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HUMAN RESOURCE ANALYTICS: A SYSTEMATIC LITERATURE REVIEW AND PROPOSED CONCEPTUAL FRAMEWORK

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Abstract: This research was conducted to shed light on the fact that big data in HR analytics could not always result in the most efficient HR solutions.By "big data," we refer to datasets that are not only enormous in size but also rich in variety and velocity.It also provides a summary of key points discussed in the HR analytics literature. With the use of evidences found in the current literature, a qualitative method has been used to illustrate the facts about HR analytics. In addition to secondary sources, the author relied on their own instincts while developing their arguments and the underlying conceptual model. Strategic choices, particularly those involving HR matters, need the data-driven conclusions that emerge HR solutions, it is often necessary to make adjustments to account for factors such as the organization's financial stability, the state of the business environment, the actions of competing businesses, the company's business strategy, the skills of employees and managers, and so on. High levels of originality may be attributed to the paucity of similar studies in the existing literature. When it comes to HR strategic decisions, can businesses always rely on the findings of HR big data analyses? Human resource analytics is a new discipline that is gaining a lot of interest in both the business and academic worlds. This article gives an overview of HRM's impending HR analytics special issue. We talk about the challenges and possible political sensitivities that practitioners face when trying to publish "inside company" HR analytics initiatives. We also think about the rising understanding that companies pursuing HR analytics initiatives face a number of ethical problems.

Key words: HR Data Mining, Human Resource Management, Long-Term Success, and Organizational Advantage.

INTRODUCTION

Kirtane suggests a range of sustainable HRM strategies, including green HR practices, HR analytics, and HR metrics. As a result of the quick rate of digital transformation, the demand for HR analytics solutions and services has risen, with Asia Pacific seeing the most significant growth. Following the economic downturn of 2008, most companies began to realise the need of analytics-driven, decision-making and problem-solving human resource management techniques grounded on hard facts. The evidence-based HRM paradigm, which big data in HR facilitated, allows for precise HR decision-making. Today, statistics are the universal language of business. Determinants from descriptive, predictive, and prescriptive studies inform the choices made by an organization's decision makers. As a result, businesses are using data analytics to enhance decision-making precision, productivity, and efficiency. In order to get to the right conclusions about employee concerns, it is necessary to review, evaluate, and analyse data pertaining to every element of workers in the firm. HR analytics is a potent instrument with the potential to enhance the HR department's operations and boost its efficacy and efficiency in all related areas by providing concrete data and rationales.. Therefore, there is a need for and interest in filling the HR analytics literature's contextual vacuum in India. The goal of this study is to provide a more thorough understanding of HR analytics, its methodology, the HR issues it can address, a revised framework for HR analytics, and the obstacles it encounters.

REVIEW OF LITERATURE

The notion of human resource analytics has just recently emerged in the field of human resource

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management. Businesses may better manage and boost performance with the help of 60 Minutes Analytics (Oracle, 19c 2022). Existing data might be analysed in such a manner that companies would cultivate and retain important talent pools and solve retention pain points or impending deficiencies in necessary capabilities. These human factors are strategically determined by organisations to provide optimal structure (Akhila Sampathirao, 2022). The ABN Amro Analytics Team, for instance, has been hard at work since September 2022. (Tamanna Asiwal). The Google People Analytics .These four stages include enumeration, smart enumeration, insight, and impact. Gaining access to higher levels requires first mastering the lower ones.

Accurate headcounting necessitates that all data pertaining to the workforce be recorded, compiled, and made available. Clever enumeration builds on the enumeration's foundational knowledge to extrapolate more information. Patterns are identified by astute counting, and Insight then attempts to identify the factors behind those trends. The highest tier of influence really creates results rather than just experiencing them. Verifying that management has a common understanding of the objectives and, by extension, the effort they will do to achieve those goals, is the overarching aim. According to Dr Naveen Prasadula (2022), you still only need 60 minutes to do out prescient HR analytics.

Although it is often believed that time units are a grey region in which precise numerical methods cannot be used. According to research conducted by Lawler III and Boudreau, a time unit's ability to be seen as a strategic partner inside an organisation grows in tandem with the degree to which it employs metrics and analytics. Using time-based analytics, businesses like Google, Best Buy, and Sysco have gained a competitive edge. Analytics used to learn how a unit of time's practices and policies affect the structure's performance has been found to be an effective way for a unit of time's functions to bring value to an organisation. Moreover, because to advancements in information and communication technology, businesses now have the ability to access and process a far wider variety of knowledge than they could a decade ago. But despite these technological developments throughout time, time has not been a very positive term for analytics.

