The Impact of HR Analytics on Sustainable Business Practices

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ABSTRACT

The use of HR analytics is becoming more common in organizations worldwide as they aim to improve their human resources strategies for long-term success. This research examines the impact of HR analytics on promoting sustainable practices within businesses, including environmental stewardship, social responsibility, and ethical behavior. By utilizing data-driven insights from HR analytics, companies can address sustainability issues such as diversity, employee well-being, and talent retention. Through a review of relevant literature and case studies, this study shows how HR analytics helps organizations make informed decisions that support their sustainability goals, leading to improved performance and sustainability. The paper also discusses the challenges and opportunities of integrating HR analytics into sustainability efforts, providing practical recommendations for companies looking to enhance their sustainability through data-driven HR strategies. Overall, this research contributes to the understanding of how HR analytics can drive positive outcomes in social, environmental, and economic aspects of businesses.

Key Words: HR Analytics; Sustainability; human resource; organizational performance.

INTRODUCTION

The idea of sustainability, which is defined as "meeting current needs without jeopardising the ability of future generations to meet their needs" (WCED, 1987), is making its way into board rooms across a variety of industries (Kiron, 2012). Prominent business journals, such as the Harvard Business Review and the MIT Sloan Management Review, are now discussing this idea (Prahlad et al. 2009), sustainability is a key factor in driving corporate innovation and competitive advantage, and it is having a growing impact on company value and decision-making. As a result, businesses are being forced by the shifting global landscape to go beyond financial success and include ethical and environmental values into their operations.

The term "sustainability" has primarily been used to describe organisational performance in human resource management research and practice. More specifically, it refers to the way in which high-performing individuals and high-performance working translate into performance that is long-term sustainable (Parkes & Borland, 2012). More difficult problems, though, are being discussed more widely in relation to sustainability. As per the Living Planet Report (Parkes & Borland, 2012; World Wildlife Fund, 2010). Human consumption is currently occurring at a rate that is 50% more than what the planet can sustainably replenish.

It is also revealed that it takes the Earth more than a year and a half to create all the resources we need in a single year, and that by 2030, we will require the capacity of two more Earths in order to absorb CO_2 waste and maintain our current level of resource consumption. By 2050, almost three planets are predicted to be required. Numerous concerns are brought up regarding the current business models and procedures, as well as the consequences for leadership and corporate strategy, including potential risks and possibilities. Though the corporate and academic worlds are starting to accept these problems, HRM's contribution appears to be little. But everyone must be involved if we are to transition to a more sustainable world. In an organisational context, the decisions made by businesses regarding suppliers and

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raw materials, land use, geographic locations, manufacturing processes—which can result in waste and pollution—organizational structures, financial arrangements, management systems, employment and work practices, customer services, involvement in the community, information use, and a host of other factors all have an impact on the environment. For this reason, companies need to adapt in order to create a sustainable society. Human resource management is usually positioned to offer initiative, drive, and leadership within an organisation. In an organisation, HRM encourages all organisational actors—individuals, groups, and others—to exhibit attitudes and behaviours that are long-lasting. Consequently, these firms undergo a transformation towards a sustainable future (Jackson, 2011; Renwick et al., 2011).

The purpose of human resource management is to employ people as efficiently as possible to accomplish both personal and organisational objectives. It mostly focuses on organisational hiring, management, and exit-related tasks. In order to maintain employee motivation and productivity growth, HR professionals assess employee performance and create new training initiatives. Frederick Winslow Taylor (1856–1915) served as an inspiration for the early 20th century development of human resources as a distinct discipline. The phrase "human resource" was initially used by American institutional economist John R. Commons in his 1893 book "The Distribution of Wealth." But HR departments were not created until the 20th century to oversee the interactions between businesses and employees.

Performance management is a crucial component of human resources since it involves ongoing dialogue between managers and staff members to accomplish company objectives and enhance individual talent. The entire communication process entails setting objectives, giving frequent feedback, analysing outcomes, and creating precise, unambiguous expectations. Performance management creates a method of communication between an employee and manager that is developed throughout the course of the year with the aim of achieving both individual and organisational goals. Examine all of the data that has been gathered and use it to fix any performance gaps in order to comprehend employee managers. Such information is gathered using a variety of techniques, such as HR Analytics. To improve essential talent, talent data is gathered and used using HR analytics.

