

CONCEPT NOTE ON HR ANALYTICS

Integrating Strategic and Operational Level of an Organization

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Abstract: Human Resource Management (HRM) has been considered to qualitative since its inception. We have successfully devised a methodology to imbue numeric element into HRM called as The Theory of HR Quantification. The theory is a combination of several innovative concepts, of which HR Analytics forms a part of this study. This is written in the form of a concept note briefly highlighting the characteristics of HR Analytics to satisfy the strategic and operational requirements of business organizations.

Keywords: HR Analytics, Theory of HR Quantification, Strategic Level, Operational Level, HR Metrics, HR Quantifications

1. Introduction

Most of the companies use basic Human Resource (HR) parameters to evaluate the performance of their HR department (Coco, 2011). These parameters include conducting surveys, circulating questionnaires and using scorecards for recruitment, placement and maintenance of their employees. While these have been the most commonly used methods even in the top organizations, we do not recommend them since they have a qualitative element inherent in them. That qualitative element is extremely variable in nature. For instance, if one employee gives a score of 8/10 to his manager today, it is very much possible that the same employee may give a score of 2/10 the very next day. Moreover, there is no fixed aspect that given exactly the same situations in the next survey period the employee will rate 8/10. Modern organizations require a robust algorithm which should be capable of quantifying numerous HR metrics. It should have at least the basic requirement that given the same inputs in two different times, same output value is recorded. This philosophy of ours has been termed as the Theory of HR Quantification. The said theory works in tandem with multiple parameters. One such parameter which is the topic of interest for the present study is HR Analytics.

With big data becoming the next big thing in business analytics (Angrave et. al., 2016), there are no barriers left for witnessing unlimited growth in productivity provided the organization understands how to tap its full potential. Applying big data in the world of Human Resources (HR), there arrives a system which provides one glance information about what has been the performance of the employees in

the past, who are the top performers, who are the worst performers, what aspects should a company consider to improve its HR productivity (Pemmaraju, 2007). Such application of technology in HR to interpret past performance and predict future outcome thereby providing strategic solutions is termed as HR Analytics. HR Analytics caters to the shifting attention of HR department from employee retention to employee satisfaction and utilizing maximum HR potential to gain competitive advantage (Fitz-Enz, 2014).

In the recent times, HR Management (HRM) have taken over a dynamic role. HR department is no more considered to be a subset department created just for the purpose of hiring and firing employees (Nishii et. al., 2008). Organizations have begun to comprehend that HR, being the most valuable asset of an organization, has the potential to provide sustained competitive advantage in the long run (Lado et. al., 1992). This aspect has been corroborated with two aspects. Firstly, in a recent research, around 71% of organizations believed that HR analytics was the new face of HRM having the potential to deliver higher productivity (Deloitte, 2017). Secondly, if we see an illustration wherein two organizations, say Company A and Company B are operating in the same industry. Company A's HR department has been entrusted with the function of recruiting employees, organizing training and development activities and addressing employee grievances. While Company B's HR department works on an additional aspect on identifying the unutilized capacity of an employee, predicting whether employees will be leaving our firm or more employees will be joining, what has been the reasons behind rise / fall in employee productivity and what

can be done to address them. While Company A is working on the traditional HRM model, Company B₂ is having modern HRM model. Such analytical application of HRM requires integration of technology and computers. Therefore, HR Analytics can be construed an application of machine learning tools and techniques to analyze employee related factors to improve business performance as a whole. It guides HR executives to make data driven decisions to attract, manage, and retain employees which improves the business profitability and overall business productivity.

In this study, we have tried to identify different parameters of HR Analytics. This study establishes the criteria on how HR Analytics can be the provider of competitive advantage and improve business performance. Specific focus has been laid on the

It is a statistical measurement and modelling of appropriate data to analyze, interpret past data and to predict future outcomes. It is an advanced amalgamation of technology with business requirements.

