



HR ANALYTICS: A TOOL FOR PREDICTIVE AND OPTIMIZED ORGANISATION

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Abstract:

An organisation can profit greatly from the examination of this data by receiving guidance on how to proceed that will optimise payroll, benefits, hiring and retention rates, and other areas. The methodical identification and study of the human drivers behind any given business outcome is known as HR analytics. Put simply, HR analytics tracks the company's performance in relation to its workforce, including both achievements and failures. HR analytics may also be known as workforce analytics, talent analytics, or people analytics, depending on the organisation. Business managers can stop depending on their intuition when making people-based choices and start using real facts by utilising the right HR analytics tools. This is a theoretical paper for which the data is collected from various journals, website and business articles. The objective of the study is to know the concept of HR analytics, various metrics of HR analytics and recent HR analytical tools used by organisations. This paper concludes with some benefits of utilizing HR analytics.

Keywords: HR analytics, metrics, tools & Software & benefits of HR analytics.

Introduction:

HR analytics is the collection, examination, and reporting of data related to human resource management. It is a technique for learning more about the individuals that make up an organisation and the effectiveness of the human resources department. Put simply, HR analytics tracks the company's performance in relation to its workforce, including both achievements and failures. HR analytics may also be known as workforce analytics, talent analytics, or people analytics, depending on the organisation. Business managers can stop depending on their intuition when making people-based choices and start using real facts by utilising the right HR analytics tools. It can offer information into where job seekers are dropping out of the hiring process as well as analysis of an employee's performance. A wide variety of data types are measured by HR analytics, but they are all focused on the people function. The purpose of HR analytics is to help firms enhance internal operations related to payroll, benefits, hiring, onboarding, performance reviews, and employee morale in general. It is the most effective technique to use data to develop a knowledge of how well a company is doing. In the absence of adequate analytics, there is a significant probability that the company may be inadvertently losing money as a result of

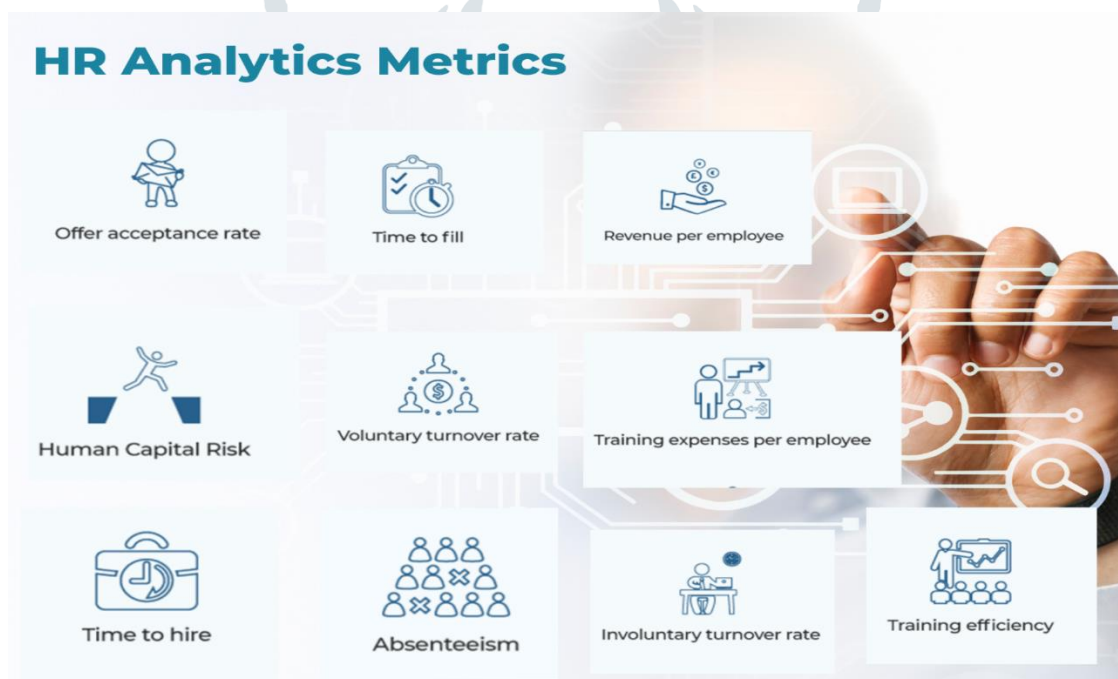
procedures that aren't satisfying or productive for its staff. People teams worldwide now have better insight and overall management thanks to the collection and analysis of data on personnel procedures. Executives would be unable to make wise business decisions on the hiring, dismissing, or promotion of personnel without adequate HR analytics. Retaining high-performing staff might be challenging if they don't believe that their work is valued or that the organisation recognises their high performance. It also gets harder to fire underperforming employees from the organisation if there is inadequate data oversight. Since incorrect employee-related decisions are based on more than simply sentiments and views, having the correct facts protects you legally from such judgements.

