Human Resource Analytics on Talent Acquisition: A Systematic Review

Rakesh Naik Vadithe¹ and Bikrant Kesari²

Abstract:

**Purpose:** Human Resource (HR) analytics that can effectively and efficiently evaluate data related to people for improved decision-making and gradually gaining momentum in HR management. Talent Acquisition (TA) is a strategic process used by HR to analyze long-term talent needs in the context of business goals. Therefore, HR analytics performs data analysis to make appropriate decisions and identify talent. The purpose of the study is to understand the potential of HR analytics and Talent Acquisition through existing literature.

**Methodology:** A total of 50 articles related to HR analytics and talent acquisition were collected from 2011 to 2022 from the Scopus database. Review to identify the challenges and opportunities in both HR analytics and Talent acquisition for getting a competitive edge in the HR ecosystem.

**Findings:** The study systematically reviews existing literature on HR analytics and talent acquisition. Understanding the importance of HR analytics on talent acquisition and promoting better career growth for HR professionals. It was found that HR analytics and talent acquisition lead to making efficiency and effectiveness, organizational performance, and drive to the talent acquisition strategy.

**Implication:** Organizations have the chance to strengthen their company while achieving measurable business outcomes and analytics capabilities through talent acquisition. In organizations, the paper guides HR managers on utilising talent acquisition through HR analytics. HRA offers a method to produce analytics findings supported by evidence to enhance operational efficiency and people-related data, and ultimately influence the business strategy.

**Keywords:** Human Resource Analytics (HRA), Talent Acquisition (TA), Organizational Performance, Business Strategy.

Introduction

¹ Ph.D. Scholar, Department of Management Studies, Maulana Azad National Institute of Technology-BHOPAL
² Assistant Professor, Department of Management Studies, Maulana Azad National Institute of Technology -BHOPAL
Talent strategies have been effectively used in various organisations around the world and help the organisations achieve a competitive advantage. Human resources (HR) has become integral to a sustainable competitive advantage (Singh et al., 2022). Although organisations believe in evidence-based decision-making as showed by the increasing number of HR sections adopting HR analytics to advance decision-making (Mccartney, 2022). In order to retain existing talent and attract new talent, organisations grow policies and creativities to develop extra dynamic, unique, and appealing (Saputra et al., 2021). The competition could be won by an organisation with the right talent. Accordingly, HR managers and leaders have a need for talent management in organisations. Talent Acquisition (TA) to attract and hire a potential workforce to the organisation, in addition, organisations have adopted various techniques and strategies to effectively manage talent (Sivathanu & Pillai, 2020). HR analytics is a rapidly developing and evolving field (Dhankhar & Singh, 2022). HR issues are better and faster analysed with the assistance of HR analytics and also useful because they encourage employees talent to fully commit to their work (Chatterjee et al., 2022). The worldwide HR analytics market is likely to reach approximately $3.6 billion by 2025 and in the coming years, 51 percent of medium-sized organisations and 45 percent of big organisations are likely to increase their investment (Dhankhar & Singh, 2022).

One of HR’s most important and crucial functions is talent acquisition, which enables candidate to learn more about the company and get in touch with current employee talent for a more realistic preview (Pandita et al., 2019). The data analysis through HR analytics in the process of talent acquisition is necessary as a decision support system because speed and accuracy are most important indicators in the implementation process (Utomo et al., 2021). A lot of data is generated by employee knowledge, behaviour, skills, and performance HR requirements to store, use and examine such information for organization decision-making, which requires the process and produce true results (Saputra et al., 2021).

The purpose of this paper is to understand the potential of HR analytics and Talent Acquisition through existing literature. All the research paper collected from Scopus database from different publisher like Emerald, ScienceDirect and Springer. The critical review on HR analytics to talent acquisition. The existing review shows that HR analytics strongly related to talent acquisition which provides challenges and opportunities to the organisation.

**Theoretical Work**

**The Concept: HR Analytics**

Today’s complex business world is data-driven every decision is based on some data and facts (Bassi, 2012). HR, which was earlier considered a theoretical domain, is now purely based on data e.g., recruiting to separation, every function requires data. This data proves useful only when it is interpreted properly, and this is where HRA plays a major role (Mondore et al., 2011). The process of get-together and assessing data linked to HR in direction to improvement an organisation workforce presentation is known as HR analytics (Falletta & Combs, 2021; Margherita, 2022). The interaction likewise be suggested to as ability examination, individual’s investigation, or even labour analytics (Werkhoven, 2019). HR composed data be connected with organisational and HR areas used methods of data investigation (Chatterjee et al., 2022). HR analytics offers measured evidence of how HR creativities organisational goal’s and strategies (Qamar & Samad, 2022). HR analytics offers data-backed understanding into what was work and what be situated, allowing business to advance and better strategy for future (Chalutz Ben-Gal, 2019). The steps involved in HR analytics suggested by (Margherita, 2022)
as four steps. First step in the obtain the problem-solving insights promised by HRA is collect data. Second, the information then, at that point, should be checked and estimate against different information, like verifiable data, standards or midpoints. The results are analyzed in the analytical stage. Applying insight to organisational decisions is the final step.