Knowledge homeward culture, analytical skills and tools, and data management process are the three determinants identified by Dr Naveen Prasadula. (2022), Department of Business Management Osmania University argues that a firm's emphasis on making well-informed decisions at every level is key to fostering an analytical culture. When it comes to models and procedures for abuse analytics, however, there is a noticeable lack of discussion including the unit of time professionals themselves. The purpose of this research is to identify potential motivators for time-based professions to embrace analytics.

1. RESEARCH QUESTIONS AND OBJECTIVES

These conceptual problems about HR analytics led to the development of the following research

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hypotheses. Definition of HR analytics. In what ways does it matter? What steps make up HR analytics, exactly? Are there any HR-related questions that can't be solved by HR analytics? When it comes to HR analytics, what difficulties do you encounter?

This study aims to do two things:

1. Provide a new paradigm for HR analytics, and
2. Provide answers to the four issues posed above.

3. EXERCISE

This article is a research study that adds theoretical material to the field of HR analytics. It methodically seeks to respond to four research issues and presents a novel model of HR analytics with an accompanying example. The author conducted a thorough literature review utilising a combination of desk research and her own preconceived notions.

4. ANALYTICS OF HR

Human resource management, as defined by Opatha (2009), is the process of identifying, recruiting, developing, rewarding, and retaining a workforce that is both capable of and committed to meeting the organization's stated goals and objectives. A company's human resources consist of all of its workers. Human resource is a strategic asset to the organisation since it is unique, irreplaceable, and more difficult to replace in today's cutthroat economic climate.Many fields, including computer science, engineering, the natural sciences, and others, engage with analytics . The primary result, as stated by Jabir et al. (2019), is providing explanations for future events. Answering "what should be done?" and "why should it be done?" using decision science, management science, and operations research approaches is what prescriptive analytics is all about (Fred and Kinange, 2015). (Jabir et al., 2019).

The following paragraphs provide a few of the many definitions of HR analytics offered by different academics and researchers.

According to Kirtane (2015), HR analytics is an all-encompassing procedure that boosts productivity at every level by enhancing the precision of judgments concerning employees. According to Jain and Nagar (2015), mixed methods research combines quantitative and qualitative data to provide actionable insights that guide managerial decision-making. Advanced data mining and business analytics applied to human resources.According to Tamanna Asiwal.Akhila Sampathirao and Prof. Preeti Chrysolite (2022), evidence-based human resources (EBHR) is a method of building decisions that incorporates both analytical rigour and the consideration of the most relevant and reliable data from the fields of science and business. Profitability, customer happiness, and product quality are just some of the business outcomes that may be analysed in relation to people management techniques via the use of quantitative and qualitative data, analytics, and research.According to Jabir et al. (2019), human resource analytics include investigating the causes of occurrences, determining the most appropriate courses of action to take in response, and speculating on the likelihood of various outcomes based on the data gathered. According to collecting the right information from both inside and outside the HR department, ensuring that the data is rigorous and relevant, and improving HR's analytical skills across the board.Bhattacharyya, 2017, Analytical Logic in Human Resource Management.Several researchers led by Kiran found. Human resource analytics is the practice of providing a framework powered by data for addressing business challenges and gaining new insights from existing datasets. Software, technology, and methods that apply statistical models to data about people and their work are the key to optimising human resource management.

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WHY HUMAN RESOURCE ANALYTICS MATTER

Human resource analytical procedures aid in creating a sustainable organisation by striking a balance between social, environmental, and economic considerations from both the near and far horizons (Kirtane, 2015). According to Ben-Gal (2018), HR analytics serves many purposes. The goals of HR analytics are fivefold

1) To gather and retain information in a manner that may be used to forecast changes in the supply and demand for workers in various sectors and fields throughout the short and long term

2) To assist multinational corporations in determining the best means of acquiring

3.) To nurture and retain talented employees

4) To help an organisation better manage its staff, leading to faster, more effective achievement of its objectives

5) To positively influence the suppor Human resource analytics' primary objective is to improve business viability via well-informed HR-related choices based on insightful data analysis. Increaces productivity in the workplace.

1. Raises the return on investment (ROI) in people.
2. Gives you a chance to evaluate your workers' contributions and whether or not they're progressing in the direction you want them to go.
3. Plans for staffing needs in the future and figures out how to fill open jobs.
4. Increaces the company's efficiency and effectiveness by aligning human resources with long-term objectives.
5. Identifies potential HR patterns and trends in the future in terms of a variety of factors (Eg: turnover, absenteeism etc.).
6. It pins down the causes of increased happiness and output in the workplace.
7. Finds out why people are leaving their jobs and pinpoints the most valuable workers who could be departing soon.
8. Establishes reliable programmes for professional growth and development.
9. Facilitates sound judgement in organisational leadership.
10. Calculates how much money is being lost because of HR policies.
11. Analysis of factors such as work participation, employee engagement, employee dedication, etc., is used to identify the candidate most likely to thrive inside the organization's unique culture.
12. Provides HR with actionable insights about which workers, given their performance, education, and expertise levels, are most likely to benefit from upskilling.
13. Professionals in the field of human resource management get and maintain more respect.
14. Because of their ability to quantify their many influences on company results, HR executives will be invited to participate in strategic discussions.
15. Equally to how business or product executives are held responsible,
16. Investments in people may be defended more easily.