Types of HR Analytics

The main uses of it are to make decisions based on the data that is available, to forecast employee attrition, to identify higher performers, and to forecast areas that require improvement in skills. Others refer to HR analytics as "people analytics." With the use of the data, your organisation may assess how HR indicators affect overall company performance and make informed decisions. HR analytics are divided into four categories.

- Descriptive Analytics
- Diagnostic Analytics
- Predictive Analytics
- Prescriptive Analytics

<u>Descriptive Analytics-</u> Although collecting data in its raw form makes little sense and isn't always helpful, it can be when it has been processed and organised in a methodical manner. The most fundamental kind of analysis, known as observing and reporting, is most likely descriptive analysis. In essence, it compiles all of the historical material that is accessible and condenses it into a comprehensible form. Descriptive analytics would cover the organization's or a particular department's number of personnel. Descriptive analytics also covers more complex data such as turnover rates. They look at historical data and try to figure out why things happened.

<u>Diagnostic Analytics</u>- Diagnostic analytics explains why something happened if descriptive analytics explains what happened. We go beyond the immediate situation to see why it is occurring. You notice something in this instance, identify the descriptive analysis, and proceed with the diagnostic analysis. Numerous methods are used in diagnostic analytics, such as data mining and data drilling. Companies need to know why issues are happening in order to look into the underlying causes of issues and develop solutions.

<u>Predictive Analytics</u>- Predictive analytics looks forward, whereas descriptive analytics depends on historical data or looks backward. These analytics employ a variety of statistical models and projections to make predictions about the future. This analysis's objective is to identify the organization's needs. Models are constructed using the patterns identified by descriptive analytics. It may be used to forecast an employee's tenure or assist the talent acquisition team in assessing the individual's compatibility with the organization's culture.

Prescriptive Analytics- The question of what can be done about the situation arises once the future is anticipated. Based on the prognosis and the available historical data, prescriptive analytics makes suggestions on what to do. Organisations with seasonal demand can benefit most from this approach. For example, a shop would like to know how many employees to have on hand for the holidays. Prescriptive analytics may also be used to assist choose the best candidate for a position based on the candidate's qualifications and experience level during the hiring process. Here, you use all of the data that is available regarding the aforementioned levels to recommend a course of action. What should happen next is indicated by the data itself.

Today's organisations utilise a variety of professional HR analytical tools, including Microsoft Excel, Visier, Tableau, QLIK, and SPSS.

Advantage of HR Analytics

- HR analytics helps to retain and sustain high-performing personnel by identifying the flawed procedures that are ultimately the major cause of turnover through the use of predictive analytics.

- It's helpful to show the outcomes and the process used to get there.

- HR planning is aided by HR analytics.

- It aids in predicting the skill requirements and demands of employees to meet organisational goals.

- It assists in impartially identifying the finest possible organisational talent needed for particular roles.

- It assists in achieving improved performance outcomes for the organisation by making wise selections, particularly when it comes to hiring talent.

- It assists in highlighting critical performance components that might have a significant impact on the effectiveness of the organisation.

- HR analytics platforms frequently come with data visualisation and automation features, allowing you to instantly spot areas of weakness and schedule the team's necessary skill set.

LITERATURE REVIEW

P. Lakshmi Keerthi, Dr. P. Raghunadha Reddy (2017), The authors of the study paper "HR Analytics - An Effective Evidence Based HRM Tool" discovered that human resources are an organization's most valuable asset and that they should receive greater attention. They contend that an organisation should make decisions based on the best available evidence, and HR Analytics both supports and encourages organisations to keep high-quality data in order to demonstrate the return on their HR investments.

Tanuja Sharma and Anshu Sharma (2017) They discovered that the role of HR analytics on the PA system and its impact on employees' willingness to improve performance by offering a conceptual model in their research paper, "HR analytics and performance appraisal system: A conceptual framework for employee performance improvement." Here, the application of expert data analysis tools and HR analytics provided a way to improve the evaluation process' accuracy. This report proposed many avenues for future research to better improve performance management, along with additional assumptions for researchers in this subject.