Key Metrics of HR Analytics:

1. Revenue per employee (RPE):

Revenue per employee compares the total revenue to the number of employees over a specific time period, typically a year. A few variations on this KPI are sales per employee, in which only sales revenue is included in the formula, and net income per employee, in which expenses and expenditures are deducted from revenue. Revenue per employee is a widely used metric in human resources.

Revenue per employee = Total revenue in a given period / Current number of employees in particular period



2. Human capital risk (HCR):

Risks associated with employees could include things like the inability to find someone with the necessary skills to take on a new role, the scarcity of candidates for leadership roles, and the possibility that an employee would quit due to a variety of reasons, including pay, strained relationships with managers, or a lack of a clear succession plan. All of these KPIs are measurable with HR analytics. Your company's success can be significantly impacted by human capital, and managing your personnel entails certain risk and unknowns. Human capital risk analysis looks at multiple KPIs connected to missing company objectives rather than just one. These variables include employee satisfaction, absenteeism, turnover rate, and more.

3. Absenteeism rate:

Over a given time period, the unscheduled missed workdays are examined in the absenteeism rate. Sick days, for instance, have an impact on the absenteeism rate, whereas prearranged vacation time that is paid for in ahead has no such effect.

$$\text{Absenteeism rate} = (\text{Total number of unplanned absence} / \text{total time period}) \times 100$$

4. Involuntary turnover rate:

The quantity of employees who are dismissed is monitored by this Key Performance Indicator. Layoffs and involuntary terminations, or being fired, would fall under this category. However, this computation does not take into account workers who voluntarily quit. This measure may represent attempts to manage the workforce as well as hiring procedures used to try to find the best applicant for the job.

$$\text{Involuntary turnover rate} = (\text{Number of employees left involuntarily over a given period} / \text{average number of employees in the particular period}) \times 100$$

5. Voluntary turnover rate:

The term "voluntary turnover" refers to employee leaving. For enterprises, a high voluntary turnover rate can be expensive. Monitor this indicator to learn more about the impact of retention initiatives. Excessive employee turnover may be a sign of one or more problems, such as inadequate pay, a bad work environment, and a poor benefits package.

$$\text{Voluntary turnover rate} = (\text{Number of employees leave voluntarily in a given period} / \text{average number of employees}) \times 100$$

6. Training efficiency:

Programmes for employee training can increase productivity, enhance customer satisfaction, and upskill employees. Employees who are more proficient at their occupations and know how to deliver superior customer service are advantageous to customers. Additionally, businesses gain from increased efficiency. The Kilpatrick Model established criteria for assessing if management, employees, and organisations were benefiting from training. The Kilpatrick Model has four levels: behaviour, learning, results, and reaction. The training is effective if the participants find it relevant, they will learn the necessary skills and use them in their work, and the training produces the expected outcomes. Several metrics are used to quantify the effectiveness of training, such as the results of skills and competency tests, output, customer happiness, and the advancement of employees' career paths within your organisation.

7. Training expenses per employee:

Adds up all of the costs associated with employee training, including as software licences, facility rental, salaries for training staff, and any additional out-of-pocket costs. against determine your training return on investment, compare the increases in sales, increased productivity, and happier customers and employees against the costs of training.

Training expense per employee = Total cost of training / total number of employees who are trained

8. Offer acceptance rate (OAR):

What percentage of applicants accept your offer of employment? This may have an impact on your recruiting procedures, compensation and benefits package, and standing with prospective employees. The frequency with which workers take the initial offer without haggling for more money or benefits is a variation on this rate.

