

Datafication: A Journey Or A Destination?

Datafication defines the "rethinking" of what we do around data, and not merely the product and the process. Simply put, datafication of HR is investing in analytics that will help improve an organisation's policies, practices, and processes, and in turn, help HR improve the manner in which it functions. By **Shruti Chadha and S. Ajay Kumar**

“Science is the refinement of everyday thinking.” – Albert Einstein

Whenever a new futuristic movie hits the screens we simply stand mesmerized by the gadgets and gizmos that are used by the protagonist and his nemesis. Sophisticated vehicles that include unmanned flying drones, customized wearables such as watches, hats, goggles, Spy cams, smart radars, GPS systems, robot dogs, digital briefcases, fingerprint sensors and readers, and wonders in artificial intelligence which is still being worked upon by IBM Watson towards making it a reality. We are not too far from living in a whole new universe of optimized James Bond devices powered by big-data predictive analytic technologies that primarily comprise of artificial intelligence, modelling, statistics, and pattern detection algorithms to study mounds of data to identify and predict behaviour patterns and help in planned business decision making.

Datafication, the newest buzzword in the business and the HR corollary, in simple terms means turning an existing business into a "data business", and Josh Bersin, Principal, Bersin By Deloitte has rightly said, "think about it this way, Facebook has "datafied"

it was focussed only on business data. However, organisations today are able to dig deeper into people data. HR needs to review both the internal and external metrics, but often, one of these gets overlooked. HR is historically prone to searching for data from

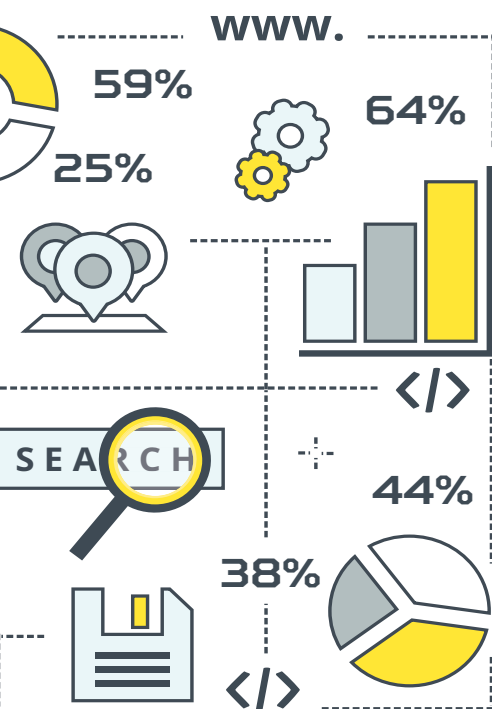
outside the organisation before it examines the happenings inside. HR is quick to put man hours in big numbers into comparing its organisation against norms for its industry or its competitors. However, a more significant question that often gets



our friend network. Google has "datafied" our search and information retrieval. LinkedIn has "datafied" our professional connections. Twitter is "datafying" news and real-time information. Ola and Uber is "datafying" our transport, GE is "datafying" all its engines, power plants, and machines, Degreed is "datafying" our learning and development needs, and Netflix is "datafying" our entertainment choices." Each of these businesses is harnessing what we now call Big Data to store, analyze, and monetize the information around its business." Datafication defines the "rethinking" of what we do around data, and not merely the product and the process. Simply put, datafication of HR is investing in analytics that will help improve an organisation's policies, practices, and processes, and in turn, help HR improve the manner in which it functions. It is therefore essential to explore why HR needs datafication, the data points that must be under the HR radar, the best way of acquiring them, the possible roadblocks that might make the journey a bumpy ride, and finally, what do we do with that data, is datafication the intended destination or is the journey bound to continue.

