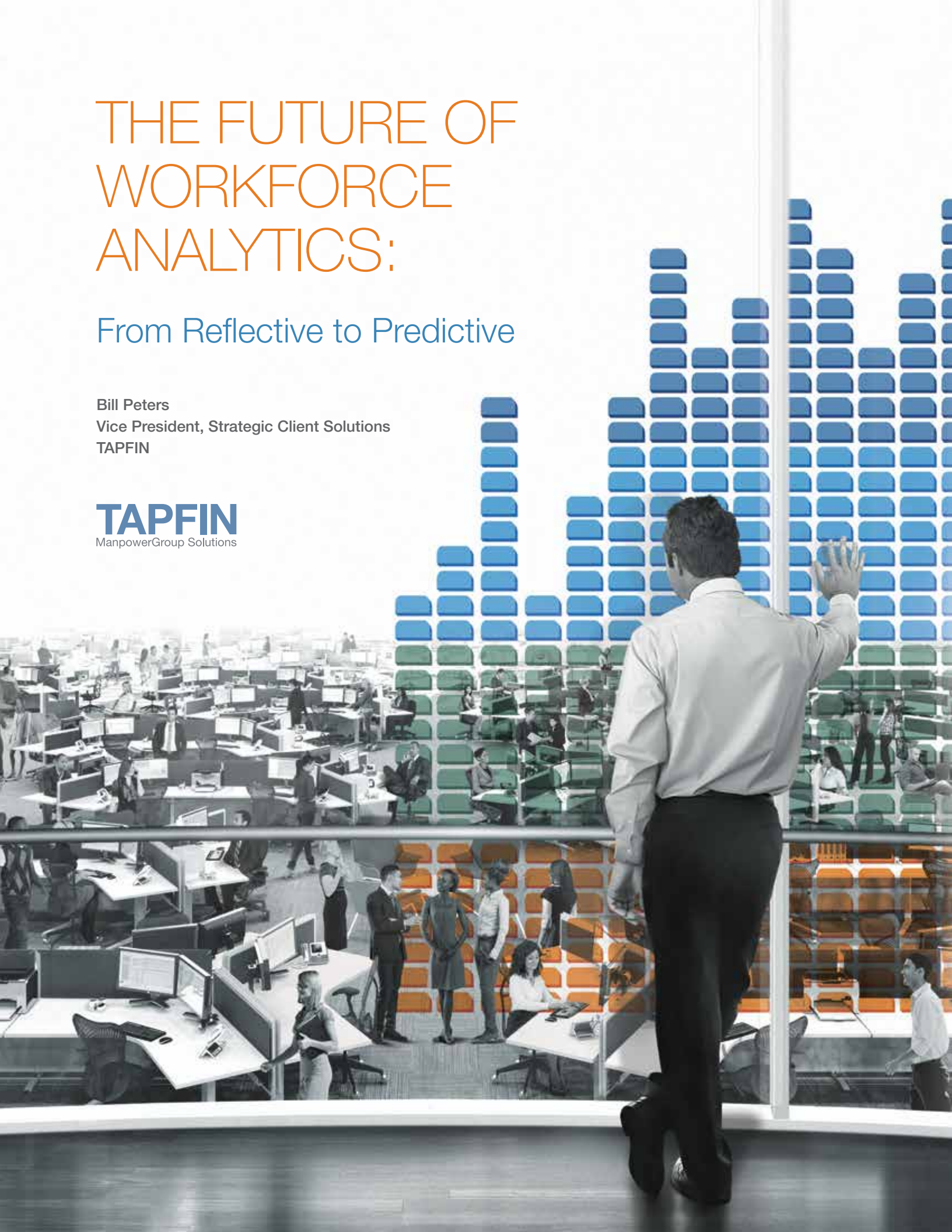


THE FUTURE OF WORKFORCE ANALYTICS:

From Reflective to Predictive

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Introduction

As workforce models evolve and companies demonstrate greater reliance on contingent labor, competition for flexible workforces will intensify. The ability to compete on a global playing field in the future may well rest on the ability to view contingent workforces as a strategically significant component of overall workforce strategy.