Human Resources Data Analysis Methods

The Purposes of Human Resource Analytics

Goals might include learning about the elements that boost worker productivity, forecasting the attrition rate for the next year, gauging employee happiness, assessing the effect of workplace hazards on productivity, and so on.

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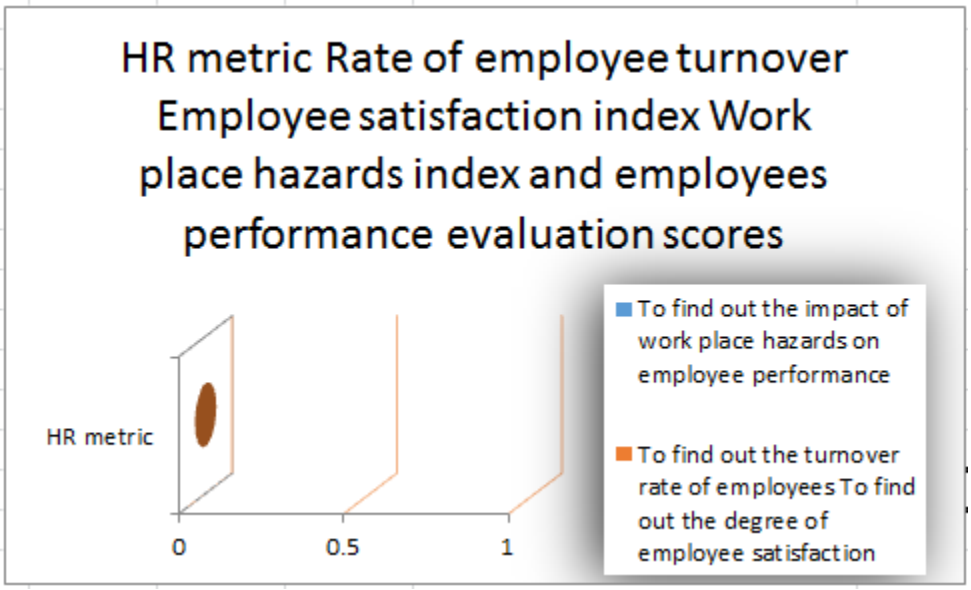
Obtaining the Data
After HR professionals have determined what HR-related goals should be achieved, they must next gather information pertinent to the objectives' underlying factors. Human resources practitioners may gather information via surveys, observations, interviews, and automated systems (such HR information systems).

Evaluating Key Human Resource Indices
Basically, you only need to figure out how to quantify the HR factors. Table 1 below illustrates the HR measure for each of the HR analytics goals.
The HR metrics for each HR analytics goal are listed in Table 1.



1. Information examination
In fourth phase, data is analysed using sophisticated statistical methods so that conclusions may be drawn. Human resources departments require a solid foundation of reasoning to be able to make sound judgments about their human capital. It is possible to infer that workplace hazards have a negative impact on productivity if a regression analysis is performed and the findings are negative and statistically significant. Employee turnover may also be determined by dividing the number of workers who left the firm during a certain time period by the number of workers who were still employed by the company at the end of that time period.
Decision Making

Decisions must then be made based on the findings of the data analysis and the insights derived from it. This often involves deciding how to modify preexisting HR policies, procedures, and processes or how to develop brand-new ones in order to realise the organization's goals. For instance, if HR finds that workplace risks have a major negative effect on employee performance, they will need to revise current rules and procedures or develop whole new ones to eliminate the danger.

Relevant measures for aligning HR analytics with company objectives and strategies have been outlined by Bhattacharyya (2017).

How questions are posed.

1. Realizing the value of correct statistics and measurements.

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2. Establishing a reliable infrastructure for HR data analysis.
3. HR analytics skills should be upgraded gradually.
4. Raising awareness of HR analytics' worth and significance.

The reporting periodicity of HR data is at issue in the "when" clause. HR indicators are often published on a yearly, quarterly, monthly, or even weekly basis. The "to whom" inquiry clarifies the recipients of HR metrics information for the purpose of making sound personnel choices. In most organisations, metrics are initially reported to upper management. According to research by Kiran et al. (2018), most HR executives utilise HR analytics tools while making strategic choices for the firm, while other executives also employ analytical tools for successful decision making.