Datafication in HR

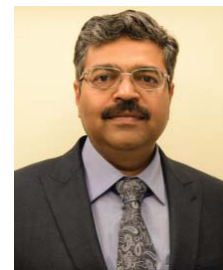
Data-driven decision-making as a concept is not new. But until recently,



"Datafication is increasing the ability to use talent analytics to understand job seekers, employees, HR practices and processes. It helps a company recognize the contributing factors that are impacting their organisation, and gives competitive advantage. Paperless onboarding could be one of the most crucial steps towards the digitization of the HR industry. Onboarding is a long affair where the employees have to fill the same details in 6 -7 different forms. With today's technology, new hires can complete all the paperwork in 15 mins. Through datafication, companies can update the database of new/ eligible candidates for recruitment. It becomes important for organisations to measure how much effort is put in terms of getting a candidate. In today's globally competitive environment, borders that limited company innovations and strategies don't apply anymore. To succeed in such a scenario, companies are creating not just innovative products, but also distributing them via unconventional business strategies. There is a need to invest time to explore new technologies such as AI, Robotics etc., for the hiring processes that will help build efficiency in delivering a faster turnaround to hire quality candidates."

GURUPRASAD SRINIVASAN

President, IKYA Human Capital Solutions



missed out is, does that data really apply to your organisation? Here is a very basic example: The standard average for the number of HR professionals needed in an organisation is one for every 150 employees. But does that take into consideration the very approach of the organisation as to how HR is organised and how it functions. With the ability to link HR data to organisational data, HR is now able to not only store information, but utilise it in a pro-active manner to improve operational management, better align goals, be agile, and measure it in real time. Meanwhile, if HR sees that it is measuring incorrectly, it can detect this in real time and ditch the measurement tools being used by it and adjust accordingly.

Power of HR Datafication for a quantified organisation

Decision Support: In the HR universe, one of the most widely searched terms is ROI (Return on investment). The right data can get that decision support - programmes that HR leaders knew in their gut could work can actually be tested. Traditionally squishy areas of HR leadership that are hard to measure might actually be proven when analysed with data and patterns.

Scrutiny: The downside is that HR leaders will be under increased pressure and scrutiny about the types of programmes and practices they advocate. Everything from hiring to

benefits, administration to performance reviews, and workforce management can become accessible organisation wide.

Opportunity: With better access and thereby better interpretation of data, HR becomes sufficiently competent to undertake newer roles in leadership within the organisation. Datafication of HR will require leaders who are ready to understand and implement what they see from the numbers; it could mean better executive positions for HR leaders who are not afraid to rely on that data.

What has HR Datafied?

Businesses spend 50-60% of their total

What has HR Datafied?

- Data-backed Hiring and Recruitment
- Data-backed Promotions
- Data-backed Retention
- Data-backed Learning and Development
- Data-backed Compensation and Benefits
- Data-backed Employee Engagement
- Data-backed Reward and Recognition

revenues on payroll (higher or lower at times) and this large expense is rarely well analysed. Do we have the right people in the right jobs and are we paying them the right amount of money? Yes, we clearly have budgets and headcount targets, but do we really know how to optimize our employee spending? These are some of the questions that are sure to cross any HR leaders mind time and again. A study by the Massachusetts Institute of Technology (MIT) and University of Pennsylvania found that companies with mature analytics functions in general produce 5-6 percent higher financial returns. Ever since the introduction of big data and analytics, its absorption into different areas of HR is progressively increasing.

Here are some of the areas we see growing with the appropriate implementation of HR analytics.

Data-backed hiring and recruitment processes: Rather than using job descriptions, HR departments are increasingly focusing their recruitment activity on staff profiles. These profiles will be based on high-performing people present within the organisation such as their qualifications, the experience they bring, personality traits they possess and more. Different profiles will be created for different roles and new applicants matched against them. With numerous vendors to provide social activity profiles of external candidates, the recruiter now has holistic information to make informed choices. This powered with AI bots, release the bandwidth of the recruitment team from doing regular

"Datafication in HR is a journey in itself and is having a huge impact on how people communicate, collaborate and work. Datafication and use of smart technologies such as big data, machine learning and artificial intelligence have proven to be a blessing for Organisations. Companies are heavily relying on future ready innovations to streamline activities from formulating Organisational strategies to hiring trained workforce. Finding fresh and young talent by using these technologies not only helps in saving Organisational costs but also ensure efficient recruitment. These tools are being used as a primary screening method that provides insights on recruitment & learning and also to get an insight into candidate's personality. In a way, these tools have led to the emergence of scientific hiring. The streams of HR that can be made more objective and quantified with the use of datafication include recruitment and workforce management, compensations and benefits, employee engagement, succession planning/talent management, learning and development, simplification of work and compliances."