Non-permanent workers have the potential to significantly impact business outcomes and companies understand the need for multi-dimensional workforce analytics tools to more strategically manage their workforce in a proactive manner. While the vast majority of companies recognize the value of sophisticated talent analytics, most rely on transaction-level data that does not yield the deep insights required for truly meaningful decision making.

Today, the most common focus is on metrics that provide insight into what is happening, but not why or how. At the same time, sophisticated data sets and business intelligence tools are emerging to help companies better understand insights at both the firm- and market-level to make better strategic workforce decisions.

SUCCESSFUL WORKFORCE MANAGEMENT WILL REQUIRE DATA-DRIVEN BUSINESS INSIGHTS, BUT MANY ORGANIZATIONS ARE NOT YET READY

Companies recognize the need for more sophisticated analytics, but they lack confidence when it comes to implementation.



Evolving reliance on contingent workforces combined with a persistent global talent shortage is driving the need to make informed workforce decisions to better serve an organization's short- and long-term needs.

The following are some of the key market dynamics driving the need for better data analysis:

Workforces are evolving. The balance between permanent and contingent workforces is shifting. Agility is increasingly important to employers due to changing market conditions, geographic expansion, or lessons learned from the global economic crisis. From a workforce standpoint, this means that employers intend to invest in contingent workforces as part of both short- and long-term strategies. **Globally, more than half of employers (51 percent) say they expect their contingent workforce needs to grow over the next three to five years.**¹

Contingent workforces are often blind spots. In a recent survey, **only ten percent of global leaders said their organizations have thorough processes in place to manage their contingent workforces.**² Absent a consistent structure, it is difficult to imagine how the vast majority of organizations are gathering data and extracting meaningful insights.

The competition for talent is intense. According to ManpowerGroup's 10th Annual Talent Shortage Survey, **38 percent of global employers are having trouble filling open jobs**, such as skilled trades, sales reps, engineers, technicians, drivers, finance and production. Companies looking to locate a business function, accommodate a production cycle or meet growth objectives understand that the skills gap is real – and so is the competition for talent. Data-driven planning will provide the competitive edge organizations need to overcome these challenges.

Global expansion and location/relocation will further change workforce dynamics. **89 percent of global CEOs surveyed say new growth strategies and geographic expansion are their top priorities.**³ Both of these strategic concerns are heavily dependent on the available workforce, underscoring the need to make data-driven location decisions based on the available workforce, regulatory limits and market dynamics.

Workforce Analytics Lessons from Professional Sports

Baseball is a sport fueled by professional athletes who are — by definition — a contingent workforce. Baseball analytics, also known as Sabermetrics, has evolved over decades, but recently gained notoriety in the book *Moneyball* (Michael Lewis, 2004). The book told the story of a small team looking to gain a competitive edge. By focusing on the objective data of which players would contribute most to team success as opposed to the makeup of each individual productive player, they were able to build a winning team.

Sabermetrics superseded subjective judgments and simple metrics in favor of concepts such as defense independent pitching (measuring a pitcher's contribution independent of the quality

defense behind him) and weighted on-base percentage (which values different outcomes of an at-bat and measures offensive contributions per plate appearance). Going beyond simple statistics like earned run average and on-base percentage resulted in more insightful data that measured a player's value to a team.

Baseball has taught us that there can be ways to apply data-informed thinking to improve workforce strategies. Also, if organizations can find ways to acquire and optimize a workforce efficiently, they can benefit from a cost savings.

