



# PREDICTIVE ANALYTICS THE KEY TO TALENT MANAGEMENT IN POST PANDEMIC CRISIS

Pratibha Goswami<sup>1</sup>, Dr. Upasana Srivastava<sup>2</sup>

<sup>1</sup>Enrollment Number :-MUR 1002907, Research Scholar, Department of Commerce & Management, Mewar University, Chittorgarh, Rajasthan, India

<sup>2</sup>Associate Professor, Department of Commerce & Management, Mewar University, Chittorgarh, Rajasthan, India.

## ABSTRACT

*The world was hit with the biggest crisis as Covid-19 in the year 2019-20 that made sufferings at all the causes. The most affected were the businesses at all the places and the people associated with it. All the organizations faced the global problem of their 'people' whether they are lost lives to the pandemic or have become less available because of the lockdown or the quarantine. It became difficult for the organizations to manage people in this crisis as mostly preferred to work from home and this made organizations to choose options like salary cut offs, frozen hiring, held up performance assessment. These strategies were resulted into falling productivity and reluctant talent pool in an organization which can be dangerous for development and growth. To match up the gap caused many organizations are adopting technical HR analytics to meet up the requirements of HR Department for proper functionality of the organizations. For these predictive analytics can be adopted as it is the most evolutionary strategy that is proven to predict the future on the virtue of historical data. This study will bring out how by adopting predictive analytics an organization can ruled up all the adversities caused by pandemic. In this descriptive analysis of the secondary data obtained from the companies like HP, Best Buy, Cornerstone, Google, Facebook, and Nielsen who have adopted Predictive Analytics as their talent management tool. The findings of these case studies have explained thoroughly how predictive analytics can be a boon to develop HR policies related to managing their talent effectively to cover up the gaps created by pandemic.*

**Key words:** Predictive Analytics, Talent Management, Human Resource Management, Pandemic, Crisis.

**Cite this Article:** Pratibha Goswami and Upasana Srivastava, Predictive Analytics the Key to Talent Management in Post Pandemic Crisis. *International Journal of Marketing and Human Resource Management*, 12(2), 2021, pp. 53–58.

<https://iaeme.com/Home/issue/IJMHRM?Volume=12&Issue=2>

## 1. INTRODUCTION

The Covid-19 has changed everything and everyone, whether it is the organizations or the people working for these organizations. So all have started to look out for adopting change to lead the life and work. But the major fear is how to cope up with the dents caused by this pandemic in response to this many organizations began thinking on cost containment starting with the frozen hiring, layoffs, salary cuts, no performance assessment etc. But these approaches had not made much progress on the productivity issue. Along with this a new problem arose of employee burn that made organizations more insecure on employees' front.

Many excellent performers started looking for options which is not favorable for organizations in terms of growth. That made organizations immediately think of more accurate and relevant tool to manage talent in their work force. The most considered was use of HR Analytics as it will help the HR Departments to make HR policies more effective, hiring efficiently, and assessing the performance at a speedier rate. Since the HR department is responsible for looking out the employee's well-being and their performance for the betterment of organizations desired outcome so it has to loop in such tool that can be used for more futuristic view. The predictive analytics is one such tool that can by analyzing data provide results more of future requirements.

The predictive analytics can be used by organizations boldly to increase their workplace efficiency, predicting employee's worth, attrition, hiring policies, development programs. Predictive analytics can be the tool which can help in identifying the most productive ones and the most required attentions employees as both these are most likely to quit.

## 2. SCOPE & OBJECTIVE

The scope of this paper is to

- To identify role of Predictive analytics as a tool for Talent Management in organizations to post pandemic crisis.
- To analyze how Predictive analytics can influence Talent Management in organizations.

Predictive analytics is very successful tool in marketing concept where companies based on predictions by customers can create more efficient marketing plan and has gained increasing ROIs. But will these predictive analytics will be imperative for HR as well? Yes. Definitely. Because it is that tool which has tendency to create a result that has all predictions related to employee's performance, employee's requirements, and employee's progression.

All these are recorded and then analyzed to provide what is the best for the organizations, who is the best for organizations and why they need to be retained. HRM continuously work in all these directions so that a perfect decision can be made in relevancy to the employee's performance and organizations achievement.

Therefore organizations are looking for adopting predictive analytics to predict that the hire can be the best fit for the organization. That is why it is the more reliable tool for talent management as it is making the organizations more sensible in the best fit and developing it for organizations desired outcomes.

