The Role of Data Analytics in Talent Acquisition and Retention with Special Reference to SMEs in India: A Conceptual Study†

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The human resources domain is witnessing a transformative period with the inclusion of data analytics in the management of manpower. It offers numerous advantages, particularly in acquisition and retention of key talent in an organization. However, it is not without its share of challenges which are restricting companies, particularly in India, from harnessing its full potential in talent management. The current study examines the advantages of strategic management of the talent acquisition and retention processes, while employing data analytics to ensure better organizational performances in India. It further presents the challenges in the usage of data analytics, with the development of strategy and approaches for better implementation of the talent techniques in SMEs in general. It thus sheds light on the current adoption level of the technique in India and examines its reach. The paper aims to address the gap in literature on the importance of data analytics in SMEs of India.

Introduction

Due to the emerging markets, the business environment in the next 10-20 years will be challenging because of lack of talented employees. The most important asset for any organization in the 21st century, whether business or non-business, will be talented employees. Acquiring and retaining talented employees is a very challenging job. Talent acquisition ought to become easier with the evolvement of technologies, advent of digital media and increasing use of social networking sites for professional use. However, the increase in technology and networking has also given applicants various ways to forge their academic and work instances, making it hard for recruiters to understand which applicant is suited for the job being offered. Also, the vast number of applicants for a limited number of seats has led recruiters to just swiftly go through the resumes, interviews and test scores, making choosing a difficult process. The process of evaluation is not being fully used as the parameters for evaluation have not been set properly. In this case, data analytics can play a major role as it is a statistical method for determining the processes of human resource department and applying

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measures to recruit the best possible candidates. Apart from talent acquisition, the HR department also needs to retain employees and forecast employee demand to keep their employee positions filled in the company; it also needs to provide training for the development of the recruited candidates. Thus, talent management is in need of data analysis. Data analytics has emerged in the recent times as a mathematical study of numbers in talent management arena, aimed at providing the understanding on how to manage human capital, and also at evaluating HR efforts in increasing workforce productivity through training, development and decreasing employee turnover.

Most of the organizations today have gained competitive advantage due to their ability to create profit not only by cost efficiency, but by the knowledge, ideas and intellectual know-how. The networked and knowledge-based environment made the intangible assets like skills, relations and reputations of highest value (Bryan and Joyce, 2007). On an average, across all industries, only around 20% to 30% of value is given to tangible assets (Cheese *et al.*, 2008). The greatest part of a typical company's value comes from intangible assets, including knowledge, ideas, customers, people, time, reputation, etc. The intangible assets in the organization are created by the talented people, whom the company needs to attract, develop and retain. Thus, talent management is the implementation of integrated HR strategies or systems designed to improve the processes for attracting, recruiting, developing and retaining people with the required skills and aptitude to meet current and future organizational needs (Snell, 2007).

Talent Management

KM systems have been found to be very important in improving the efficiency of business processes and key determinants of competitive advantage (Vorakulpipat and Rezgui, 2008; Cockrell and Stone, 2010; and Witherspoon *et al.*, 2013).

However, there is a gap in research on the role of data analytics in KM (Chen *et al.*, 2012; and Davenport, 2013). It has previously been stated that data analytics is an important part of KM (Wang and Wang, 2008; King, 2009; and Chen *et al.*, 2012). It can help not only in the sharing of common knowledge of business intelligence, but also in extending human knowledge (Wang and Wang, 2008). However, the application and utility of analytics in the generation of knowledge insights as part of KM is not fully explored. Data analytics tools could help organizations in the discovery of hidden knowledge and generation of new knowledge from vast amounts of structured and unstructured data. Data analytics is a method for the discovery of hidden knowledge and generation of new knowledge.

Talent consists of individuals who can add value to the organizational performance, through either their immediate contribution or in the longer term by demonstrating the highest levels of potential and performance. Talent is the combination of abilities, skills and knowledge. Talented employees possess knowledge, innovative skills, creative and positive aptitude. They are brave in taking risks with the potential to assume leadership positions.

