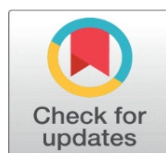
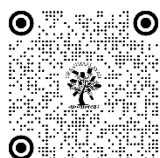


TALENT ANALYTICS AND TALENT MANAGEMENT: - A SYSTEMATIC LITERATURE REVIEW IN IMPROVING ORGANISATIONAL PERFORMANCE

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ABSTRACT

Talent analytics has emerged as a new trend and challenge in the business context emphasizing the strategic value of Human Resource Management (HRM) to the top management leaders.

The Talent Analytics System is built to calculate and predict the retention of the candidate before they are hired. The organization will be able to make the hiring decision whether to hire or not to hire the candidate by looking at their predicted retention result.

A comprehensive literature review analysis was done to understand how talent analytics and talent management plays an important role in improving organization performance. This study is conceptual in nature as it discusses some aspects like definitions, importance, process, models, challenges etc. under Talent analytics.

Keywords: Talent Analytics, HRA, Sustainable, Competitive Advantage, Organization Performance, Talent Management

1. INTRODUCTION

Talent analytics is focused on applying statistics and technology to large sets of people in order to make better organizational and operational decisions. Much like other specific subsets of larger statistics, talent analytics uses a variety of BI tools and systems to create a more holistic and data-driven view of an organization's staff. This way, companies can make the best decisions based on actual results and quantifiable success.

Today, talent analytics is mainly used by HR departments, as it offers tools that are highly complementary to their mandate. This subset of data analytics focuses on understanding people data that can inform decisions related to hiring, retaining, or improving results of a pool of current or potential employees.

The field has gained increasing importance as companies look for improvements both big and small that can streamline operations and maximize a team's potential.

Talent analytics—also known as “people research,” “workforce analytics” and other labels—is the attempt to understand patterns in an organization’s workforce through analysis of employee-related data.

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Sustainability means a deliberate continuous attempt to utilize natural resources and other resources to meet the needs of current human beings and non-human beings while not harming the ability of future human beings and non-human beings to utilize natural and other resources to meet their needs (Opatha, 2019). According to Kirtane (2015) sustainable HRM practices include green HR practices, HR analytics and HR Metrics which are being used in various functions of HRM. Rapid digital transformation has increased the requirement of HR analytics solutions and services and this has caused the world including the Asia pacific region to grow fastest in HR analytics (Gurusinghe et al., 2019).

It was in 1978 that Dr. Jac Fitz-enz emphasized the idea of developing metrics that can determine the impact of HR activities on organization’s bottom line and developed the notion as HR analytics (Jain and Nagar, 2015). After the great recession period 2008, most of the organizations recognized the necessity of accurate evidence based people management practices which involve analytics, decision making and problem solving (Reddy and Lakshmikeerthi, 2017). Big data in HR gifted HR analytics to the evidence based HRM concept to make accurate decisions regards to HR (Reddy and Lakshmikeerthi, 2017)

2. LITERATURE REVIEW

Human resource management has become one of the most critical functional fields in an organization (Opatha and Uresha, 2020). Opatha (2009) defines HRM as the efficient and effective utilization of human resources to achieve goals of an organization and the generic purpose of HRM is to generate and retain appropriate and contented employees who give their maximum contribution to achieve organizational objectives and goals. Human resources include all types of employees who work for the organization. In present competitive business environment human resource has become a strategic asset to the company as it is rare, valuable, inimitable and non-substitutable.

Talent analytics is the analysis of employee data, facilitated by the use of statistics and tech, with the purpose of making better business decisions.

Different scholars have defined HR analytics in various ways and following paragraphs consist of HR analytics definitions given by some scholars and researchers.

Kirtane (2015) - HR analytics is an integrated process that improves the individual and organizational performance by assisting to improve the quality of people related decisions. HR analytics mostly depends on statistical tools and analyses and requires high quality data, well-chosen targets, talented analysts, leadership, as well as broad-based agreement that analytics is a legitimate and helpful way to improve performance.

Dooren, (2012) as in Lochab et al. (2018) - A methodology for understanding and evaluating the causal relationship between HR practices and organizational performance outcomes (such as customer satisfaction, sales or profit etc.), and for providing legitimate and reliable foundations for human capital decisions for the purpose of influencing the business strategy and performance, by applying statistical techniques and experimental approaches based on metrics of efficiency, effectiveness and impact.

Jain and Nagar (2015) - A mixture of quantitative and qualitative data and information that derives important insights which help to support in making decisions by the management.

Vihari and Rao (2013) as in Ben-Gal (2018) - The application of sophisticated data mining and business analytics techniques to the field of HR.

