

Transforming Human Resource Management with HR Analytics: A Quantitative Study of Benefits and Challenges

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Abstract

The advent of digitalization and technology has spurred the need for making the systems robust and automated for lesser human intervention. The human resource departments are responsible for managing quite complex tasks such as talent acquisition, performance management, compensation, benefits, and other essential employee-related functions. It is not always easy to manage a huge record of employees manually. Earlier Human resource function was more of a transactional and administrative job. However, with changing roles and job profiles the way of doing things has also changed. As businesses have acknowledged the role of Human Resource Management in leveraging the resources available to help organizations achieve a competitive advantage. HR analytics has become essential for businesses to carry out complex tasks and predict the trend for making future strategies. In the modern era, HR analytics is the buzzword for HR professionals. It helps to figure out the gaps in the performance of individuals and teams and suggest methods to fill them with the usage of Artificial Intelligence or other related technologies. In this study, the focus has been directed toward understanding the role of HR Analytics in transforming Human Resource Functions. Sample of 197 respondents from HR team of different organizations were surveyed to know the benefits, challenges and impact of Transforming Human Resource Management with HR Analytics. It is found that there is a significant impact of Transforming Human Resource Management with HR Analytics on an organization.

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

Introduction

With several signs of progress in technology, innovation as well as cloud computing, there are presently various information sources accessible to direct navigation and drive the accomplishment of success of different organizations. Gathering the right sort of information generally lies on the bucket list of HR departments to have solid scientific abilities. High-performing HR groups realize that they can use information as a method to create options by distinguishing certain related metrics or information that conveys a specific idea for creating strategies (Schuler, 2015). These strategies are then used for organizational growth and progress. HR should guarantee that the specific metrics and measures are utilized by the organizations to accomplish vital goals. HR Analytics also known as people analytics is the method involved in gathering and deciphering information related to the employees for further developing the performance of individuals and teams within the firm. The cycle can likewise be alluded to as talent or workforce analytics (Vu, 2017). This technique entails analysis of

the available information related to employees that are regularly recorded by HR and relate to HR as well as the objectives of the organization.

Doing so gives estimated proof of how HR initiatives are adding to the organizational objectives and systems in place. For instance, on the off chance that a programming firm has higher attrition or high employee turnover, the organization isn't working at a completely optimised level. It requires investment and technological interventions to bring workers up to a collaborative and efficient level. HR Analytics gives information supported understanding of the thing that is functioning in its full capacity and what isn't working out well, organizations can make significant changes with the help of Analytical tools whenever required. Knowing the reason for the attrition rates or high turnover levels in an organization can give a significant understanding of how it very well may be decreased. By diminishing the turnover, the organization can generate more revenue and improve the efficiency of the workforce as well.

HRM is a relatively new concept and organizations have started accepting the responsibility of the HR department in synchronization with the organizational objectives. It is one of the most pertinent functions of any organization concerning the strategic objectives of competitive advantage as well as the sustainability of the firm. Earlier it was a personal management department which was formed to raise the productivity level After World War One. From that time onwards human resource management has transformed into making organizations a better place to work for the employees (Malik, 2019). The world outside is dynamic and businesses have to compete against each other in the cutthroat market which requires them to be ready with their aces so that they can strive and thrive in the business environment. Any organization must have its competitive advantage intact in such a challenging competition. Many changes have occurred over time and these changes required developed workforces who are efficient in their work. Human resource management is one such department that can find the right talent and make it adapt to the company culture and give the best to produce exceptional results. Human resource is a function which manages the employees working in the organization and this definition has been based on normative perspectives. Some scholars define human resource management as an activity which entails building relationships between employer and employee for achieving goals both individual and organizational. The human resource managers are equipped with skills for formulating policies related to the organization and monitoring whether the policies are being practised by the employees or not. Starting from a normative perspective, there are other two approaches namely, descriptive as well as conceptual. These perspectives are contrasting with each other because descriptive are those which are based on facts while conceptual approaches are related to facts however, decisions are taken based on their conceptual perspective. The role of human resources from the historical perspective now takes into account several matrices as well as conceptual decision making.

