

A study on predictors of employee performance: HR Analytics perspective

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Abstract

Performance of employees plays an important role for organisational success. In existing *VUCA time's* performance and productivity of employed professionals stand as a challenging proposition for the organization. With manifold HR policies and practices for augmenting productivity and profitability; there arises the challenge to handle huge and complex data while managing human resources. Therefore, competitive business world seeks the role of HR professional to address the strategic need keeping the operational areas in its bay. In this context, *HR analytics* deal with the operational data of human capital in the form of storing the information pertaining to performance management, employee turnover etc. through dedicated software platforms. The paper has reviewed the literature on the factors that predicts employee performance in operational form which may correspondingly help for making strategic decisions of the organisation. The usage of HR analytics in improving individual performance to achieve return on investment has been studied in detail. A conceptual framework has been proposed along with the implications for practitioners.

Keywords: HR analytics, employee performance, VUCA environment

Introduction

There are rapid changes happening in business world due to technological initiatives. Organizations are struggling to get sustainable competitive advantage to keep the flag high in the business world. In order to get the competitive advantage organizations need to focus on the living resource *i.e. the human capital*. Top level management is keenly looking forth to invest on human capital assets so as to withstand the uncertainties in the business. Therefore, expectations of organizations are gearing up day by day on human resource departments around the world. At the same time, during the time of uncertainties HR functionaries are expected to pay more attention on employees to keep them engaged. Primarily today's HR practitioners are required to understand the leading factor which drives the employee's performance during uncertainties in the organization. Apart from employee performance there are other functions like training and development, compensation management and welfare of employees etc. which need to get an important concern among HR functionaries.

From several decades, organizations had focused to analyze data of all types' of functions like customer, product, financial except human capital data. Slowly "The business demands on HR are increasingly going to be on analysis just because people are so expensive". In general, the main focus of HR is on collecting and reporting data about activities instead of outcomes, while the analyses are mostly very simplistic (e.g., limited analyses of drivers of outcomes). As a result, there is a need for HR to develop itself from descriptive metrics to predictive analytics (Ulrich, 2010) [41]. Since the time has come to focus on intellectual capital to get organizational long term effectiveness, organizations are widely using *HR analytics*.

HR analytics monitor measure and provide usable data that fuels best strategies and practices within your staff (Brien, 2012) [23]. HR analytics not only provides usable data to organization, but also it provides insights on workforce

behavior. Consequently from the HR past data one can predicts present data workforce behavior similarly with the help of HR past and present data one may predicts future patterns of workforce. Also the most important job of HR analytics is to analyze structured and unstructured data to address the queries related to workforce productivity, trends in workforce behavior, to find out the impact of training programs on organizational performance, predictors of workforce attrition, to identify potential leaders for the sustainable growth of the organization etc.

Growing body of literature reveals that, organizations success depends on performance of the employees. It is also essential that, every employee has to be aware of how his or her respective contributions towards a common goal define the company's value, accomplishments and survival. Job performance over here refers to the desirable behavior which is expected by the organization to fulfill the goals (Campbell *et al.*, 1993) [10]. At the same time, lack of communication and clarity on causes of uncertainty may lead to negative shifts in employee opinion and associated job performance. Organizations that champion employee engagement, intelligently manage talent and communicate with employees honestly, accurately and at the right time will ride the current market turbulence and be successful in the future.

VUCA Environment: Expected Role of HR

The term "VUCA" was coined by US Army College to make the people aware around the world as to what is volatility, uncertainty, complexity, and ambiguity. In the context of contemporary business scenarios, organizations are going global with factors from internal and external environment of the organization influencing the existing system. As a result complex situations in the operations and ambiguity among the employees may occur. At times uncertainties in the organization have huge impact on the HR practices. Also during this critical situation of the

organization, high commitment of HR professionals would boost the employee's morale and motivation (Roche et.al, 2013).