ASHU MALHOTRA

Head-Human Resources
Cargill in Indian Sub-Continent and Malaysia.



calls and telephonic interviews or screening profiles, because a well made algorithm is all you need to get the top 10 profiles from a pile of hundreds.

Data-backed promotions: A new data-driven approach will also be taken for talent management. Rather than promoting people on personal intuition or pressure from managers, decisions will be based on data gathered about their actual performance. Eg: Who has consistently met sales forecasts? Who has suggested productivity changes? Who outperforms the average? Such data will be constantly gathered and used to ensure decisions are based on solid evidence rather than intuition or personal opinion.

Data-backed Retention: By way of

"Today most of organisations expect the use of HR data to increment in the coming years. So, "datafication" of HR is obviously in progress. HR Big Data, People Stats, HR analytics, talent analytics, strategic workforce analytics, Human Resource datafication consider the combination of qualitative and quantitative data that businesses must have in place to make valuable decisions regarding human capital management, for attaining the competitive edge. If HR professionals truly want to be part of the business, especially predictive analytics will open the door to the new business world. Few things which every HR should focus is on their analytical abilities, distinct expertise to use analytical tools and from time to time they should upgrade their knowledge to contribute towards changing dynamics."



PRIYANKA ANAND

Vice President and Head
HR Global Operations, Ericsson

Top 10 metrics and how they can be measured

- 1. Cost per hire:** Recruitment costs/ Cost of compensation + Cost of benefits
- 2. Yield ratio:** Percentage of applicants that make it to the next stage of the application process.
- 3. Benefit cost per employee:** Total cost of employee benefits/Total number of employees
- 4. Compensation cost per employee:** Total cost of compensation for the year/Average number of employees
- 5. Training hours:** Total training hours/ Total number of employees
- 6. Revenue per employee:** Revenue/ Total number of employees
- 7. Rate of performance goals met:** Number of performance goals met/ Total number of performance goals
- 8. Tenure:** Average number of years in service of all employees
- 9. Absence rate:** Number of days absent (month)/Average number of employees (month) x number of workdays.
- 10. Annual turnover:** Number of employees leaving during a 12-month period/Average number of employees during the same period

using common metrics such as turnover, resignation, involuntary turnover, companies have reported improved retention outcomes, as well as a better ability to focus resources and programmes where they need them. However, the differentiator is the ability to compare trends over time, across business units or between key groups of employees to the overall organisational outcomes. It is not the standalone metrics that brings the insight, but the ability to quickly build comparisons, identify trends, and find outliers that makes the difference. This is what sets apart Datafication from HR analytics, it implies applying the knowledge of patterns and trends to make decisions for the future. It is one thing to know what has happened in HR - the majority of HR data to date has focused on the reporting of transactional outcomes - but another thing to know what will happen. Predictive analytics is the real power that needs to be unleashed.

Data-backed Learning and Development

Collecting and analysing data on specific departments within the organisation now allows the Learning and Development department to become a consultant.

While collecting the key metrics that capture how learners have changed as a result of a learning intervention, some of the key aspects that need to be thought through are: -

a) **Skill attainment:** The typical

"Datafication in HR is a journey that we are on. Data are building blocks and its importance is well known and has been established for a long time now. It is important to have systems and processes in place to ensure that you are collecting, analysing and gaining insights from the vast wealth of data that HR has always had access to. The challenge has really been to move away from merely ad hoc reporting of data basis requests or standard requirements within the organisation to really mining the data and seeing what it has to tell us. Quite often, data when properly analysed, can help us question every aspect of an organisation, and see whether what we are doing is in the right direction or do we need a course correction. As of now, the destination point for this datafication journey in HR is still not reached, some are of course progressing in leaps and bounds, some are just beginning this journey and others are steadily working on it. It is however a journey none of us in HR can ignore, otherwise we will be left far behind."