• Mining Data

The goal of data mining is to discover hidden insights in large datasets via the use of statistical techniques and tools. The results of a correlation study between two databases on employee happiness and performance, for instance, reveal a positive relationship between the two variables.

• Dashboards

The dashboard provides an easy-to-understand and eye-catching summary of essential HR indicators for decision makers. To better communicate the findings and insights gained from analysing massive amounts of data, HR professionals may use a dashboard to do so. This makes it possible for any management to quickly and easily digest the data presented in charts and tables. Because of its dynamic nature, HR dashboard serves as a useful reporting and presentation instrument (Chib, 2019).

- Analysis of Future Events
- This effort seeks to develop corporate HR policies, processes, and models by analysing prospective outcomes, trends, and patterns gleaned from current data sets.
- Analysis of job satisfaction and turnover rates, for instance, reveals that next year's turnover rate will rise due to employees' dissatisfaction with their work. Any company that is concerned about this problem knows they must move quickly to improve employee happiness with their jobs via adjustments to its human resources infrastructure.

Experiments in Operation

Instead than relying on abstract theories, models, or preconceived notions of "how things operate," as is advocated by the proponents of evidence-based management, decision-makers should instead examine empirical facts on how their systems are really implemented (Reddy and Lakshmikeerthi, 2017).

SEVEN POSSIBLE QUESTIONS RELATED TO HUMAN RESOURCES THAT HR ANALYTICS COULD RESPOND TO

The data in Table 2 are from the author's personal experience as well as those of Jain and Nagar (2015) demonstrates that HR analytics may be used to provide answers to issues related to certain HRM functions and domains.

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"Possible HR Queries HR Analytics Could Respond To

HR function/field	Possible questions to be answered by HR analytics
Employee Planning and Staffing	a) Did the utilized source of recruitment create the expectedgroup of potential candidates for selection? b) Does the candidate possess appropriate Knowledge, Skillsand Attitude (KSA) that match with the job specification? c) Is the candidate interested in the job being offered tohim/her? d) What induction method would have the highest impact?
Training and Development	a) What T & D methods would have the maximum impact onemployees' job effectiveness? b) What is the ROI (Return on Investment) of training program? c) What training programs would assist to address the identifiedemployee training needs? d) What is the level of transfer of training of the employees?
Remuneration	a) What should be the determinants of compensation? b) Are the jobs evaluated properly? c) Does the existing remuneration program affect employees'satisfaction and morale? d) Does the remuneration program is superior than that of therivals? e) Does the remuneration package ensure the four equities(input, internal, external and primary)? f) Does organizational remuneration program attract talentedemployees from the industry?
Performance Appraisal	a) Does employees' performance result into profitableconsequences? b) What members' performance drives the customersatisfaction? c) Are employees contributing to essential business processes? d) Do the employees have right knowledge, skills and attitudesin order to do the job as expected?
Health and Safety Management	a) What employee categories are more open to workplacehazards? b) What is the accident ratio of the organization? c) Is there any relationship between sound health and safety ofemployees and their performance? d) What are the profitable consequences of minimizingworkplace accidents?

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Grievances Handling	a) What type of grievances do employees suffering most? b) What is the impact of grievant employees on organizational performance? c) What is the best intervention to identify employee grievances? d) How many grievances have been solved?
LMR (Labor Management Relations)	a) What factors contribute most to maintain positive relationships between employers and employees? b) Does healthy LMRs positively impact on organizational performance? c) What union actions negatively impact the business process most? d) What factors contribute employees to form trade unions?

HR analytics use statistical methods and algorithms to provide answers to the aforementioned queries, as well as a plethora of others. Questionnaires, interviews, and financial and other company records may all be used to compile relevant data. To determine the return on investment (ROI) of a training programme, one must first determine its training cost and training benefit, with the ROI calculation being [(Training Benefits - Training Cost) / Training Cost]. "An ROI greater than 1 indicates that the investment yielded a positive return for the business. Additionally, the accident ratio may be calculated by dividing the total number of accidents by the total number of workers. Decision-makers are obligated to take preventative measures against workplace accidents if the accident rate is high.

HUMAN ALYTICS: A NEW MODEL FOR CHANGE

HR analytics employs statistical models to get insights from employee data, which are then used to assist managers foresee patterns in employee behaviour including attrition rates, training costs, and employee contribution (Tamanna Asiwal,Akhila Sampathirao and Prof. Preeti Chrysolite, 2022). According to Dr Naveen Prasadula (2019), "a typical HR Analytics System collects employee data from HRIS (Human Resources Information System), business performance records, mobile applications, and social media and merges it into a data warehouse, applying big data, statistical analysis, and data mining techniques to provide understanding of hidden data patterns, relations, probabilities, and forecasting." Data collection, analysis, transformation, and storage across several databases are the primary concerns of a Data Warehousing System.