Talent management is related to HR processes which attract, recruit, develop, motivate and retain high-performing employees (Agarwal, 2015).

There are three elements in this definition that stand out:

- The full scope of HR processes: Talent management is about a set of HR processes that are integrated with each other.
- Attract, develop, motivate and retain: Talent management is related to all key HR areas, from hiring to onboarding and from performance management to retention.
- High-performing employees: The purpose of talent management is to increase performance.

Talent management is aimed at attracting, motivating, engaging, and retaining employees to make them perform better. This is why talent management is important. When it is done right, companies can build a sustainable competitive advantage and outperform their competition through an integrated system of talent management practices which are hard to copy and/or imitate.

An organization's persistent efforts are guided towards acquiring and retaining a capable and qualified workforce to enhance its effectiveness and performance. Bugg (2015) suggests that talent acquisition is a multidimensional strategic process of identifying, attracting, and getting on-board the top talents to meet the needs of the business. On the other hand, retention efforts of an organization are directed towards providing a satisfying atmosphere to the employee to retain a valued skill set for a longer duration (Acton and Golden, 2003). Given the competitive business environment in India today, acquisition and retention of key talent have gained an increasing degree of importance not only for growth but also for survival.

The shift in the global business orientation from product to process requires the organizations to synchronize their internal working to be focused on the talents.

What Are SMEs?

The lack of a universal definition for SMEs is often considered to be an obstacle for business studies and market research. SMEs, or Small and Medium-sized Enterprises, are defined differently around the world. The country a company operates in provides the specifics on the defined size of an SME. The categorization of a company as an SME, depending on the country, can be based on a number of characteristics which include annual sales, number of employees, the amount of assets owned by the company, or any combination of the features. The US also defines SMEs differently from one industry to another.[1]

SMEs make up the majority of the businesses operating around the world. Generally, they are independent firms with no less than 50 employees. However, the maximum number of employees is different from one country to the next. For most countries, the upper range

[1] https://corporatefinanceinstitute.com/resources/knowledge/other/small-and-medium-sized-enterprises-smes/

sits around 250. Some countries dock the total number of employees at 200. The US defines an SME, among other characteristics, as having no more than 500 workers.

SMEs in India can also be defined as enterprises with an investment in plant and machinery or equipment between ₹25 lakh (US$0.04 mn) and ₹10 cr (US$1.6 mn) in case of a manufacturing industry and between ₹10 lakh (US$0.02 mn) and ₹5 cr (US$0.8 mn) in case of a service sector enterprise.

This definition is provided in Section 7 of Micro, Small and Medium Enterprises Development Act, 2006 (MSMED Act) and was notified in September 2006. The Act provides for classification of enterprises based on their investment size and the nature of the activity undertaken by that enterprise. As per MSMED Act, enterprises are classified into two categories—manufacturing and service.

SMEs are also defined as non-subsidiary, independent firms which employ fewer than a given number of employees (OECD estimates). This number varies across national statistical systems. The most frequent upper limit is 250 employees, as in the European Union. However, some countries set the limit at 200 employees, while the US considers SMEs to include firms with fewer than 500 employees. Small firms are generally those with fewer than 50 employees, while micro-enterprises have at most ten, or in some cases five, workers. Financial assets are also used to define SMEs. In the European Union, SMEs must have an annual turnover of €40 mn or less and/or a balance-sheet valuation not exceeding €27 mn. India is far behind in comparison to developed countries when it comes to the usage of data analytics in day-to-day operations of a firm.

The OECD estimates that SMEs account for 90% of firms and employ 63% of the workforce in the world (Munro, 2013). It is therefore necessary to improve HR practices in SMEs with the various latest technologies; data analytics is one of them, the role of which will be discussed in this study.