ARPITA KUILA

Head - Human Resources
NEC Technologies India Private Limited



training evaluation approach that relies on measuring knowledge levels, both pre-learning and post-learning.

b) **Skill application:** To what extent the learner is practically applying the newfound knowledge/skill in his or her role.

c) **Behavioural changes:** This primarily applies to culture and soft skills training. It is important to know how well the learner has imbued the organisational values or soft skills, which are required to succeed at the job.

d) **Goal attainment:** L&D outcome evaluation must be closely tied to goal attainment i.e. the role-based performance goals laid out for the learner. L&D effectiveness must,

therefore, be intricately tied in with the performance management process. HR professionals must evaluate the return on investment of L&D initiatives in quantitative business terms. Eg: Sales growth: Training (especially sales-specific training) should result in sales revenue growth, Cost reductions: Training should directly or indirectly lead to increase in efficiency, thereby enabling cost savings. For example, employees may come up with cost-reduction projects when trained for opportunity seeking.

Data-backed Employee Engagement

Determining what inspires employees, what deters them, and what they do not care about allows employers to motivate their teams to greater performance levels. With the huge cache of HR data at their disposal, businesses can go beyond their gut feelings, and make better decisions for their employees. They can gather the most relevant metrics on their workers; to understand, analyse and act. This ensures that their employee-engagement strategy is effective. Key metrics that can be collected through real time powered tools such as office vibe and happy office are how do employees see their personal growth, relationship with their managers, the amount and kind of feedback they get, their relationship with peers, wellness initiatives available for them and much more.

"HR, as a science and practice, is always evolving. In each transition, we see the prevailing set of employee behaviour and norms undergoing a definite, and often sweeping, change in every 15 to 20 years. There was a time when HR was seen as a welfare function. Its emphasis then segued into Personnel, followed by Development; and in its present avatar, HR is all about Empowerment. As HR evolves, so does data. Datafication can therefore never afford to be a destination. It's a journey that is constantly changing on two accounts: Big Data & Thick Data. While Big Data relies on facts and figures for its analyses and prediction, Thick Data

bases itself on a rich repertoire of human insights, stories, and experiences. In the practice of HR, which deals with complex human emotions and interactions on an everyday basis, striking the right balance between Big and Thick Data will be the ultimate test of datafication. It's an interesting and intriguing journey full of lessons along the way."



AMITABH AKHAURI

Chief Human Resources Officer
Jindal Stainless Limited

Data-backed Compensation and Benefits

Pay equity is a top concern across all industries. Using people analytics to get answers to important questions - what is the variation for pay within different ethnic groups, how do budgeted salary increases compare for male and female employees, or what is the variation in pay within salary band based on age and tenure - can reveal the fairness in the compensation practices. If HR finds any indication of discrimination, that data can be further analysed to uncover evidence that can be used in discussions with managers and executives to resolve the issue, before it becomes a cultural concern. Some of the key metrics and patterns that are related to quantity of work, quality of work and work efficiency that analysts need to look for before appraisal decisions are made are: number of errors, net promoter score of the business, 360 degree feedback, forced ranking results of past years, absenteeism rate, overtime per employee, profit per FTE (Full time employment) and more. The how, when, and where of changing pay and benefits is a strategic decision that requires careful consideration of total rewards strategy and prior analysis to ensure any money-invested impacts the organisation in the intended manner.

Data backed Reward and Recognition

The costs of health care and other benefits are rising faster than ever. At

"In this era of perennial technological innovations - adopting & integrating it intrinsically is not that difficult a task yet, far too many people decisions are still based on "gut feel." Our State of Talent Acquisition'18 research shows that companies that put a talent analytics & TnD process in place quadruple their ability and culture of "data-driven decision-making." But, then again, without 'data-driven people decisions' a host of organisations are just getting good at the guessing game. Here are some of the enumerated points where 'datafication' can change the course of your people decision taking power, blended approach to Learning & Development. Because, every business challenge is unique, and different business objectives require different solutions in the process of learning & development in any organisation, especially when your workforce consists of different age groups and organisational levels."

