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The information and data given in the report is authentic to the best of my knowledge.

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Place:

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Deepali Singh

ABSTRACT

In order to sustain in this evolving global market with changing needs and practices , it is imperative to adapt to modern day approaches and methodologies which address the issues effectively. The retention of talented workforce with diverse culture and varied geographies via HR practices has become one of key objectives of the Human Resource Department today. HR analytics can be leveraged to improve productivity and efficiency of the workforce. In order to become a strategic partner in the true sense it has become crucial to understand the very importance of HR analytics and leveraging to empower the HR to have a say in the board to make key business decisions.

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1. INTRODUCTION

1.1.Introduction of the project

In a large number of firms, HR activities and approaches still pertain to the past and present concerning the workforce rather than providing insights into the future turn of events with reference to their business importance. The focus of HR today has changed from being efficient to be effective .HR is transforming itself from old age ways of being intuitive to make key decisions to modern approach backed by evidence. This implies the very need to shift from descriptive methods to predictive methods which empower HR to be proactive rather than reactive. With plethora of business transactions taking place today and large chunks of data hence generated, it has become critical to manage the data and use it appropriately to make informed decisions. The application of analytics has enormous potential to impact the company's bottom line which indeed is the ultimate objective. Workforce analytics essentially connects the essential components –people , process and information technology .

1.2. Objectives of the study

The objective of this study is to provide an integrated review the growing importance and need of HR analytics in today's evolving business market. A few HR analytics models are been studied to understand the present day relevance. The study throws a light on the changing role and practices of HR striving to become a strategic business partner , why HR analytics can be leveraged to address the persistent issues of HR which deprive it from making an impact on the bottom line .Additionally it also highlights the kind of challenges faced today in implementation of HR analytics and how to address the same.

2. LITERATURE REVIEW

The keen interest in the field of HR analytics has led to development of many models that offer feasible options for organizations seeking to venture into HR analytics.

2.1.HC BRidge Framework

The HC Bridge framework was developed by Boudreau and Ramstad (2004, 2007) which uses the analogy of bridge to describe the links between investments in HR programmes and sustainable advantage. The framework addresses the challenge of linking HR initiatives to business while emphasizing on management of human capital by the organization .

The framework is built upon the three generic elements of existing business frameworks successful decision framework –efficiency, impact and effectiveness which in turn are further broken down into a set of linked elements in order to better understand the framework.

Research conducted by Magau and Roodt (2010) to find out whether the HC BRidge framework can create a useful platform for leveraging human capital solutions and for demonstrating HR value addition, found that there exists found that there were statistically large differences in the perspectives of the line management and HR professionals in the context of HR's strategic business objectives. Their results indicate that the HR management lacked alignment to strategic business objectives depriving it from becoming a strategic business partner and thus HC Bridge model can prove to be useful in bridging the gap to connect the HR processes with the business strategy.

