HR Analytics: A Tool for Strategic Approach to HR Productivity

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Abstract: *The ever-changing world of today to the world that existed just a few decades back, we realize that human capital perhaps became the most sustainable source of competitive differentiation and value creation for an organization. The role of Human Resource is critical when it comes to confirming businesses are effective at their optimal levels. However, achieving this is no easy task, as HR teams need to manage a series of tools and resources designed to drive real insights and opportunities. These call for an approach to make decisions that are based on facts and numbers, rather than intuition and guesswork. Analytics thus takes the attention in the HR monarchy today. The paper includes concept, impact, drivers, and challenges of HR Analytics.*

Keywords: HR Analytics, Human Resource, Analysis Prediction, Organizational Practice, Growth Analysis.
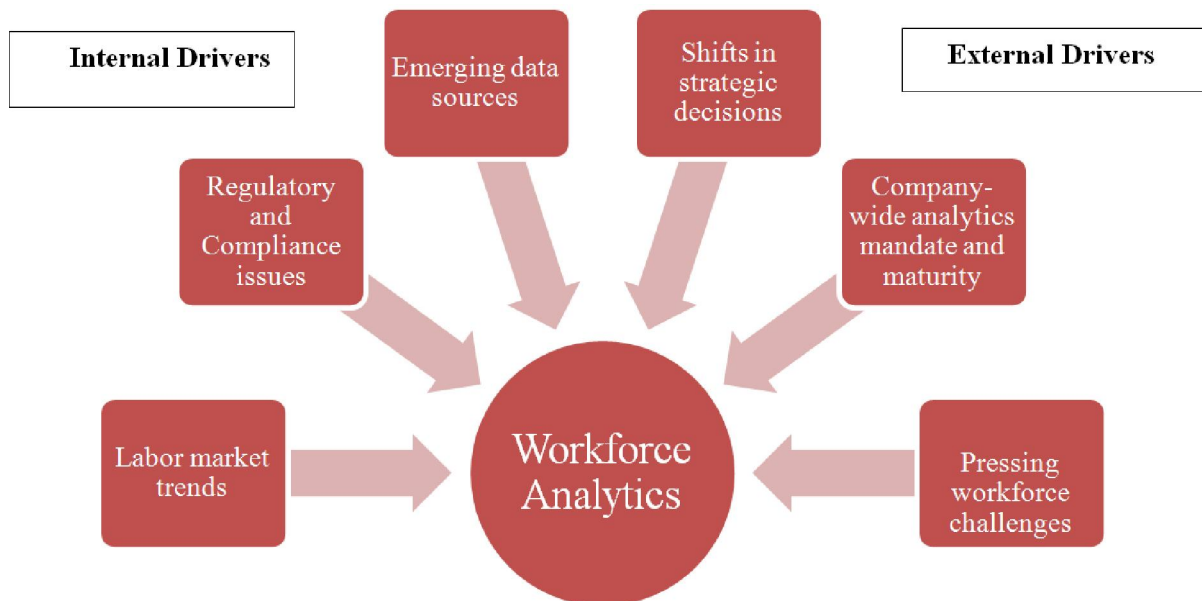
I. INTRODUCTION

Human Resource analytics (HR Analytics) is defined as the part in the arena of analytics that deals with people analysis and smearing analytical process to the human wealth within the business to progress employee performance and refining employee retention. In today's hyper competitive world, every organization faces the challenge of human capital management. The analytics trend is growing in leaps and bounds not only due to providing powerful insight for management working but also looking forwards to HR leaders for having key decision about rewards system, decision making, organizational designing, allocation of funds to various HR activities, talent management activity to create more value for the organization. HR analytics can help in upgrading the standards of HR professional working and leveraging the competitive advantages for the organization. As the financial situation keeps on varying due to globalization, Human resource department also needs to familiarize to this novel variation. Hence, retaining highest abilities is the primary anxiety for the HR nowadays. Well employee commitment and retaining plans and policies are the essential of the time.