KETAN KAPOOR
CEO and co-founder, Mettl



the same time, there is a fierce battle to recruit and retain the top-performing employees, and the perceived value of a compensation and benefits package is very significant to most. Organisations struggle to find a way to reconcile these two trends; keeping employees happy, and holding the line on cost increases. Over the years, we have seen an explosion in the variety of benefits packages that employers offer. Features that motivate one set of employees may be completely irrelevant to a different set. Interests vary by life stage, but also by location, job category, and other groupings that are less obvious. Therefore, the one-size-fits-all plans offered by many companies are becoming obsolete. Through analytical techniques we can now see exactly

which features offer the optimal combination of value to employees and cost-savings for employers. Organisations need to identify the unique combination of rewards (health benefits, compensation, leave, etc.) that will allow them to engage and retain employees and save costs.

Adaptable smart systems that can analyse employee's responses with customized questions are the key to a win-win solution. Analyst teams need to interpret results, showing the HR manager how to translate employees' responses into potential saving opportunities and a rewards programme design that provides value to the organisation and the employee.

Four Value Paths to successful adoption of HR analytics

Analytics can be applied using an agile approach, keeping these four value paths in mind.

1. Start with the business: Solve a problem benefitting the whole business not limiting to HR. Probably the first question that arises in the minds of the analysts and data scientists is- what is the most important organisational problem/opportunity that we are currently are capable of attacking? Sometimes, analysts go after issues that are of interest to them, but later find that no one else cares. We all have favourite topics that stimulate us intellectually more than others. But, it is possible that those topics are not as interesting or as important in the eyes of management, and something else is nagging them. Is the biggest concern of the organisation around costs,

"Datafication is how world would be seen in future. Every detail of asset in terms of Data & Information. We have already seen how it have bought difference through Social media using information to relevance. HR and Datafication is one combination that can't be ignored and used as a key to unlock newer horizons. With datafication of HR processes, it becomes possible to replace personality tests, use social media data, bookmarks, used apps or data usage to identify potential employees and their specific characteristics. Datafication enables the picking of the smart worker over a hard worker, personality over dedication, extrovert over introvert and most important risk taker over safe choice. It also enables candidate selection with specific personality traits. Where Facebook can provide information about personality, LinkedIn can help with professional insights, Twitter can share list of common interests. Selection was never this fun ever and HR never has such highly capable tools in pre-datafication era."



AKANKSHA TRIPATHI
HR Head, Xapads Media

customers, revenue growth, market share, process efficiency, or acquiring and retaining certain types of talent? The answer to this thought is the key to the success of the analytics initiative. Even if the team does not have the power to solve the problem, it may be able to prove to the management the root cause of their discomfort through analysis. Then, through prescriptive analysis, the path to the solution may be designed.

2. Think big - start small: Although it is important to have a roadmap in mind for the evolution of the HR analytics landscape; contain the scope of the initial projects so that issues can be easily addressed and quick wins achieved to build momentum.

3. Start now: It is best not to wait until all data and systems are perfect, a start is the best way to highlight the critical issues so that they can be fixed. Besides, all competitors across sectors are doing it now.

4 Grow incrementally with an Analytics unit: Top management may decide that the organisation could benefit from the intelligence that an analytics function could generate.

A Success model for Talent Analytics

Talent analytics research by Bersin By Deloitte indicated that building talent analytics capability is an evolutionary process. Organisations typically start out with operational reporting, with analytics teams responding to requests for data and reports from managers, and business leaders wanting to

"The HR departments capture a large amount of employee data and while the industry is still evolving to use this data better and in a smarter way, datafication is already playing its part in shaping the hiring process and culture at workplace. Organisations are moving beyond the traditional HR practices and are now shifting their focus to adopt innovative HR tools to use available data in the recruitment process, strategic analysis, talent retention etc. The Industry is now adopting advanced technologies including machine learning, NLP and APIs to quickly analyse and use this data to make key hiring decisions and retain talent with exit employee analytics. The datafication of HR industry will further affect nearly every function of the organisation and as the process matures, its use can even be seen in areas like resource planning and management. HR leaders are now understanding the scope of analysis and how the effective mapping of this data can contribute in leading their organisations to a sustainable competitive edge."

AJAY TREHAN

Founder and CEO, AuthBridge



identify problem areas or understand trends. As the analytics maturity level improves organisations move through to the next stages - progressing from operational reporting right through to predictive analysis.