Human Capital BRidge Framework

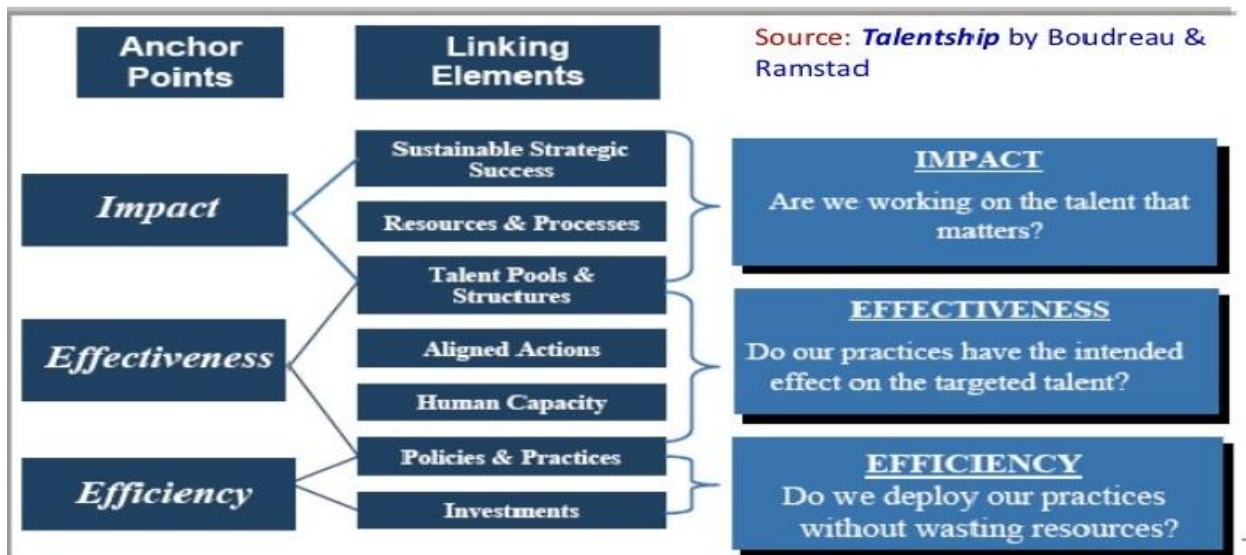


Figure 1.1 HC BRidge Model

2.2. The LAMP Model

The LAMP model is a framework developed by Boudreau and Ramstad (2007) and Cascio that incorporates the HC Bridge decision science with the motive to address the challenges of HR measurement. The acronym 'LAMP' in this model refers to four components of a measurement system which drive strategic change and organizational effectiveness:

I. Logic:

This component refers to the three generic elements of successful existing decision which are part of the HC Bridge framework.

II. Analytics:

It links the decision framework to the scientific findings pertaining to talent and organization. It is useful to draw inferences from data providing relevant insights while

transforming HR logic and measures.

III. Measures:

It is critical to have the right figures while measuring data related to different area of HR. The measurements of factors like engagement , employee turnover etc should stress on what really matters.

IV. Process:

It emphasis on effective knowledge management in sync with the change management process in order to make the insights derived from HR measurements motivating and actionable.