Data Analytics

Data analytics is one of the pioneering concepts in management to help companies fine-tune their activities by observing patterns and predicting the future. In HR, data analytics plays multiple roles, two of which are helping acquire and retain crucial employees. Data analytics helps to refine the talent acquisition and retention process to make it oriented towards set patterns that can be employed to assist the overall functioning of the organization. It helps to streamline the available talent of an organization with its internal culture to ensure a smooth succession planning and maintaining a balance between the human resource demand and supply within the firm (Ghosh *et al.*, 2014). Additionally, technology such as data analytics in talent acquisition and retention process integrates the quantitative methods, computer science, and decision making to enhance the predictive analysis of human resources data available to the company (Mortenson *et al.*, 2015).

However, despite these advantages, most companies, particularly SMEs, find themselves unable to adopt data analytics due to challenges like high cost and lack of technical expertise (Sangani, 2017).

Various studies explain that less than 5% of the users of data analytics services offered by various Indian firms are Indian (Gupta, 2016). Furthermore, it was found that only a selected number of industries were open to the idea of using data analytics to refine their business operations, major ones being telecom and automobile. In the face of such a lack of enthusiasm for a crucial technology, it is imperative to understand what drives a company to adopt data analytics, and the challenges that restrict it from doing so, so that suitable recommendations can be made to help them explore its potential, particularly in talent acquisition and retention.

With the new age, there is increase in the implementation of data analytics in the talent acquisition and retention process which presents a wide array of opportunities for the organizations. However, as reviewed, the rate of adoption of data analytics is not growing concurrently, particularly in SMEs where talent acquisition and retention remains a problem. The current study focuses on determining the need for using data analytics in talent acquisition and retention, and the advantages and challenges faced by SMEs in India while implementing the same.

The paper aims to address the gap in literature on the importance of data analytics for SMEs of India.

Objectives

The main objective is to study the role of data analytics in talent acquisition and retention practices. However, in order to do so, the following sub-objectives have to be addressed, which are:

- To find the different strategies used for talent acquisition and retention in Indian SMEs;
- To find the advantages of using data analytics in talent acquisition and retention;
- To find the challenges in adopting data analytics; and
- To develop a conceptual framework based on the reviewed literature which can be used and extended for further research.

Methodology

The study reviews research papers from peer-reviewed journals. Studies published during the past 10 years (2008-2018) were considered for the study. Moreover, only articles and research papers from reputed journals that presented the advantages and disadvantages of data analytics, and strategies used regarding talent acquisition and retention were considered. The collected

literature was then critically reviewed to find out the various strategies used for talent acquisition and retention practices, assessing the role of data analytics in talent acquisition and retention in terms of its advantages and disadvantages, challenges faced by SMEs related to talent acquisition and retention that can be addressed through data analytics. A conceptual framework has been developed based on the reviewed literature.

Discussion

Role of Data Analytics in HR Practices

Ranjan *et al.* (2008) observed the problems in the management of human resources due to a large amount of data and a low amount of analysis. The authors hypothesized that if data mining is introduced in the human resource management systems of companies, it would help these companies gain competitive position and would help them increase effectiveness in terms of decision making. The authors conducted a study that extracted the vast amount of HR data and used data analytics to find the patterns and relationship between the data. The data results led to uncovering of useful patterns, and led to improvement in the quality of decision making. Thus, the authors concluded that HRMS can use the various tools of data analytics to increase the performance of the company through effective HR management.

Ro and Chen (2011) studied 203 employees in the hospitality sector to determine the strategy used by HRM for hiring in the US. The findings from the survey implicated that appropriate recruitment and training using data analytics is one of the most important factors in empowering employees and helps in reducing the cost of selection and training.

Yang *et al.* (2012) conducted interviews amongst 29 high level HRM managers in order to understand the factors that determined high employee turnover in the Taiwanese hotel industry. According to the interviews, the most important is talent acquisition and hiring the right person for the right job. Some of the most important activities done by HRM are career development and skill development programs, high incentive programs, promotions and rewards, social activities and keeping the employees engaged. Thus, the researcher concluded that these strategies of HR managers for talent acquisition are very important in employee turnover.

