Maximizing the Impact and Effectiveness of HR Analytics to Drive Business Outcomes

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The topic of HR analytics has been given a lot of press lately—and rightfully so. It affords HR leaders an opportunity to show the direct impact of their processes and initiatives on business outcomes. Unfortunately, as with many concepts that were once new to HR (e.g. engagement, quality circles, etc.), the definitions and process details associated with doing analytics the right way have not been well-articulated.

We will help remedy this by taking you through a step-by-step process of conducting HR analytics for maximum impact and effectiveness, while making sure that we give you the details, via case studies, to get it done right. We will clearly articulate a step-by-step process for making these connections so that HR can clearly articulate a business-case and show the business impact of its investments—like other departments/functions within organizations.

Specifically, we will focus on process analytics that focus on conducting cause-effect analytics on individual HR processes, and integrated analytics that focus on pulling multiple HR processes together to tackle strategic issues such as succession planning.

We define HR analytics as demonstrating the direct impact of people data on important business outcomes, but landing on a proper definition of HR analytics is less important than using the process to affect the overall role of HR in an organization. The reality is that organizations already spend significant dollars on employees. The problem isn't that senior executives are not willing to invest in people. The problem is that those investments: 1) lack data to justify their worth, 2) use the wrong data, or 3) produce unquantifiable returns.

The HR function can implement a practical approach to help executives make the right investments based on effective analysis and practical initiatives. Yes, there is the need for advanced statistical knowledge, but for the most part, the process is fairly straightforward. Today, the types of analytics required to discover the drivers of tangible business outcomes are frequently used in different settings. For example, banks use predictive models to assess consumer and commercial credit risk. Market researchers utilize customer demographics to predict buying behaviors. These approaches make an educated, predictive assessment based on facts and data.

Chief financial officers (CFOs) do the same thing when they produce financial forecasts or conduct a cost/benefit analysis. The goal is to understand the past and present to predict the future, basing these assessments on facts and data. Therefore, the idea, for example, that employees' attitudes can be scientifically and rationally related to tangible business outcomes is not ridiculous. In fact, based on our experience with organizations of all sizes, it is quite feasible—and in this age of intense competition, failing to discover the cause-effect drivers hidden in your employee-related data could be quite dangerous to your business's long-term viability.

The Benefits of Analytics

Let's consider the benefits of HR departments making an investment in stronger analytics.

1. They can redirect the money they spend today on the wrong employee initiatives to more beneficial employee initiatives. Specifically, those initiatives that impact critical business metrics and outcomes instead of the latest un-quantified HR fads that promise to make employees happier, more engaged and satisfied.

2. The investments that they decide to make that focus on employees will result in tangible outcomes that benefit shareholders, customers and employees themselves.

3. The returns on such investments, via their impact on the top and/or bottom lines, can be quantified.

4. HR departments can be held accountable for impacting the bottom-line the same way business or product leaders are held accountable.

5. HR executives will be included in the conversation, because they can now quantify their numerous impacts on business outcomes.

What HR Analytics Is Not

It is also important to try to put a halt to some of the misconceptions about analytics before HR leaders go down those paths. HR analytics is not the following:

Efficiency Metrics/Scorecards

For some, HR analytics have come down to tracking more efficiency metrics around HR activities. There is nothing wrong with measuring time-to-hire as an HR efficiency metric, but it likely does not excite your CEO—unless you have shown the direct connection between time-to-hire and the quality of people that are hired. Yet many just track it anyway and call it analytics. Tracking efficiency metrics on a big HR scorecard is important, but call it what it is—a scorecard. More metrics and a scorecard do not show business value and do not mean much outside of HR. More data collection does not equal analytics, it just means more collection.

Alignment

HR leaders often say that they are aligned to the business. They should be. In fact, it would be strange if what HR was doing was completely disconnected from the line-of-business (LOB) that it was supporting. If the sales function is hiring, then HR should be helping the sales function hire people. That’s alignment. No analyses are needed, nor does it show a cause-effect relationship with increased sales to say that you are aligned.

Gap Analysis

Showing gaps between survey scores between two different departments is a way of analyzing data. Demonstrating improvements from year-to-year is also an interesting perspective. However, if we aren’t showing the business impact of that gap, then all we are doing is ranking departments on scores—i.e., looking at data.
Correlations

Correlating people data and business data is definitely a step in the right direction. It shows the organization that we are pulling information together and making important connections. The downside is that correlations do not help us make important decisions about what to invest in from an HR perspective—because correlations may only represent coincidences in the relationship between people data and outcome data. The classic example is the correlation between shark attacks and ice cream sales. Shark attacks do not cause people to buy ice cream, nor does eating ice cream make you any more a target to be attacked by a shark. It is not a wise investment for Baskin Robbins to spend millions of dollars to chum the waters at beaches that are close to their stores. They are correlated because they both increase during the summer time. Plus, bringing a correlation analysis to a senior team with a moderate level of statistical expertise will result in quickly debunking an analysis.