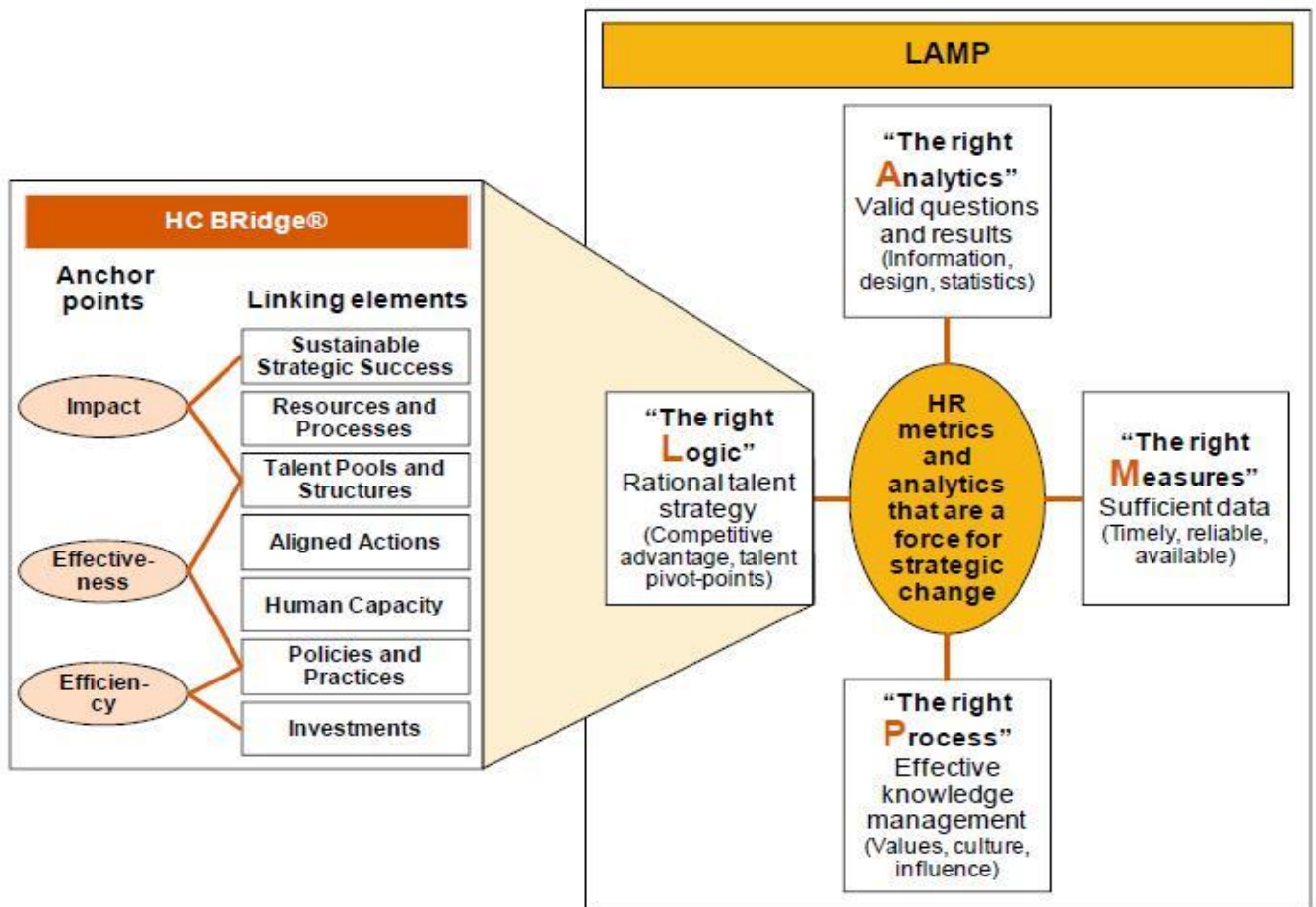


Figure 1.2 LAMP Model

2.3. Talent Analytics Maturity Model

The Bersin and Associates talent analytics maturity model defines the four stages that an organisation undergoes during its evolution from a non strategic function to a fully integrated value-add business process. The model is depicted below:



Figure 1.3 Talent Analytics Maturity Model

The model aids to determine the status of an organization in the talent analytics pathway as to where they currently stand. The level 1 starts off with the reactive and operational HR data reporting. The level 2 refers to stage wherein organizations tend to become proactive with use of benchmarking and incorporating interactive dashboards. The Level 3 is

classified as 'Strategic Analytics' involving increased usage of statistical analysis ,segmentation and development of models. According to Bersin(2012) ,the final level of maturity is the predictive analytics involving use of predictive models and integration with strategic planning. Additionally, it was found by that the organizations lying in Level 4 have 38% higher retention rates generating three times revenue per employee as compared to organizations falling in the Level 1 region.

2.4.HRIS (Descriptive Analytics) versus Predictive HR Analytics

HRIS:

It pertains to descriptive analytics to look at what has already occurred or identify what possibly went wrong which in turn is kind of reactive approach to business problems. It involves the trends in business at the large scale levels and applies data mining to identify the areas which are performing quite well or below the expected levels.

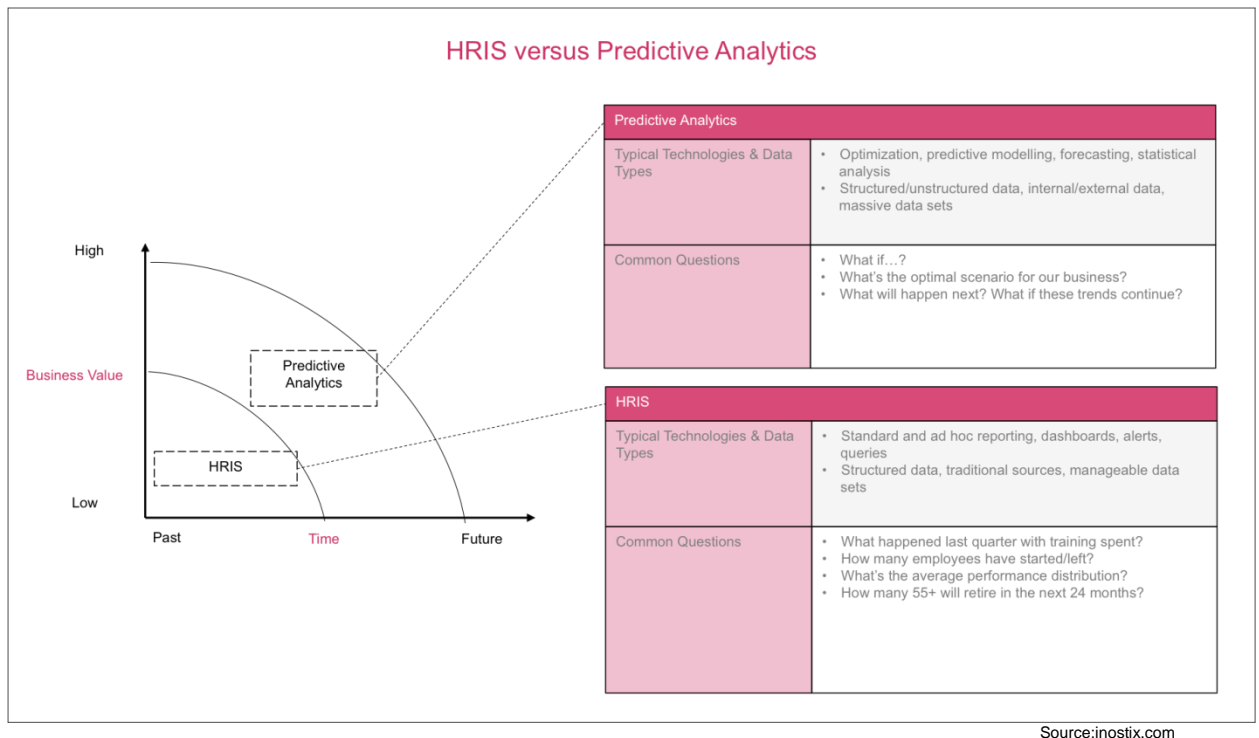
Predictive HR analytics :