A study conducted by Momin and Mishra (2015) provided insights as to how data analytics is an indispensable process of workplace planning. The study provides an understanding of how data analytics is a part of not only acquisition and retention, but also for succession planning, training and development, and performance management. In terms of acquisition and selection, the authors are of the view that data analytics helps in understanding the skill set needed by identifying the skills in their employees, which integrates it to the process of selection of potential candidates. The analytical tools help HR managers design recruitment plans that can help select the right person for the position by matching the skills needed to

the skill set of the candidates, and reducing the list of potential employees so that the company can increase the rate of recruitment and decrease the cost of enhanced and elaborate recruitment drive. Also, in terms of recruiting the wrong person, the company loses money, which the authors concluded would not happen when data analytics would act as a strategic component for recruitment and selection purpose.

Ruohonen (2015) studied the aspects of human resource management and how data analytics could help the department in increasing its working efficiency. The study concluded that through predictive analytics, the company could help in effective employee selection and to decrease turnover ratio and manage the recruited employees in an engaging way. The study also concluded that data analytics might be the tool needed to screen the best candidates and increase the right sort of workforce in the company.

In a study by Chapman *et al.* (2012), conducted in Canada using a meta-analysis of 232 studies, it was found that data analytics and predictive analytics systems are helping organizations manage their different HRM functions such as recruitment and retention with various degrees of usefulness. They successfully identified the characteristics of the job, organizations, behaviors and recruitment processes that help in predicting the outcomes of hiring more accurately. This eliminated the challenge of navigating through multiple number of applications per day and filtering them manually.

Role of Data Analytics in SMEs

King (2016), through a case study and critical review of studies from the 1970s to 2015, reveals how quantitative tools positively impact both management and development of human resources. The findings suggest that the limitation for the use of data analytics is posing a challenge to the firms and restricts their ability to meaningfully analyze talent acquisition and retention data. The findings further suggest that smaller firms counter the challenge of experts that understand data analytics. Mismatch in expertise and overlapping skill in SMEs limit both retention and acquisition attempts of employees within these firms.

Mohapatra and Sahu (2017) in a study in a branch of the US-based SaaS Company, in Gurgaon, India, using quantitative analysis of the data obtained from recruiting experiences of 3,400 candidates, highlight that SMEs have to invest heavily on new age data analysis tools to gather relevant data useful for acquisition and retention related decision making. The study highlights that in the current information age, SMEs face the challenge of limited exposure to analytics, which will slow down their process of hiring the best talent. Therefore, data analytics is an indispensable part of SMEs to eliminate the shortcomings faced by them in talent acquisition.

The findings of the above study are further supplemented by the study by Lydgate (2018), conducted in Poland, which is based on a literature review of 71 sources published from 1995 to 2018 on HR analytics and strategies such as acquisition and retention. The study found

that using analytics, the companies are able to address the problems of traditional acquisition and retention methods such as inaccurate or inability to predict and erroneous filtration process, which are suitably addressed using analytics.

The findings of a report published by Bayraktaroglu and Atay (2016) indicated that investment in data analytics for HRM functions is on the rise in the recent years, even from SMEs. According to the report, the HRM department is adapting to a data-driven world, with recruitment function leading the pack using predictive analytics. The report further stated that although SMEs are faced with the financial hurdles of investing in data analytics, the comparatively lesser bureaucracy involved in decision making makes it quicker and easier for them to adapt data analytics in HR.

Traditionally, SMEs have been characterized by their ability and tendency to take a high amount of risk, leading to volatility in business. According to Kishore *et al.* (2012), this makes it imperative for them to possess a talented and loyal workforce. Acquiring and retaining talent requires innovative and responsive HR strategies that are well-received by the workforce. For this purpose, companies, particularly SMEs, employ various talent acquisition and retention strategies, some of which are reviewed below. The role of data analytics in SMEs can be reviewed further under the following sections.