Today's workforce needs to be resilient and able to quickly react to market demands. In response, organizations report that they expect the leadership of the future to be younger, but this expectation is arguably at odds with the inevitability of an ageing workforce (Ian Symes, 2014. in order to overcome these conflicts, boost employee engagement and retain key talent, is a clear corporate vision. According to research reported submitted by The Flux (2014) [33], "98% of organizations have experienced some kind of major organizational change over the last five years – the most common being restructuring (74%), a change in leadership (64%) and downsizing (64%)". Resilience is becoming an important employee attribute. In five years' time, 91% of HR decision-makers think it is likely that people will be recruited on their ability to deal with change and uncertainty. Employees in their thirties are considered best equipped to deal with flux (48%), whilst those in their sixties (31%) and twenties (30%) are considered least equipped to cope.

It is observed from several studies made in last decade that; capabilities of human capital need to be developed in order to enable them to get resistance to fight during hard times of the organization (Mohrman & wroley, 2009) [28]. Later it was further extended that; leaders must take rapid changes the way they operate and formulate strategies and the capacity to leverage knowledge and involvement of employees. Apart from that it is also very important that HR professionals should create environment where in employee can have a feel of ownership and give maximum contribution during economic downturns. In order to tackle the VUCA situations, employees need to be empowered (Ramsay, 2015). It is very evident that, empowered employee feels a part of the organization and strives for gathering information from the market and the industry. Accordingly they would like to collaborate and generate ideas to solve the ambiguities, uncertainties arises in the organization. Most important aspect to handle the VUCA situations tactfully is HR functionaries should be focused on talent management to fulfill the talent shortage, performance management system to assess the employee's effort they put in respective tasks and to recognize the top performers.

HR analytics and its Presence

Boards of directors, CEOs and chief human resources officers make workforce planning and data-driven decision-making as a top priority for their organizations. While it is difficult to understand this apparent gap between intent and execution, the most obvious cause is a lack of consistent objectives regarding the outputs of workforce planning, and a lack of consistent process by which organizations conduct workforce planning and predictive modeling (Peter Louch, 2014). This approaches high-performance organizations to develop and sustain high-quality workforce planning programs, and breaking down the traditional barriers to effective workforce planning. Therefore, the challenge for present day organization is to foster a data-driven planning culture and be willing to value the planning process as much as the actual plan.

Human resource analytics (HR analytics) is an area in the field of analytics that refers to applying analytic processes to the human resource department of an organization in the hope of improving employee performance and therefore

getting a better return on investment. HR analytics does not just deal with gathering data on employee efficiency. Instead, it aims to provide insight into each process by gathering data and then using it to make relevant decisions about how to improve these processes. In other words, Workforce analytics enables not only a view of the workforce today but offers true insights that can drive talent-related decisions and actions, resulting in improved performance in the future (Oracle White Paper, 2011) [32].



Fig 1: Groundwork of HR analytics

Furthermore using HR analytics organizations would assess cost of the recruitment, impact of bad hire, ROI against human capital investment, compensation rates and its effect (Christopher Nerney, 2001) [12]. Consequently HR analytics must possess certain characteristics like data must be relevant to use business decisions if not it would be too difficult for managers to take proper decision with the complex data. *Quality of data* is important in this context, as it should be valid as well. Data should be *compelling* in nature i.e. using data managers should be able convey the exact message on organization and influence the decisions of boards of directors logically. Similarly data should play a role of *Transformation*, i.e. data should change the behavior of leaders thought process and which should initiate the faster decision making process on Human capital (Collins, 2013). Data analytics identify key patterns, trends and opportunities for improvement, enabling HR leaders to gain insights into which initiatives are working, which are not, and to adjust accordingly (Anumeha Goel, 2014) [4]. Almost every company we've studied says it values employee engagement, but some—including Starbucks, Limited Brands, and Best Buy—can precisely identify the value of a 0.1% increase in engagement among employees at a particular store. At Best Buy, for example, that value is more than \$100,000 in the store's annual operating income (Davenport, 2010). In this competitive business environment organizations are no more focusing on to descriptive analysis. Instead they are shifting the strategies on to predictive analytics, predictive analytics will facilitate organizations to examine the past data to provide insights on the data and spot trends in key factors related to workforce behavior, voluntary termination, absenteeism, attrition and finding out the sources of risk. Predictive retention modeling is one of the important aspects in HR analytics which helps the organizations to predict the trends of workforce behavior, find out profiles of those mostly expected to leave or stay, and to understand spread over and intensity of risk in the organization (Smeyers, 2013) [41]. Numerous pioneering organizations started using these kinds of models to predict the talent shortages from the past data e.g. Google, HP etc.