The model is based on a proactive approach in the sense that it aims to find out the non apparent patterns in data using mathematical models in order to forecast the future results of actions taken today which impact the bottom line. Predictive HR analytics deals with analyzing the individual's behavioral patterns to foresee likelihood of occurrence certain events in near future.

HRIS (descriptive)	Predictive HR Analytics
<ul style="list-style-type: none"> • Who are our high performing call center agents? • How many training hours did we invest in our call center agents? • What selection scores do our best call center agents have? 	<ul style="list-style-type: none"> • Which call center agents are most likely to become high performers? • Which training programs are most likely to improve 'time to performance' or average handling time of call center agents? • Which hiring criteria are most likely to lead to strong retention?
<ul style="list-style-type: none"> • How many sales representatives did leave us last year? • What's the total cost of the sales coaching program from last year? 	<ul style="list-style-type: none"> • Which sales reps are most likely to leave? • Which coaching programs are most likely to reduce sales rep attrition?
<ul style="list-style-type: none"> • What's the total machine downtime due to work accidents in our manufacturing plant? • Which machine operators got certified in all security training programs? • What are the engagement scores of the machine operators? 	<ul style="list-style-type: none"> • Which security training programs are most likely to reduce work accidents? • Which impact does employee engagement have on total accident cost?

Figure 1.4 Difference between HRIS and Predictive Analytics

In order to migrate from HRIS to predictive analytics it is important to understand the essential differences between the two which can be done by analyzing the potential answers they can generate .HRIS can be leveraged to answer queries related to costs of employees , measuring the performance of employees against different dimensions. For example, using HRIS one can answer queries related to the aspects of costs of your employees, the performance of your employees across a number of different dimensions or demographics. In contrast, predictive HR analytics lets organizations to go further than the capabilities of HRIS by providing predictive insights to problems and suggestions to resolve issues which fall beyond the reach of HRIS.



Source: inostix.com

Figure 1.5 HRIS vs. Predictive Analytics

3. METHODOLOGY

The methodology for this study was a comprehensive review, analysis, and synthesis of HR analytics and related literature. In order to complete a comprehensive and integrative review of the literature surrounding HR analytics information from various sources -journals ,articles, blogs, research papers was referred . An extensive online search for the keywords HR Analytics, Human Capital, Analytics as Competitive Advantage, Workforce Analytics , People Analytics ,HR as strategic business partner was done .

4. THE CHANGING FACE OF HR :STRATEGIC BUSINESS PARTNER

The need of the hour is to integrate HR into overall business strategy .For the HR approaches to be effective , the involvement of HR from inception of an organization –formulating the vision ,mission and goals is of great importance .

The GATR (Global Assessment Trends Report ,2013)also identifies the top priorities for HR globally as: engagement and retention (55%), leadership development (52%), performance management (49%), workforce planning and talent analytics (43%), training (42%), succession planning (38%), and external hiring (38%). The report is based on a survey of 592 HR professionals from around the world.