For example, HR today is mostly concentrated on the implementation of plans and policies in that they form of economizing and rearrangement plans and policies throughout placing employee performance related wage policies, decreasing happiness care expenses and reskilling employees. HRM plans and policies are varying in terms of HR metrics and hr analytics being used in the business for improved decision making. These improvements will help the business stable the expenses & welfares of conclusions. Human resource analytics can help officialdoms take present functioning and planned data and convert it into a lively method to tomorrow's HR matters. HR analytics has developa significant tool for achievement; leveraging present statistics to ante date forth coming ROI that helps as a basis of economic algain.

Human Resource Analytics (HRA), also known as Talent/ People/ Workforce Analytics, is an area in the field of analytics that refers to applying analytic processes to the Human Resource Department of a business in the assurance of refining employee performance and therefore getting a well return on asset. HR analytics does not just deal with collecting data on employee competence but also purposes to deliver vision into each course by collecting data and then using it to create pertinent choices for an establishment. In simpler words, HRA are a set of tools that quantify, describe and establish urbane employee statistics to support in general organization.

II. LITERATURE REVIEW

- **Concept:** HR analytics is shifting HR. It allows HR to make improved choices using facts to create an occupational case for HR involvements. Testing the efficiency of these involvements Moving from an effective partner to a strategic, or even planned partner. Today, the common HR departments emphasis on reporting employee data. This doesn't avail in today's data-driven economy. Just keeping archives is frequently inadequate to add planned value. The goalmouth is to turn facts into information and information into vision. Doing this allows HR to become additional involving in decision-making on a planned level. Efficiency of HR strategies and different interferences.

- HR analytics is a practice for producing visions on how reserves in human capital possessions contribute to the achievement of four major results: (a) generating income, (b) minimalizing expenditures, (c) justifying jeopardies, and (d) performing deliberatetactics by applying statistical methods to combined HR, talent management, monetary, and operational data. The terms HR analytics, people analytics, and workforce analytics are often used interchangeably to measure the most pertinent information to their function.

- **HR Analytics:** HR analytics transactions with metrics of the HR purpose, such as time to hire, training expenditure per employee, and time till promotion. All these metrics are accomplished solely by HR for HR.

- **People Analytics:** People analytics, theoretically appropriate to "people" in general. It can include any group of persons even external to the organization. For instance, it may be applied to analytics about the customers of an organization and not necessarily only employees.

- **Workforce Analytics:** Workforce analytics is an all-inclusive term mentioning to employees of an organization. It includes on-site employees, distant employees, performance of workers, service provider, advisors, and any other persons working in various volumes in an organization.

- **Research Methodology**: This study is based on secondary data analysis and will examine secondary data collected from recent websites, blogs, research papers and reports of government.

- **Drivers behind the Evolution of HR Analytics:** Nowadays analytics has become a leading marvel in fast increasing businesses. (Gartner Report, 2012).

It is the amalgamation of data and workers to reduce firm's capability by originating new strategy. Regardless of work atmosphere, most of departments like, sales, operations, finance, and production are effectively data operation in their organizations. The financial recession during 2008 plays an important role for the growth of analytics. The alternative call at that time generates the need for organization to look for data analysis. Looking into it, others organizations

decides to gather data for their decision making. According to Jonathan Ferrar, vice president of Smarter Workforce at IBM importance of data analysis was known to business lodestones because of economic disaster. Hence analytics has become a sturdier heavy force for organizations to effectively strive in the fast-growing business world. Inspite of fast growth and succeeding stories of various organizations, still many organizations are in problem in the implementation of analytics in HR.