A recent report says that, after an acquisition Black hills Corporation, doubled the manpower about 2000 because of the challenges like an aging workforce, requirement of specialized skills and length of hiring time for competent employees. And in a forecast it was found that, organization may lose 8063 years of experience. In order to measure and prevent the huge manpower risk, organization adopted

workforce analytics as to how many employee get retire per annum, type of skill set required to match the talent shortage, and to forecast the sources from where they can get the competent workforce. According to 2013 survey by talent analytics software vendor SHL, more than three-quarters (77%) of HR professionals are unable to determine how their enterprises' workforce potential is affecting the bottom line, while less than half (44%) use objective data regarding talent performance to guide business decisions. This learning and development part of the organization kicks in to bridge the capability gaps that the recruiting team is not able to close. What if we could predict which competencies would be easiest to learn – and which developmental approach would be the most effective – for which employee? Which training, if any, would be able to fill in the experience gap for an employee who is otherwise qualified for her next assignment? People develop their skills from a variety of experiences, interactions and relationships. Formal development plans try to shorten the time needed for developing these competencies.

4. Predictors of employee performance

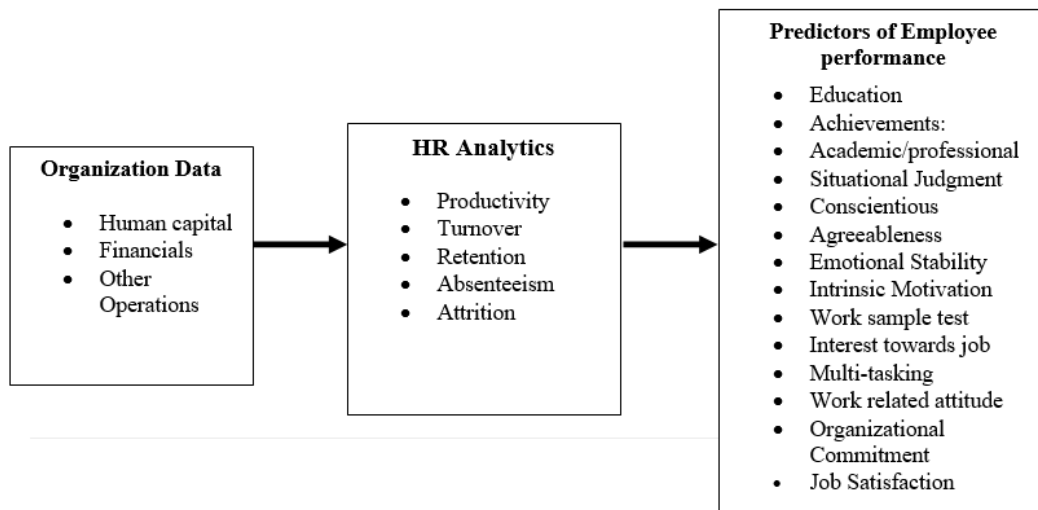


Fig 2: Proposed predictors of employee performance through HR Analytics

Performance of employee used to measure and predicting happened by traditional appraisal methods, but now due to time scarcity at organization and profit maximization is being one of the major objective of the organization HR professionals are using analytical tools for predicting employee performance. To uncover the factors underlying of an individual performance, a study was conducted using statistical analysis between employee performance and turnover of a large financial services organization. In this study the data of a sales performance of new employees for 2 years were considered and correlated with overall performance and retention rates against several demographic factors. Findings are sales people had relevant experience, accurate resume with no errors, success in previous jobs, time management and managing multi-tasking. After the study, organization ignored traditional screening process and implemented new screening method by keeping the above aspects in consideration at the end of the year revenue of the firm increased by \$ 4 million (Josh Bersin, 2013) [34]. A recent research finding shows that organizations should look for people with

According to a survey (IBM, 2009) [22], more than 400 North American human resources (HR) professionals were studied on the use of workforce analytics and the challenges of applying analytics to organizational decision making. Particularly in these turbulent times and findings were workforce analytics play an increasingly important role in addressing strategic human capital challenges. Workforce analytics are a key capability for HR organizations seeking a more proactive role in driving business strategy. Predictive decisions therefore, would