Kapoor and Sherif (2012) - HR analytics means managing key HR related data and documents in order to analyze the gathered data using business analytics models and disseminate the analyzed results to decision makers for making appropriate decisions.

Reddy and Lakshmikeerthi (2017) - Evidence-based HR (EBHR) is a decision-making process combining critical thinking with the use of the best available scientific evidences and business information. It uses data, analyses and research to understand the connection between people management practices and business outcomes, such as profitability, customer satisfaction and quality.

Jabir et al. (2019) - HR analytics is about analyzing and understanding how and why things happen, produces alerts about what the next best action is, and make interpretation about what the best and the worst are that can happen based on the analyzed data.

Boudreau and Ramstad (2004) as in Levenson (2005) - HR Analytics is about statistics and research design, but it goes beyond them, to include identifying and articulating meaningful questions, gathering and using appropriate data from within and outside the HR function, setting the appropriate standards for rigor and relevance, and enhancing the analytical competencies of HR throughout the organization.

Bhattacharyya (2017) - The application of analytic logic for the HRM function.

Kiran et al (2018) - HR Analytics means providing a data driven framework for solving business problems using existing information to drive new insights. It is about smart decision making, delivered with the combination of software, hardware and methodologies that applies statistical models to work related data, allowing business leaders to optimize human resource management.

Considering the above definitions, HR analytics can be defined “as the application of research designs and advance statistical tools for evaluating HR data to find solutions or to make sustainable decisions relating to HR issues based on evidences for the purpose of supporting in achieving competitive advantage for the organization through resource based view”.

3. IMPORTANCE OF HR ANALYTICS

HR Analytical practices are contributing to build a sustainable organization as these practices are balancing social, environmental and economic factors for short and long term perspectives (Kirtane, 2015). As per Ben-Gal (2018) HR analytics has several goals 1) to gather and maintain data in a meaningful way for predicting short and long-term trends in the supply and demands of employees in different industries and occupations; 2) to help global organizations to make decisions relating to optimal acquisition; 3) to develop and retain of human capital; 4) to provide an organization with insights for effectively managing employees in order to achieve business goals quickly and efficiently; and 5) to positively influence the successful implementation of an organization’s strategies. In addition, the major purpose of HR analytics is to enhance the organizational sustainability by making intelligent HR related decisions after the analysis of gathered data in a meaningful way using analytical techniques in order to enhance organizational performance. According to Kiran et al. (2018);

Bhattacharyya (2017); Kirtane (2015); Reena et al. (2019); Reddy and Lakshmikeerthi (2017); Fred and Kinange (2015), benefits of HR analytics are as follows.

- 1) Helps Improve the performance of the employees.
- 2) Improves ROI (Return on Investment) of human resources.
- 3) Provides opportunity to assess how employees contribute to the organization and assesses the extent to which they can meet their career expectations.
- 4) Forecasts workforce requirements and determines how to fill the vacant positions.
- 5) Links workforce utilization to strategic and financial goals to improve business performance.
- 6) Forecasts future HR trends and patterns in terms of various aspects (Eg: turnover, absenteeism etc.).
- 7) Identifies the factors that lead to greater employee satisfaction and productivity.
- 8) Discovers the underlying reasons for employee attrition and identifies high-value employees at risk of leaving.
- 9) Establishes effective training and development initiatives.
- 10) Assesses the information by using various HR metrics.
- 11) Helps managers in rational decision making.
- 12) Measures the financial impact on human resource practices.
- 13) Determines the individual who fits into the culture of the organization by analyzing job involvement, employee engagement, employee commitment etc.

- 14) Gives useful inputs for HR to predict the employees who can be upskilled to become experts based on data on employee performance, background education, discipline background etc.
- 15) Credibility for the discipline of human resource practice and for practitioners improves.
- 16) HR executives will be included in the strategic conversations, because they can quantify their numerous impacts on business outcomes.
- 17) HR departments can be held accountable for impacting the bottom-line the same way business or product leaders are held accountable.
- 18) Greater ability to justify human capital investments

A recruiter's role has evolved over the years. Earlier they were only responsible for filling up vacancies arising out of a new role or requirement, or an employee moving out. In the current context, a recruiter has a bigger role to play. Organizations now understand that their biggest asset is their workforce, which explains why there is an increasing emphasis on finding and attracting the best talent. This growing competition for talent is also a result of rising candidate awareness. High performance employees understand they are a valuable asset and therefore do comprehensive benefit analysis before committing to a particular organization.

4. PROCESS OF TALENT ANALYTICS

According to Jain and Nagar (2015) the road map of HR analytics consists of five stages.