Benchmarking

A key factor that many executives examine, particularly with employee opinion surveys, is the ability to benchmark how their organizations are doing versus the outside world. It’s an important metric and valuable in benchmarking; what is not apparent is the connection to business outcomes of being well-ahead or well-behind on benchmarks and the actual return-on-investment (ROI) on spending money to improve on a certain benchmark. Again, it is a way of looking at data, but benchmarking is not analyzing data or showing its business value.

How HR Analytics Should Be Executed

The key reason to conduct effective HR analytics is to conclusively show your business impact within the organization. Again, terms like “business partner” and “seat-at-the-table” have been overused in the HR world and HR literature. But showing the actual cause-effect relationship among what you do and business outcomes and building a strategy based on that information, will allow you to make those terms a reality. An HR leader that uses analytics properly to show business value will:

- Calculate return-on-investment for (nearly) everything that they do.
- Give evidence-based advice on how to drive the business from a people-perspective.
- Be pursued by line-of-business leaders to help them reach business targets.
- Take accountability for a portion of the organization’s financial health.
- Show results and not just HR activity completion (e.g. survey response rates).
- Create an HR strategy that has direct impact on the bottom-line.

Cause-Effect Analysis

Rather than get mired too deep in the statistical aspects of cause-effect analysis, we will focus on the benefits of this approach. Structural equations modeling (SEM) is a statistical analysis approach that econometricians and market researchers have used for decades and more recently by industrial/organizational psychologists. This approach allows you the opportunity to:

1. consider multiple independent & dependent measures concurrently;
2. imply cause-effect relationships;
3. calculate a more robust ROI; and
4. correct for measurement errors.

The first point is important because we know that each individual piece of employee-related data does not exist in a vacuum and organizations measure numerous outcomes. The second point is critical because, as mentioned earlier, correlations do not tell you which came first, for example, did financial improvements happen after we had employee satisfaction? By following the guidelines of SEM, we can uncover cause-effect relationships. By demonstrating cause-effect relationships, the third point becomes much more defendable to other senior leaders, because ROI will be shot down if based on correlations (we’ve seen it happen). Finally, point four is technical, but important. People-data collection brings with it a portion of measurement error that is typically shown through a reliability assessment. Unfortunately, correlation analysis assumes that everything was measured without error, which begins the process with a significant flaw.

Regression Analysis

Regression analysis does afford HR leaders an opportunity to look at multiple pieces of data simultaneously and help prioritize the impact of people data on business outcomes. Regression is used to show the connection from attitudes to attitudes on an employee opinion survey, e.g. connecting survey items to turnover intentions. Regression does not show a cause-effect relationship; however, it is a step in the right direction to help you prioritize impact.

A key message that we constantly communicate to HR leaders is: Don’t let the statistics be a barrier; you can hire a firm, a graduate student or professor to help you do the analysis, or use an internal resource within the organization with these skills.

Key Approaches to Analytics

Now that you know more about analytics, let’s take a look at two key strategies that show HR’s value.

As mentioned above, many HR processes have become ubiquitous in nearly all organizations (e.g. employee opinion surveys and 360s). The opportunity is now to assess and demonstrate the actual business value of these processes. To that end, two strategies to analytics should be taken to maximize their effectiveness and influence in organization.

First, HR Process Analytics helps connect an individual process, such as those listed in Sidebar 1, to important business outcomes.

Examples of Process Analytics

- On-boarding
- Selection
- Performance Management
- Employee Opinion Surveys
- Competencies
- Leadership Development
- 360 Assessments
- Work-life Balance Initiatives

Examples of Integrated Analytics

- Succession Planning
- HR Strategy Development
- CEO People Dashboard
Each process can be analyzed separately to show the return-on-investment and drive action and a sense of urgency for the results across the organization. Second, HR Integrated Analytics combines the key business drivers from the Process Analytics approach into an integrated business-focused strategic plan. Succession is an important area that consists of several processes, but can be focused upon by an integrated analytics approach. We will illustrate both types of analytics with the following case studies.

A Comprehensive, Practical Road Map to Conducting HR Analytics

We have refined a practical roadmap over many years that boils down to a straightforward six-step process shown in Exhibit 1 that drives HR strategy by connecting what is done in HR directly to business outcomes. HR analytics moves beyond conducting analysis and creates an environment of executive buy-in, cross-functional interaction, targeted initiative-building and a discipline of measurement and re-focusing.

**Step 1: Determine Critical Outcomes**

An organization must first determine the top two to three most critical outcomes on which to focus. For example, outcomes such as productivity, turnover and customer satisfaction are commonly desired outcomes—but those are not the end of the list. Financial indicators, costs and safety-related data are all outcomes that can be connected to employees. Key stakeholder interviews of the board, CEO, CFO or other business leaders are very helpful in the process—this is also a great chance to generate buy-in.