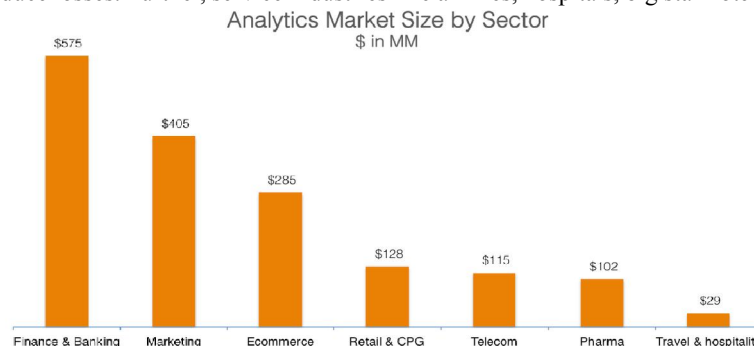**A) How HR analytics helps Human Resource Management:**

Like marketing analytics has transfigured the field of marketing, HR analytics is shifting HR. It allows HR to: Make improved conclusions using data. Generate a business situation for HR interferences. Examine the efficiency of these interferences. Transfer from an working partner to a strategic. Today, the mainstream of HR departments emphasis on reporting employee data. Just keeping records is often inadequate to add tactical value. In the words of Carly Fiorina: "The goal is to turn data into information and information into insight" which is also applied to HR, enabling HR to become more complicated in decision-making on a tactical level.

B) HR Analytics Helps in:
1. Increased need for data and analytics tool in HR to make better HR decisions that provide access to critical data and understandings about the workforce analyzed for making better decisions but also delivers a better understanding of what motivates employees to work productively, and how do the organizational ethos affects employee performance.
2. Better Quality of Hire is one of the HR data analytics benefits successively machine learning procedures on jobseeker's data allows businesses to classify the best corresponding capacity for available position, thus improving the quality of hire. A vital benefit of HR metrics and analytics is Employee Retention, recruiters can identify a form of high performing employees and change their employee hiring and retention strategy. HR analytics helps recognize the sections suffering from the attrition and the details causing it and impact on employee engagement thus allowing organizations to capitalize in such activities.
3. Transformation of HR as a strategic partner is one of the benefits of Workforce analytics providing an exclusive point to HR department to authenticate its role as a strategic partner in a business' performance and thus providing business leaders with demonstrable data to back their talent hiring, retention and engagement policies.
4. Business analytics in HR can help predict the hiring needs of an organizationthat may be needed in the organization's future also can forecast the skills and places which are desirable to improve business performance.

C) Analytics Market Size by Sector:

Big E-commerce companies nearly $285 Market size players manage supply chain by the usage of data to classify efficient suppliers, sales perfection, planning delivery in forecasting the demand for a commodity/product, protective price upper limit to reduce losses. Further, service industries line airlines, hospitals, big star hotels and

Analytics Market Size by Sector
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Big E-commerce companies nearly $285 Market size players manage supply chain by the usage of data to classify efficient suppliers, sales perfection, planning delivery in forecasting the demand for a commodity/product, protective price upper limit to reduce losses. Further, service industries line airlines, hospitals, big star hotels and travel agencies make use of data to assimilate demand side and supply side in its modest market environment. Similarly, analytics are used in the areas of enhancing work like inventory, manufacturing, obtaining etc. But the restrictions on the obtainability of methodically achieved data decreases the application of analytics in decision making. In manufacturing sector, companies depend on HRD purposes mostly during labour difficulties. Organizations (AT&T, Google and Oracle) using Analytics to identify high performance employees and understands the risk in appraisal benefits has been reduced. Industries like Dow utilizes Analytics for the prediction of employees promotion, change of location and workforce requirements.

There is incredible development in the field of health sector due to growth of database to analyse different fields in their organization relating to employees like people learning management system, employee talent database, employee engagement analytical tools. There are various other areas such as recruitment, talent management, learning process, benefits and compensation, succession planning. The organization is able to eye witness great hiring success rate, higher than 90%, due to automation and technology version, along with high analytics. The success rate is as high as 95% along with new hires at a speed of 40% and more. In the nut shell, the sectors like retail industry, service sector, banking, telecom, FMCG, manufacturing sector, e-commerce has high demand for analytics. In most of the sectors, the practice of analytics is reduced due to the absence of organized data which is a paradox statement to the present situation of analytics world. Hence it is authoritative to evaluate the acceptance of HR analytics in Indian context.