¹ <http://www2.deloitte.com/content/dam/Deloitte/at/Documents/human-capital/hc-trends-2015.pdf>

² <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/HumanCapital/gx-dup-global-human-capital-trends-2016.pdf>

³ [http://www.ey.com/Publication/vwLUAssets/ey-international-expansion/\\$FILE/ey-international-expansion.pdf](http://www.ey.com/Publication/vwLUAssets/ey-international-expansion/$FILE/ey-international-expansion.pdf)

TODAY'S DATA SOURCES LACK ALIGNMENT

While many understand the importance of data, there are divergent views as to exactly which data is important. Today, most organizations consider two types of data: 1) firm-level data (inward measures) and 2) market-level data (outward measures). The problem is in bridging the gap between the two.



The focus on inward forces: Firm-level data

Firm-level data consists primarily of transactional data including time-to-fill, cost-per-hire or total requisitions filled. These are the standard measures built into nearly every staffing program. Transactional data measures how quickly and cost-efficiently work is carried out, but fails to identify how well it is done. Transaction-level data does not provide insight into a worker's performance or the skill set of people who should be targeted. It only sheds light on how quickly and inexpensively a role is filled.

To complicate matters, a far more extensive set of transactional measures now exists, including tenure, location, diversity, educational background, work background, pay and benefits. Integrating these into traditional measurements in a way that predicts and optimizes performance has proved to be a tall order. The real challenge comes with identifying the decisions and operating environments that drove positive results in the past, and replicating them within the present context.



The increasing pressure of outward forces: Market-level data

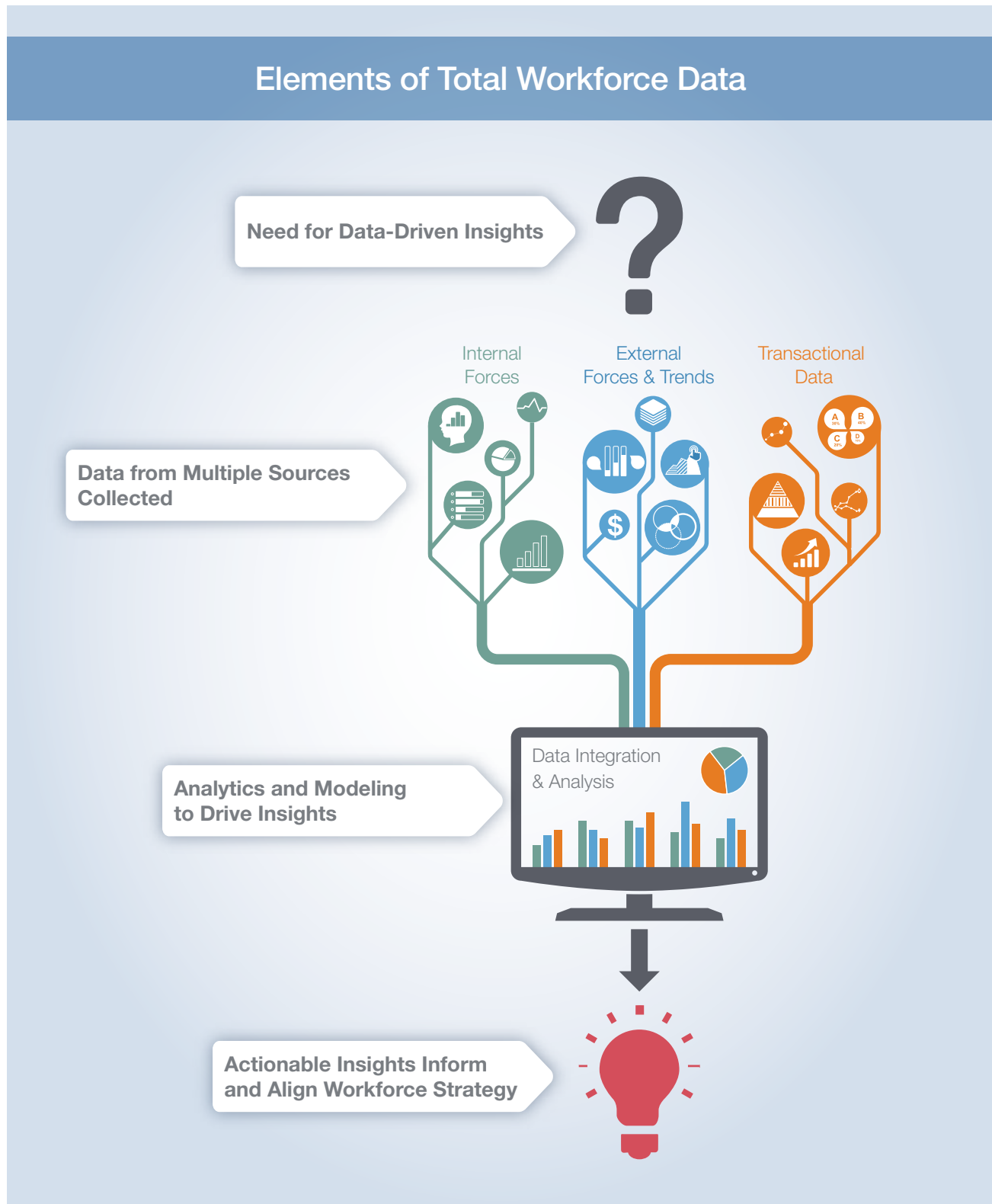
With companies facing constant shifts in global market dynamics, it makes sense that they would look outward for insights. As companies look to expand and relocate, the factors they need to consider are never-ending. Wages, taxes and regulations governing foreign entities and contract labor are among them, as are competition, availability of needed talent and geopolitical context.

