Opportunities and Challenges towards Adopting HR Analytics Software by MSMEs

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ABSTRACT

Human Resource Analytics has been identified as the application of analytics to human resource core processes and has proved to be a game changer in terms of enhanced decision making, improved productivity of employees, and better alignment of organizational goals to business strategy. This is especially significant as micro and medium-sized enterprises have failed to make effective use of HR analytics despite possessing such huge opportunities in terms of decision-making developments. Economies can thus reap more effective hiring, greater retention of employees, more efficient functioning, and increased compliance with regulatory requirements. Budget constraints, inadequacy of proper skilled resources, resistance to change, and fear of privacy concerns are critical barriers to such widespread adoption of such tools by MSMEs. Further, budget and IT resource constraints which are intrinsic to MSMEs generally imply that they are not able to exploit such sophisticated tools. This paper explores these two dimensions and frame them into a conceptual framework facilitating the understanding of how MSME's competitiveness and development can be nurtured through HR analytics. This paper also provides appropriate strategies for overcoming such HR analytics adoption barriers such as phase-wise implementation, capacity building, and implementation of less costly, module-based analytics solutions. It is suggested that MSMEs can use HR analytics software to achieve their strategic objectives despite challenges.

Keywords: Micro, Small, Medium Enterprises (MSMEs), Human Resource Analytics Software.

Introduction

Before the 1990s, HR mainly handled administrative tasks like hiring, onboarding, and maintaining internal records manually. Their role was reactive, based on experience, with limited data sharing or strategic involvement across departments. Over time, HR evolved from a reactive role to a strategic partner, as organizations recognized the value of using data to understand and guide human behaviour. Today, people analytics plays a key role in shaping business decisions, helping HR address current gaps, plan future actions, and align with overall company goals. (Racherla, S.) [8] Human Resource Analytics has become an important buzzword in business practices, providing insights to enhance human resource management from hiring to retirement and eventually to enhance the organizational performance. The research on HR analytics, its adoption, advantages, challenges, and effects on businesses of different sizes determines the increasing interest in this specific area. Though big MNC companies easily adopt the HR Analytics Software, but there are some barriers while adopting HR Analytics by MSMEs.

Research Objectives

- To investigate the opportunities and difficulties of using HR analytics software in MSMEs,
- To focus on the ways to overcome hurdles and maximize benefits of HR Analytics.
- To learn to deal with these matters, so that MSMEs can tap into the powerful potential of HR analytics, encouraging sustainable growth and competitiveness.

Literature Review

Deepa Sharma & Tilak Sethi (2024) [1] examined the key organizational barriers that hinder the adoption of HR Analytics (HRA) in India's corporate landscape. Their study emphasizes the need to understand how such challenges affect the acceptance and practical use of HR analytics within companies. The research underscores a growing necessity for integrating data-driven decision-making into core HR functions.

Khaliq, R., & Saritha, B. (2023) [3] highlight the transformative advantages of adopting HR Analytics, including better-informed decision-making, strategic workforce planning, enhanced talent management, and increased employee engagement. Leveraging analytics allows HR departments to align their strategies with organizational goals, track performance metrics, and make evidence-based decisions that lead to improved business outcomes.

Ravesangar & Narayanan (2024) [9] stated how HR Analytics supports employee retention by improving strategic HR decisions through data insights. Their findings show that analytics tools contribute to better job satisfaction, recruitment efficiency, and retention strategies. The study also discusses predictive modelling techniques for assessing attrition risk and emphasizes challenges like data integration and analytical skill gaps within HR teams. Ultimately, they argue that analytics can redefine conventional HR practices into more strategic and informed operations.

Nimbagal et al. (2019) [6] focused on the slow adoption of advanced HR practices among MSMEs in the Hubli region, attributing this lag to financial constraints, limited technological access, and a lack of awareness and strategic direction. Their findings suggest that analytics could significantly improve hiring practices, workforce efficiency, and productivity within MSMEs. They also propose that external support from government initiatives and industry bodies could aid in bridging these adoption gaps.