With increasing globalization, the role of HR is not only confined to merely performing functions but mapping its processes with the strategic business objectives .The management of firms need to realize the impact that strategic alignment of HR into their business' goals can have and for HR to become a strategic business partner ,it is worth considering how the traditional HR functions are affecting the business.

HR managers think that HR will first have to become data-driven before they'll be taken really seriously by boards and senior management. 58% see HR analytics as a precondition for being a good HR business partner. However, in their daily practice, they don't seem to be able to keep up with that goal and board members are often critical of the analytic skills of their HR staff.

According to 2014-2015 Raet HR Benchmark carried out by the leading Dutch market research company TNS Nipo among employees, HR managers and board members -Board members and line managers seek substantiated views and perspectives. A fact based approach can empower HR to make a difference. This implies being a business partner in true sense would require HR to be data driven and HR analytics as a pre-requisite condition for it to be taken seriously by board

The benchmark study has also revealed that most organizations still have a long way to go as regards HR analytics. The majority of all HR managers (52%) say that they measure and analyze HR data in their own organization, but most organizations are not analyzing their HR data in relation to other data yet. This step has only been taken by 28% of all organizations. They analyze HR data by relating it to other organizational data, such as customer satisfaction, quality information and financial data. Only 9% of all organizations work with 'predictive' HR analytics, i.e. predicting organizational results based on HR and other kinds of data.

HR can prove its worth by translating the huge chunks of workforce data into meaningful information which the senior management could utilize to make key decisions impacting the business

If HR is to harbor any hope of proving its business value to the organization, senior HR managers need to approach analytics in a much more strategic way.

5. WHY ANALYTICS IS THE KEY TO HR ISSUES

The market for Big Data and analytics is expected to generate as per Gartner over \$3.7 Trillion in products and services and generate 4.4 million new jobs by 2015. While the emphasis is mostly on applying Big Data to marketing and consumer businesses, there exists immense opportunity to apply Big Data to Human Resources which is now popularly known as Talent Analytics or People Analytics.

Every day organizations struggle to answer essential questions about their workforce. Can we forecast whether a candidate will perform well in our organization? Why one employee outperforms the other in the same team? How do we keep track of employee performance? How to link employee performance with organization's bottom lines? How to allocate the right resource at the right place? Which training programs should be introduced to better equip the workforce? Are your performance ratings of your employees linked with metrics?

Majority of decisions pertaining to hiring, management, promotion, and rewards are made on gut feel, personal experience, and belief systems within an organization. Just because that has always been the way of doing things doesn't mean such approaches are to be adopted forever as they have now become rather obsolete with the changing needs of the business.

Analytics can extract real-time, actionable and most importantly- insightful pieces of information that will help your organization leverage its talent in just the right way.

A performance appraisal spreadsheet software can only help you in making a quarterly report card but how does it help you or your employees if you cannot grab the pulse of missing resources or skills at the right hour and troubleshoot the situation with a well-timed training programme. A recruitment tool doesn't add