help customize this methodology per employee per competency gap. So the individual development plan for employee A would not only state that the development gap for Employee A is “decision-making,” it will also suggest having Employee X mentor A because that is the most effective mentor-mentee relationship for this particular skill. The plan may go on to say that Employee A should, however, learn about building “financial acumen” by watching a video tutorial. Dell used predictive training to increase the effective tenure of new call center agents so they can deliver better customer experience to the callers.

conscientiousness, agreeable, emotionally stable to put their contributions towards organizational performance and to retain them for long time in the organization (Sebastian Bailey, 2014) [37]. AT&T and Google have established through quantitative analysis that a demonstrated ability to take initiative is a far better predictor of high performance on the job (Davenport et.al, 2010). Age, general mental Ability, personality, conscientiousness and job knowledge, incorporating affective wellbeing, intrinsic job satisfaction, stress and commitment. A recent case study developed in this context reveals that, motivation, wages and salaries, employee’s interest are major determinants of employees performance (Ofogebu & Joseph, 2013) [35]. After a substantive literature review, the following framework has been proposed with set of predictors.

4.1 Education

Education is process of imparting knowledge for a life time. In several studies it has found that education plays a vital role in performance of individuals. According to a study by U. S. National Center for Education Statistics, the ratio of

American students is increasing over years. For example, the percentage of individuals completing high school increased from 69% in 1980 to 86% in 2006. According to a meta-analysis by Thomas & Feldman, (2009) ^[32] educated persons contributes towards creative task that means educated individuals can perform very well in the organization. There was some few debates happened on master degree holders with high sense of achievement, get good jobs and perform very well in the organization (Pascarella, 1975; Herbert 1977). HR analytics in this context, should identify the filter out the individuals with proper education for a particular job and also it may track the employees to whom organization can offer promotions, trainings as well.

4.2 Achievements

Research has shown that employee accomplishments are valuable predictors of how successfully employees will perform at higher job levels, and thus they provide useful input for promotion decisions. According to human capital theory, the level of education an individual attains at his life time shows the individual a direction and at the time same time it enhances the expectation of individual (Kessler & Lulfesmann, 2006). It is generally assumed that education changes an individual in such a way as to increase his capacity to perform job related tasks. A study conducted in telephone industry, results shows that salary index of employees raise when their class rank and quality of college goes up (Wise, 1975) ^[15]. Similarly when we talk about the experienced employees the same relation is applicable. HR Analytics can find out the people who are achievers in their academics and professionals domains.