D) What Metrics Does HR Analytics Measure?
1. **Revenue per employee:** Gained by dividing a business's revenue by the total number of employees in the company showing the average revenue each employee generates and hence a quantify of how effective an organization is at allowing revenue generation.
2. **Offer acceptance rate:** The number of accepted formal job offers divided by the total number of job offers given in a particular period. Advanced amount (above 85%) indicates a good ratio. If it is lower, this statistics can be used to redefine the company's talent gaining approach.
3. **Training expenditures per employee:** Gained by dividing the total training expenditure by the total number of employees who received training from calculating the training efficacy. Poor efficacy may lead you to re-evaluate the training expense per employee.
4. **Training efficiency:** Gained from the investigation of multiple data points, such as performance development, exam scores, and rising change in employees' roles in the organization after training.
5. **Voluntary turnover rate:** Voluntary turnover happens when employees voluntarily choose to leave their jobs, calculated by dividing the number of employees who left voluntarily by the total number of employees in the organization leading to the identification of gaps in the employee knowledge that are leading to voluntary attrition.
6. **Involuntary turnover rate:** When an employee is terminated from their position, the rate is calculated by dividing the number of employees who left involuntarily by the total number of employees in the organization used to develop a plan to advance the quality of hires to avoid involuntary turnover.
7. **Time to fill:** The number of days between advertising a job opening and hiring someone to fill that position, measuring the time to fill, recruiters can modify their recruitment policy to recognize areas where the most time is being spent.
8. **Time to hire:** The number of days between approaching a candidate and the candidate's acceptance of the job offer, data-driven analysis of time to hire can benefit recruiters and help them improve the candidate experience to decrease this time.

9. **Absenteeism:** Absenteeism is a efficiency metric, which is measured by dividing the number of days missed by the total number of scheduled workdays and can offer visions into complete employee health and also assist as an indicator of employee cheerfulness.

10. **Human capital risk:** It may include employee-related risks, such as the absence of a precise ability to fill a new type of job, the deficiency of skilled employees to fill leadership positions, the possibility of an employee to leave the job based on several factors, such as relationship with managers, compensation, and absence of a clear succession plan allowing HR analytics can be used to quantify all these metrics.

E) Tools used in HR Analytics:
Some of the major tools of HRA in use are as follows:

1. **RStudio: RStudio** is a free and open-source cohesive development environment (IDE) for R, a programming language for statistical computing and graphics.

2. **Python: Python** is an interpreted high-level programming language for general-purpose programming, enterprise philosophy highlights code readability, particularly using important whitespace. That permit strong software design on both small and large scales.

3. **Excel:** Microsoft Excel, worksheet designed by Microsoft for MacOS, Windows, and iOS, Android for scheming, graphing tools, axis tables, and a function programming language called Visual Basic for Applications especially since version 5 in 1993. Excel forms part of Microsoft Office.

4. **SPSS:** SPSS Statistics, software set used for collaborating, or batched, statistical analysis melded by SPSS Inc., was established by IBM in 2009. The present forms (2015) are termed IBM SPSS Statistics.

5. **Power BI:** Power BI is a commercial analytics provision provided by Microsoft providing cooperating outsets with self-service business acumen competences, where end handlers can create reports and dashboards by themselves, without requirement on information technology staff or database managers.

6. **Zoho People:** Zoho People is the HR software of the Zoho Company's full suite of commercial applications and tools for small and medium initiatives for managing all workforce and employee-related happenings and apprehensions. Zoho People is ideal for companies that want something that can be applied easily and tailored exactly to their needs and expectations.

7. **PeopleInsight:** People Insight, cloud-based analytics proposed to deliver benefit to businesses and industries by providing valuable statistics on human resources procedures through their data and then permitting them to apply that data to expressive decision-making.

8. **Crunchr:** Crunchr is a cloud key for people analytics and workforce development, intended to make companies improved.