To illustrate, here is Mohammed's model for human resource analytics: (2019)

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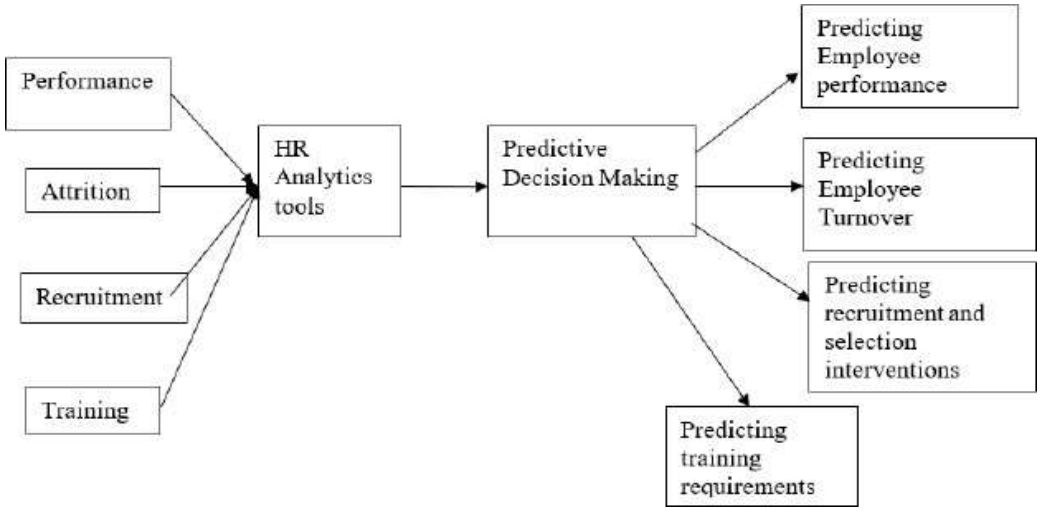

In order to make more informed decisions on employee performance, turnover, recruiting, and training, etc., For use in HR, Prof. Preeti Chrysolite's (2019) innovative instrument for predictive analysis is shown in Figure 1.Predictive choices may then be made about employee performance, attrition, recruiting, training, etc. based on the examined data. The importance of good decision-making to an organization's growth and development inspired the development of this model.

Additionally, in 2004, Boudreau and Ramstad created the LAMP framework as another platform for HR analytics. Logic, analytics, metrics, and process are abbreviated as LAMP. These factors are thought to be important in determining the success and productivity of an organisation (Bhattacharyya, 2017). According on the results of the aforementioned literature review, we suggest using the HR analytics model shown in Figure 2.

This section will describe the model.

Step 01 - Human resource analytics begins with establishing objectives and questions about employee performance, training, recruitment, selection, attrition, absenteeism, health and safety, and other HR-related procedures.

Step 02 – Determine measures for the factors that will help you arrive at a conclusion that is in line with your stated goals.

Step 03 - Acquire, sort, and save information relevant to the selected indicators. Questionnaires, interviews, observations, etc., are all valid means of information gathering.

Step 04 - Apply statistical methods or mathematical algorithms to the information. Used mathematical techniques or statistical analysis on the data. Software like as SPSS, Minitab, Stata, SAS, R, JASP, or Excel may be used for this purpose.

Step 05 - Human resources dashboards should be used to show the results of analyses and the information gleaned from them to decision makers.

Step 06 - Decisions are made using descriptive, predictive, and prescriptive methods in relation to the HR goals and questions that have been defined.