Strategies Used for Talent Acquisition

Talent acquisition, according to Rahaman and Roy (2017), is a dynamic process that helps the companies to address the issue of skill shortage. To get over the challenges of regressive talent acquisition methods and integration of new technology in the framework of SMEs human resources, it is imperative that a technical knowledge-based favorable environment is adopted by the firms. Therefore, technologies of modern communications and linkages such as social media and application of tracking system are today leveraged to gain organization-specific talents (Rodriguez and Inmaculada, 2010).

Additionally, the study by Nihar and Shah (2012) highlighted that SMEs use strategic tie-ups with institutes to acquire need-specific talent for the organization. The authors, through the example of technology-intensive companies and their tie-ups with industrial training institutes around the country, highlight the role of strategic partnership acquisition process. Further, Ghosh *et al.* (2014) state that data analytical tools can also be integrated by the firms as the fundamental strategy of the talent acquisition. The author suggests that talent acquisition should be done synchronously with the organization's succession planning. The strategies suggested by the authors include a data-driven specific role level recruitment segment and in-house data metrics of hiring data based on organizational initiatives of training, compensation structure, feedback, and reward system. The systems outline the strategic management of the talent acquisition process with respect to the findings of the data analytics.

Strategies for Talent Retention

Talent retention, on the other hand, refers to the process of retaining talent as a branch of talent management (Silzer and Dowell, 2010). Different SMEs follow different methods to this effect. In a study by Kishore *et al.* (2012), the authors are suggestive that data analytics in HR focuses on the reinvention of the talent retention process guided by reliable data and fact-based decision. The study further suggests the technique of employing data analytics in the talent retention process. The analytics helps the firms to collect relevant data such as workforce analytics and employee-based planning to enhance the retention efforts of the company. The authors also suggest employment of techniques such as retention interviews based on the experience of the employees, and using technology to create a workforce plan that ensures employee satisfaction and decreases the employee turnover rates in the firm. Furthermore, the study indicates that strategies of role clarity with data analysis allow the employees a visible exploration of their career path and enable them to mark their development. Clarity enhances the employee satisfaction and increases the retention rates for the firm.

Advantages of Using Data Analytics in Talent Acquisition and Retention

Data analytics finds its usage among the new methods and technologies that are revolutionizing the HR areas of functioning. In the increasingly growing competitive market, data analytics presents itself as a tool that can supplement the decision-making process of the managers in the spheres of talent acquisition and retention. As suggested by Coleman *et al.* (2016), SMEs can adopt the shared pool of data analytical resource through cloud computing solutions. The approach allows the firms to compete with the larger firms without recruiting data scientists of their own. The analytical ability of the firm in relation to the talent acquisition is enhanced as the firms get access to an abundant source of big data generated through online sources such as interviews, Facebook, LinkedIn, and Talent Bin, to locate the high-quality candidate who meets the need of the company. The firms utilizing the data analytics through cloud solutions also benefit from the flexibility offered by the independent platform. Data analytics, with instantaneous customizable features, allows the firm to use organization-specific data for both talent acquisition and retention process. The analytics allows a systematic overview of the problems that the organization might be facing in talent acquisition and retention process.

Further, the study by van de Vrande *et al.* (2009) explains that exploration of technologies such as data analytics in the talent acquisition and retention process allows the exploration of technology for the knowledge needs that are not internally available to the firm. Additionally, the study by Rising *et al.* (2014) suggests that the data analytic capabilities allow the SMEs to compete with the larger firms in talent acquisition and retention sphere. The enhanced leveraging of the big data allows employee analytics to be employed with a purposive inflow of knowledge in the firm such that the internal innovation of the firm is developed in accordance with the talent acquired to ensure that the employees are satisfied, to decrease the turnover ratio.