The talent analytics maturity model defined by Deloitte has four clear stages:

- **Level 1: Operational reporting**
Reactive, operational reporting of efficiency and compliance measures, focusing on data accuracy, consistency, and timelines.
- **Level 2: Advanced reporting**
Proactive, operational reporting for benchmarking and decision-making, multi-dimensional analysis and dashboards.
- **Level 3: Advanced analytics**

Statistical modelling and root-cause analysis to solve business problems, proactively identifying issues and recommending actionable solutions

- **Level 4: Predictive analytics**
Development of predictive models, scenario planning, risk analysis and mitigation, integration with strategic planning.

Talent Analytics Teams

While traditional HR generalist roles are being moved to highly efficient HR operations centres that are enabled by powerful mobile HR apps. In this new model, HR professionals must be more business-oriented specialists, possessing critical new skills in the following areas:

- **Organisational networks:**
Analysing, building, and developing network capabilities and expertise
- **Team-building and team leaders:**
Cultivating team leaders who can coach and develop people, not just give direction
- **Employee engagement and culture:**
Measuring and improving the workplace culture, and understanding culture models
- **Design thinking:**
Becoming "experience architects."
- **Analytics and statistics:**
Becoming evidence-based leaders who embrace behavioural economics and testing
- **Digital:**
Moving beyond mobile and cloud applications by building true digital HR platforms and apps
- **Employment experience and brand:**
Crafting and communicating

"We are living in an era of disruptive technologies being ruled by the millennials. The million dollar question that all organisations have is how we can leverage them to create a growth model that's sustainable. This is where HR and Artificial Intelligence (AI) can join hands to create unparalleled forces. Datafication of HR is maturing every year and with the advent of AI, HR teams across organisations are making it their utmost priority. Recruitment, learning, career progressions, performance metrics, sentiment analysis, attrition are just a few areas of HR that have been datafied and mature analytics are emerging, leading to enhanced people decisions.

AI is being used to augment selection decisions, predict job success, create personalized learning plans and recommend career paths to employees among many others. These applications are beyond the automation of transactional HR or even the HR chatbots that are essential for progressive organisations and result in higher employee engagement and retention."



GURPREET BHATIA
SVP, HR, TalentSprint

the company's value proposition

- **Making a major shift:** As HR makes this major shift from compliance and service provider to steward and champion of the total employee experience, some companies are beginning to think about HR in new ways.

Data Science Team Structures

Embarking on data science and predictive analytics requires a clear understanding of how the initiative is going to be introduced, maintained, and further scaled in terms of team structure. It is important to consider three basic team structures that match different stages of machine learning adoption.

IT-centric structure: This leverages new investments with existing IT resources, leading to the following advantages:

- Computing infrastructure is provided and maintained by an external service.
- In-house specialists can be trained to further realize predictive analytics potential.
- Cross-silo management is reduced as all operations are held within the IT department.
- Less time-to-market for relatively simple machine learning tasks requiring one or a few models.

Integrated structure: With the integrated structure, a data science team focuses on dataset preparation and model training, while IT specialists take charge of the interfaces and infrastructure supporting deployed models. Combining machine learning expertise with IT resource is the most viable option for constant and scalable machine learning operations. The advantages of adopting an integrated approach are: -

"Datafication in HR processes or talent analytics is fast emerging. Talent analytics helps redefine recruitment models and processes by gaining insights into channels, talent pools, and profiles, and helps identify the key drivers of employee engagement, and in sentiment analytics, and in decoding group dynamics and social influencing. The major advantages of talent analytics are increased business predictability, better risk assessment, and accurate fraud prevention. HR analytics can never work in silos. In today's digital age, capturing just employment-related data will not be enough. Gathering personal, social, and geographical information helps in insightful analytics. Organisations should also ensure compliance and regulatory practices, and maintain confidentiality. For a quantitative model to evolve in such a subjective field as HR, data quality, accuracy and integrity are vital. To succeed, organisations should think ahead, and build robust and streamlined data handling processes. Business leaders, HR teams, and data scientists should collaborate and build talent analytics frameworks that will help organisations attract, retain and win over the most important ingredient for success: talented people."