4.3 Multi-tasking

Multi tasking is the word predominantly using after burst of economic growth by corporate. Multitasking is performing more than one task at a time. Today's workplace requires people with multitasking because they want maximum productivity with minimum sources. Also it is management responsibility to allot suitable task to employees in order to get the output effectively. At the same time it has been understood by many individuals, that one should have a capacity to handle the multiple tasks to sustain in the organization (Puthumana, 2010). In modern workplace, formal lines of authority are getting vanished slowly as participative decision making process is taking place. The access to systems, policies and procedure are open to everyone. Hence individuals in the organization are expected to work with collaboration and multiple sources (Christine & Weiss 2008). In other words multi tasking is an ability of individual to handle several tasks simultaneously (Appelbaum *et al.*, 2008; Dean & Webb, 2011; Bannister & Remenyi, 2009; Mathis, 2012) ^[6]. As a result organization could be benefited by reducing the human resources cost. HR analytics can identify the people with multi tasking skills to provide the organization with cost advantage. Else HR analytics should be able design the jobs in such a way so as to organization may get cost advantage by hiring minimal human capital.

4.4 Motivation

Motivation is driving force which directs individual to do something or not do (Broussard, 2004) ^[9] as suggested by different motivational theories; motivated employee

performs. Motivation is of two kinds intrinsic and extrinsic. In academic and corporate researches it was found that, people with intrinsic motivation raises the performance at workplace. As Deci *et al.* (1999) mentioned, intrinsic motivation is human behavior which energizes individual to seeking challenges; willingness to work without looking for extrinsic rewards like extra pay, bonus etc. Further it has also been found that intrinsic motivation is most desirable than extrinsic motivation when we consider the outcomes. Intrinsic motivation is triggered by personal interest, satisfaction, happiness. A study conducted at Malaysian state government employees on motivation and its impact on employee performance. The results have shown that relationship between affiliation motivations positively correlated with job performance. Individuals with high amount of affiliation motivation tend to develop interpersonal relationships with others are more likely to perform with teams (Salleh *et.al*, 2011). While analyzing data HR analytics should tap the motivation level of individual to predict the performance of employees.

4.5 Interest towards job

During selection process picking a right candidate at right time at right place with right potential is very essential in the organization. A study among 150 members of Bond chemical found that individual interest towards job as most important determinant for employee performance in the modern workplace (Ofoegbu & Joseph, 2013) ^[35]. HR analytics plays a vital role in selecting a suitable candidate by comparing the ideal job description of organizational requirement and actual interest of candidate. After placing the individual in job, analytics plays role in measuring the performance of particular individual by tracking it periodically.

4.6 Organizational Commitment

Commitment is an attitude of individual as to the extent to which he or she is emotionally attached to the organization. Organizational commitment has three components those are Affective commitment, normative commitment, continuance commitment (Meyer & Allen, 1984). Among three and on a performance of an employee a study conducted in china between supervisor and subordinates of an organization, results demonstrated that affective commitment show a positive relationship with individuals performance (Chen & Francesco, 2003). In order to build competent talent pool, HR analytics may pull out the data of committed employees data based on their past performance and other parameters of performance.

4.7 Supervisor ratings

It is important to note that the main criterion of job performance used in the Hunters' study was supervisory ratings of performance. In a meta-analysis of the relationship between supervisory ratings and actual performance, Heneman (1986) has shown that the relationship is low, especially when absolute ratings are used. As noted above, Hunter and Hunter provided evidence of some reasonably strong relationships between various predictors and other criteria including training success, tenure, job proficiency, and promotion; however, their cost-benefit analyses were based mainly on the absolute supervisory rating criterion. The limited validity of supervisory ratings of performance weakens the value of

these studies. At G.E, (Meyer & Allen, 1982) ^[27] observed that when supervisor giving low rating than employee actual rating employee feel un happy and he shows less interest towards organization and disrespect the supervisor. Hence it is suggested that during appraisals time proper justification need to be given by both the parties.

4.8 Conscientiousness

Conscientiousness refers to individuals who exhibit traits of self control by means of being capable of planning, organizing, working strategically towards goals, and carrying out tasks (Costa & McCrae, 1992; Barrick & Mount, 1998). Conscientiousness is also the trait that is associated with diligence, self-discipline, punctuality, and general competence (Costa & McCrae, 1992; McCrae & Costa, 2003). Some research shows that while conscientiousness predicts performance in realistic and conventional jobs, it impedes success in investigative, artistic and social jobs that require innovation, creativity and spontaneity.