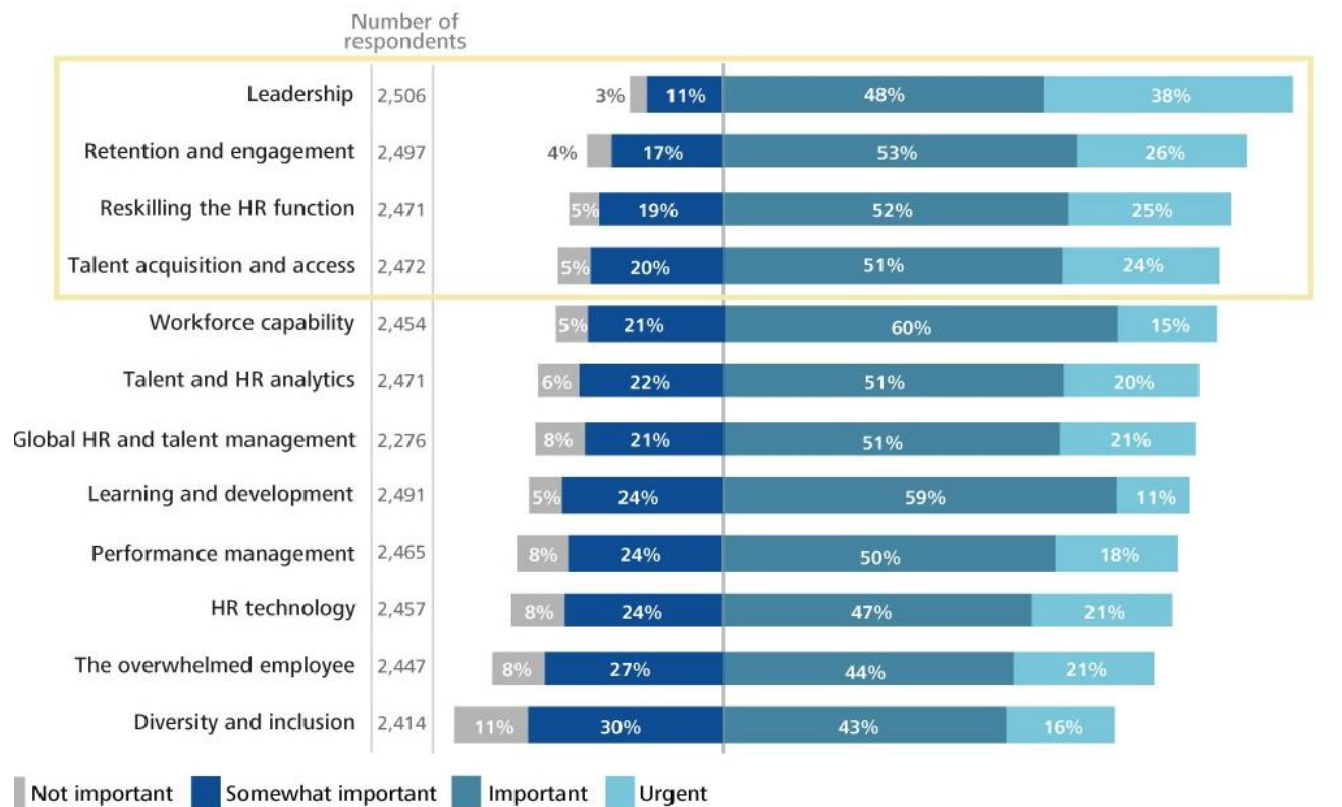
much value either unless it can help answer key questions of who is needed where and why and how soon.

Analytics is seeping into every industry and every area. The workforce is changing comprising of many generations working simultaneously . It is not surprising today that Generation Y and the Millennials have completely different needs and expectations than the Baby Boomers. So, the historic approaches that companies opted to acquire, retain, and invest in their staff may no longer be effective. Those companies not leveraging analytics are going to miss the mark down the line if they stick to operating in their old ways.

Appropriate application of HR analytics can illustrate connections, correlations and even causality between HR metrics and other business measures which can be used to formulate HR strategy and take actions.

In other words, by creating a clear 'line of sight' between HR activity and your organization's bottom-line profitability, HR analytics can provide a tangible link between your people strategy and your organization's performance.

As per 2014 global human capital trends survey that aimed at understanding the priorities and preparedness of executives and HR professionals around the world, the top global trends in perceived urgency are- Leadership, retention, HR skills, talent acquisition, talent & HR analytics.



Graphic: Deloitte University Press | DUPress.com

Figure 1.6 : Perceived urgency of 12 global trends

The results indicate a significantly large number of companies were “not ready” to address talent and HR analytics, HR technology, the overwhelmed employee, and performance management—the lowest levels of readiness among all the trends (figure 1.6).

These low reported levels of readiness and preparedness raise an alarm, considering the high levels of urgency and importance attributed to the trends in the global survey.

Highly urgent (≥25% of respondents rate as “urgent”)	Urgent (20–24% of respondents rate as “urgent”)	Important (10–19% of respondents rate as “urgent”)
<ul style="list-style-type: none"> • Leadership • Retention and engagement • Reskilling HR 	<ul style="list-style-type: none"> • Talent acquisition and access • Global HR and talent management • HR technology • Overwhelmed employee • Talent and HR analytics 	<ul style="list-style-type: none"> • Performance management • Workforce capability • Diversity and inclusion • Learning and development

Figure 1.7 : Global Trends Categorized by urgency

HR Analytics includes statistics and research design, but it goes beyond them, to include identifying and articulating meaningful questions, gathering and using appropriate data from within and outside the HR function, setting the appropriate standards for rigor and relevance, and enhancing the analytical competencies of HR throughout the organization (Boudreau and Ramstad, 2004).