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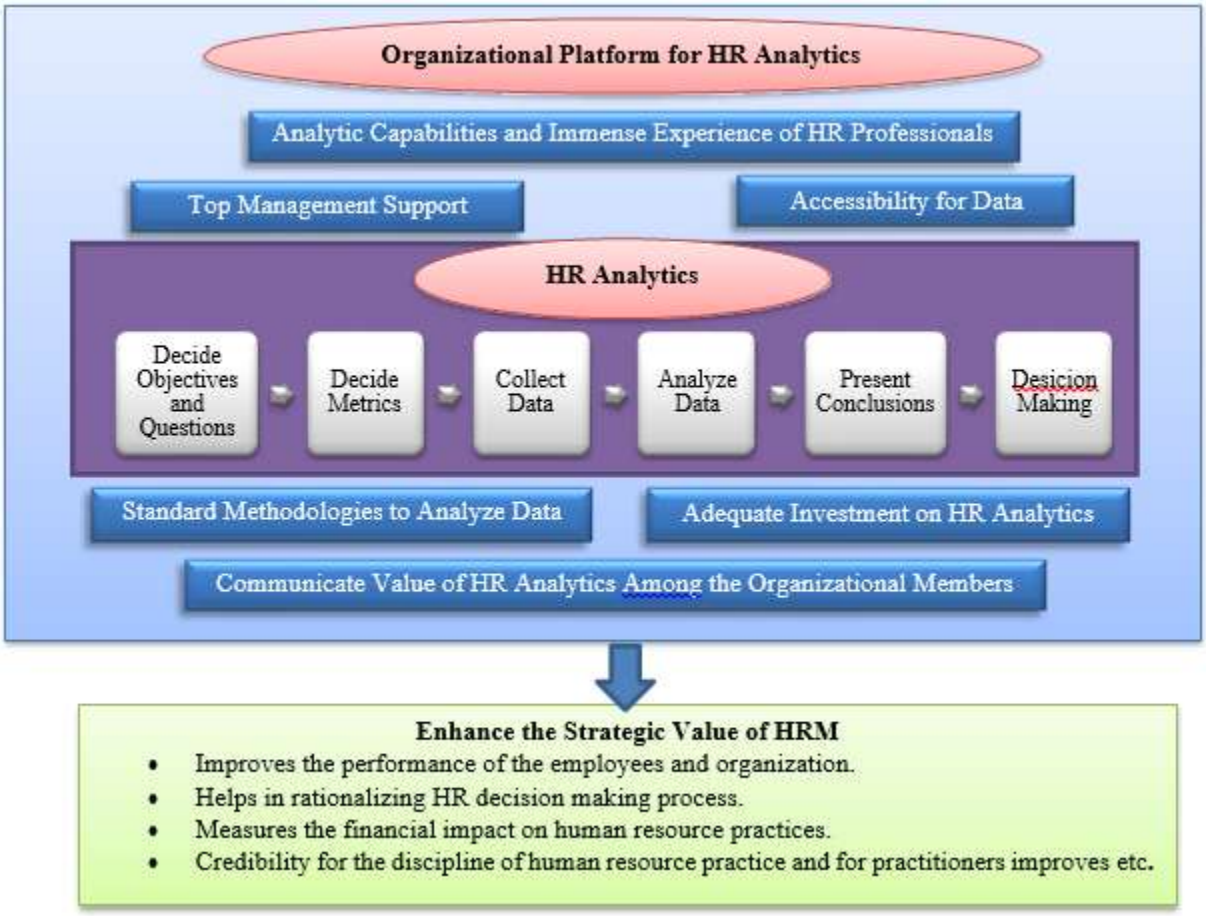
"New Human Resource Analytics Model, as Shown in Figure 2



Specimen"

Step 01 – Consider the impact on employee turnover of the company's choice to fund programmes to boost job happiness.

Step 02 – Important indicators are the Employee Satisfaction Index and the Rate of Employee Turnover.

Step 03 - Collect, sort, and save information relevant to the selected KPIs. Assume the company has access to data on staff turnover and satisfaction surveys for the last year.

Step 04 – Descriptive statistics, regression analysis, and correlation analysis were employed with the SPSS statistical programme. The studies of correlation and regression were performed using fictitious data. Table 3 depicts the descriptive analysis, Table 4 displays the correlation analysis, and Tables 5, 6, and 7 provide the regression analysis findings. The data shows a negative and statistically significant link between employee satisfaction and turnover. According to the results of the regression study, employee satisfaction significantly and positively affects retention rates (35% of the variation). "Investment in efforts that increase employee happiness will, therefore, have a favourable effect on retaining workers over the course of subsequent months and years.

Table 3: Analysis of Expressive Figures

Variable	Mean
Employee Turnover	33.91
Employee Satisfaction (5 point likert scale)	2.4"

A Correlational Study, as Shown in Table 4

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“		Turnover	Satisfaction
Turnover	Pearson Correlation	1	-.597*
	Sig. (2-tailed)		.041
	N	12	12
Satisfaction	Pearson Correlation	-.597*	1
	Sig. (2-tailed)	.041	
	N	12	12

*. It's statistically significant that there's a correlation between these two variables (2-tailed).

Figure 5: Summary of the Model

“Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.597[a]	.356	.292	5.10587”

Indicators: (Standard), Customer Happiness

“Table 6: ANOVA Table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	144.218	1	144.218	5.532	.041[b]
	Residual	260.699	10	26.070		
	Total	404.917	11	”		

a. Dependent Variable: Turnover

b. Predictors: (Constant), Satisfaction

Table 7: Coefficients Table

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	44.952	4.918		9.141	.000
	Satisfaction	-4.566	1.941	-.597	-2.352	.041

a. Dependent Variable: Turnover

Employee Turnover (Y) = -4.566*Employee Satisfaction + 44.952 is the regression equation for the aforementioned study.