Dr. N. Sumathi and R. Anita (2019), They discovered how the performance management system affects employee performance in their research paper, "A study on the measuring the factors of HR analytics on performances management in services sector of selected companies in Chennai." Additionally, how may the various stages of the performance management system affect how each individual performs? Examining employee performance and the link between it and the performance management system is the first goal. Analysing performance management systems and their relationship to worker performance using the WERS 2004 dataset is the second goal. The final goal is to

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determine the nature of the link that exists between employee performance and the performance management system and to formulate a set of suggestions.

M. Prathyusha and Udhay Kailash (2020) In their study, "HR Analytics Methodical Measurement of HR Processes," they discovered that HR Analytics is more significant since it evaluates workers' contributions to the company, forecasts labour needs, and connects workforce utilisation to strategic objectives that boost business performance. In this instance, the HR Analytics methodology is well-liked in the pharmaceutical sector and is replicable in other businesses operating in the same sector.

Opatha, H.H.D.P.J. (2020), They discovered that HR analytics offers a data-driven framework for resolving workforce issues through data analysis using a combination of software and methods that apply statistical models. This allows managers to make better decisions and optimise human resource management. The research paper they titled, "HR Analytics: A Literature Review and New Conceptual Model," detailed their findings.

Muhammad Said, Dr. Imran Khan, Dr.Filza Hameed (2021) According to their research findings in "The Impact of Performance Management System on Employees' Performance," any organization's management should modify its performance management system procedures to make them more continuous. It is recommended that management examine and evaluate employee concerns, as well as recognise them and assist staff in addressing them as a cohesive unit. Employers should utilise techniques for employee appreciation since it will boost their sense of encouragement and motivation. Employees strive to meet the necessary goals when they know that their efforts are valued and acknowledged. Employers have to include staff members in goal-setting and recognise and reward them for reaching their objectives.

McCartney et al. (2023), The authors of the research paper "Bridging the gap: why, how, and when HR analytics can impact organisational performance" discovered that since HR analytics is still a relatively new idea, academics are still emphasizing its potential to support decision-making and the achievement of organisational objectives. This study suggested a sequence of events wherein HR analytics are made possible by access to HR technology, which in turn promotes evidence-based management and enhances organisational performance.

RESEARCH METHODOLOGY-

Objectives of the study-
- To comprehend the role HR Analytics plays in performance management.
- To comprehend the causes of staff retention and turnover.
- To comprehend how workers behave inside the company.

The manner in which the study will be carried out is determined by the research methodology. This covers your intended methods for data collection, statistical analysis, observations, etc. The goal of research methodology is to bolster or validate your data gathering strategy and the main findings of your study.

Secondary Data

Secondary data refers to information gathered from earlier studies rather than original data collection. In essence, secondary data is original data that has been saved by someone and is utilised by others for different objectives. We have gathered a variety of instances for this study from various publications and websites.

DATA ANALYSIS

- **Google-** Google is a limited liability company that makes use of search engine, cloud, and other technologies. Along with Apple, Google is regarded as one of the top five IT corporations globally. Microsoft, Amazon, and Meta. In 1998, Larry Page and Sergey Brin launched Google. Sundar Pichai is Google's current CEO, and Alphabet Inc. is the business that owns the search engine. There are more than 1,40,000 workers in the company. According to Fortune magazine, it was rated #1 on the list of Best Companies to Work for in 2007, 2008, and 2012.

<u>**Use of HR Analytics for Google:**</u> Google created a programme called "Project Oxygen," which is essentially a combination of data on employee productivity and employee feedback that computes employee behaviour and skills and ascertains the actions of effective managers. Google was able to identify ten characteristics of excellent managers from this data.

<u>**Results of HR Analytics for Google:**</u> The project enhanced management teams' effectiveness and provided training for next corporate leaders. The employees placed more of an emphasis on emotional intelligence and soft skills than on hard abilities like technical skills.