When it comes to outward forces, one challenge that companies face is assuming all organizations are alike. Companies may assume the best option is to choose a country that receives media attention for its favorable laws and inexpensive labor. What these articles fail to report, however, is how much competition exists for the same talent, what the prevailing (and expected) wages are when combined with employment taxes and benefits, and what limits exist on contingent labor contracts (tenure laws, for example).

Today, one size very much fits one. Decision-making should be based on many interdependent data points that will vary based on other organization-specific factors, such as business objectives.

THE POSSIBILITIES OF ANALYTICS

Good data exists. At this point, it is a question of how it is used. Entities currently collect inward data and outward data separately. The key is to isolate the relevant information and integrate it into a system that allows for total workforce data.



SHORTENING THE PATH TO BETTER ANALYTICS

The integration and alignment of inward and outward data may appear to be a daunting task. For many organizations, data collection involves a variety of primary and secondary sources—often with inconsistent definitions. Additionally, the investment in data science can be substantial in terms of financial and human resources. The journey to better analytics is evolving and there are steps that can be taken to increase the ability to generate more meaningful insights:

1

Standardize Definitions and Data. Organizations that have internal data collection procedures in place must consider the longer-term implications of how that data will be used. Often, in-house data is based on a company's own definitions of metrics and measurement methodologies. By design, this serves to assess only internal progress over time, not taking into account shifts in the competitive environment. Standardizing the definitions and data in line with industry or market standards will enable benchmarking for more meaningful “apples to apples” comparisons.

2

Widen the Perspective. Business leaders often rely on discrete data points without the benefit of meaningful insights that can be provided through greater context. True analytics extend beyond the collection of standalone data sets. If, for example, a hiring manager can access attrition rates, the comparison of those rates against benchmark data can provide information into opportunities for greater efficiencies. Armed with awareness of what is causing trends, variations or an understanding of how competitors are faring unlocks the potential for targeted improvements.

3

Focus on What Matters. The fundamental aspects of workforce decision-making – who, what when, where, how and why – have remained relatively unchanged. It has only been in the last few decades that a seismic shift has occurred and information has grown exponentially. An analytics-driven organization requires the ability to filter out the noise and to focus on measuring and benchmarking what matters. Understanding what is actionable, what drives decision making and what has an impact on your business enables the shift from measuring what is ‘good to know’ to ‘need to know’ in a meaningful way.

4

Secure Buy-In. Capturing meaningful analytics across a contingent workforce requires engagement across business functions, as well as the support of leadership. It can be common for a discreet function of a business to strongly advocate for change. Socializing the benefits and understanding the impact will help secure support at the right levels of leadership.