DHANABALAN RK

Vice President, HR Maveric Systems.



- Leveraging existing IT resources and investments.
- Data scientists focus on innovation.
- Utilizing full potential of both as-a-service and custom ML applications.
- Start with one or two data scientists, then train and onboard more homegrown experts.
- Using custom model combinations (ensemble models) that yield better or broader predictions.

Specialized structure: Aids in addressing complex data science tasks that include research, use of multiple models to various aspects of decision-making. In the case of large organisations, specialized data science teams can supplement different business units and operate within their specific fields of analytical interest. Advantages of a specialized data science department are:

- Centralized data science

management and increased problem-solving capacities

- Solving complex prediction problems that require deep research and that operate automatically across different segments and business units.
- Setting a fully featured data science playground to foster innovation with greater scalability potential.

Data Science team roles

- **Chief Analytics Officer/Chief Data Officer (CAO):** CAO is a "business translator," and bridges the gap between data science and domain expertise acting both as a visionary and a technical lead.

- **Data analyst:** This role implies proper data collection and interpretation activities. An analyst ensures that collected data is relevant and exhaustive while also interpreting the analytics results. Some companies, like IBM or HP, also require data analysts to have visualization skills to convert alienating numbers into tangible insights through graphics. Preferred skills- R, Python, JavaScript, C/C++, SQL.

- **Business analyst:** A business analyst realizes a CAO's functions, but on the operational level. This implies converting business expectations into data analysis. If the core data scientist lacks domain expertise, a business analyst bridges this gap. Preferred skills: data visualization, business

"Earlier, datafication was limited to processes like recruitment, payroll, etc. that too at a really basic level. Now, however the companies have started investing in technology to manage various facets in the employee's tenure such as monitor & manage performances, understanding the organisation's turnover numbers, and, manpower planning inclusive of budgeting. It also makes recruitment processes more efficient by using various tools like using a cloud-based recruitment database which helps in maintaining a talent pool, using various psychometric & evaluation tools that play a huge part in finding the right fit for the organisation."



PAYAL SONDHI

Manager - Human Resources, SILA

intelligence, SQL.

- **Data architect:** This role is critical for working with large amounts of data (Big Data). This role is critical to warehouse the data, define database architecture, centralize data, and ensure integrity across different sources. For large distributed systems and big datasets, the architect is also in charge of performance. Preferred skills: SQL, XML, Hive, Pig, Hadoop, Spark.

Datafication challenges for HR

The challenge for HR is more complex than it appears. First, HR has often not built an adequate business case, so it lacks support from IT. Second, there are few and perhaps no broadly accepted standards for HR-related data, so information in different systems must be rationalized and defined in a consistent way, which can be time-intensive and controversial. Third, HR data are often seasonal and regional, so what one business unit calls "turnover" is not the same as another, and the analytics team has to standardize all these measures. One of the critical steps in putting HR on a more analytical path is to bring together the disparate data sources needed to build a data dictionary.

Unfortunately, building a clean and integrated set of HR data is not easy. In a report by Bersin By Deloitte, it

"Usually Companies spend a major chunk of their revenues on payroll, but they don't invest enough on analysing data. Most companies are still "reporting" data and not "analysing" Data. Reporting can only tell us "What happened" but "Why it happened" and "what can happen " needs to know. There are various tools to aid but ultimately HR needs to invest in training their resources to analyse this data. Human resources capture a huge amount of data - engagement, compensation, performance ratings, education qualifications, family status, etc. But mostly, it is lying stagnant and rarely used for aligning with business goal."

PARTHA NEOG

Founder & CEO, Vantage Circle



has been estimated that 75 percent or more of the effort in talent analytics is invested in reaching levels 1 and 2. This is where companies have to find all their HR data sources, rationalize the definitions of various data elements, find ways to clean the data, and aggregate it into some usable system. This work takes several years of cleanup, a partnership with IT, and the skills to implement a scalable reporting infrastructure. Usually companies get into a bind here because the CHRO has not been willing to make the required investment to build a true analytics function, and thus has not taken the time to build the business case for an integrated analytics team.