- **Experian**- Experian, headquartered in Dublin, Ireland, is an information service company that offers data and analytical solutions to various organizations. Originally part of GUS until October 10, 2001, Experian became an independent entity. It specializes in collecting and analyzing credit reports from individuals and businesses through diverse channels. These reports are then utilized by entities like banks, healthcare providers, and automobile companies to assess creditworthiness and determine credit scores. This information aids in evaluating whether a customer's loan application can be approved. As of March 2020, Experian reported a revenue of US$5.18 billion and is publicly traded on the London Stock Exchange. With approximately 17,000 employees spread across 44 countries, Experian has gained recognition for its innovative approach, being listed among the top 100 most innovative companies by Forbes magazine in 2018.

<u>**Use of HR Analytics for Experian:**</u> In 2019, Experian introduced a new analytical tool called predictive workforce analytics in response to its escalating turnover rates and subsequent financial losses since 2016. Despite being regarded as one of the top employers, Experian grappled with significant employee turnover issues. By 2016, resignation rates had surpassed the industry standard at 4 percent, with each 1 percent increase in turnover costing the company approximately $3 million. This had a profound impact on Experian's operations. Olly and Wendy Cunningham from Experian's Global HR team initiated efforts to develop an analytics solution aimed at providing better insight into employee needs. They believed that such an approach would enable the company to identify valued benefits and devise more informed retention strategies. Experian implemented the Visier Analytics system to facilitate this process.

<u>**Result of HR Analytics for Experian:**</u> The organisation was able to cut down on the amount of time workers spent reporting on time by over 70% after implementing Visier. Employees are no longer given reports; instead, they are urged to self-provide information wherever feasible. Experian saw a significant transformation as a result of the predictive workforce analytics platform, which reduced expenses and saved time for the business while improving employee results.

- **Walmart**- Walmart is a global retail company based in the United States that operates a number of supermarket brands. Sam Walton founded the first Walmart in Arkansas in 1960. The Walton family made 12.7 million in sales and had 24 outlets by 1967. The New York Stock Exchange lists Walmart. Walmart has more than 10585 locations throughout 24 countries as of 2022. With an annual sales of almost US$570 billion, Walmart is regarded as the largest firm by revenue, according to the Fortune Global 500. With 2.2 million workers, it is also the biggest employer in the private sector. Walmart has a variety of stores under numerous names throughout the globe. For example, it owns a 77% controlling interest in the Indian e-commerce startup Flipkart.

<u>**Use of HR Analytics for Walmart:**</u> Walmart developed a service in 2015 that made company data accessible to users so they could look into their own reports. Walmart created four sections for their system, which they referred to as their team's "analytics engine":

➢ Modelling and data mining: Here, the analytical team would develop tools to support forecasting or "evidence-based decisions."

➢ Research: These mostly addressed disorganised data. Every year, this programme conducted questionnaires with every employee at Walmart to learn about their concerns.

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> ➢ Prototype and Visualisation: Various methods are devised in this section to enable the gathered data and information to be applied to business issues.

> ➢ Test and learn: After the right strategy has been devised, it is tested in a store or other facility before being implemented inside the company. The IT department spreads among the organisations after proving its efficacy.

Result of HR Analytics for Walmart: Team leaders were spared time by not having to do the reports themselves. Prioritization of projects is determined by HR before they are assigned to departments or teams. As a result, the analytics are dispersed around the world and may be used remotely by a cooperative team.

- **Wegmans**- America's largest grocery chain is called Wegmans Food Markets. There are 107 shops altogether in this group. With a workforce of 50,000 workers, Wegmans is the third-ranked firm among Fortune's annual list of the greatest places to work. It has consistently placed first on the list since 2005.In 2021, the business reported 11.2 billion in sales. The Wegman brothers, John and Walter, started the business in 1916. The company donates to charities and numerous educational institutions. For example, it has a scholarship programme that gives its workers $5 million in tuition aid annually.

Use of HR Analytics for Walmart: Reevaluating their staff healthcare coverage was necessary in 2007. A sample of 1,310 employees responded to a poll the business performed in 17 of its high-performing locations, with 76% of them responding. There were two kinds of questions in the survey. If there were any differences between the new market and the current one, the employees were questioned. Employees were questioned about their feelings regarding their awards in the second question. Employee healthcare benefits and remuneration were divided into two packages, from which employees had to select.

