A strategic approach to workforce analytics: Integrating science and agility

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Abstract Workforce analytics is a major emerging trend in human resource management. Yet, despite the enthusiasm, there exists a misunderstanding of how organizations can successfully use workforce analytics to achieve important organizational outcomes. This article proposes ways to overcome this execution dilemma and achieve organizational success with workforce analytics through the integration of agile development with scientific research. We use a number of company examples to outline five key parts of an agile workforce analytics process: (1) prioritizing issues, (2) integrating deductive and inductive approaches, (3) preparing and validating data, (4) applying multiple methods in concert to support decisions, and (5) transforming insight into action to improve business outcomes.
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1. Data analytics for people-related decision making

The application of data analytics to improve efficiency and effectiveness is a growing trend in business (Acito & Khatri, 2014) that is having an impact in functional areas such as accounting (Earley, 2015), in organizational networks such as supply chains (Souza, 2014), and in economic sectors such as healthcare (Ward, Marsolo, & Froehle, 2014).

Human resource management (HRM) is a latecomer to the data analytics bandwagon (SHRM Foundation, 2016), but executives recognize its potential while acknowledging skepticism of their own organizations' readiness for adoption.

While it goes by several names—such as workforce analytics, human resource (HR) analytics, talent analytics, or people analytics—these activities all have several things in common (Marler & Boudreau, 2017). They involve the analysis of HR-related data, but also the integration of data from different internal functions and even data external to the firm. Information technology enables the collection, manipulation, and reporting of diverse types of both structured and unstructured data. All of this analysis is used to support people-related

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decision making in organizations, and link HR decisions to business outcomes and organizational performance.

As early as the 1940s, a few large companies were using analytics to improve selection and talent management (Lawler, 2015). However, with the advent of information technology, collecting and analyzing data has become easier, making workforce analytics accessible to virtually any organization. Furthermore, new sources of data, such as those collected from wearable technology, email, and calendars, provide opportunities for understanding employee behavior and improving performance in ways heretofore not thought possible.

This growth of analytical and evidence-based decision making (and the technical tools accompanying it) has great potential for improving organizational effectiveness and efficiency. Yet, despite substantial publicity, a challenge remains for understanding how organizations can successfully use workforce analytics to influence organizational outcomes. As many organizations strive for strategic insights from their people data by building workforce analytics teams, execution has lagged behind other functions and often falls short of expectations (Rasmussen & Ulrich, 2015). For example, in a survey of 10,447 business and HR leaders, Deloitte (2017) found that although 71% of companies believe using workforce analytics is important for business performance, only 8% report they have usable data, only 9% believe they have a good understanding of which talent dimensions drive performance in their organizations, and only 15% have broadly deployed HR and talent scorecards for line managers. Even with the publicity surrounding workforce analytics, and the accompanying growth of corporate data, organizations have been slow to realize gains and often have encountered difficulties moving from interesting statistics to strategic impact.

To overcome this execution dilemma, we explore the benefits of using an agile development process in conjunction with an evidence-based management philosophy. This approach reflects the science-driven foundation of workforce analytics. An agile development process has been adopted by many companies (Chen, Ravichandar, & Proctor, 2016) and is receiving increased attention in academia since the release of the Manifesto for Agile Development (Beck et al., 2001). Evidence-based management is a recent trend originating in academia that encourages practitioners to use the best available evidence from multiple sources for making organizational decisions (Barends, Rousseau, & Briner, 2014). Together, an agile development process along with an evidence-based management philosophy and practice allows organizations to maximize the benefits of workforce analytics.

This article explains how to develop an agile workforce analytics development process that incorporates evidence-based management practices while fostering flexibility and interaction across organizational processes, systems, and people to create value. Three building blocks need to be established before beginning the agile development process: (1) workforce analytics capability, (2) a workforce analytics vision, and (3) a strategic HRM perspective. The agile development process consists of five steps: (1) prioritize issues, (2) integrate deductive and inductive approaches, (3) prepare and validate data, (4) apply multiple methods in concert to support decisions, and (5) transform insight into action to improve business outcomes. The next section provides an overview of the state of workforce analytics and an explanation of why agile development can be particularly useful in its implementation.

2. Linking workforce analytics to organizational success

The benefits of data-driven decision making do not happen automatically for organizations. It can take a number of years to effectively build, analyze, and test effective analytical tools and models. Factor in the messy ethical and political issues with workforce data, the complex and changing nature of employment data, and the fact that HR is usually on the bottom of the technology resource allocation plans in most companies and it is easy to understand why success is difficult. Like all value-adding functions, workforce analytics must find a way to drive effective evidence-based decision making. Workforce analytics is a technology-centric, research-oriented field. Success in this context benefits from agile processes that use iterative solution development, and testing that allows for extensive collaboration.

Workforce analytics involves not only uncovering, diagnosing, and understanding major problems, but also the ability to design evidence-based solutions that adjust to changing needs, dynamic environments, and shifting requirements. Generational and life stage differences, the new gig economy, freelance work, flexible schedules, the digital experience explosion, as well as the constantly shifting balance in the global supply and demand for talent all put heavy pressures on analytics to constantly monitor, adjust, and react to changing conditions.