4.9 Job Satisfaction

Every individual may have certain expectations on the job they perform. When individual expectations meet the real actual rewards, working condition etc. which is called individual satisfied with the job. In other words Job satisfaction refers how people feel about Very their job. Locke (1976) defines "job satisfaction as a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences". Also represents the extent to which expectations are and match the real awards. Job satisfaction is closely linked to that individual's behavior in the work place (Davis *et al.*, 1985) ^[16]. Employees who are highly satisfied with the job, they never miss the duties, productive, would be committed towards organization, and more likely to be satisfied with their lives (Lease, 1998) ^[24]. Very recently there was study conducted on Job satisfaction and Job performance. It was found that there was a positive relationship between job satisfaction and job performance (Hettiararchchi & Jayarathna, 2014) ^[42]. From the above studies it is very clear that happy employees are always performs well. While capturing data HR analytics has to find out individuals who are most satisfied at their previous job and present job as well else which may lead to massive turnover or absenteeism.

4.10 Situational Judgment

Many times in the organizations, employee need to take decisions with in no time as situations demands. At the same time those decisions may affect employee performance in turn organizational productivity. Situational judgment is a kind of where it measures an individual ability to make judgment at work place. Empirical research findings on 160 civil service entry level employees in Singapore revealed that, ability of situational judgment shows impact on individual job performance (Chan & Schmitt, 2002). During the last two decades several studies carried out to find out relationship between situation judgment and employee performance and found that there is a situation where situational judgment affects the performance of the employee exists strongly. To reconfirm the same, (Mc Daniel *et.al*, 2001) ^[40] conducted a qualitative study by using 39 different situational judgment tests and employee performance. Findings reveal that there is positive

correlation between both the variables. Based on the analysis of employees performance at critical situations analytics can give insights further promotions, career development.

4.11 Work sample tests

In organization HR functionaries conduct few work related tests to assess the skills of individual with respect to particular functional area. For example computer test, presentation for teaching or demonstration positions, in basket exercises for managerial positions etc. Work sample tests are generally thought to have a number of very desirable attributes. In a particular study it has been found that work sample tests are believed to be the most suitable predictors of job performance by researchers (Hunter & Hunter, 1984; Reilly & Warech, 1993) and managers (Terpstra, Kethley, & Foley, 2000). After a substantial study on predictors of employee performance, an industry expert Rob Mckay, (2013) mentioned that work sample test along with other aptitude test can strongly judge the person's ability of performing a particular role. Based on the test results, HR analytics can give the insights on performance of the employees in future. Those insights would enable the managers to take better hiring decisions.

5. HR Analytics towards developing capabilities

Recognizing the current strengths and abilities of one's workforce is as critical as identifying their untapped potential to assume leadership positions, participate in team-building activities, exercise initiative and develop better communication skills. In concert, these elements not only contribute to a more effective and cohesive organization but it may improve employees' individual performance levels. Traditional performance analysis in most companies consists of retrospective analysis that provides a backward-looking view, reporting what happened in the past. Our suggestion is to be able to add value, HR should evolve from descriptive to predictive analytics, working with statistical models and forecast techniques to understand the future and answer the question that is: 'What could happen in the future?' This will help to design HR analytics for finding out associated characteristics with performance of employees and to analyze how performers are differentiated with underlying characteristics.

Time is money, as the old saying goes. Companies can't afford to waste time when it comes to bringing a new recruit up to speed. Predictive algorithms can provide high-quality hiring experiences, on-boarding and training processes for new starters (such as call centre agents, sales reps, field service experts, machine operators and many others). Unlike traditional fuzzy measures of hiring (e.g. time-to-hire), on-boarding and learning (e.g. cost of learning), those predictions can lead to faster time-to-contribution, lower cost-per-hire and ultimately, increased quality of hires. In turn, this leads to increases in retention, decreases in bad hires, and significantly higher levels of productivity.