5

Unlock the Potential of the Data. Employers are rightly concerned about keeping personally identifiable information confidential. This may translate to prohibitive levels of confidentiality and limits access to important data. Understanding that the vast majority of worker data a third-party provider needs to elevate workforce insights is transactional in nature is key. This includes things like pay rate, title, tenure and the manager's information. The nature of the data and the intended use can be balanced with worker privacy to identify effective benchmarks and unlock the potential of the data.

Moving Toward Total Workforce Data:

Tools From TAPFIN and ManpowerGroup Solutions



▶ REPORTING & ANALYTICS ENGINE

TAPFIN's Reporting & Analytics Engine (RAE) draws upon multiple client data-sets and sources to standardize data in a way that allows for benchmarking across industries, regions or companies with comparable workforce needs. It also enables the creation and calculation of insightful metrics that have a more relative impact on the overall cost and productivity of a workforce.

For example, in addition to focusing on cost-per-hire which is a common industry metric, companies gain greater benefit from tracking quality-of-hire, which measures the overall productivity that a particular hire has, leveraging multiple data points such as speed-to-proficiency, cost, availability and tenure. The comprehensive nature of this level of analysis enables clients to compare the efficiency of hiring processes and outcomes by market or business unit to support continuous improvement that is aligned to corporate objectives.

▶ CONTINGENT WORKFORCE INDEX

ManpowerGroup Solutions' Contingent Workforce Index (CWI) compiles more than 50 key data points around the availability, cost efficiency, regulation and productivity of contingent workforces in 75 countries. Using a proprietary formula, a numerical value is assigned to each country that provides a comparison of the relative opportunities of entering one labor market over another. This allows an organization to weight factors based on their strategic priorities—so if cost efficiency is considered a higher priority, regulation weighting can be adjusted accordingly.

For example, a global insurance provider wanted to assess its contingent labor usage and expand its contingent workforce programs to additional markets. An assessment helped them determine markets likely to yield the most value. Using the CWI during a location strategy workshop, the organization's procurement leaders were able to measure the value in terms of cost savings and process improvement—two of the organization's highest priorities. The effort allowed them to identify four new markets for planned expansion.

On a practical level, these tools enable standard reports such as headcount, tenure, time-to-fill, cost-to-fill, etc. They also allow for an exploration of trends within the data points and use RAE and CWI to determine the factors that are driving the issue. For example, an attrition issue might relate to wage pressure in the broader market, but this would be difficult to isolate without looking at all available data.

THE FUTURE OF CONTINGENT WORKFORCE ANALYTICS

There is a universal business desire for more predictive, insightful analytics. Useful starting places for how to do this already exist. Everyone from baseball analysts and hedge fund managers to national security experts all point to the same approach: analyze historical data for patterns.

For example, a company that wants to better understand worker productivity might look at the relative productivity value of one group of workers (subjectively rated by a cross-section of supervisors as highly productive) compared to another less productive group. In this case, a data scientist might examine historical data across the sample of workers to see what predicts the more productive group. It could be source of hire, educational background, past experience, or any number of other factors.

In addition to uncovering sources of talent, such an exercise yields insights into things like potential pay (e.g., if one worker “scores” twice as high as another, is an employer better off hiring only the more productive one at a higher rate?)

The future of workforce analytics requires new kinds of thinking. Leaders can drive that in the near term with the following strategies:



Challenge conventional wisdom. Locations, infrastructure, organizational structures, talent pools and regulatory environments are often presented as silver bullets that will deliver results more efficiently and at lower cost. Companies sometimes assume a particular solution without knowing all of the dynamics at play (e.g., “Locating our operation in X country will achieve the cost savings we need”). Or, they compare apples and oranges when, for example, a country with 500 million workers and a country with 100,000 cannot be viewed through the same lens. This is the conventional wisdom that gets in the way of effective workforce analytics. The next generation of leaders must set aside the assumptions of today.