Among the other advantages of data analytics in talent acquisition and retention, the process includes the ability to match the functional requirement of the firm with the results of the data analytics. The knowledge enhancement through data analytics further enhances the construction of a network of talent that can be acquired through collaborative partnerships and positive network relations (Coleman *et al.*, 2016). The networking through big data analytics can then be successfully developed for further exploration and exploitation of talent analytics in both talent acquisition and retention process (Lee *et al.*, 2010).

The usage of data analytics in talent acquisition and retention process is also directed towards decreasing the redundancy and making the process more employee-specific. The predictive analysis of the job roles through profile-specific data allows the managers to set clear expectations and goals for the employees. The data objective points such as role clarity through a descriptive analysis of the job roles and analysis ensure successful talent acquisition and retention. As data analytics allows the integrative process involving the movement from descriptive to predictive analysis, it enables the firms to proactively manage the acquisition and retention among the workforce. The analytics allows the SMEs to correctly bridge the gap between the skill sets required by the organization and the needs of the employees to stay ahead by employing the innovative approach in retention and acquisition (Kishore *et al.*, 2012).

Challenges in Using Data Analytics in Talent Acquisition and Retention

However, in addition to the advantages, SMEs face a number of challenges in the integration of business analytics in their HR processes. Data analytics focuses on the use of anecdotal evidence, internal data, and internal metrics to formulate a descriptive and predictive analysis of the workforce, both within the company and available to it.

A study by Dua (2017) highlights that the primary challenges in the process of application of data analytics in recruitment and retaining come from the people reluctant to adopt the new approach and too much data centricity. The authors are suggestive that both too little dependence and overreliance on the data analytics are disadvantageous to the firm. Further, the report reveals that while applying data analytics to the HR function of talent acquisition and retention, the challenges come from a wide variety of the data that is available. Getting the right data with the limited resource is the foremost hurdle for the SMEs, as the firms have access to a large amount of big data, and integrating required organization-specific data is challenging.

Additionally, one of the key restrictions or challenges encountered by the firms in the process of applying data analytics to talent acquisition and retention is the ability to use the analytics and lack of understanding in the SMEs.

The study by Coleman *et al.* (2016) highlights that the SMEs have a low understanding of data analytics. The authors also suggest that the restricted knowledge in the

technological domain of the SMEs prevents them from stepping into full-scale adoption of data analytics. Further, the SMEs are not fully sure that all the dimensions of the data analytics would be required in the perspective of their organization as claimed by the enthusiasts in the fields (Vossen *et al.*, 2015).

Ghobakhloo *et al.* (2011) highlight that firms are at a disadvantage when it comes to leveraging the knowledge that can be ascertained through the analytics. The authors suggest that the firms are occasionally disoriented from the large inflow of data and information from the key analytical matrices, unable to use the insight for using the data for talent acquisition and retention-related information. The challenge offered by data analytics adoption lies in the identification of how different strategies of recruitment or data such as return on investment on each employee are used by the firm to improve on the strategies of talent acquisition and retention.

Further, the challenge faced in the process of integration of data analytics comes from the SMEs' ability to use the data. Ogbuokiri *et al.* (2015) highlight that organizations analyze through exit interviews the reasons for attrition and reasons for dissatisfaction among employees. The authors also highlight that the management expertise that allows a proper use of the data analytics is not readily available to the SMEs. Data analytics techniques such as qualtrics require expertise of employees that grows with the organizational needs. Furthermore, the limitation is also posed by the lack of training and financial availability for the managers using the data analytics in SMEs. The analyst training for the usage of the techniques of talent retention and acquisition is not a priority for the SMEs, which compounds the challenges in data analytics implementation in the firm.

