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PEOPLE ANALYTICS: NOVEL APPROACH TO MODERN HUMAN RESOURCE MANAGEMENT PRACTICE

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Abstract:

This research review papers shows how HR departments need to optimize the way their organizations use human resources, and to be as efficient as possible themselves. They need to make better and faster decisions, to match people better to requirements, and at the same time to reduce costs. As an HR director, you're probably aware that you could achieve your aims more effectively through better use of data. For example, when a business need arises, you need to be able to see at a glance whether you have the right person available internally or need to look outside. In the latter case, you then typically face the additional challenge of scanning large volumes of applications or CVs/résumés. Fortunately, with today's technology, it's possible to automate much of the work of matching people to requirements. You can also bring together structured and unstructured data to learn more about the potential of your own staff, and take advantage of information available in social networks to find out about potential recruits. With recent advances, all this can be achieved without major investment in technology and related skills. Applying advanced analytics effectively to HR challenges is the aim of our new offer, People Analytics.

Keywords: HR Analytics; People Analytics; Workforce Analytics; Business Analytics; Bigdata; VO

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1. Introduction

People Analytics: Emergence and Evolution

Although PEOPLE ANALYTICS only recently has become a big buzzword, PEOPLE ANALYTICS builds heavily on ideas and practices that have existed in the HR field for a long time. As noted by Bassi (2011), metrics and measurements were discussed as far back as the late 1970s. More than 30 years ago, HR researchers grappled with issues related to the measurement of human resource management (Fitz-Enz, 1984). Although the origins of the field of HRM can be traced back to Peter Drucker's writings from the 1950s, HRM got its big breakthrough during the mid-1980s (Beer, 2015; Kaufman, 2015; Marciano, 1995).

During the 1990s, the focus shifted to viewing people as a valuable organizational resource and capability that can create competitive advantage (Barney & Wright, 1998; Huselid, 1995; Pfeffer, 1994; Ulrich, 1997; Ulrich & Lake, 1990; Wright, Dunford, & Snell, 2001). As a result, human and intellectual capital became key buzzwords in both academic research and in the management community at large (Edvinsson, 1997; Stewart, 1997; Ulrich, 1998).

In the years that followed, much attention was directed at developing new techniques for calculating the return on human and intellectual capital (Bontis & Fitz-Enz, 2002; Fitz-Enz, 2000). During the first half of the 2000s, new ideas such as HR Scorecards and Workforce Scorecards were developed (Huselid, Becker, & Beatty, 2005; Ulrich & Beatty, 2001), tools that would allow organizations to measure the impact of HR activities and practices on organizational performance. During the mid-2000s, there were many calls for more scientific and evidence-based approaches to HR (Boudreau & Ramstad, 2007; Pfeffer & Sutton, 2006; Rynes, Colbert, & Brown, 2002; Rynes, Giluk, & Brown, 2007).

In previous contributions, it has been noted that PEOPLE ANALYTICS has existed as a research topic for about 15 years (Angrave, Charlwood, Kirkpatrick, Lawrence, & Stuart, 2016). In addition, PEOPLE ANALYTICS relatively early become a topic of discussion in journals focusing on HR and people strategy (e.g. Feather, 2007; Fink, 2010; Levenson, 2005, 2011; Waber, 2013). In the last few years, PEOPLE ANALYTICS has received considerable attention in influential practitioner-oriented management outlets such as Harvard Business Review, and in a string of reports written by global consulting and technology giants.

The topic of PEOPLE ANALYTICS is currently the subject of much debate in the HR literature (Rasmussen & Ulrich, 2015; Ulrich & Dulebohn, 2015). Currently, a main focus of the research on PEOPLE ANALYTICS is how to use PEOPLE ANALYTICS as a decision support tool predict future events, so-called "predictive analytics" (Fitz-Enz & John Mattox, 2014; van den Heuvel & Bondarouk, 2016, p. 8). In addition, it is evident that the profileration and availability of Big Data has paved the way for PEOPLE ANALYTICS, as much of the thinking around PEOPLE ANALYTICS has been developed in the aftermath of the introduction of Big Data (Angrave et al., 2016). Big Data makes it possible to use large amounts of data to support HR-related decision making processes (Angrave et al., 2016; Shah, Irani, & Sharif, 2016).

The use of data and analytic tools to identify insights on people that enable faster, more accurate, and more confident business decision-making

Data is the modern currency, with value that extends far beyond the organisation that collects and owns it. The challenge for businesses is to make the best use of the huge volume of people data that's available, in order to compete and thrive in the ever evolving digital economy.
People analytics allows organisations to understand what's working and what isn't. It allows for the better matching of people to jobs and for more efficient and cost-effective recruitment and talent management.

HR sits on the biggest set of untapped data in the organisation. In a world exploding with potential, the power of data-led insight is revolutionizing business decisions. The way you embrace people analytics, and the huge opportunities it captures, will greatly affect your business.

2. People Analytics is in our DNA

This isn't a new field for us – we've been working at the leading edge of people analytics for years. By putting analytics at the centre of our work, we help clients achieve their goals, and we always will.

3. PA-Language

Analytics is a technical field but let us make it intelligible and relevant to your business. We will be your trusted translator. We turn a specialist, technical discipline into a powerful capability that's understood and used with confidence at all levels of your organisation.

4. PA-Results

People analytics brings greater insight, but we want to make sure that those insights deliver real, tangible results for our clients. It's a means to help executives, employees, customers and suppliers to make the right decisions, and create more transparent and trusted relationships; whether that's to drive new growth opportunities, operate more efficiently or identify and manage risks.