During the late 20th century, a concept popped up asking whether machines can be programmed to predict the future. Fueled up along with the technological revolution, this idea quickly spread through different industries such as financial industry, production and supply chain and the marketing industry. The extension of this concept into HR led strategic growth methodology culminated with the establishment of HR Analytics (Davenport, 2010). These researches believe that HR₃ Analytics will answer the questions such as what happened? How? Why? What may happen in the future? With the availability of such information, organizations can take what is called as the evidence based decision making.

In recent years, researchers have been interested in developing strategic human resource management. The strategy infused HRM establishes direction and scope for an organization in the long run. Most of the researchers believe that the adoption of strategically oriented HR programs has a positive effect on business performance, which can allocate its workforce more effectively and efficiently. With today's available tools, techniques, and ideas, HR professionals have an opportunity to prove themselves as a strategic partner by linking HR strategy to the business strategy by supporting in width and length of organization. The HR department will not only focus on meeting HR strategic goals but also to achieve business goals. It also contributes to financial outcomes like

strategic and operational level functions.

Understanding HR Analytics

It is well established that the most critical element that marks a change in an organization success factor is its human resources (Khan, 2014). They are not only an invaluable asset, rather they are the strategic growth drivers contributing to the organization's success. While, most of the organizations deploy numerous HR programs right from recruitment to retirement phase covering entire employee life cycle, they need some quantitative tool to assess whether such programs will turn out to be a future investment or a fruitless expenditure. HR Analytics provide a platform to assess different HR metrics such as performance levels, productivity levels, HR effectiveness etc. Thus HR Analytics can be defined as:

minimizing turnover costs, maximizing revenue, avoiding penalties by mitigating risks, and others. HR Analytics is a step in this strategic HRM. HR Analytics operates through multiple parameters at strategic and operational level. It provides a methodology of synchronizing employee objectives with organizational objectives efficiently and effectively. HR analytics can take numerous number of variables to solve qualitative situations.

Parameters of HR Analytics relating to strategic and operational level functions of an organization

The strategic level and operational level of HR are two faces of the same coin. operational HR looks over the day-to-day operations and needs of employees. In contrast, strategic HR focus on long term goals like maximizing revenue, profit, productivity, customer satisfaction, low attrition, return on investment, predicting future outcomes, and growth of the business. The HR department uses these parameters to improve their efficiency, effectiveness, and impact to derive the required measures. The operational level of HR looks after the implementation part of the programs envisaged by the strategic level. The operational level success is measured by the satisfaction level of the employees. The satisfaction level of the employees can be judged through the rising trends of productivity. Thus, we see that employee satisfaction largely affects employee retention in the organization. The growth curve of any organization shows its strength of maintaining an efficient and

satisfied staff.

Fig I. Synergies in different domains which are measured by HR Analytics



Fig I. depicts that when there is an integration of strategic level and operational level there are synergies obtained in different domains. These synergies can be recorded as well as measured by HR Analytics. This further highlights that traditional HRM functionality is no more applicable in case of modern technologically imbued world. The different domains which witness synergy generation range from recruitment to retention. How HR Analytics impact these domains has been explained below:

Role of HR Analytics in training, research and development activities

An essential role of operational level of HR department is to provide quality training to the employees. HR executives are therefore required to develop personalized training programs based on

individual's skill gaps (Bersin, Leonard and Wang-Audia, 2013). HR Analytics provide apparent factors required to advance training practices to see its impact on the increase in customer satisfaction leading to an increase in sales and to calculate return on investment in training, whereas just measuring the number of training hours, the number of the employees trained may not help to get valid results. The recent study by IBM Smarter Workforce looked at factors involved in best performance and worst performance of the companies, in that 84% of employees who received training performed better than that of employees who were not trained and employees who received 40 hours of training met their project objectives than employees who received 30- fewer hours of training. 90% of the objective will be met by increasing team skills and meeting shareholders' goals (Corporation, 2014).