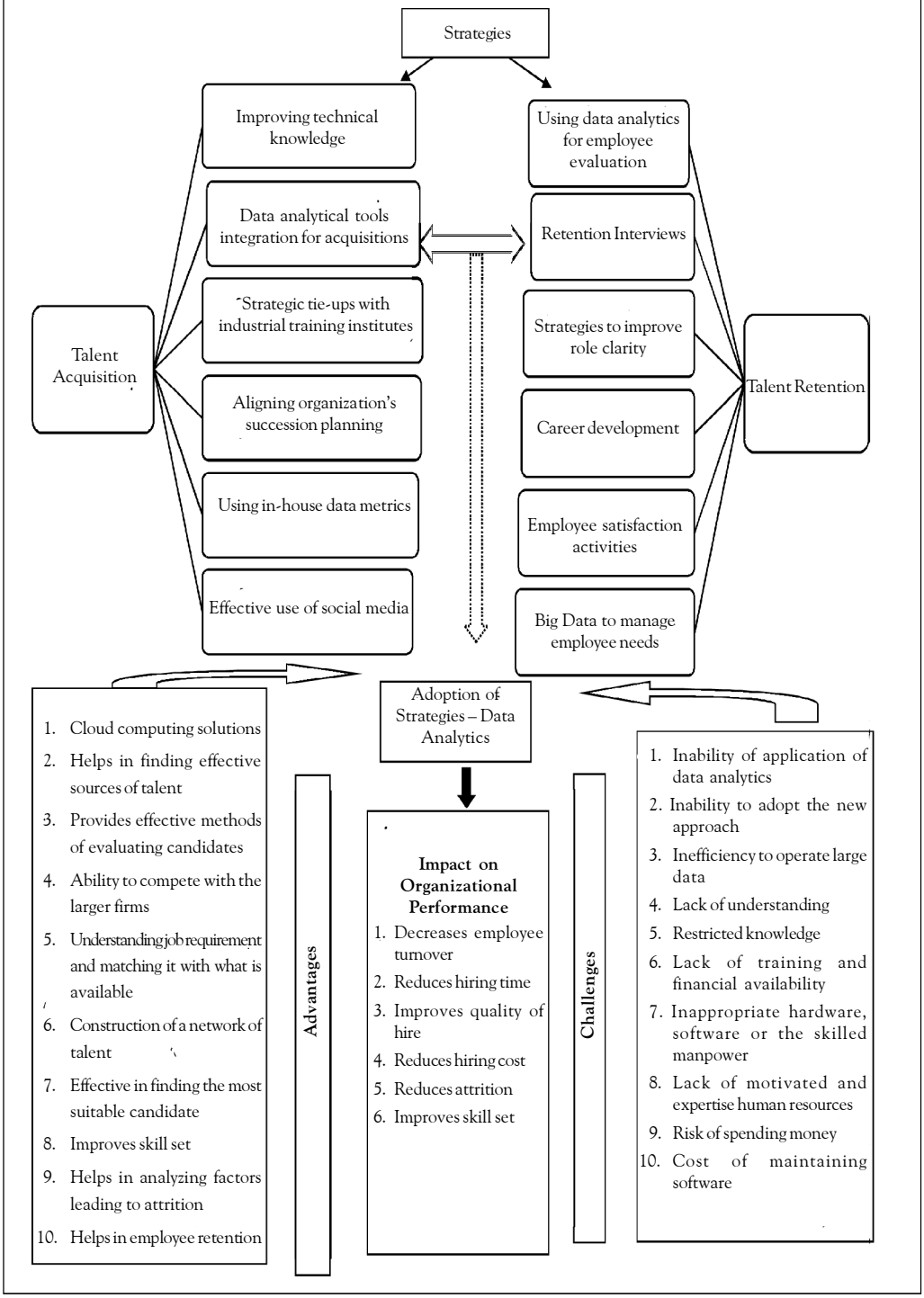
Another challenge for Indian SMEs looking to incorporate HR analytics in their talent acquisition and retention process is the lack of infrastructure required to harbor a dynamic, data-driven firm. More often than not, the firms do not possess the right hardware, software or the skilled manpower for such integration (John, 2018), leaving them to seek traditional acquisition and retention approaches instead.