HR analytics can boost the bottom line in a number of ways :

Raise visibility:

In order to align workforce data to the changing needs of business ,the key lies in creation of a single view of all the relevant workforce data. Say for example, different business units might need to view different sets of data which corresponds to a product group or across locations in order to identify the cause of certain business problems or profit per employee or comparison of the compensation structure and linkage with performance.

A 2011 report by the Aberdeen Group highlights the linkage between the technology and new analytic practices. As per the report ,companies with human capital management reporting and analytics solutions in place achieved an 11 percent or more increase per year in profits and a 6 percent improvement in revenue per employee in the same time period.

Further it says, the top performing companies are using HR analytics to provide business leaders visibility into talent data. It was found that 38% of the top performing companies have a single source of the truth for HR data compared to 17% of companies in the lowest performing category.

Align HR data with business data:

According to the Aberdeen study, 59% of top performing company's aggregate employee data with business data compared to 28% of the lowest performing companies. Furthermore, 54% of top performing companies combine talent management data with business data compared to 30% of companies in the lowest performing category

In a recent report by Accenture found that high performing businesses – those that substantially outperform competitors over the long term and across economic, industry and leadership cycles – are five times more likely to use analytics strategically than low performers.

For example, say if a retailer finds an opportunity around an ad promotion for a “smart” kitchen appliance,(s)he would need to know important HR related data like whether or not there exist required number of sales people trained in this complex product and mapped to the right stores at the time needed. Apart from this the retailer would also need to know if there exist sufficient staff that are trained to handle customers' queries and address grievances. This data is just as critical as supply chain data related to inventory stock.

Predict the future:

Once a company bridges data silos to integrate HR data and business data to help achieve company mission and vision, HR analytics can be used to forecast future

workforce outcomes. For example, McKinsey points out that Google uses HR analytics to forecast the key behaviors that its best managers should possess.

McKinsey also found that HR analytics has helped PNC Financial Services acknowledge that its tendency to pick experienced outsiders over internal candidates adversely impacts the bank's bottom line. In a number of key job areas, internal candidates are more productive in the first year than experienced external hires. This allows the company to make appropriate hiring decisions based on prediction of the success of future internal hires.

The problems associated with workforce planning, with under and over supply may point toward according to experts from HR consulting firm Mercer, that "a workforce tsunami is approaching." In order to avoid supply issues from inundating businesses and to make them ready for a changing and radically different labour future labour market.

According to a 2012 Mercer HR Transformation Survey' report, some of the key benefits that Analytics can bring to HR are as mentioned below:

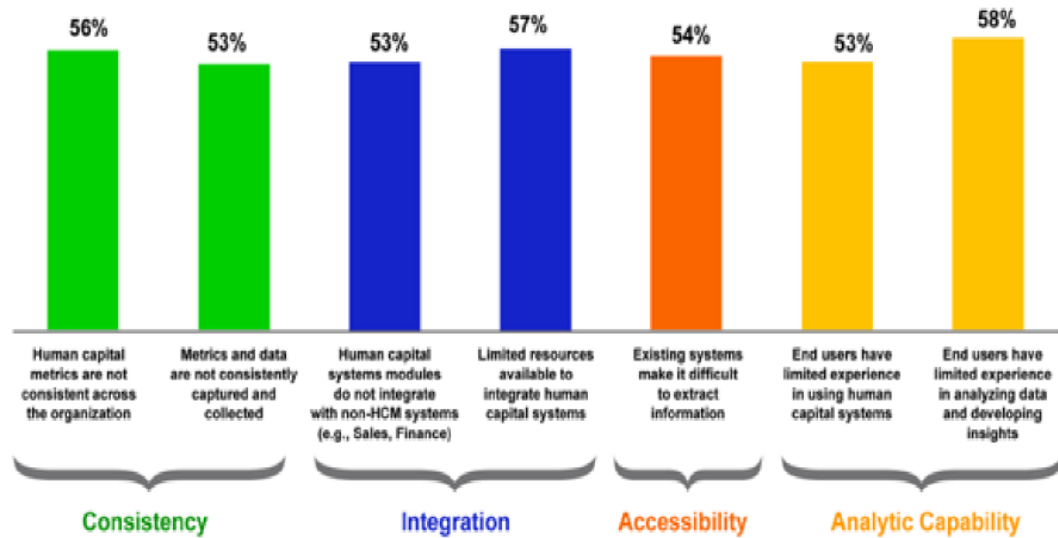
- Analytics helps to measure the performance of the workforce in real time thereby driving employee productivity and lower attrition.
- Predictive HR analytic and mobile technologies support the strategies for recruiting, retaining and developing the best talent.
- Talent Analytics can aid better management decision making and eventually build trust of workforce and bring transparency. Predictive analytics can help in succession planning, budgeting basis models.
- Data mining can help to understand root cause of HR challenges like low employee engagement and attrition
- Big data – helps in computation and interpretation of large number of valuable workforce and performance metrics ,analyzing recruiting metrics against