9. **BambooHR:** BambooHR is an American technology company that delivers human resources software as a provision. BambooHR's services comprise an candidate tracking system and an employee benefits tracker.

10. **IBM Kenexa:** It is an IBM Company, providing employment and retention services for hiring and retaining workers. This comprises recruitment process outsourcing on boarding solutions, employee assessment, aptitudes valuation for employment.

F) Impact of HR Analytics:

1. **Analytics permits HR to quantify and then upsurge its business influences.** When the whole lot is in HR is digital, arranged and accomplished with statistics, HR can demonstrate where and how much it straight influences strategic business goals.

2. **Analytics allow HR to upsurge employees efficiency.** HR can use analytics to recognize the issues that directly increase efficiency.

3. **Analytics allow HR to contribute to rise in business speed and flexibility.** In a speedily shifting and unpredictable world, businesses can flourish if they are fast and adapt quickly. HR can play role to that effort by applying analytics to advance a hiring process that selects individuals with these two key skill sets.

4. **Analytics allows HR to subsidize to growing business novelties.** Analytics can help HR design recruiting systems that efficiently attract the best innovators.

5. **Data allows HR to more efficiently inspire managers.** The best thing about using data to inspire managers is it's hard for them to compete it.

6. **Prognostic analytics prepare managers and HR for the future.** The most impactful component of data-driven decision-making is the ability to forecast drifts and imminent problems or opportunities in talent management.

7. **Analytics allows HR to prioritize and funnel resources into the uppermost business influence areas.** HR leaders can more precisely assign their HR budget and staff into the plans with the extreme impact.

8. **Analytics allows HR to recognize which current talent plans are not working.** Analytics helps HR leaders determine which of their current programs and tools are working and which ones are not. Analytics also allow you to measure the efficiency of new programs.

9. **Data will rise hiring and recruiting efficacy.** Research by the Bosh Consulting Group found that the recruiting function had the highest impact on both corporate incomes and returns. As a result, it makes logic to apply analytics in this area.

G) Challenges of HR Analytics:

1. Bringing Together Data From Many Different Places: A big data resourcefulness requires HR to obtain data from all the different departments within the business to obtain, sanitize, unite, and examine data as well as from numerous business functions, including payroll and finance.

2. Lack of Data Analytics Skills Within HR: They are very few HR managers that describes their big data skill as either "good" or "excellent." Also, most companies start by hiring for departments directly related to money, finance, and forecasting. Big data used for HR has stayed an addition, not just for HR managers but also for the C-suite.

3. Insufficient IT Resources for HR Data Analytics: Data analysis is resource-intensive for IT, and many smaller companies don't have the infrastructure analytics programs. Public cloud resources can be a great help for SMBs that want to examine their own statistics, but some company that's already done unstructured statistical analysis be better for companies that lack time, infrastructure, and in-house knowledge.

4. Worries About Privacy and Compliance: When HR collects data on a candidate from outside the company it has to consider secrecy. Collecting sensitive information, such as individual health info or information about sensual orientation, can place HR in mist territory related to protected features.

5. Taking the Human out of Human Resources: To several HR managers, the awareness of implementing people analytics permitting computers decide whom to hire, Using all available tools to recruit the right people for the right jobs in the right companies is the eventual right achievement for HR, best for employees, shareholders, society—everyone.

III. CONCLUSION

The professional world currently is more precise in positive utilization of resource. As Human resources are the main valued sources of any organization, there is a high attention required to manage. There must be valid proof for HR decisions too. HR Analytics is not only driving best HR decisions with accurate evidence, but also provoking organizations to maintain adequate quality data for justifying in HR Investments. Despite being a new area of high interest, the development of an integrated, strategic framework on how to implement and operate HR Analytics would reduce the uncertainty early-adopters are facing at this early stage. This review helps to better understand the successful adoption of HR Analytics. However, further research is needed to better evaluate the impact of these factors. But human beings still will make the final decision. Thanks to data, they make better decisions.

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