Result of HR Analytics for Wegmans: The results of both surveys indicated that health benefits were viewed by employees as a deciding factor in their decision to join and remain with the company. The business also observed that, in terms of employee value, basic pay was placed last on both of these lists.

- **Johnson & Johnson**- Johnson & Johnson is an American pharmaceutical and medical development corporation. On the Fortune 500 list of businesses with the highest revenue in 2021, the company came in at number 36. The corporation made $82.6 billion in sales globally in 2020. In 1886, Robert Wood Johnson, his brothers James Wood Johnson and Edward Mead Johnson, together with six other men and eight women employees, formed the corporation. At the moment, Johnson and Johnson employs more than 1.44.500 people.

Use of HR Analytics in Johnson and Johnson: The firm was having trouble keeping its employees in the organisation and increasing their performance. In the belief that seasoned workers would contribute more to the company, people with prior work experience were employed at that time. As a result, the organisation saw a 10% drop in the number of fresh graduates working for them. The 47,000 employees' data was gathered by the HR analytics team in order to examine the relationship between experience and attrition. The information gathered demonstrated that college graduates who were employed did, in fact, stay with the company longer than those with greater experience. The findings also indicated that, in terms of their contributions to the organisation, new hires and seasoned workers did not differ much.

Result of HR Analytics for Johnson and Johnson: Following analysis of the data, the organisation launched a new two-year leadership development programme that may lower the turnover rates among recently graduated college graduates. The firm hired 20% more recent grads as a result of the people analytics research, which helped to keep employee performance stable and reduce turnover.

FINDINGS

- ➢ In the first example, Experian experienced issues with staff attrition; however, by utilising predictive workforce analytics, they were able to identify employee requirements and cut down on reporting time by about seventy percent.

- ➢ Here, Walmart was employing analytical tools, but the tools did not fit the organisation because of changes in objectives and aims. As a result, they switched to other analytical techniques. Business users now have simple access to a feature that allows employees to check in on their own reports, saving managers time when they were reporting.

- ➢ This case centered on employee performance and characteristics, addressing various challenges with distinct tools. Initially, the issue of employee selection was tackled with limited data availability. To overcome this, the firm's technical team devised a series of online games to assess employees' personalities and thought processes. Subsequently, the challenge of day-to-day management was addressed using the Organizational Health Index, an instrument that identified various management practices conducive to improving organizational health. Lastly, the company faced challenges regarding employee interactions with customers. To address this, sensors were employed to monitor employees' physical movement within the restaurant, the tone of their conversations with customers, and the duration spent engaging with colleagues and customers.

- ➢ Wegman Food Market was having trouble affording the hefty cost of renewing its workers' health insurance. They polled workers to find out about their feelings on incentives, engagement, and satisfaction. When given the option to select fictitious employee packages, they discovered that workers were prepared to accept low compensation in order to reduce their liability.

- ➢ In this instance, Johnson & Johnson was losing graduate workers because they preferred to focus on experienced staff members, believing they would be more advantageous for the business. However, after doing some study, they discovered that although experienced workers were leaving the firm earlier, graduate employees were remaining for longer and made the same contributions. Johnson and Johnson thus created a leadership programme that kept graduates' performance stable and decreased graduate turnover.

CONCLUSION

The organization needs to address questions like "Why do employees should stay with our company?" HR analytics allows you to calculate what employees needs or is lacking and then create a system or a program that will help increase the performance and retention rates. Companies like Google uses HR Analytics to collect employee performance data to determine the most effective training programs to help both high and low performing employees. HR analytics and other unrecognized organizational methods that are related with HR analytics are ignored by many organizations. The study focuses on how HR practices could be used to change traditional roles to transformational roles in organizations. The study tries to explore and understand the role of analytics in this modern era. Increase of expectation in performance has put the focus on HR Analytics to create a new innovative and competitive world at work. To execute the role effectively, HR managers and leaders need considerable support from their organizational leaders. First, they need to be able to go in-depth of the problem. These problems can come from various issues and experts in the areas such as change in management, leadership development, staffing and metrics, and HR Analytics, can help analyse the situation and provide possible solutions for these problems.

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