learning & development programs, correlating recruitment metrics against performance management metrics to analyze any issues in both sub-systems. Analyzing the workforce with HR analytics can provide useful insights, enabling HR to become a strategic business partner for your organization.

6. CHALLENGES FACED IN IMPLEMENTING HR ANALYTICS

With the huge chunks of data being generated today data management has become important and a lot of businesses are now implementing IT solutions to help them store and utilize their business information more effectively as cloud computing is becoming the standard and Big Data solutions are gaining precedence. The various business units are increasingly making use of these solutions to utilize the critical information for analytics. However, still many organizations do not lay much emphasis on the utilization of these solutions in order to facilitate decision making regarding human capital through analytics.

The APQC and IBM's Institute of Business Value in 2008 in sponsored by Cognos conducted a survey targeting executive and managerial-level HR professionals dealing with the human resource processes and information systems at more than 400 organizations covering a wide range of sizes and industries. It was found that workforce analytics continues to be stuck in both technical and skill-related issues associated with its implementation. To examine the barriers to implementing successful workforce analytics capability, four areas namely, systems integration, data consistency, information accessibility and analytic capabilities of end users were taken into consideration. The Figure 1.8 illustrates, 58 percent of respondents reported having limited experience in analyzing data and developing insights. Fifty-seven percent had limited resources to integrate different human capital systems, while 56 percent reported that human capital metrics were not consistent across their organization.



Source:APQC survey 2008, IBM

Figure 1.8 : APQC survey 2008,IBM

Data consistency and integration constitute an important part of an analytics deployment strategy because without these, organizations will struggle to get comprehensive insight into the performance of their workforce using an analytics solution. The need today is an integrated approach which combines technology and people with relevant skills to assess, deploy and implement a workforce analytics solution.

While big data might be the buzzword around ,companies are concerned about how it can benefit employee and add value to business .Big Data is making a difference in places and in ways that one might not expect, particularly in human resources. Organizations are analyzing their employee data with workforce analytics to answer a variety of critical questions revolving around workforce.

Black Hills Corp., a 130-year-old energy conglomerate-doubled its workforce to about 2,000 employees after an acquisition. The company was facing multiple challenges of an aging workforce, need for specialized skills, and long span of time for getting employees to full competence all of which combined created a

major talent risk. In order to address an impending turnover disaster, Black Hills used workforce analytics to calculate the number of employees that would retire per year, the kind of workforce with appropriate skills needed to replace them, and from where to source those candidates. This resulted in a workforce planning summit wherein 89 action plans were designed along with categorization and prioritization to address the potential talent shortage.

While delivering Big Data, organizations also need to consider how they can provide better data to their managers to enable higher levels of utilization and speedy synthesis of key insights. Therefore, your analytics must be:

I. Relevant:

HR analysts need adopt a top down approach that is to apply data to the business issue rather than a bottom-up data mining ending up using needless amount of resources .

II. Valid :

The quality of data in conjunction with the way leaders are educated about the reliability of talent metrics plays vital role in success of HR analytics.

III. Compelling:

One of the most common goals of analytics is to tell a better story with data. HR can't simply present raw numbers and then expect the recipient to understand the message intended to be conveyed. Analysts need to identify with their audience, going a step further to create similar story plots, and deliver conclusions correlate the principal facts.

IV. Transformative:

Eventually , actionable analytics needs to alter a leader's behavior. A leader should be able to alter his or her thought process in order to make better, faster decisions as a consequence of talent data.

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ANNEXURE

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