The strategies made by human resource manager plays a strong role in carrying out the objectives of an organization. However, these strategies can be substantially related to HR Analytics that help managers make even better decisions in difficult situations. Businesses all around the world are focusing now on practices which are based on facts and shreds of evidence. These practices help managers to facilitate better decisions with the help of data which is available to them so that the strategies built thereafter can be used for organizational success and can help the stakeholders as well. Many scholars have given their views regarding evidence-based management practices and these thoughts have been incorporated into practical businesses which have seen tremendous growth over the years. The human resource function of any organization is focused on investing in talent to show that organizations can build their potential to stand in the competition (Momin & Mishra, 2015). Human resource analytics is one such aspect which has leveraged data to make better decisions for the organization. This is beneficial for the firms because it gives practical and evidence-based strategic decisions which add more value and make the process sustainable (Leicht-Deobald, et al., 2019). Analytics is also termed data manipulation which is done scientifically that means identifying potential reasoning to build strategies for any enterprise. Business analytics is also a form of data manipulation that helps to make wiser decisions for the business. In any kind of data manipulation, it requires proper application of statistics as well as mathematics (Karikari, et al., 2015). In many management programs as well business analytics has gained much importance because the corporate world is working well with the help of data and scientific data management. Business analytics is used not only in making financial or marketing decisions but has made its space in the human resource domain as well (Mishra, et al., 2016). Human resource functions have a direct relation with organizational sustainability as well as a strategy which is the reason why business analytics in human resources has become much more important in today's world. In this paper, the facts related to HR analytics and its role in developing the HR function are covered.

Literature Review

The decisions made by the human resource department have a pivotal role to play in organizational success. Any downfall in policies or practices within an organization is directly attributed to the HR decisions. Decision making in human resources becomes extremely difficult when evidence-based data is not available. For any

decision to take place strong analytics must be attributed in the organization to make better predictable decisions 4 businesses. a solid example of this case is the recruitment of personnel who would be working in the organization for the years to come. if the talent brought into the company is not in synchronization with the company culture there might arise cases of conflict and chaos. Even if the vacancies are filled up with qualified and talented people there still might be loopholes in the system. Human Resource managers and executives are given significant responsibility in the cycles of characterizing and executing hierarchical procedures. According to this point of view, choices made by HR administrators straightforwardly impact the decision making in the organization (Al Khajeh, 2018). There is a void in the existing literature connected with dynamic cycles of decision making by these supervisors, especially concerning the emotional components associated with them. The most recent advancements and improvements in technology and innovation mean to give the advantage to approach dynamic instruments that help a more profound evaluation of the employee's information. As a matter of fact, HR information and its monitoring can benefit the managers with more prominent perceivability into the workforce in place and empower more focused and information-driven choices about any kind of HR initiatives taken in the organization.

Human Resource Analytics is the amount of information that upholds data pertaining to HR and related decision making. With the assistance of HR analytics or people analytics, one might not have to depend on intermittent perceptions or any other form of observation to work on the viability of HR practices (Ruparel, et al., 2020). All things considered, one can gauge and report individual information to assist with a better evaluation of the workforce present. One can likewise utilize HR information investigation to recognize patterns and use them to make decisions for improvement in the processes related to compensation or pay of the employees, career advancements, performance reviews and so on (Stieglitz, et al., 2018). HR Analytics may be useful to the organization in the event that there are devices to comprehend and utilize the information which is available. Besides, having new innovation doesn't ensure that managers would have the option to draw pertinent and useful data from the HR-related information in the company. A survey done by the firm "Deloitte" discovered that from a bunch of HR and IT employees who had participated in the survey, 74 per cent of them felt technology such as AI, Cloud-based data, ML and so on are helpful. However, of the lot, only 26% of them used technology as well as analytics to do their jobs. In order to make HR data really useful and get the most worth from it, it is fundamental to consider the numerous ways HR analytics can assist the managers in dealing with the employees on an everyday basis (Hejase, et al., 2016). A team of analytics personnel is not required for solving complex management problems but simple efforts in learning new HR analytics skills might go a long way for the managers. In different functions of human resource management such as recruitment or talent selection, HR analytics can be used for attracting candidates for applying and hiring them. many tasks entered in the recruitment process can be automated and the data which is collected by the system can be used for better analysis of candidates applying, employees joining and leaving the organization (Jogaratnam, 2017). The attrition rate can be evaluated using HR analytics and appropriate decisions can be taken based on the reasons which lead to attrition within the organization. Another human resource function is compensation and benefits HR analytics can be used to create metrics and compare the pay packages with the peer companies in order to understand the industry standards (Tursunbayeva, et al., 2018). A better comparison will allow managers to retain talented employees who are an asset to the company.