## 3. REVIEW OF LITERATURE

Kumar Sai Deepak B, Assistant Professor, GIBS B School, in his paper "Human Resource Predictive Analytics (HRPA) For HR Management Its Usage in The Organizations" has argued that "*Human resource predictive analytics is an evolving application field of analytics for HRM purposes. The purpose of HRM is to measure employee performance and engagement, studying workforce collaboration patterns, analysing employee churn and turnover, and modelling employee lifetime value. The motive of applying HRPA is to optimize performances and produce*

*a better return on investment for organizations through decision-making based on data collection, HR metrics, and predictive models.”*

In another paper “Predictive Analytics and Talent Management: A Conceptual Framework”, by R. Navodya Gurusinghe, Bhadra J. H. Arachchige & Dushar Dayarathna (2021), has developed a conceptual framework through the lens of Technological-Organisational-Environmental framework and Resource-based theory to examine the relationship among the antecedents and consequences of Predictive Human Resource Analytics (PHRA) considering talent management under the data driven management.

In the paper “Gaining Sustainable Competitive Advantage Through Talent Management Practices: Evidence from Selected Higher Educational Institutions In Kabul, Afghanistan”, Moh: Qasim Ayaz<sup>1</sup>, Ahmad Nabi Nayel have outlined that *“Far from doubt, talent management has established much consideration of scholars, researchers, academics, practitioners and all competitive organizations in recent years, but still much gaps exist for further studies. In this view, the study aims to evaluate the influence of talent management practices (talent identification, talent retention & talent development) on sustainable competitive advantage on selected higher educational institutions in Kabul, Afghanistan. Five different higher institutions were targeted population. A sample size of 250 respondents were selected from listed higher institution. The results revealed that there is a strong positive association between talent management practices (TMP) and sustainable competitive advantage. All three hypotheses are accepted in final remarks of the study. Furthermore, the study applies quantitative approach and entire data collected through adopted questionnaire translated into two national languages (Pashto & Dari). Based on data analysis and current literature the paper suggests new model (see, future direction) to explore the sense of sustainable competitive advantage within higher educational institutions in Kabul, Afghanistan”*

The paper “Big Data and Human Resources Management: The Rise of Talent Analytics”, by Manuela Nocker and Vania Sena, discusses that *“the opportunities talent analytics offers HR practitioners. As the availability of methodologies for the analysis of large volumes of data has substantially improved over the last ten years, talent analytics has started to be used by organizations to manage their workforce. This paper discusses the benefits and costs associated with the use of talent analytics within an organization as well as to highlight the differences between talent analytics and other sub-fields of business analytics. It will discuss a number of case studies on how talent analytics can improve organizational decision-making. From the case studies, we will identify key channels through which the adoption of talent analytics can improve the performance of the HR function and eventually of the whole organization. While discussing the opportunities that talent analytics offer organizations, this paper highlights the costs (in terms of data governance and ethics) that the widespread use of talent analytics can generate. Finally, it highlights the importance of trust in supporting the successful implementation of talent analytics projects”*.

#### **4. METHODOLOGY**

This paper is quantitative in nature and comprised of secondary data from the analysis done by companies on how they have adopted HR predictive analytics and enabled their HR to forecast the impact of people thinking about well-being, satisfaction, and enhanced bottom-line performers into high end performer and played significant role in preventing employee turnover.

## 5. FINDINGS

According to the case studies considered for finding out how predictive analytics can be the best strategic tool for Talent management following observations are observed:-

According to Deloitte’s 2018 People Analytics Maturity Model, the organisations who has accessible and utilized HR data are only 17%, but the most relevant fact that only 2% of them has qualified business-integrated data, which they are analysing by using HR analytics tools. The other 15% is are doing predictive analytics on an ad-hoc basis.

**2018 Bersin People Analytics Maturity Model**



**Figure 1** People Analytics Maturity Model

According to this model only few organisations (2%) are institutionalised and business-integrated while majority of them are still dwelling on to adopt Predictive Analytics for the proper functioning of Human Resources Management.

Hewlett-Packard (HP) is a company with over 300,000 employees and experienced high level of employee turnover being a leader in the HR predictive analytics field. It states about 20% of turnover which is very uncommon in its sales division, which can conclude that people are staying on average between 4-5 years. This high rate of turnover is leading to high recruitment costs and lost revenue due to productivity inefficiency and on boarding. It is estimated that the cost of replacing mid-level employees is upwards of 150% of their annual salary which can cost a company like HP millions of dollars. So to call upon this situation they adopt predictive models, as a “Flight Risk” score that has predicted the reasons for leaving of HP’s 300,000 plus employees. By combining their data of the previous two years they predict who would leave the organization. The findings were ground breaking as they can now know why employees would leave HP. They have acquired following methods to adopt predictive analytics:-

- There were a number of practical and privacy-related problems with this Flight Risk score thus only selected group of high-level managers were provided access to this data.
- These managers can only see their subordinates score and were provided with the training in how to interpret Flight Risk scores in understanding the potential ramifications and confidentiality issues related to this data.