There will be a 39.53% decrease in turnover if the company dedicates an extra 20% of its efforts to boosting worker happiness.

Step 05 - The obtained findings need to be presented to the decision makers using charts (Figure 3), tables, and graphs in an HR dashboard for effective decision making. ”

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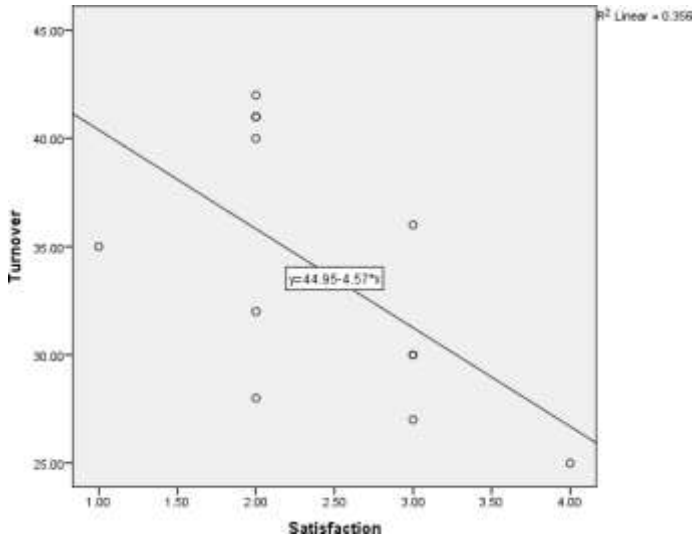
Figure 3: Scatter Diagram



Step 06 - Based on the results of the descriptive, predictive, and prescriptive studies, we reach conclusions regarding the following issues.

Whether or not employee satisfaction and turnover rates are high; a descriptive analysis. (Think about averages)

• Predictive - Will the company have to spend more money to improve employee happiness and decrease turnover? (Think about using regression and correlation)

• Prescriptive - What should be done about dissatisfied workers to keep them from looking for work elsewhere? (For instance: providing better benefits, working conditions, and advancement possibilities for employees.)

On addition, the following features should be included in the company's platform if HR analytics are to be carried out effectively:

Top-down backing; analytical prowess and extensive expertise among HR experts internal promotion of HR analytics' worth; sufficient financial resources devoted to the endeavour.

Achieving Data Availability

The ability to put HR analytics into practice is greatly facilitated when a company has a strong basis for the approach. When implemented properly, HR analytics may increase HRM's strategic value.

Human Resources Data Analysis: Some Obstacles

Since human resource qualities are notoriously hard to quantify, it's a major obstacle for modern businesses to get insight into and anticipate employee actions (Momin and Mishra, 2016). HR professionals encounter a wide range of difficulties since human factors are notoriously difficult to quantify. Human resource analytics is a response to these difficulties. However, HR analytics performance is difficult since HR professionals must overcome obstacles. The problems with HR analytics, as identified by Malla (2018), are:

Consolidating and combining data, collected from diverse activities and divisions inside the organisation, is crucial for adopting HR analytics. Experts in human resources should also ensure that the data is preserved securely and presented in a way that permits objective review. For this reason, it is crucial for businesses to engage in HR analytics training for their managers so they can make informed

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choices about their staff. In order to transform raw data into actionable insights, statistical training is crucial. Human resource managers and company executives can't make sound decisions unless they have the ability to analyse data (Tamanna Asiwal,Akhila Sampathirao and Prof. Preeti Chrysolite).

In the realm of human resources, privacy and compliance go hand in hand. Sometimes a firm might get in issue with the law if it collects and uses workers' personal information.Inadequate support from upper management: HR analytics will fail if not backed by the company's top brass.

CONCLUSION AND DISCUSSION

It is possible that HR analytics may help HR become a more valued strategic partner (Levenson, 2005).Using analytics, human resources professionals may increase the impact of their data, allowing them to better integrate their expertise with it and use it to inform decision making and anticipate the future (Tamanna Asiwal,Akhila Sampathirao and Prof. Preeti Chrysolite). To reiterate the point that analytics is a necessary supplement to deep and rigorous reasoning for an efficient measurement system, HR data analytics guarantees that insights give genuine and accurate foundations for intelligent human capital choices. Human resource analytical solutions used by businesses must use an integrated strategy that blends technology and skilled humans to be effective. HR analytics has grown in significance due to its ability to enhance organisational performance in a number of ways, including: employee productivity; the return on investment (ROI) of human resources; the ability to evaluate employees' contributions to the company; the ability to predict workforce needs and the most effective means of filling vacancies; and the ability to connect workforce utilisation with strategic and financial goals in order to boost business performance. It offers reliable data that may be utilised to guide new HR choices as well as the refinement of current HR strategies and other methods. Human resource analytics has a favourable, sizable, and substantial impact on HR's strategic value. Any HR professional who plans to use HR analytics should have business acumen, data collection and mining capabilities, analytical abilities, communication and presentation skills, etc. This research indicates that HR analytics offers business executives a data-driven framework for optimising HRM and increasing HRM's strategic value by applying statistical models to data using a variety of tools and methods to uncover hidden patterns and provide conclusions to aid in decision making.