9. Time to hire:

Examines the duration of time that elapsed between the hiring process' end and the moment the hired candidate submitted their application or was otherwise found suitable for the role. This measure provides information on the experience for possible hires. A protracted hiring process may cost employers qualified candidates who are lured away by quicker, more effective hiring procedures.

10. Time to fill

This statistic, which is comparable to the time to hire KPI, examines the duration between the approval of a new role or the opening of a vacant post and the time that role is filled. The time required to create a job description, advertise it, find people, hold interviews, and make an offer is all included in this statistic. By filling open positions, reducing the time to fill ratio can increase recruit satisfaction, find more qualified candidates, and increase productivity.

Popular HR Analytics Tools:

1. ChartHop

ChartHop is specialised people analytics software designed for usage throughout the entire organisation to provide feedback across teams and enable more comprehensive planning. Its entire purpose was to simplify the process of surfacing different types of analytics for typical HR issues and queries. It has sections on employee experience, pay, performance management, and headcount planning. The main features of ChartHop are its simplicity of integration and extensive collection of analytics templates for beginners. This is a viable choice for organisations seeking to increase employee access to people analytics and investigate ways to enhance HR analytics processes.

2. IBM ILOG CPLEX Optimizer

A more sophisticated tool for resolving challenging optimisation issues is CPLEX Optimizer. ILOG began in 1987 with analytics visualisation tools and integrated the platforms into a full suite for business process optimisation in 1993 after purchasing CPLEX Optimizer. After purchasing ILOG in 2009, IBM enhanced the basic tools over time, adding support for more recent cloud architectures, a better user interface, and greater data integration. Although it is a highly technical service, HR departments who are tasked with making intricate scheduling decisions and optimising workforces for corporate growth and new markets may find it useful. One of its many features is a robust toolkit for describing challenging optimisation problems.

3. Microsoft Excel

When it comes to presenting analytics insights and disseminating them within the organisation, Excel leads the industry. One significant benefit is that business customers are already quite familiar with how to use Excel. One of the greatest ways to convert complicated data into a format that finance and planning teams can easily grasp is by using the spreadsheet standard. Additionally, it displays data in a format that enables specialists from throughout the organisation to manipulate the data in various ways. Microsoft keeps adding programming capabilities to Excel so that users can gather data from other systems, create reports automatically, and share them with other teams. Additionally, hundreds of Excel HR analytics templates from third parties are available.

4. Microsoft Power BI

In terms of business intelligence solutions, Microsoft Power BI is the undisputed leader thanks to its numerous, thoroughly documented connections with all of the main HR platforms and applications. It also offers a plethora of options for data analysis, presentation, and visualisation. As mentioned, it integrates with Excel really easily, which helps enhance communication within the company. Numerous third-party HR dashboards, analytics programmes, and consulting firms also support Power BI. It is the most widely used platform for building metrics and analytics dashboards. It is a wonderful option for businesses looking to engage with a platform-using consultant or customise their own HR analytics.

5. Python

Python has emerged as the most widely used programming language for applications using machine learning and artificial intelligence. Consequently, an extensive range of artificial intelligence (AI) development and analysis tools have emerged to bolster the platform. The HR and development teams typically need to work together to construct Python apps, even though it might be doable for a few techies in the HR division. Additionally, it is among the most adaptable solutions for automating the intricate data engineering processes needed to implement HR analytics software on a large scale. Data scientists find this all-inclusive programming language to be rather appealing. Applications for highly customised HR analytics are best suited for it. It can also assist with duties related to data engineering and preparation at different phases of the analytics workflow.

6. R

For statistical analytical inquiries, R is one of the most often used computer languages and environments. It does sophisticated analytics on incredibly big data sets exceptionally well. As a result, it supports a large range of third-party tools and use case recipes for HR analytics. The open-source software for the fundamental tools is freely accessible. Furthermore, a well-liked open-source, GUI-based R development framework that makes sophisticated application programming easier is called R Studio. It is a well-liked open-source programming language with strong statistics and analytics capabilities. For analytics enthusiasts who wish to make sense of big data sets, this is a fantastic option.

7. IBM SPSS

One of the earliest statistical software programmes available is SPSS. Founded in 1975, the company, also known as SPSS, aims to enhance analytics for business, education, and medical research. After purchasing the business in 2009, IBM rebranded the platform as SPSS Statistics. Since then, IBM has updated it to accommodate more contemporary data operations. Extensions for Python coding is included. For intricate HR inquiries, it offers a straightforward user interface and a robust suite of analytics features. When HR teams require assistance addressing intricate queries involving huge data sets, this is a suitable option.