5.1 Coaching

Coaching is nonjudgmental and interactive. According to a survey carried out at University of California, it has been found that the manager and employee create a performance plan focused on one or two performance areas. During the work day, the coach asks questions and listens to the employee, provides feedback and support on his

performance as needed. According to Business & Legal Reports, Inc., the strategy has been vetted stating coaching highlights growth and development. A coach can help average performers perform better by determining their potential and understanding why they aren't meeting it, developing a plan to reach their potential and reinforcing their strengths. Using HR analytics organization can tap the capability, interest, motivation of an individual present role and organizational goals. Further based on the data managers can nominate employees for the coaching to create competitive advantage of the organization.

5.2 Boosting Morale

Leaders can help unmotivated, poor performers with low morale become more disciplined and willing to perform assigned tasks, without threatening job loss. Leaders can improve morale by being clear communicators and mindful of how they reward employees, and by energizing employees through modeling. According to Nicole Fink of "Leading Edge" journal. "Servant leaders" can exhibit a good work ethic and motivation themselves; speaking and acting enthusiastic and optimistic about the future, characteristic actions others can "catch." Leader behavior helps others recognize the importance of their work, particularly if leaders consider themselves part of the company team and work with employees to set company goals, instead of being strictly task masters. The leader must also build a sense of "we" with employees and have them contribute to company goal-setting and resolution of conflicts.

5.3 Inexpensive Incentives

Examples of major financial awards, such as seven-figure cash bonuses, are often in the news today. However, much smaller awards -- more in line with the budget of small businesses -- can also motivate employees. These include an assignment to more enjoyable job duties, which helps to build an employee's confidence. Even offering a top performer a paid day off can be motivation for people to perform their best. In a 2002 study, 78 percent of employees indicated that their favorite incentive is quick, sincere praise from their manager. Given with specific examples, reports Sherri Ryan, in her article "Rewards and Recognition." employers can find motivating inexpensive incentives by understanding what their employee's value.

5.4 Performance Appraisal

It is worth to monitor and evaluate job performance through annual or twice-yearly written appraisals. These provide workers with the functional equivalent of a report card to identify what they are doing well, what areas need improvement and whether training classes would benefit an existing job or assist in the transition to a new one. Invite employees to prepare self-evaluations which allow them to highlight recent achievements, discuss issues that they believe are inhibiting them from doing their best work and request future training and development assignments. Encourage feedback throughout the year, not just during the review periods. According to Brian Tracy, author of "Full Engagement!: Inspire, Motivate, and Bring Out the Best in Your People," emphasizing positive traits and actions in the workplace does more to improve employee performance and morale within an organization than constantly looking for faults and making workers feel as if their every move is

being watched with suspicion.

5.5 Recognition

This is proposing for creating and administering a fair and consistent system of acknowledging merit. No matter what position a person holds in your company, he wants to know that his work is being noticed and appreciated. A successful company culture is one that rewards initiative, performance and dedication through bonuses, promotions, merit certificates and perks as well as compliments and good old-fashioned thank-you's. Donald Kirkpatrick, author of "Improving Employee Performance through Appraisal and Coaching," also emphasizes the importance of mentoring and coaching as a way to demonstrate that management is committed to helping workers achieve their highest potential by providing them access to the best advice on how to advance their careers.

Lead by setting is a positive example in this context. John Baldoni, author of "Lead by Example: 50 Ways Great Leaders Inspire Results," emphasizes that managers who engage in active listening, respect the unique talents of their staff, instill confidence in others and know both when and how to delegate responsibilities achieve better results than egotistical leaders who believe that theirs is the only "right" way to get anything done. The first step in improving any organization is establishing and enforcing the concept that there aren't different sets of rules that govern the activities of supervisors and subordinates. Managers must be held just as accountable for their own mistakes and shortcomings as anyone who works for them in order to foster a healthy and truthful workplace. It is also critical to discourage gossip, address rumors before they escalate to paranoia and stay sensitive to feedback on what the company could be doing better.