Analytics are changing how every company department does business. However, most HR departments are struggling to fully take advantage of analytics to unlock the true potential of their people . According to Deloitte's recent High-Impact Talent Analytics: Building a World-Class HR Measurement and Analytics Function study, only 14% of HR organizations surveyed are utilizing

advanced or predictive analytics today — the other 86% are still focused on creating basic reports and dashboards of talent metrics.

According to research by MIT and IBM, top-performing companies are three times more likely than lower performers to be sophisticated users of analytics. These early adopters of people analytics simply outperform. Organizations at the highest levels of talent analytics practice, including the adoption of people analytics, have 8% higher sales growth, 24% higher net operating income growth, and 58% higher sales per employee. How can you achieve similar business results? Oracle's Enterprise Analytics for HCM Cloud has been built from the ground up to help HR executives answer the tough questions they face every day, questions that require a combination of HR, recruiting, and additional data sources to drive effective business strategy.

5. Usefulness

- **While 71 percent of companies see people analytics as a high priority**: In their organisations (31 percent rate it very important), progress has been slow. The percentage of companies correlating HR data to business outcomes, performing predictive analytics, and deploying enterprise scorecards barely changed from last year.

- **Analytics is being applied to a wide range of business challenges**: Recruiting remains the No. 1 area of focus, followed by performance measurement, compensation, people planning, and retention. We see an explosive growth in the use of organizational network analysis (ONA) and the use of "interaction analytics" (studying employee behaviour) to better understand opportunities for business improvement.

- **Readiness remains a serious issue**: After years of discussing this issue, only 8 percent report they have usable data; only 9 percent believe they have a good understanding of which talent dimensions drive performance in their organizations; and only 15 percent have broadly deployed HR and talent scorecards for line managers.
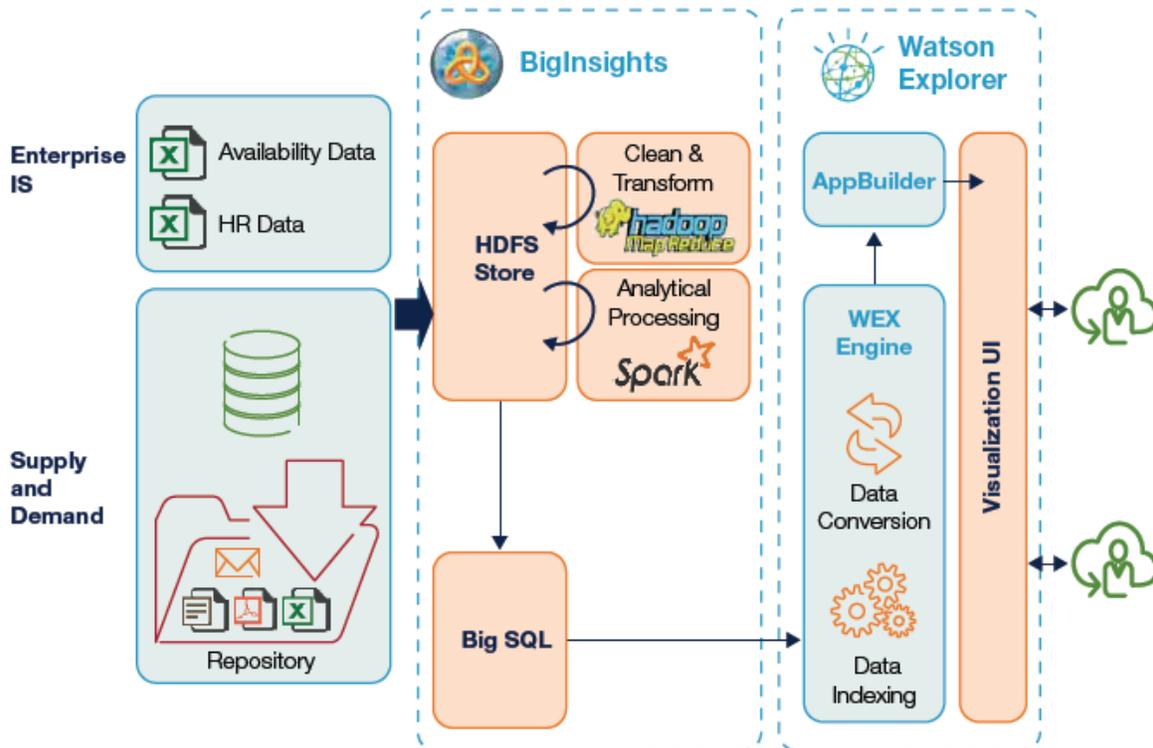
6. How It Works

Techniques we use include:

- Contextualized text analytics: analyzing text (without any need to assign keywords) and contextualizing the data in the sense that candidates and requirements are matched, in terms of geography and travel time, as well as their area of specialization and professional skills
- Machine learning: improving matching algorithms by observing user behavior and processing feedback (with artificial neural networks and so on)
- Predictive analysis: forecasting how staffing plans need to change when the company faces organizational change or restructuring; anticipating market trends and developing employee skills accordingly
- Visualization: gaining a 360o view of skills in the company. Data we can process to gain insights includes CVs/résumés, job descriptions, training and education descriptions, profiles of past assignments, career paths in the company, business repositories, and annual

appraisal/interview notes. The data can be both unstructured and structured, and both quantitative and qualitative.

Technologies used include Big R text analytics, Big SQL, and IBM's Hadoop for Enterprise, Big-Insights, which provides storage and processing engines. Data visualization and extended text analytics are handled by IBM Watson Explorer.

7. Conclusion

People analytics is a data-driven approach to improving people-related decisions for the purpose of advancing both individual and organizational success. While people have always been critical to the success of organizations, many business leaders still make key decisions about their workforce based on intuition, experience, advice, and guesswork. However, today leaders can improve their people decision-making based on the collection and systematic analysis of data.

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