Rewards and recognition play an important role in motivating the employees and helping them achieve a good level of job satisfaction so that they can feel responsible and accountable for the jobs that they are doing. in many cases when employees are not motivated enough their performance level drop down and affects the organization badly. it is essential that employees are motivated to a certain level in the organizations so that they can carry out their responsibilities with utmost efficiency (Mishra, et al., 2016). The employees would be able to feel motivated only when their work is appreciated after they've put in lots of effort in accomplishing the targets or putting up their best behaviour in the workplace. However, it becomes difficult for the human resource manager at times to find out what kind of rewards could be given to the employees and at which particular instance (Rasmussen & Ulrich, 2015). HR analytics can also be advantageous for managers in these cases where with the help of pre-existing data recommendations can be made as to what rewards an employee must get and when should they receive the same. The rewards can be given after the employees have reached a certain level of efficiency in their performances (Sivarajah, et al., 2017). Thus, human resource analytics could be useful in leveraging human resource data to evaluate the performances of individuals and their commitment levels and suggest mechanisms which would be helpful in improving the performances. The human resource functions within an organization are interlinked to each other because if the performance often an individual is identified it will lead to finding out the areas of improvement as well (Mohanty & Mishra, 2020). When the skill gaps are identified specific training could be given to those employees for improving their skills and learning new ones in the process. learning and development is another human resource function which makes employees capable of learning, unlearning and relearning new concepts skills and competencies in order to ace the competitive world.

People analytics is beneficial for the organization in various ways. In a market where talent is scarce and there is much competition among the companies to get the best workforce a streamlined recruitment process is what will save the organization from losing a talented workforce and gaining the expertise of more such people in the long run. Organizations can make use of people analytics for finding the best practices in sourcing the right kind of candidates evaluating their candidature and selecting the most appropriate candidates for the organization (Shrestha, et al., 2021). For instance, an applicant tracking system which can be either inbuilt or outsourced would be essential to keep a track of bulk hires. It can also help in understanding which sources provide the best results, the time is taken by the human resource department to hire the appropriate candidate and the cost indulged in attracting choosing and onboarding the talent. When the candidates are on boarded, it is important to have a check on the payroll system of the organization because the basic factor keeping employees motivated is the money or the value that they are receiving for the job that they are doing. Payroll consumes a big budget in companies having a large number of employees. This is a cost to the organization, and it is certain that managers are finding ways by which costs can be lowered and at the same time the system can be optimised to get better results. This has given the idea that HR analytics can be used to improve the payroll system of the enterprise. The expenses can be tracked with respect to the job position, the team or the department in which individuals are working and the location at which the operations are taking place. This information can help the system to analyse the ultimate costs involved and simultaneously new policies can be created to manage the workforce better and in an effective manner.

Organizations are striving hard to gain a competitive advantage for attracting talent as well as customers and clients. A sustainable organization which practices ethical and moral activities gives an upper hand for them to get a reputation for themselves in the market. In the year 2021 HR Policy Association did a study to determine certain facts about diversity and inclusion. The result of the survey found that in the present scenario HR executives are trying hard to maintain a level of diversity and inclusion within their firms because they believe a more diverse group can be beneficial in solving complex problems as they have different perspectives of the same situation. Algorithms fitted in the human resource analytical tools can develop a matrix which can take into consideration diversity while recruiting new employees as well as determining pay equity among employees of the same level. In doing so human resource personnel can ascertain that they're not only promoting diversity and inclusion but also achieving compliances with the law. HR used to be a cost centre however with the new interventions of technology and HR data analytics they have turned into a function which not only saves cost for the company but also takes into consideration the employee needs. For instance, HR analytics can be leveraged to create reports and identify the most important benefits which keep the employees motivated and are in demand (Gubbins, et al., 2018). Similarly, HR analytics can also be incorporated into the system to calculate the exact amount of money spent in giving benefits to the employees and find areas where cost-cutting can be done for improving and creating offers or benefits which would not only be competitive but comprehensive in nature. The dynamic technological environment which brings about transformations in the organizations required personnel to be well equipped with the new technology. The enterprises in the modern scenario have realised the importance of reskilling and upskilling the employees therefore they are investing hugely in the training and development needs of the employees. It is pertinent for the companies to provide platforms for individuals to gain more knowledge and opportunities in their career paths. This not only benefits the individuals at a personal level but helps an organization to maintain a talented skilled as well as a capable personnel pool. Human resource analytics has gone a long way in supporting the human resource managers in training and development functions by enabling them to track the training hours, provide recommendations based on the available information and create initiatives where employees can be trained by innovative methods.