Barriers to Adopting HR Analytics Software by MSMEs

Despite the promising potential of HR Analytics, many MSMEs face multiple barriers during its implementation. According to Fernandez, V., & Gallardo-Gallardo, E. [2], key obstacles include poor data integration across systems, inadequate software infrastructure, lack of skilled HR personnel, and resistance to change from leadership. Successful implementation requires essential competencies such as data literacy, analytical thinking, and a solid understanding of business strategy, along with strong communication skills to translate insights into action.

Khaliq, R., & Saritha, B. (2023) [3] further add that data quality concerns, privacy and ethical dilemmas, skills gaps among HR professionals, and difficulties in securing adequate resources continue to hinder adoption. Overcoming these hurdles is crucial for organizations to harness the full potential of HR analytics.

Premlal Prejith & Praveen Kumar (2023) [7] observe that although Indian IT firms are aware of HRM and HCM concepts, there remains a significant gap in understanding and executing Human Resource Accounting (HRA). Challenges such as inflexible HR systems, lack of training, and poor data utilization hinder the success of HRA initiatives. They emphasize the need for research-backed guidelines and better tools to facilitate sustainable HRA integration.

A broader issue involves the overall readiness of HR professionals to adapt. Many lack the statistical or technical know-how required to use tools like SPSS or apply methods such as regression and factor analysis. The absence of proper tools, data infrastructure, and structured training programs contributes to a sense of self-doubt and low adoption confidence. Moreover, with most studies relying on limited sample sizes, there is still a lack of scalable insights and practical models for widespread adoption.

Opportunities in Adopting HR Analytics Software

Racherla, S. [8] emphasizes that one of the most impactful applications of HR Analytics lies in improving employee retention. By analysing employee feedback and sentiment, HR professionals can better understand workplace dynamics and proactively address dissatisfaction, thereby improving overall engagement and reducing attrition.

Tomar, Shivam & Gaur, Mamta (2023) [20] state that HR Analytics unlocks business growth by making workforce strategies more data driven. It supports better talent acquisition, improved satisfaction, and strategic HR investments, leading to more informed planning and organizational success.

As highlighted by Saxena, M., Bagga, T., & Gupta, S [10], HR Analytics offers a path for HR functions to become strategic partners rather than administrative support systems. It helps in identifying

performance gaps, aligning HR goals with business objectives, and optimizing investment in human capital. Additionally, national initiatives like Saudi Arabia's Vision 2030 show how analytics can align with large-scale development goals, signaling a global shift toward evidence-based HR practices and increased demand for skilled analytics professionals.

Recommendations

To effectively implement HR Analytics, Khaliq, R., & Saritha, B. (2023) [3] recommend ensuring high-quality data, fostering a culture of evidence-based decision-making, providing robust training, and maintaining ethical standards around data use. Aligning HR analytics with broader business objectives is also essential for sustained success.

[23] emphasizes that organizational culture plays a pivotal role in the adoption of HR analytics. A supportive and innovation-driven culture encourages experimentation and knowledge sharing, whereas a weak culture creates resistance and limits the use of technology.

According to [24], adopting HR Analytics is not just a technical upgrade—it requires redefining HR roles, providing strong leadership, and preparing employees emotionally and skill-wise. Recommendations include hands-on mentoring, structured onboarding, and psychological support to ease the transition. Organizations should view this shift as both a technological and cultural transformation.

Conclusion

while HR analytics offers meaningful opportunities for MSMEs to become more agile and performance-focused, its successful adoption depends on strategic investments and the active participation of all stakeholders. Overcoming current barriers will pave the way for widespread implementation, leading to long-term benefits like increased adaptability and operational efficiency. Given MSMEs' important role in innovation and economic growth, adopting HR analytics positions them to unlock sustainable improvements in talent management and business outcomes.

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