- The management provide information to these managers about the risk factors of employee attrition and create a pressure on them to retain their staff which helped them to reduce costs and maintain business continuity.
- By doing predictive analytics a company could take into account when, it's easy to get lost in details. Hence it could be of great value to create a dashboard with an overview of the most important metrics.
- Flight Risk scores acted as an warning system and prompted well-trained managers to intervene to prevent the loss of an employee According to Siegel (2013), HP saved an estimated \$300 million by applying predictive analytics to calculate and managed this flight risk.

Google by applying HR predictive analysis has estimated the probability of people leaving the company and identified one of the most probable reason for leaving Google is that the new salespeople if not get promoted in four years leave the company

Best Buy, an electronics retailer, has analysed their data and found that a 0.1 percentage point increase in engagement leads to a \$100,000 increase in revenue per store. Best Buy therefore decided to measure engagement multiple times a year which has enabled them to measure the drivers of engagement and with HR interventions how it would increase engagement and store revenue.

Wikipedia is creating and editing articles to keep the world's largest encyclopaedia up-to-date. 800 new pages are created every day, and 3,000 edits are made (>3 per second worldwide). Wikipedia is able to predict how its 750,000 editors have stop contributing and has made distinctive appreciating mails to reengage these lost contributors.

A study revealed that it is possible to predict someone's personality and future work performance based on their Facebook profile (Kluemper, Rosen & Mossholder, 2012). In this study, a number of participants gave hirability ratings based on Facebook profiles. These ratings predicted 8% of manager-rated job performance for these people. A standard personality test has a higher predictive value for performance by looking at Facebook profile.

Nielsen, a data analytics firm, learned that retention is the most prominent problem that needed to be worked on. After doing a financial impact analyses, the People Analytics team learned that every one percentage point decrease in attrition resulted in a \$5 million reduction of business cost. The People Analytics team was then able to identify 120 key individuals who work at risk of leaving. Through lateral moves for 40% of the group, the team was able to reduce the attrition rate to zero for the first six months after implementation. Through different initiatives aimed at reducing turnover, the team was able to reduce attrition by two percentage points for the global enterprise, resulting in a \$10 million reduction of cost.

Cornerstone studied the how toxic employees impact the workplace. The Toxic employees are those employees who are most likely to engage in toxic behaviour like fraud, drugs or alcohol abuse, and sexual harassment. Previous research suggested that one toxic employee in a team would cause productivity to decrease by 30% to 40%. The company used a dataset of 63,000 employees and marked which employees were involuntarily terminated due to workplace violence, falsification of documents, drugs, and alcohol abuse, and other policy violations. Based on these criteria, around 4% of all employees could be classified as being 'toxic'. Remarkably, the study did not find the previously reported high levels of productivity loss in the short term. However, it did find toxic behavior to be contagious. People who work together with toxic colleagues are also more likely to quit. Additionally, the study hypothesized that toxic colleagues contribute to long-term stress and burnout among other employees. In the end, Cornerstone proved that hiring a toxic employee will cost the employer \$12,800 on average, versus an average of \$4,000 for a non-toxic employee. This excludes the long-term

(and costly) productivity loss through burnout and other negative effects. By fine-tuning the hiring process, companies can prevent hiring candidates who are likely to become toxic and create a healthier working environment.

## 6. CONCLUSIONS

This study focused on how predictive analytics can provide in need for talent management in this current post pandemic crisis for every organization and evaluated the influences of predictive analytics for talent management i.e. hiring the best talent, retaining them and develop them for better outcomes.

Predictive analytics is becoming a trend in Human Resources Management (HRM) where Recruitment tools are able to identify high performers, and that is making companies able to predict which employee may leave. In this article, there is proper explanation of what HR predictive analytics is and how it is used to change the face for HR departments especially after post pandemic.

Predictive data analytics should be adopted everywhere. It is that technology that create results from existing data, and then it uses this to forecast individual behaviour which are very specific. This makes HR to forecast the impact of people policies on well-being, happiness, and bottom-line performance and HR can easily work in that direction to maintain talent at the bay. Thus this study concludes that Predictive Analytics is the key for successful management of talent post pandemic.

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