Employee engagement has become a buzzword in the human resource domain and many scholars by different scholars and corporate personnel have identified its importance in driving motivation and job satisfaction levels in the organization. Human resource analytics has contributed to employee engagement in several ways one of the most common tasks which have been made easy by HR analytics is to measure and compare the engagement levels across functions departments locations as well as industries. This evaluation has indicated the fact that low engagement levels have brought about more turnover absenteeism and attrition in the enterprises (Kaur & Fink, 2017). Therefore, by tracking these metrics human resource managers can take into account the reasons for attrition and work on them to create better policies benefits higher compensation building better engagement levels and other such initiatives which keep the workforce motivated and satisfied in their jobs. Different engagement initiatives can also be incorporated into the workplace to give the employees a break from their mundane work and help them identify their own potential hobbies and talents apart from their usual work. To make better use of the HR analytics tools feedback is of extreme importance. Feedback from different stakeholders can be taken in order to improvise the existing system and bring in new interventions whenever necessary.

Objective of the study

1. To know the benefits and challenges of Transforming Human Resource Management with HR Analytics.
2. To know the impact of Transforming Human Resource Management with HR Analytics on an organization.

Research methodology

Sample of 197 respondents from HR team of different organizations were surveyed to know the benefits, challenges and impact of Transforming Human Resource Management with HR Analytics. The present study is quantitative in nature in which the primary data is collected through random sampling method. Mean and t-test are the statistical tools applied to analyse the data and reach to end results.

Findings of the study

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

Table 1 is showing demographic details of the respondents in which it is found that in total 197 respondents 60.4% are male and 39.6% are female. Among them 35.0% are from the age group of 32-36 yrs, 36.1% belongs to age group 36-42 yrs and rest 28.9% are above 42 yrs of age. 24.9% of the respondents are working in recruitment department, 30.5% in Training and development, 29.4% in Administration and Management and rest 15.2% are working in other HR departments. 25.4% of the respondents are HR Directors, 32.0% are HR managers, 27.9% are Recruiters and rest 14.7% of the respondents are working with different designation in 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 deciphersemployee 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 throughAI 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

Table 2 is showing Benefits and challenges of Transforming Human Resource Management with HR Analytics in which it is observed that the respondent says that the challenge faced on Human Resource Management transformation with HR Analytics is Lack of interest and support from the business and management with mean value 4.01, Lack of training skill development program to handle HR Analytics with mean value 4.00. Lack of statistical skills and analytical skills in HR team with mean value 3.90 and Lack of tools to handle multiple data sources and make statistical predictive analytics with mean value 3.81. The respondent also says that HR Analytics gathers and deciphers employee related information and help them to perform better with mean value 3.77 and HR Analytics carry out complex tasks and help to prepare future strategies with mean value 3.63. HR Analytics gives information that helps to understand of the thing that is functioning in its full capacity and what is not with mean value 3.37 and HR Analytics that help managers make better decisions in difficult situations with mean value 3.29. It is also found that there is Lack of communication between the clients and the HR system of measurement and analytics team with mean value 3.29 but at the same time HR Analytics finds and help to fill the gaps in performance of individuals and teams through AI or other related technologies with mean value 3.23. Further t-test was applied to know the significance of the statements and found that the value under significance column for all the statements is below 0.05 except for the statement Lack of interest and support from the business and management where the value in significant column is 0.442.