5.6 Develop opportunities for advancement

After successfully conducting assessment, a proper analysis needs to be done to identify Specific strength areas as well as opportunities for improvement. Every individual work for the organization by keeping three things in mind i.e earning, learning, growth. Unless employee get opportunities for career advancement at workplace he may not be satisfied with job he perform, and the same would be essential for his future career. Data analytics can provide insights to the managers on what are the current strengths of employee and what are the possible avenues for his career development by scanning the entire business situation. Similarly data analytics can identify the top performers in a particular team or location and give insights to the managers as to how they can promoted so as to he can get additional skills required for the organizational strategic requirements.

5.7 Analytics based Succession planning

Many practitioners have pointed the fact that growing businesses need talented, motivated people to thrive. Present day organizations have a formal succession planning process in place where company workforce managers proactively and formally seek to develop top talent, so that they can fill senior leadership and high-value technical positions from within. Succession planning isn't exactly a data analytics activity – but data analytics can give human resources managers insights they can use to make sure top performers don't go unnoticed and areas most in need of top talent are properly identified.

To plan the way that high value people will move through the workforce, one has to know where those people are, what they can do and where one needs them to go. Traditional reporting and workforce management techniques are a great start – but by using data analytics one can do more, including: Using data analytics techniques, organizations can build tools that can help spot when certain managers or departments consistently rate employees poorly when those same employees seem to do well in other areas – especially when those ratings seem to be given to people of a certain gender, age or race. Then HR can intervene early to make sure top talent doesn't get frustrated and quit prematurely.

With a few basic data analytics – driven changes, bench depth analysis can help managers know precisely where their biggest staffing risks lie. Data analytics routines can look at every possible combination of job, role, skill, position, geography and anything else one can dream up and look for portions of one's organization where the average tenure of employees is dangerously high – and help figuring out where to focus in one's training and recruiting dollars.

5.8 Feedback

No matter what type of business one runs or how many employees one has, it is essential that every employee understands how her respective contributions toward a common goal define the company's value, success and longevity. Holding regular staff meetings to track the status of pending projects, making new assignments and encourage brainstorming on existing or potential problems is a productive outcome of feedback exercises. Holding workers accountable for the responsibilities they assume, the choices they make and the deadlines they have agreed to meet. In this context, Anne Bruce, author of *"How to Motivate Every Employee: 24 Proven Tactics to Spark Productivity in the Workplace,"* has suggested that the more ownership and engagement employees feel in the decision-making process, the more empowered they will likely feel to put forth their best ideas and best work product.

6. Challenges for managers ahead

One of the top most challenging function of human resources analytics is to make out what data to be picked up to make use of data to build the model and predicting capabilities of individuals so as to get maximum return on investment. Firstly, accurate analytical skills are essential for HR functionaries to interpret the finding appropriately. Probably the current HR professionals not having those skills which are very much required for organizations future needs and strategic plans. Second, group HR professional with should form team to exclusively work on to find out *'Who are our most successful managers?'* and gather data from every possible source to study and prepare model to challenges the issues arising in organization.

The workforce of 2018 looks set to be fundamentally different from that of 2015 with HR decision-makers seeing a number of scenarios as likely to occur, including more workers opting to work part-time rather than retire (92%), managing an older workforce (88%), individuals maintaining and developing skill sets in multiple simultaneous careers (79%) and more than half of all workers being temporary / on contract or freelance (60%). After an extensive literature review, in this study we have tried to explain how to find out predictors of employee

performance by using data analytics. We have also proposed the necessary processes to improve the performance of employee in future researchers can work on other aspects of employment like succession planning, talent management using HR analytics

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