his studies that HR department has more focus on HR metrics instead of HR analytics. He also concluded that HR managers should focus on analyzing the data than only reporting the data. Major challenge for HR analytics is to identify and manage leaders to drive performance. Managers should be able to identify key success factors and better risk management. Organizations should value using HR analytics as it influences decision making process. According to Davenport (2010) leadership commitment is the most important factor for HR analytics to succeed. HR analytics can be used in organizational restructuring, so organizations need resources which supports HR analytics initiatives. Existing HR managers can be trained and become HR analytics experts. Apart from this, other factors are important for smooth functioning of HR analytics which are as follows:

1. Availability of the relevant data
2. Linking Human resource department with other departments
3. Organizational decision making on the basis of previous data.
4. Identifying the major factors for Organizational performance
5. Forecasting the future organizational challenges

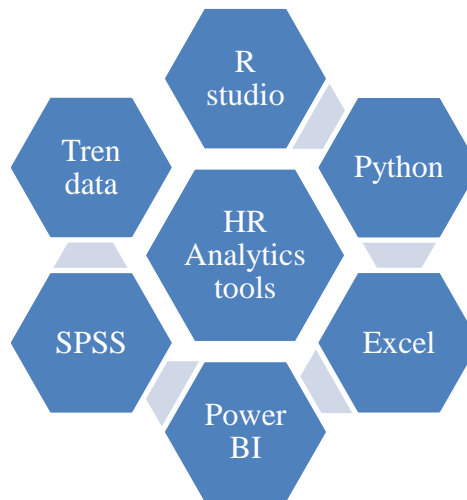
HR professionals are continually challenged with collecting employee data and using it to drive employee and business outcomes. It is difficult to understand the basic types of analyses, the value of each and how each can help understand employee performance and outcomes. Human resource department needs to ensure that correct data is given for analysis and should know the basic types of data analysis to apply to employee information to add the value to organization. HR analytics can help in higher employee engagement and retention. Human resource department needs time and money for investment in HR analytics. According to Harvard Business Review Analytic Services (2014), Investments in workforce analytics is important. Following points should be considered while investing in workforce analytics:

1. Allocated HR budget for analytics software/solutions
2. Increased funding to develop HR analytics expertise
3. Approved new data and analytics positions for HR
4. Hired a CHRO with a strong business or finance background
5. Moved workforce analytics out of HR
6. Hired a CHRO with a strong data
7. Outsourced workforce analytics

HR ANALYTICS TOOLS

HR departments are able to access a huge data every day by using the HR analytics software. The data can be turn up into a valuable insight. Larger organizations has to manage more employees and HR activities. HR manager has to make employee data available to manage and use for HR analytics. So, Human resource department is overloaded with extra work. HR analytics tools help in analyzing different HR functions with a single team of people in very smooth way with least efforts. Hence it is important for giant organizations to invest in HR analytics software and systems as it will help them to track and record employee data. **HR analytics tools** make it possible for organizations to improve performance by using cumulative information driven from data of employees.

Figure 2. HR Analytics Tools



These HR analytics software reads employee data and provides valuable and actionable insights reported by the databases. This report is based on analysis of employee data which would help in formulating HR strategies like recruitment strategy, retention strategy, succession planning, employee engagement and help in performance management system. There are a various HR analytics tools which can be utilized in talent management. It is essential for HR manger to select proper tool that correlate to organization's work and employee database. These statistical tools assists HR manager in understanding and developing the talent, skills, competencies, performance and productivity of employees. This will support them in predictive decision making.

APPLICATION OF HR ANALYTICS

HR analytics benefits the organization by examining professional life of employee. It helps in finding and analyzing the data related to performance of employee. This data helps in identifying insight of the employee and accordingly developing HR strategies. HR analytics leads to strategic and operational advantages to HR department to make better HR decisions. This is the reason why organizations do tracking and recording of the behaviour of employee with the customers and coworkers at workplace. These observations provides a better understating about the motivational factors those affects work productivity and employee performance. HR Managers need to perform analytical projects like conducting multiyear manpower planning, predicting individual and organizational performance and improvement. In all these type of analysis HR analytics tools are applied. By applying HR analytics each step of recruitment process can be tracked and measured (Figure-3). Talent acquisition is the new trend in the fast growing HR technology as many recruiters find it difficult to attract and retain the best talent. So bringing talented people and retaining them is most important driver in the organization's success. This is why many organizations have turned to data driven recruiting and HR analytic as it improves the hiring process by predicting time to hire, cost to hire and quality of hire.

Use of HR analytics in Recruitment Process	Use of HR analytics in Training and Development	Use of HR analytics in Performance Management
<ul style="list-style-type: none"> • Applicants Tracking System • Recruitment marketing platform • Data on Attrition • Employee life Cycle information • Faster and targeted hiring • Analysing Historical Data • Screening Potential Talent • Predicting Recruitment Gaps • Identifying Hiring Obstacles • Interpreting Measurable Data • Reducing Time-to-Hire 	<ul style="list-style-type: none"> • Providing appropriate training to employees • Improving Efficiency of training • Aligning training programs considering business needs. • Training expenses per employee • Implementing coaching and career development programs • Providing innovative solutions and programs • Ensuring succession planning 	<ul style="list-style-type: none"> • Prediction of workforce performance • Achieving operational excellence • Linking HR data with Business performance • Long term workforce planning • Use of HR Scorecards • Revenue per employee

Figure 3: Application of HR Analytics

P. Madhavi Laxmi and P. Siva Pratap (2016) have reported various applications of HR analytics. According to them HR analytics help in forecasting workforce requirements. It also determines the factors leading to greater employee satisfaction and productivity. HR analytics discovers the reasons for employee attrition and establish effective career development initiatives for employees.

BARRIERS TO HR ANALYTICS

Harvard Business Review Analytic Services (2014) reported some difficulties in use of data analytics. Some of the barriers mentioned in the report are as follows:

1. It is hard to access data which needs lot of manual manipulations.
2. Inaccurate and inconsistent Data
3. Lack of analytical skills in HR professionals
4. Lack of Data Driven culture
5. Less investment in HR analytics systems
6. Lack of support from Top level management

CONCLUSION

HR analytics helps organizations to understand what qualities employee at each level must possess in order to drive performance. It is a very useful tool for HR managers to analyze the impact of various HRM functions on organizational performance. Human resource department is focusing towards putting HR analytics in practice. Leaders of organizations should realize the potential of HR analytics and can derive remarkable benefits out of it. Growth of HR analytics is expected hence HR managers need to acquire and develop technical skills which can be utilized in implementing HR analytics in an effective way. HR assets are a vital contributors in organizational performance. It is concluded that organizations can gain competitive advantage by enhancing organizational performance

deriving from HR analytics. HR analytics is becoming demanding as it helps business organizations in predictive decision making to make right decisions. HR analytics can aid in organizational restructuring by measuring different aspects of HR functions in line with size of the organization, number of departments, different levels and business outcomes. Human resource department needs to hold advanced analytics and predictive techniques which supports strategic human resource management. Organizational performance can be improved by resolving business problems through application of HR analytics. HR analytics can be used to solve the business problems and can improve organizational performance. More research study is expected in the field of HR analytics considering digital reform in the field of Human resource management.

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