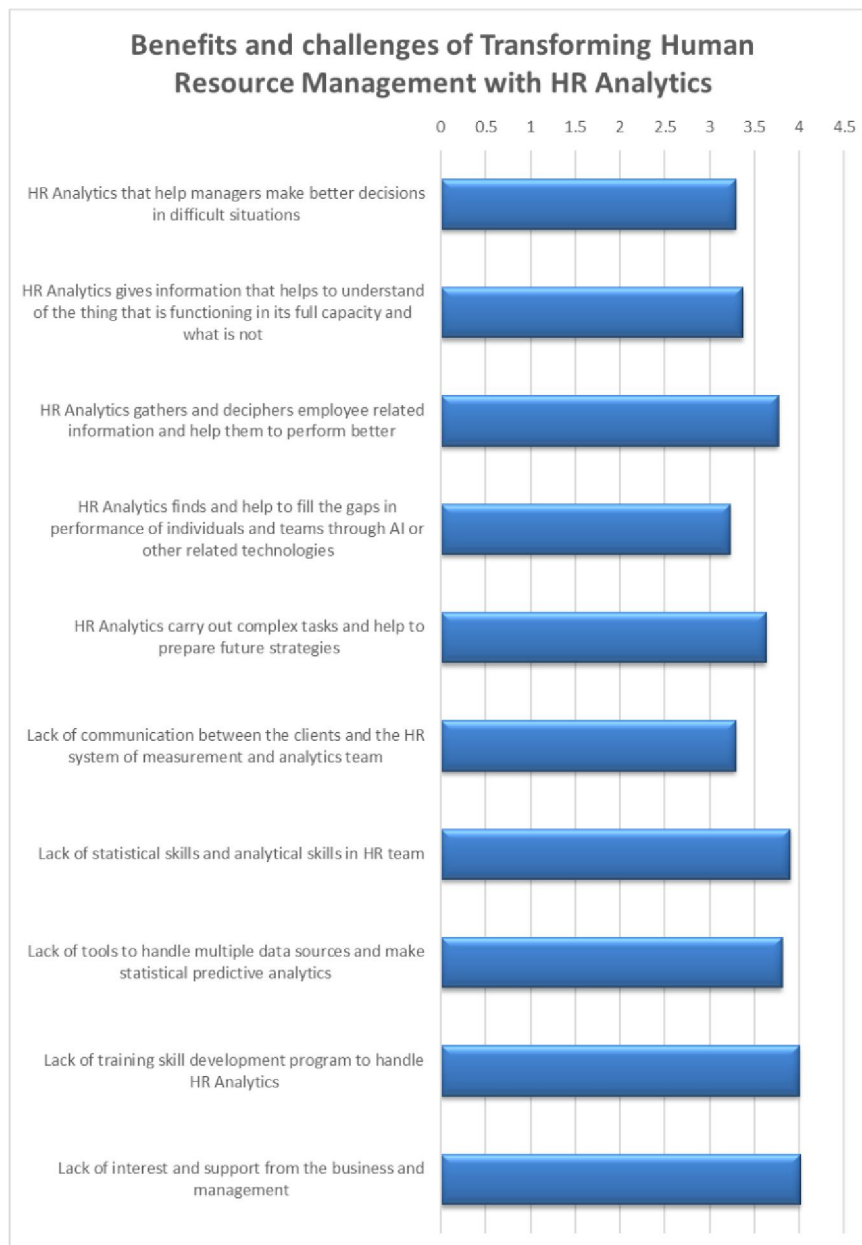


Figure 2 Benefits and challenges of Transforming Human Resource Management with HR Analytics

Conclusion

It has been made clear with the facts presented in the study that HR Analytics can give a comprehension of business capacities and assist the HR experts with creating plans that optimizeability speculations while actually observing and making improvements in different functions of HR such as talent acquisition, employee engagement, performance management, compensation and benefits and several others. HR assumes a significant part in business results, and using information gives a critical benefit as far as business decision making is concerned. Organizations are forming groups who are experts in Analytics, quickly supplanting the traditional administrative frameworks, and making HR inclusive of analytical to make better-informed decisions and strategies. The Human Resource work is presently moving from an administrative function to a system of collaboration, implying that innovation is significantly impacting the manner in which HR connects with the representatives as well as the partners. However, the utilization of analytics is a long way from new, an ever-increasing number of enterprises have acknowledged in the beyond two years that information can further develop both HR capacities and business processes in general.

The study concludes that there are number of Benefits and challenges of Transforming Human Resource Management with HR Analytics like Lack of interest and support from the business and management, Lack of

interest and support from the business and management, Lack of training skill development program to handle HR Analytics, HR Analytics gathers and deciphers employee related information and help them to perform better and HR Analytics carry out complex tasks and help to prepare future strategies. It is also found that there is a significant impact of Transforming Human Resource Management with HR Analytics on an organization.

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