Role of HR Analytics in employee productivity measurement

Performance metrics are the key to track the performance level of employees. It is an important function of strategic level of HR department. Employee performance can be measured on quality, quantity, and terms of efficiency. Few metrics like the number of errors, net promoter score, revenue per employee, absenteeism rate, overtime per employee are few to mention (Kapoor & Kabra, 2016). Performance metrics measure to assess whether employee performance, activities, and behavior are met. In 2011 Hewlett Packard applied HR data analytics to predict employee turnover, they observed that employees who were paid high and promoted and better performance rating were negatively correlated with someone who received a promotion but did not receive pay rise is likely to leave a job. They called it "Flight Risk Score." The company was losing its talent, therefore considering five years of people data, and with a hypothesis, they identified that most of the factors were highly correlated with attrition. The reason was found that employers with a change in job, responsibility due to promotion or lateral movement, which resulted in ups and downs in performance, and more attrition. (Soundararajan, 2016).

Role of HR Analytics in payroll management

Compensation related metrics help the organization to assess how well it is meeting an organization needs. It is done by the strategic managers in the HR department. Compensation is an important motivators for the employees. It may be in the form of monetary benefits and non monetary benefits. Compensation management should be done so cautiously that it not only enables the employee to meet its daily needs but also promotes his efficiency Metrics like revenue per employee, average full-time equivalent compensation, overtime rates, etc. helps executives to measure the impact of compensation management on business results. Sysco Corp, a wholesale food distributor from Houston, strived to change its compensation system for its employees who were paid on an hourly basis, which did not gain any value to the organization, and the compensation system model did not provide better profitability. Therefore Sysco changed its compensation-reward structure from paying an hourly basis to paying on activity-based compensation structure. This new structure leads to fewer mistakes, increased satisfaction level, improvement in retention, reduced

delivery time, and reduced delivery expenses. With the new compensation structure, employees were not only satisfied but also more efficient, and company retention rates improved by 8%, and there was a decrease in sales expenses. (Schneider, 2006)

Role of HR Analytics in employee satisfaction and employee engagement

A highly engaged workforce can increase innovation, productivity, and performance and, in turn, increase retention. Here comes the role of HR analytics that through the application of computer analytics like machine learning etc., it suggests the HR managers to take those HR strategies that can adapt with the requirements of the employees. This is done on the basis of inputs provided by different parameters of induction, training, productivity improvement and compensation management. HR analytics help the HR strategy planners to take timely action to retain their workers motivated as this is important for the following reasons-1: Retention of employees reduce cost overruns and increase profitability. 2: Hiring of new employees increase the expenditure of training and it takes time overruns to adapt a new employee with the requirements of the organization. 3: Experienced employees can be hired from the external environment but that becomes costly also becomes the cause of internal conflicts in the organization. It is assumed that more engaged employees tend to be more productive; as a result, such employees perform better, and it is also believed that organizational performance is also linked with employee engagement. Here is an example to better understand employee engagement. Sears Inc., a department store, measures the impact of employee engagement on store performance; they framed a model by using total performance indicators, on employee - customer profit chain. They collected 1 million data points and found that a 5 point improvement in employee attitude will drive a 1.3 point improvement in customer satisfaction, which intern will drive a 0.5% improvement in revenue growth. Employee attitude depends on the mood swings of the individual employee and impacts customer satisfaction and experience, an intern increase in sales. Sears found that employee work-life balance, benefits, work environment, and the relation between employees are few factors related to employee's good mood. (Soundararajan, 2016). Another example (Gates, 2002), Marriott international focusing on employee engagement leading to business performance, it provided health benefits package, which seeks to engage the

employee in work and meet the need of their families health benefits. Health benefits are an essential compensation package to attract and retain employees. They believe that taking care of employees will make them happy; in turn, they keep hotel customers happy and that leads to improving business performance.