1. Defining Objectives of HR Analytics

HR professionals must first determine the top most critical objectives to conduct HR analytics based on organizational strategic aims. For example, objectives might be to know the factors that contribute to improve the employee productivity, to estimate the turnover rate of employees for the next year, to find out the degree of employee satisfaction, to find out the impact of work place hazards on employee performance etc.

2. Data Collection

Once HR professionals identified what HR-related objectives are, the data relevant to the variables of the objectives needs to be collected. Surveys, observations, interviews, computerized systems (Eg: Human Resource Information Systems) enable HR professionals to collect data.

3. Assessment of HR Metrics

Next step is to determine the HR metrics that an organization will use for decision-making based on the collected data for the identified objectives. Simply this involves determining measurements to measure the HR variables. For an example following Table 1 depicts the HR metric for each identified objective of HR analytics.

Table 1: HR Metric for Each Identified Objective of HR Analytics.	
Objective	HR metric
To find out the turnover rate of employees	Rate of employee turnover
To find out the degree of employee satisfaction	Employee satisfaction index
To find out the impact of work place hazards on employee performance	Work place hazards index and employees' performance evaluation scores

5. ANALYSIS OF DATA

This is the fourth stage of the process that requires highly developed statistical analyses to analyze the data in order to derive meaningful information. This needs HR departments a strong logical establishment to make effective human assets decisions. For an example to find out the impact of work place hazards on employee performance, needs to carry out a regression analysis and if the regression analysis is negative and significant it can be said that there is a significant negative impact from work place hazards on employee performance. Further, to find out the turnover rate of employees, needs to divide the number of employees left from the organization during a specific time period by the total number of employees stayed during that period.

6. DECISION MAKING STAGE

After analyzing the data and deriving the meaningful information, the final stage is to make decisions based on them. Most of the times this requires to make decisions about the alterations of the existing HR policies, procedures and process or making new HR policies, procedures and processes to achieve the organizational strategies. For an example after finding that there is a significant negative impact from work place hazards on employee performance, HR needs to update their existing policies and procedures or to make new policies and procedures to prevent workplace hazards.

A NEW MODEL FOR HR ANALYTICS

HR analytics applies statistical models to get insights into employee data and this makes managers possible to predict employee behavioral patterns like attrition rates, training costs, and employee contribution (Mohammed, 2019). Mohammed (2019) explains, “A typical HR Analytics System collects employee data from HRIS (Human Resources Information System), business performance records, mobile applications and social media merges into a data warehouse, applies big data, statistical analysis and data mining techniques to provide understanding of hidden data patterns, relations, probabilities and forecasting. A Data Warehousing System deals with the data collection, analysis, and transformation and storing data on various databases”.

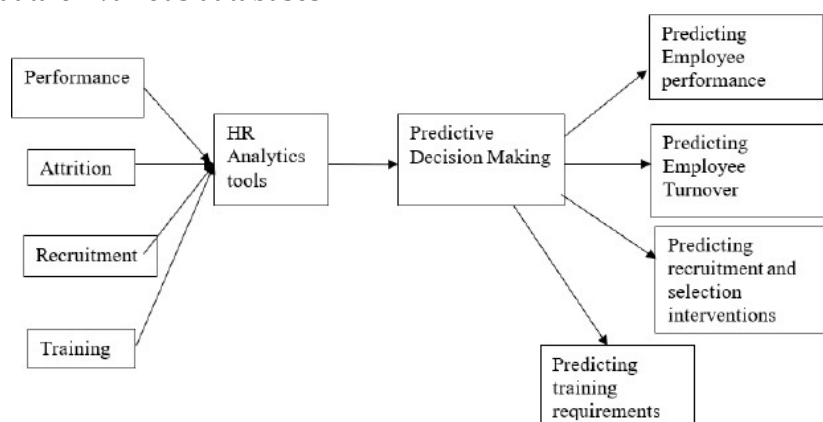


Figure 1: HR Analytics Model Developed by Mohammed (2019)

Source: Mohammed (2019)

Mohammed (2019) has developed a modern tool (Figure 1) in HR for predictive decision making which explains that HR data relating to employee performance, attrition, recruitment and training etc. are analyzed through the use of HR analytics tools or statistical tools. As a result, based on the analyzed data predictive decisions can be made with regard to employee performance, attrition, recruitment and training etc. This model was designed considering the relevance of effective decision-making for organizational success and progress of success.

7. BENEFITS USE OF ANALYTICS

HR analytics help attraction, maintenance and retention of Talent in the organization. Seeing this organizations have been investing huge amounts in IT tools which support ranges of HR functions starting Manpower planning, Hiring, Performance management, legal, employee engagement and talent development.

