Chapter 7
Big Data Analytics and Its Impact on Human Resources Management

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ABSTRACT

Both artistic and scientific analytic aspects play a vital role in human resources (HR). With the rising number of transactions, customers, and employees, human resources are forced to emphasize on the adoption of novel technologies to aid faster in the decision-making processes. Big data is expected to significantly gain a ubiquitous presence in human resources. Employing data analytics in HR owes the potential to bring the sector in line with the rest of the operational activities in an organization. This chapter focuses on the role and benefits of big data analytics in human resources. It contemplates the key analytical solutions being offered by the market players and the real-use cases of organizations incorporating analytics in human resources to cater to their business goals. Further, the chapter also discusses the factors challenging the implementation of analytics in transforming business processes.

INTRODUCTION

Technology has unprecedently redefined the way businesses operate nowadays. In today's scenario, analytics is not about determining interesting facts and waning them for managers. Big data has emerged as a game-changer in organizations and industries, particularly, in the HR industry. Human resource management (HRM) is experiencing an archetype shift from the conventional period of small data to the evolving era of big data.

The competence to analyze massive amounts of data has witnessed significant accessibility over the past few years, with businesses emphasizing on incorporation of analytics in managing the workforce efficiently. The growing popularity of this technology in organizations can be attributed to the decline in the cost of storing the data and the data production technology (Nocker, 2019). In addition to this, the

techniques that augment the processing and manipulation of stored data are increasingly being embedded within standard software, thereby enabling HR practitioners to easily extract insights from the stored data, and subsequently, impact the overall performance (McAfee A. B., 2012).

Analytics in human resources poses to be profitable in making HR executive decisions concerning organizational and employee performance. Big data is becoming a pervasive tool and a resource, enabling the segments to shift from simply reporting data to organizations conducting advanced workforce planning, predicting employee performance, and making informed talent decisions.

Several companies are making substantial technological investments to manage their day-to-day transactions, with few of them using these aggregated terabytes of information to generate meaningful data-driven decisions (Fiore, 2014). The usage of data in HRM has witnessed significant evolution over the past few years from basic metrics to big data via human resource analytics. Analytics in human resources comprises of external and internal data collection and manipulation, to back up the decisions relevant to the personnel connected to the organizational performance and business results (Marler, 2016).

With predetermined expectations, generating an optimized big data deployment becomes relatively forthright. Adopting underlying infrastructure and technologies provides the highest levels of business agility, investment protection, and time to the market (Networks, 2012). With this trend, significant re-examination and extension of the preceding research methods and results are expected to witness a rise (Zhang, 2021). Capitalizing big data with HR, enhances every segment, such as performance management, training and development, compensation, and recruitment, thereby making efficient and smarter decisions.

The paper emphasizes on illustrating the factors bolstering the demand for analytics in the human resource segment of an organization, in terms of data governance, organization, environment, and technology). It also discusses the different aspects hindering the implementation of analytics in organizations.

Big data represents various prospects for organizations to augment their strategies and accordingly make the right decisions at the best possible time. With more and more companies implementing big data solutions, newer ways are being introduced to avoid wasteful spending, particularly on personnel costs. The role of this technology is thereby becoming prominent, accelerating the way any business functions.

Research Questions

RQ1: Need for big data in human resources
RQ2: Real-use cases of big data in human resources systems
RQ3: Major players implementing the same in their businesses.
RQ4: Factors boosting and hindering the demand for big data analytics in human resources
RQ5: Future trends for implementing big data technology in human resources management.

Purpose of the Article

In today's scenario, the HR systems are largely transcending their role as the "people people", with value and performance-driven roles, via impactful insights at the point of need. Integrating the concept of big data technology in an organization's workflow process offers solutions to address the challenges related to the same. This paper illustrates different future technological trends of the implementation of big data analytics in human resources systems. Further, the paper also discusses key strategies incorporated to develop solutions by different businesses.

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