References

1. Ben-Gal, H.C. (2018), “An ROI-based review of HR analytics: practical implementation tools”, *Personnel Review.*
2. Bhattacharyya, D.K. (2017), *HR Analytics: Understanding Theories and Applications.* New Delhi: SAGE Publications.
3. Chib, S. (2019), “Monograph on HR reporting using using HR dashboards”, *International Journal of Scientific and Research Publications.*
4. Dr Naveen Prasadula. (2022), Pannala Ram Reddy college of Business Management “Overview of HR Analytics to maximize Human capital investment”.
5. Gurusinghe, N, Arachchige, B.J.H. and Dayarathna, D. (2019), Identified Research Gaps in HR Analytics, Conference: Challenges to Humankind in the Face of New Technologies at Colombo, India.
6. Jabir, B., Falih, N. and Rahmani, K. (2019), “HR analytics a roadmap for decision making: case study”, *Indonesian Journal of Electrical Engineering and Computer Science,* Vol. 15, No. 2, pp. 979-990.
7. Jain, A. and Nagar, N. (2015), “An Emerging Trend in Human Resource Management”, *SS International Journal of Economics and Management,* Vol. 5, No. 1, pp. 1-10.

8. Kiran K.S., Sharma, N. and Brijmohan D.R. (2018), "HR analytics: transactional to transformational HR approach", *International Journal of Advance and Innovative Research,* Vol. 5, No. 3, pp. 1-11.
9. Kirtane, A. (2015), "corporate sustainable HR Analytical practices", *Journal of Management & Administration Tomorrow*, Vol. 4, No. 1, pp. 33-40.
10. Levenson, A.R (2005), "Harnessing the power of HR analytics: why building HR's analytics capability can help it add bottom-line value",
Center for Effective Organizations, Vol. 4, No. 3, pp. 3-12.
11. Lochab, A., Kumar, S. and Tomar, H. (2018), "Impact of Human Resource Analytics on Organizational Performance: A Review of Literature Using R-Software", *International Journal of Management, Technology And Engineering,* Vol. 8, pp. 1252-1261.
12. Malla, J. (2018), "HR Analytics Center of Excellence", *International Journal of Business, Management and Allied Sciences,* Vol. 5, 282- 284.
13. Dr Naveen Prasadula. (2022), Department of Business Management Osmania University "HR analytics: a modern tool in HR for predictive decision making", *Journal of Management,* Vol. 6, No. 3, pp. 51-63.
14. Momin, W.Y.M. and Mishra, K. (2016), "HR analytics: Re-inventing human resource management", *International Journal of Applied Research*, Vol. 2, No. 5, pp. 785-790.
15. Opatha, H.H.D.N.P. (2009), *Human Resource Management: personnel.* India: University of Sri Jayewardenepura.
16. Opatha, H.H.D.N.P. (2019), *Sustainable Human Resource Management*. India: University of Sri Jayewardenepura.
17. Dr Naveen Prasadula. (2022) A study from Hman Resource Analytics: A Systematic Literature Review and Proposed Conceptual Framework
18. Opatha, H.H.D.P.J. and Uresha, K.I. (2020). HRM and its impact on employee happiness: An empirical study on Indian employees, Asian Journal of Social Sciences and Management Studies, Vol. 7, No. 2, pp. 114-123.
19. Reddy, P.R. and Lakshmikeerthi, P. (2017), "'HR Analytics' - An Effective Evidence Based HRM Tool", *International Journal of Business and Management Invention,* Vol. 6, No. 7, pp. 23-34.
20. Reena, R, Ansari, M.M.K. and Jayakrishnan, S.S. (2019), "Emerging trends in human resource analytics in upcoming decade",
International Journal of Engineering Applied Sciences and Technology, Vol. 4, No. 8, pp. 260-264.
21.Singh, P., Upadhyay, R.K. & Srivastava, M. (2017), "The role of HR analytics in higher education institution", *International Journal of Engineering Sciences & Research Technology,* Vol. 6, No. 7, pp. 92-100.