Analytics has been described as a ‘must have’ capability forth HR profession, a tool for creating value from people and a pathway to broadening the strategic influence of the HR function (CIPD, 2013).

HR analytics through its predictive nature help in understanding and exposing the deficient practices that grow to be the key cause for attrition, which helps in retaining and maintaining high worth employees.

It makes possible the HR to exhibit its yield and accountability to accomplish corporate goals. HR analytics help in most advantageous Human resource planning.

It helps precise forecasting about employee needs and skill-set for achieving organizational objectives.

It helps in sourcing the best possible potential suiting organizational talent requirement for specific positions without bias.

It helps in getting better performance in organization through quality decisions especially in talent acquisition.

It helps in concise defining of vital performance part and bits which may have high impact on the organizational performance.

HR analytics facilitate in administration and classification by and large all HR activities.

8. TALENT MANAGEMENT

Talent management plays an important role in an organisation. In recent years the concept of talent management is distinguished as fairly new, and it has attracted the interest of the researchers.

Human capital is the combination of skills, experiences, knowledge, motivation, and capabilities of the employees. It is very important for an organisation to recognize how to manage and control the talented employee. It helps us to invest in their technical skills, experience, and knowledge and to enhance their productivity and performance of organization. Having a good resource is an asset for an organisation.

In recent years most organisations have recognized that the most efficient practices of talent management are directly associated with the organizations culture and strategy. In the current business environment, there is a high demand for talented employees in organizations.

These days organisation is passing through an era of transformation. These days the organisations have gone through many changes in different aspects such as innovation, skills, new technology and increasing competition between firms. The pandemic has adversely affected the wellbeing of many organizations. Recruiting the best talent during the pandemic was a big challenge and to retain the best talent was much more difficult.

9. THE IMPORTANCE OF TALENT MANAGEMENT AND WHY ORGANIZATIONS SHOULD INVEST IN IT

Talent management plays an important role in Human resource. It focusses to hire, manage, develop, and retain the most talented employees in the organisation. It manages one of the most important assets of the company, its people.

Hence every organization should make the effort to effectively manage the employees to help them develop their skills and capabilities in order to retain them. Here are some reasons why organizations should invest in talent management.

Attract top talent: Talent management gives organizations the opportunity to attract the most talented and skilled employees. It helps to create an employer brand that could attract potential talents.

Employee motivation: Talent management helps organizations keep their employees motivated. If employees are motivated the organisation productivity increases.

Increase employee performance: The use of talent management makes it easier for the organizations to identify which employees will be best suited for the job. This can lead to less performance management issues and grievances. It will also ensure that the top talent within the organization stays for longer duration. Once the employee performance is good it helps the organisation to grow more and achieve targets.

Engaged Employee: Talent Management helps the organisation that the employees should be engaged, and their skills should be utilized properly. Proper training should be provided as per skills so that they are engaged and motivated.

Retain top talent: Talent management plays a crucial role to retain the top talent. It helps the employees to take regular feedback, identify their problem and concerns. Well-structured on-boarding practices create higher levels of retention which saves the organization on its recruitment and performance management cost in the long run.

Improve business performance: Talent management helps employees feel engaged, skilled and motivated. This helps them achieve their and organisation target.

Relationship between Talent Management and Organisation Performance:

It is generally accepted amongst management researchers that a sustainable competitive advantage comes from the internal qualities that is hard to imitate rather than for example the firm's product- market positions. Human capital is such a resource and especially the resource and knowledge. based views recognizes the firm's knowledge resources as its tool for achieving a sustainable competitive advantage (Ordonez de Pablos, 2004). Heinen and O'Neill (2004) argue that Talent Management can be the best way to create a long-term competitive advantage. A sustainable competitive advantage stems from the valuable, company-specific resources that cannot be imitated or substituted by competitors. Ordonez de Pablos (2004) further argues that human capital, relational capital and structural capital can all be sources of long-term competitive advantage, but the most significant evidence favours human capital. There is also abundant evidence (Carretta, 1992; Gutteridge et al., 1993; Wallum, 1993) that companies with a formal succession plan for their top managerial posts enjoy a higher return on investment (ROI) than those that do not have one. Carretta (1992) finds that the advantage is even greater for firms that adopt plans covering the manager's two tiers below the top. According to Pattan (1986), strategic management succession plans enable firms to specify managerial functions and performance standards, ensure continuity in management practices, identify outstanding candidates for senior management posts, and satisfy the aspirations of employees for career advancement. Through the planning process, succession plans guide actions to enhance the quality of the leadership talent pool relative to business requirements. It is believed that succession planning can build a competitive advantage through the superior development of their leadership talent (Walker, 1998).