Key challenges in HR Analytics

HR analytics is not limited to collecting data related to employees' performance, but it aims at implementation of a number of new ways to utilize and gather data. However, there are a few challenges that may prevent them from utilizing the real power of HR analytics. While capturing data as mentioned above is an issue faced by most organisations, many of them are unclear about what type of data needs to be captured to make most accurate decisions. Some of the challenges include:

- **Data and data variety:** Different services of HR use different tools sourced from different vendors that work in isolation. If analytics need to be implemented, the major challenge is to pool these silo systems or connect them to communicate to each other, which is the biggest challenge for even the most determined ones.

- **Training and Mindset:** Marketing, Operations, and Data Management are departments supported by HR, it is a mindset that HR is a supporting department. Owing to such a line of thinking and lack of analytical training opportunities towards analytics, process of HR analytics absorption in organisations has been delayed.

- **Biases and fears:** The rising expectations of data driven approaches, is leading to a conflicting approach and fear that data-driven decisions might reduce the human essence in problem solving, and might reduce personal preferences.

"I see data as the clear mirror of intent versus action, which none can choose to run from any more. At RPG, we embarked upon HR datafication a few years ago, a journey that I must say has been thoroughly enjoying. The aim has been fairly simple; to generate insights that help us enhance employee experience, business decisions, collaboration, productivity and deployment. While the core HR processes like Recruitment, Performance Management, Learning and Development, 360-Degree Feedback and Succession Planning are completely digitized; the intelligence that we extract from these help us plot career paths and deployment with far more ease than ever before. We have successfully reduced redeployment time, de-risked critical positions, enhanced bench strength, developed more relevant people practices and improved overall operations efficiency. It's no longer difficult for us to plan careers and execute on them with a fair degree of certainty. Real-time visual

dashboards tell us where we are in the context of our overarching business goals like gender diversity, process compliance, and more. As basic as it may sound, we happen to be one of those few organisations in India who chose to digitize our employee files. We are going paperless by getting joining forms auto-filled and digitally signed through the employee's Aadhaar based OTP."



SUPRATIK BHATTACHARYYA

Chief Talent Officer, RPG Enterprises

Short term bumps towards long term datafication success
The gap between HR and the rest of

"Datafication is not a new buzzword that has hit the business world in the recent times. It means turning an existing business into a "data business." We have seen a huge wave of datafication in our own lives through Facebook, Google and LinkedIn. Organisations too have started using and shifting towards datafication as a 'tool' in their internal systems. A lot of investment is happening from the Organisations end in the HR software's systems today so that a judicious use of data can take place without losing it. Better assessment of solutions, retention & recruitment, learning & development are some of the key HR areas that are quantified with datafication.



The more datafication grows, the more HR decisions will be data-driven. With the basic understanding of the importance of data, it is possible for an Organisation to win more and attract more success to the business."

DR. MURALI PADMANABHAN

Senior Vice President and India Head
Talent Management, Virtusa Corp


the business: The first step towards building analytics into the corporate culture and reducing cultural resistance is to find the stakeholders in HR and the business who really care about this problem and create common objectives and goals. Focusing on well defined, small, and easy analytics "showcases" the first step to create awareness and appetite for analytics support with senior business stakeholders. The best teams ensure they collaborate with stakeholders

throughout the process of identifying which topics or projects the HR analytics team will work on, all the way through to interpreting the results.

Embrace storytelling to communicate the data: Finance will come to the board table with hard facts and costs, which will completely wash away all HR efforts. Sit at the table and tell a story based on the available people analytics.

Develop analytics capability: This might be a "business challenger" who

is able to influence and work with stakeholders inside and outside of HR; an HR domain expert with the skills to analyse HR-related business needs, a programmer able to design databases and integrate different sources, and a data scientist with classic analytics abilities plus advanced big data analytics skills.

Research has shown that building strong analytics capability is a journey. Organisations embarking on this journey should recognize that it takes years to progress from operational reporting to advanced predictive analysis, but the investment is well worth it. There is a need to push through the initial grunt work and focus on laying the key foundations. Whilst these initial activities may lack the allure of more advanced, predictive analytics, they are critical in creating a culture of data-driven decision-making and therefore paving the way for analytics maturity advancement. 

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