For instance, Nielsen, an information data measurement firm, observed that there was a high rate of attrition in the company, and to analyze this, they used past five years data and few hypotheses to find the reasons for attrition (Soundararajan, 2016). They realized that employees with a change in job responsibilities due to lateral movement or promotion made them leave the organization. This insight informed managers who changed their people strategy and helped them to perform the job internally (internal mobility), upgrade skills in the current job role. This action improved employee retention and the same policy was applied to its other units to retain potential employees. One of the important parameter of HR analytics is HR automation tools used in the hiring process of the employees. This is very important to understand as it is the first parameter of HR policies through which employees are recruited. If the right kind of HR automation tools for the hiring process. Loreal, a personal cosmetic care company, was receiving 2 million applications annually. Still, actual recruitments annually were 5,000 people by 145 recruiters globally; it analyzed that more time is consumed in the process of an application screening, and time takes to fill the vacant position. With the help of Artificial Intelligence (AI) machines starts recommending suitable candidates to opt for a proper job, depending on the past search, also recommends employees to select candidates with required skill sets on the applicant tracking system. Their new tool took 4 minutes to recruit a candidate, whereas a regular recruiter would take 45 minutes in the process, employees save time to deploy it into more value-added tasks.

HR Analytics allows HR Executives to understand the current state and problem caused by Performance indicators and its various factors affecting these performance indicators. It is also essential to look at the historical data, cause-effect analysis of past decisions and 'what if' use cases in any decisions to effectively implement HR analytics. When HR Executives collect and gather data; HR Analytics feed the same data into sophisticated data models, tools, and algorithms to gain actionable insights (Kapoor & Kabra, 2016). These tools will

provide actionable insights in the form of a dashboard, visualization, and reports. This is how the common HR Analytics works. HR executives may find the use of HR metrics more convenient to measure the effectiveness of HR initiatives, but they are limited to strategic value and are not focused. Therefore, only metrics are not sufficient to find insights, use of HR analytics supports to make evidence-based decisions with actionable insights (Falletta, 2014). A research conducted by i4cp, mentions in its study that analysts are capable of formulating business strategies, asking the right questions, collect and examine the correct data to derive future insights that will help for better competitive skills and business performance (DeTuncq, 2013).

Conclusion

Though many companies are aware of the benefits of HR analytics, they find it difficult to adapt and move out of traditional practices. It was observed in the study (Kapoor & Kabra, 2016) that deficiency among the HR team is to collect and analyze data and lack analytical executives with statistical knowledge. Most of the organizations still depend on spreadsheets and reports to analyze the employee data; among them, few organizations lack in adopting required tools, lack of financial strength and others would not like to take the risk on advanced practices.

Human Resource analytics provides an opportunity for the HR department to be a key driver of the business. Many organizations are considering the HR department as a value-added business partner; many industry experts have predicted that the use of HR Analytics will increase in many organizations in the coming years. The organizations have to adopt new practices to survive in the business field, due to change in globalization, competition, availability of information, and technology for organizations to be competent to survive. It's observed that the use of HR data in analytics helps in making decisions based on facts, and it allows the HR Team to find actionable insights and focus on people and departmental programs to drive better results. HR analytics helps to improve employee work experience, decreased retention, better hiring practice, improved workforce planning, identifying attrition and its causes, identifying best-performing talent, to improve HR performance, predicts demand skills and positions which are needed to improve business performance and very important it transforms the role

of HR into a strategic partner. Analytics creates data transparency, by which it benefits employees to view their performance data and fill the skill gaps. In the competitive era, HR Executives need to generate and have greater analytical knowledge and abilities. HR Analytics helps the organization to design strategic workforce planning by analyzing every aspect of HR metrics. Strategic HR framework will allow HR Executives and other users of HR analytics for a better understanding of the linkages between HR programs and practices and outcomes that are important to both operations and to the bottom line of the organization. For the successful implementation and practice of HR analytics, academicians can help in the successful adoption of HR analytics programs.

5. References

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