There are various strategies for talent acquisition and retention that can be adopted by any organization. Data analytics is one of the most advanced methods nowadays; however, there are equal advantages and disadvantages of using data analytics as a strategy for talent acquisition and retention. Thus, adoption of data analytics must evaluate the advantages and disadvantages for effective talent acquisition and retention.

Conceptual Framework

Based on the review of various existing studies, a conceptual framework for understanding the various strategies used for talent acquisition and retention practices in Indian SMEs and the role of data analytics in these practices in terms of advantages and disadvantages of using data analytics within Indian SMEs, has been developed which is given in Figure 1.

Figure 1: Conceptual Framework



Conclusion

Based on the studies reviewed, it can be said that there are several advantages in using data analytics in HRM functions, particularly talent acquisition and retention. The rising popularity of analytics in this stream is testimony to this fact. However, there are only a limited number of studies devoted to data analytics in the context of SMEs. With the help of the current study, the concerns of SMEs in the implementation of new age talent retention and acquisition such as HR analytics have been highlighted. SMEs face limitation of resources and that is why they are required to focus on retention strategies. The resources of SMEs are concentrated in solving day-to-day activities, and one of the outcomes expected from this study is to highlight the development of skills required for better management of human resources as a requirement for SMEs. This study offers insights to practitioners in the field, i.e., HR managers in SMEs, to understand the role that data analytics plays in making their talent acquisition and retention process simpler. The study will also help academicians to shed light on the use of data analytics in SMEs, particularly for critical functions of HRM such as talent acquisition and retention.

SMEs in India, which are one of the fastest growing markets in the world, are required to address the challenges that they face in the implementation of talent acquisition and retention field so that they capitalize on the human resources available to the firm. The integration of the latest technology enhances the decision-making process for the small and medium-size firms and offers them the opportunity to be on a level ground with the larger firms. Furthermore, it is important for the SMEs to address their challenges for successful implementation of data analytics in the firms to stress on the development of employee-related strategic metrics that are oriented towards enhancing the goal orientation of the human resource process of talent retention and acquisition. The competitive and rapidly emerging business ecosystem in India calls for this.

To enhance the impact of data analytics in the talent acquisition and retention process, the challenges can be addressed by the SMEs by techniques such as cloud computing. Cloud computing offers an on-demand access to a network of an easily configurable shared pool of data resources. The resources enhance the availability of the data that can be used to enhance the talent acquisition and retention in the SMEs. Further, the specific software with core competency is customizable and made available to the firm at affordable rates that fit the financials of the SMEs.

Further, the challenge of the usability of the data offered by the intrinsic conservatism in the SMEs can be diminished by adopting knowledge management in a firm. A learning curve that stresses on the implementation of developed technological infrastructure is required. Techniques such as incentive and measurement of the effectiveness of employing data analytics to talent retention and acquisition can enhance the implementation process.

As the SMEs cannot afford data scientists or a large team for analyzing the data trends in talent acquisition and retention process, the firms need to concentrate on skill development, where a small team with the available information technological setup is able to enhance the talent acquisition and retention decision making in the firm.

By minimizing the challenges that the SMEs face in the implementation of data analytics in the talent acquisition and retention sphere, the SMEs stand to gain from the competitive edge attained through applicable intelligence. Applicable intelligence will augment the acquisition and retention decisions of the firm and allow them quick and decisive results through visualization that can be interpreted better. Furthermore, the data analytic techniques operate in the real-time while compiling the historical firm-related data. The SMEs, by applying the data analytics, can attain a competitive edge by utilizing real-time information such as industry salary range and at the same time compare it with the historical salary offered for the specific talent to be acquired to enhance the employability of the applicant. Conclusively, the technique of data analytics helps the SMEs to tap the best available talent in the industry by providing a holistic framework from multiple data sources.

This study will help in capturing the effectiveness of data analytics in improving the organizational performance of SMEs and also other industrial sectors of India.

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