Talent Analytics in Talent Management

To manage the talents, the analysis of talents is being introduced to help human resources in managing people. Talent analytics is an analytics platform that provides insights into the workforce into the potential hiring pool and the existing team members. Morphy, E. (2018). It is can be a tool or software to analyse the talent or people via screening through the resume to come out with an analysis result or a prediction of the people's talent and behaviour Quirk, E. (2018). Vulpen, E.V. (2019) has defined human resource analytics as a data-driven approach to managing talents at work.

Talent analytics is also being called as human resource analytics, human capital analytics, workforce analytics or people analytics. It is an approach used during talent management to analyse talents using data and provide a predictive output for the organisation to be considered.

How talent management impacts organisational performance

Talent management is significantly important to the growth of the business. With their well-defined functions and goals, they can help improve organisational performance and produce compelling results through the following areas:

Productivity

Employees feel a sense of purpose and find meaning in the work that they do when they are happy with the company and their colleagues. They become more efficient, which affects productivity in a positive way. There is a 12% increase in productivity when employees are happy. In addition, employees who are highly engaged and enabled are 50% more likely to exceed performance targets Employee engagement

Giving rewards and recognition to increase employee engagement has always been a part of HR's strategy. However, it should not just be limited to it. Developing a clear onboarding process to create a great onboarding experience for talents makes a positive lasting impression. Global consulting firm Hay Group's survey found out that 64% of applicants were discouraged with an unwelcoming office environment while 44% were turned off by unwelcoming staff on their first day at work.

Retention

High employee engagement improves retention levels. Talent management can attract applicants with a good salary and benefits package but they will likely leave if company culture, working environment and career progression fail to meet their expectations. An employee leaving the company can cost the business 33% of their annual salary. Moreover,

hiring new talents costs an average of \$4,000 according to Hyland. Reskilling and career advancement are some of the ways to keep talents and gain loyalty from them.

Profitability

The result of a happy work environment with happy and confident employees makes the business more effective and profitable. Companies that embody a positive workplace can outperform their competition by 20%. Employers must realise that employee engagement is very important when it comes to their ROI.

10. CONCLUSION

All organizations have realized the importance of attracting, developing, and retaining their talent to survive in the competitive market. Organisation are having talent war to grab the talented workforce. Talent management helps the organisation to improve performance. These days every organisation is focussing on talent management and talent development. The human resource department must focus on accessing the skills the organisation requires to implement the recruitment and training strategies. The talent management strategy must be aligned with the organisational strategy. The biggest challenge of talent management is to retain good talent and link their talent with the business strategy. Talent analytics support predictive hiring. To use talent analytics to analyse talent, an input from the candidate resume is required. Normally, human resources will investigate someone resumes before they hired them, hence the talent analytics tool is used before the candidate is being hired. This means the predictive results will be known before hiring the candidates.

The reason for the talent analytics tool to be used to support talent management, most of the human resources departments from different organisations able to cope with the huge amount of data in this big data era.

11. FINDINGS

- Companies to pay attention for talented employees and to invest in talent and intellectual capital which is one of the most important companies' assets.
- To support the training and development efforts of talented employees to provide and enhance them with new skills, knowledge, and experience.
- To constantly evaluate employees to discover current talents and determine talent gap and future needs of talents.
- The companies should offer salaries and incentives that are suitable to employees' competencies to retain talented employees, keep them and reduce their turnover.
- Companies should attract and select talents internally recruitment, from the already existing employees before attracting and selecting new talents.
- Organizations should give favourable working conditions to its employees for effective performance. This will attract new potential employees who want to work for career progression.
- The organizations also need to incorporate different strategies to retain employees.
- It is recommended that management should maintain learning and development practices like learning need identification, coaching and in-house development programs to improve their performance.
- It is vital to organize and integrate data, collected from many operations and departments within the organization in order to implement HR analytics. Further, HR professionals need to properly present the data in a way that they can be evaluated meaningfully and these collected data should be remained carefully for future purposes.
- HR analytics has become a major source for competitive advantage, the truth is that the analytics abilities of most HR professionals are limited and not enough to carry out the process of HR analytics. Thus, organization needs to invest on training of suitable managers to perform HR analytics in order to make decisions relate to human resources efficiently and effectively. Training on statistical methods is highly important to convert data into meaningful insights.

- Overall, it is recommended that talent management practices should be emphasized as doing so brings about superior organizational performance.

CONFLICT OF INTERESTS

None.

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