Invest in new thinking. Twenty years ago, the job title of data scientist did not exist.⁴ Now it is one of the most sought after specialties in almost any organization. Organizations that recognize the value of metrics in the context of new workforce dynamics will invest heavily in data science and economist mindsets.



Ask new questions. In the past, companies have asked fairly pedestrian questions such as “How fast?”, “How many?”, “How much?”. The next generation will set a new bar we likely haven’t thought of yet. At the very least, we know the questions will center on the most important thing: “How effective is it?”

⁴ <http://www.forbes.com/sites/gilpress/2013/05/28/a-very-short-history-of-data-science/#1e559a2569fd>

Ten Contingent Workforce Analytics for the Future

Market leading organizations are driving next level analytics to provide actionable business intelligence and gain competitive advantage.

1. Contribution to Business Goals

Future analytics will look at the overall contribution of that group to business objectives.

2. Relative Productivity

This is a potential measure of a contingent worker's productivity over a peer or permanent employee. It would be useful in establishing predictive values for future hires. In sports, this could be compared to a metric called WAR, or Wins Above Replacement as is currently used in professional baseball.

3. Speed to Proficiency

This metric would allow hiring managers to predict how quickly someone will get up to speed, based on things like background, adjacent experience, education, or any other factor data scientists isolate as useful. This would allow for targeted recruitment of contingent workers and would inform decision-making about the makeup of permanent vs. contingent workforces.

4. Productivity as a Function of Workload

This concept assumes that the more competent worker leads to a workload increase. While any organization would want to hire such a worker, it is also important to understand the point of diminished returns. The right metrics help to identify and cultivate that worker, before the point of burn-out.

5. Hiring Manager Effectiveness

The effectiveness of a hiring manager can be tied to teams that boost productivity, morale and overall satisfaction.

6. Worker Engagement

Understanding levels of worker engagement and the factors that contribute to it are essential to replicating environments that are conducive to positive morale.

7. Vendor Effectiveness

One of the biggest challenges in workforce analytics is the fact that most companies have a variety of third-party resources operating on their behalf. All of these organizations have different SLAs, KPIs and other methods for measuring effectiveness. Some efforts are already underway to create consistency. TAPFIN is at the forefront of workforce analytics with innovations like standardized supplier performance scorecards and is already working toward incorporating these emerging analytics into future vendor management measurement.

8. Transactional KPI Effectiveness

Transactional KPIs are necessary, but the way the data is used can be reconsidered. For example, is performance impacted—either positively or negatively—by shorter time-to-fill or cost-per-hire? These are the questions that should be asked.

9. Total Performance

Assuming it is possible to define ways to measure ramp-up, engagement, productivity and the like, surely data science can suggest all-around performance measures on par with measures of total offense + defense.

10. Workforce Management Efficiency

Ultimately, third-party workforce management providers will be held to as high a standard as the metrics they report against.

[Conclusion]

Today, most organizations are heading toward what could reasonably be called Workforce Analytics 2.0. The tools exist to help companies look at firm and market-level data in tandem and this is a critical step in the right direction. Expectations for improved talent analytics are increasing and forward-looking companies are driving toward a much more evolved set of analytics that allow companies to predict success rather than reflect on it. Even as companies come to terms with what is new in analytics today, a significant shift lies ahead.

Put simply, analytics must allow companies to objectively predict potential – including what limits it, what nurtures it and what makes that potential thrive.

About TAPFIN

TAPFIN is a leading managed service provider (MSP) dedicated to the innovation and delivery of integrated workforce management solutions worldwide. TAPFIN's customized, scalable MSP solutions for contingent and project-based spend are instrumental in driving process, performance and productivity improvements across the client organization, while providing visibility, predictability, risk mitigation and overall cost reduction. Part of ManpowerGroup™ Solutions, the outsourced services offering from ManpowerGroup, TAPFIN offers a complete suite of workforce management solutions that fully leverages a blend of global expertise and local knowledge.



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