8. Tableau

Tableau was a pioneer in the development of visual analytics tools, simplifying the process of slicing and dicing data from many angles. By offering a wide range of features that enable users of any technical skill level to comprehend and examine data, it has built on this lead. When it comes to displaying complex data, Tableau is a leader. Tableau is a strong option for businesses that have standardised on Salesforce for other areas of their operations, given Salesforce acquired the company in 2019. Its features include an extensive library of analytics templates that will get you started and ease of integration. It is a wonderful option for groups who wish to investigate HR data in different ways and are searching for robust visualisation features.

Benefits of HR Analytics

With advantages ranging from reduced employee turnover to enhanced communication abilities and higher employee work satisfaction through precise disbursement of rewards and remuneration, HR analytics is an essential tool for HR managers to evaluate and enhance employee performance.

Improved Decision Making

By utilising HR analytics, organisations can leverage workforce data to make more informed decisions that typically result in improved outcomes. Organisations use HR Analytics to gain a deeper understanding of their workforce. This includes pinpointing areas for improvement, figuring out how much pay and training to spend in order to increase employee performance and reduce turnover, and raising overall work satisfaction and other HR-related metrics.

Reduced Employee Turnover

Employee turnover data collection and analysis is made simple with the use of HR Analytics solutions. This aids businesses in identifying trends and patterns that can lower staff turnover and boost employee retention. The information gathered can be used to better understand the causes of rising staff churn as well as ongoing problems with management or the workplace culture of the business. It is simpler to comprehend the causes of rising employee turnover with the aid of HR Analytics. This makes it possible for the businesses to identify solutions to address the problem, develop plans to lessen it, and establish a happier and more fulfilling work environment. Better training and development opportunities, along with addressing management and corporate culture challenges, are some measures to address employee turnover.

Improve Employee Performance

Human Resources professionals can use HR Analytics to gather and evaluate employee performance data, find high-performing workers, and fund more chances for training and growth to raise staff productivity inside the organisation. Enhancing employee performance using HR Analytics can help businesses attract and retain top personnel while giving them a competitive advantage.

Enhance Workforce Planning

HR Analytical tools can assist organisations in forecasting and identifying future labour surpluses or shortages. Employers can better assess their workforce by using HR analytical tools to analyse data on employee demographics, career advancement, and job performance. This will help them determine whether to hire more staff members or offer current employees more opportunities for training and development to help them become more productive and efficient workers.

Improve Compliance

Organisations must evaluate employee data to ensure that every part of their operations complies with applicable laws, bylaws, and regulations, such as those pertaining to equal employment opportunity, work safety, and other legal requirements. HR Analytics' analysis of employee data can assist in identifying areas where there may be a risk of non-compliance with legal standards so that corrective action can be taken quickly to resolve the situation.

Increase Employee Engagement

Organisations may swiftly address areas of employee disengagement by using employee engagement data analysis to pinpoint the problem and take the necessary action. Employee turnover in the company is closely correlated with employee engagement, which is a crucial sign of motivation and job satisfaction. Improving communication with staff members and giving them more opportunity for training and growth are two ways to raise employee engagement.

Better Risk Management

By examining personnel data, organisations can detect possible dangers and take appropriate action to reduce them. This can involve creating backup plans, offering more chances for training and growth, or taking other actions to reduce risks like staff shortages, compliance problems, or surplus problems.

Enhances talent acquisition and recruiting efforts

HR analytics enhances talent acquisition and recruitment by utilising data to determine the best channels for recruitment, evaluate candidate fit, and streamline hiring procedures. In order to draw in and keep top people, it helps firms to assess the effectiveness of their hiring practices, pinpoint areas for development, and make data-driven decisions.

Conclusion

Strategic decision-making is made possible by the insights and measurements that HR analytics brings to the business. It assists HR specialists and organisational executives in pinpointing areas in need of development, gauging the success of HR campaigns, and coordinating HR procedures with overarching corporate goals. Organisations may increase staff productivity, foster employee engagement, and eventually support the general prosperity and expansion of the company by utilising data.

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