**The Concept: Talent Acquisition**

Talent acquisition is the procedure of classifying, obtaining, assessing or testing and hiring the right candidates for the true job at correct time. The organizations do not just want to fill the vacancies but also fill them keeping in mind their expectations, values, culture and the strategic goals that the organization wants to accomplish. This is what necessitates the use of HR analytics in Talent Acquisition. The methods, procedures, and strategies for finding, recruiting, and retaining a organisation’s required human resource are stated to as talent acquisition (Pandita et al., 2019). Plans for sourcing, recruiting, hiring, and orientation talent include developing, implementing, and evaluating them (Rao & Hill, 2019). The significant in talent acquisition used for strategy in workforce development include administration, financial conditions, corporate competition and demographics to measure the current and future workforce needs (Utomo et al., 2021).

Talent acquisition needs over in-depth understanding of and ability to put into practice a wide range of federal, state and local laws and regulations that involves legal issues. The discrimination based on gender, religion, disability, and status is prohibited by Equal Employment Opportunity (EEO) laws (Landers & Schmidt, 2016). The multidimensional constructs have been derived from the fact that talent varies by industry in business (Necula & Strîmbei, 2019). Competencies, when advanced and practical, enable an individual to achieve a job or role. In addition, talent management frequently makes use of technology. Affirmative action tracking is one of the more prevalent applications of technology to assist in talent acquisition (Srivastava et al., 2015).

**Propositions of HR Analytics on Talent Acquisition**

*Proposition-01: Influence of HR Analytics on Talent Acquisition*

Analytical approaches each type of analysis is increasingly sophisticated and provides useful insights into the talent acquisition function overall success (Walford-Wright & Scott-Jackson, 2018). Leading organisations present dashboards and reports tailored to the evidence requirements of respectively end operator group and quantity and description on all four categories of metrices crosswise the analysis range (Santoso et al., 2020). A look at action, such as capacity of requisitions, aspirant or talent size, hiring basis, and so on, is provided by descriptive analysis. It is straightforward look of volume, period, budget, or source and tells the levels of action and efficiency in talent generation (Strategy, 2021). Insights into talent acquisition performance in relation to requirement or standards, pre-hire assessment scores, and provided by related analysis. It is essential to the effective operation of the talent acquisition function because its user ratios or comparisons to compare presentation to budgets, examinations, and standards (Joglekar & Tan, 2022). Analytical analysis of the association between actions and results, such as the quality of hires or candidates, skills, match with situation requirements, retention of serious skill hires, and speed to ability (Qamar & Samad, 2022). It utilises essential insights and many datasets to plan talent acquisition movement to result talent results. Predictive study looks for numerical connections between a variety of actions and results in order to forecast what will occur in the future or clarify the factors that
led to that result, like a candidate's likely social fit, performance, and retention (Fernandez & Gallardo-gallardo, 2021). Workforce planning identifies probable skill and talent openings and market accessibility. Additionally, predictive methods classify the possibility of implementing automation or contingent workforce solutions as well as alterations to TA strategies. With a large, integrated dataset, these methods make use of advanced statistical and modeling techniques.

**Proposition-02: The role of HR Analytics helps inform decision concerning Talent**

Organisations adopted data-driven methods bring insights serious for enlightening operative and business outcomes (Bui et al., 2021; Mikael et al., 2018). The talent is attractive increasingly compound and competitive advantage for organisation. Analytics is prevailing tool in the search for and engagement of top talent. Help with better understand of candidate right, process and knowledge optimization, and the impact of talent in the organisation (Cheese, 2008). With low unemployment and a lack of skilled workers, managers are under additional compression than ever to fill new recruitment quickly and effectively (Hughes & Rog, 2008). There is a clear need more improved projects as well as insights into staging requirements and strategies, and risks of talent movement are increased the difficulties. An advance, mature HR analytics capability has a significant impact on business outcomes, and improve it increase the worth of talent acquisition and the HR job to the organisation.

The demographic data for new hires and high performer from the core HR, talent, learning, performance management, and compensation system, as well as their impact on talent outcomes. Skills inventories to determine whether roles and regions lack or have a surplus of skills. The aperture broadens to provide more integrated insights into the impact of TA process and practices by utilizing Candidate Relationship Management (CRM) systems for talent pool insights that make use of social networks for passive candidate and employment brand strength insights. Combined HR analytics with AI assist organisation in selecting the most cost-effective platform for recruiting candidates (Mayo, 2018). HRD instruments assume an extraordinary part in deciding the character of an employee and organisations utilise the information from tests/instruments managed to create or make specific advantage according to the personality or the tendency of an employee (Arnott et al., 2009). While selecting, recruiters frequently make mistakes like the Halo error, the central tendency error, and the first impression error, either consciously or unconsciously. These decisions are caused by prior knowledge of situations and cultures. HR analytics use figures and fact help get rid of the bias.

**Proposition-03: HR Analytics on Recruiting the right talent**

An approach called HR analytics enables an organisation to gain useful insights into a variety of facts that are connected to HR function and to determine how investments in human capital contribute to a organisations top line by reducing costs, reducing risks, and minimizing costs (Fernandez & Gallardo-Gallardo, 2021). HR analytics isn’t just worried about the assortment of information yet additionally utilises different factual models and cycles to draw a lined up between individuals information related to talent (MOHAMMED, 2019). HR analytics is all about assisting managers in enhancing an organisations processes or activities by calculating metrics. A portion of the advantage of applying HR analytics for right talent (Opatha, 2020). Human Resource Development (HRD) instruments play a important role in determining person’s personality. Organisations use data from these instruments to develop or create benefits that are tailored to an employee’s talent required for organisation (Avrahami et
Which make the elimination of bias bouquet of profits or non-monetary rewards. For target HR analytics use data from previous year skill and data from performance appraisal to apply predictive analysis to frame policies or set goals for the kind, quantity, and variety of talent needed to run the organisation smoothly and effectively by recruiting right talent (Kakulapati et al., 2020). Predicting the incumbent’s future performance done with the help of analytics. Organisations easily use the actual data and characteristics associated with the job role to which the employee be promoted and organisation which aids succession and planning.

Employer engagement studies for estimating new-hire fulfillment, maintenance danger, and recruit achievement functional and monetary frameworks for selecting budgets, and the effect of recruiting movement in group, business unit, as well as corporate outcomes, Information from these frameworks likewise shed bright on the overall ability the executive worth of wellsprings of recruit- both internal and external for creating superior workers, profoundly drew in representatives, or future pioneers inside a basic job, line of business, geography and diversity group.

**Proposition-04: HR Analytics improve Talent Acquisition**

There isn’t anything that support any business better than an extraordinary recruit. Find someone who suitable to organization, is likely, and inspires people around does wonders for an organization both in confidence and income (Sundaray, 2011). Talent Acquisition from the point of HRA was a collection of employee data on a variety of metrics, including education, knowledge, skills, attitudes, and performance. The data provide the clear information simply genuine and accumulated from background, however different information comes from skill valuation and survey (Olszewski-Kubilius et al., 2019). HR professionals use this data to learn what it takes to succeed at organization. The studies showed, employee use data to increase retention, which primary reason have turned to talent to help their decision (Anoopa, 2016). Other reasons were to identify skills gaps, create better job offers and find out what employee want. The study find out employees used data to increase retention (Cloutier et al., 2015). As part of find great employees is to where they hung out. If organisation talent acquisition professionals characteristically use conferences and networking events to find candidate and need to increase to digital and methods like LinkedIn or job offers (Koivunen et al., 2023). Employee referrals or internal ads don’t give the variety need and the data tells where to find different salaries direct more resources in that direction (Avery, 2003). When consider about talent that a resume is a combination of two things, there is a growing perception that some of the legacy components of the hiring process, such as resumes and unstructured interviews, actually do insert unconscious biases into the process and think about resume is combination of two things a list of experience and education (Watson & Barnes, 2004). Research shows absolutely that how experience and equal of education are not exactly prescient of occupation execution. Learn from data what ideal employees’ value and do. Equity, transparency, purpose, and adaptability are frequently cited as millennials’ top priorities in organisation.

HR analytics deals with data will show where to focus on talent to make organisation goals more appealing to employees in particular age group if have any trouble attracting and retaining them (Aguinis & Burgi-Tian, 2021). For example, the arrangement of assumptions works searchers have a post covid-19 pandemic and explicitly more remote working choices and adaptability. For HR professionals time-to-hire be analysed by data to assess how effectively HR manager managing resources. HR analytics cut down on time spent hiring for
some organisations. In particularly with high turnover and is ongoing process. Many organisations concrete on talent acquisition rather than attempting other alters the system.

**Discussion**

In HRM data-driven decision-making is mainly used through analytics. The use of HR analytics depends on factors related to people data availability, quality data, and attitude toward data-driven decision-making. Our research existing on talent acquisition which enables the leverage the assistances of HR analytics. The talent acquisition makes the competitive advantage to organisation the systematic review shows the propositions with HR analytics strongly associated with talent acquisition. In this paper, we tried to pay attention to the growing of HR analytics on review point of view in present scenario.

**Implications**

*Practical Implication:* Multiple shareholders need to actual adoption of HR analytics in an organisation. The use of HRA can be other functions in organisation like operations, finance, marketing scope is different process and responsibilities.

*Managerial Implication:* HR professionals understand the possible and problems to develop improved analytical capabilities, and approaches possible to bring transformational modification. For HRM practices right strategic approach to make the competitive advantage of organisation.

**Conclusion**

The appearance of the global work is growing the significant of talent management as fast growing in both academic and working professionals. For the development of HR analytical concern is necessary for the modern organisations. Some studies ROI-based view from organisation point and social exchange theory make the effective work of adopting of HR analytics.

**References:**


***