**Step 2: Create Cross-Functional Data Team**

Next, you will need to identify the various owners of the outcome data. These data owners become the key members of a cross-functional data team (CFDT) that needs to be organized. This team should consist of measurement experts, key line-of-business leaders or metric owners, and HR leadership. The measurement experts are needed to determine data requirements, to scientifically link the necessary datasets, and to conduct the requisite statistical analyses. It is important to have influential company leaders and decision makers participate in this process—to generate a sense of urgency. Warning: There can be instances of turf-battles over data and suspicion about turning over business data to another function—for this reason, additional senior leader participation is critical.

**Step 3: Assess Measures of Critical Outcomes**

The next step is to determine how data are currently captured in the organization. This step gets into the details of the actual analysis process, but several measurement characteristics of each outcome measure must be assessed.

- Frequency of measurement (e.g., monthly, quarterly, annually).
- Level of measurement (e.g., by line of business, by work unit, by manager, at the store level, at the department/function level).
- Organizational owners of each of the outcome measures (e.g., the department or leader of the particular measurement).

Understanding each of these measurement characteristics is important before any linkages to employee data can be made. The goal is to have apples-to-apples comparisons of the data—which means that if you want to look at productivity numbers, you need to have productivity data that is measured at the same interval (e.g., monthly) and at the same level for each manager.

**Step 4: Conduct Objective Analysis of Key Data**

This part of the process will require advanced statistical knowledge to link the data. If internal resources don’t exist in your organization, then hiring a consultant, graduate student, professor or full-time statistician for this role

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**EXHIBIT 1: THE BUSINESS PARTNER ROADMAP™**

1. Determine Critical Outcomes
2. Create Cross-Functional Data Team
3. Assess Outcome Measures
4. Analyze Data
5. Build Program & Execute
6. Measure & Adjust
is necessary. Using structural equations modeling affords us the ability to determine, for example, whether employee attitudes about work-life balance are a cause-and-effect driver of increased customer satisfaction. This implied cause-effect relationship is important for understanding how these different measures relate to each other as well as for calculating an expected return-on-investment for the initiatives.

The statistical component of this step accomplishes three things:

1. Understanding the relationship between employee initiatives, skills, behaviors, attitudes and meaningful business outcomes.
2. Prioritizing types of interventions (i.e., determine where to spend time, money).
3. Calculating expected ROI to determine levels of investments and returns.

This work is designed to allow you to determine your HR priorities and how much to invest in them. The final result generated from the data analysis step is a list of priorities that have data and analysis behind them to ensure an impact on the business. It will also show which initiatives are not having their desired impact(s) and could be candidates for cost-cutting.

**Step 5: Build the Program and Execute**

Create interventions that will have the desired effect. At this action-planning stage you can focus activities at the systemic, organization-wide, line of business or work-unit level. The big opportunity is that the investments focus on those employee processes/skills/attitudes/demographics, that have been shown to have a direct impact on the organization’s desired business outcomes—and not just an assumed impact or a feeling that it is the right thing to do. An expected return will now be used to guide the HR strategy, and initiatives must be customized and placed in the context of each unique organization.

**Step 6: Measure and Adjust/Re-prioritize**

In the last step, re-measure to assess progress and calculate actual return-on-investment. Business leaders understand the importance of goal setting and measurement. They also understand the importance of creating a culture of measurement and accountability. Like other organizational decisions, leaders should make slight adjustments to initiatives along the way based on regular measurement results. However, it is not advisable to make frequent, wholesale changes to the strategic focus of the interventions. Pick two to three priorities and build action plans around those priorities. Measure progress against those plans two to three more times, and then re-calculate the dataset linkages and re-prioritize.

**HR Process Analytics Case Study: Employee Opinion Surveys**

Employee engagement/satisfaction/commitment is not a business outcome, but it can be a driver of business outcomes. HR analytics will allow you to link the survey data that you collect to important business results and then focus your initiatives on those key areas that drive results. The key questions to ask at each step in the Business Partner RoadMap™ (see page 23) are as follows:

1. On what outcomes/metrics are the senior leaders in this organization most focused?
2. Who owns the specific data/metrics that senior leaders are focused? How do I connect with those individuals to obtain the data?
3. Are the important business data/metrics collected at the appropriate level for me to make apples-to-apples comparisons (i.e. department level/district level)?
4. Do I have the statistical capabilities in-house or do I need to look at a university or consulting firm to help me analyze the data?
5. Based on the linkage analysis, what is the highest priority/ROI project that I should execute first?
6. How do I assess the change that has occurred and make adjustments to maximize effectiveness?

We had the opportunity to help Baptist Health Care analyze their employee survey data to make it business-focused. Due to the healthcare reform law, a patient survey known as HCAHPS (Hospital Consumer Assessment of Health Providers and Systems survey) has become a critical business outcome with important financial implications for the organization. The organization typically viewed their employee survey as a way to gauge their level of engagement, which is common in many organizations. However, they needed new tools to improve HCAHPS

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scores and viewed their people as an opportunity. We took their survey data at the manager level and directly linked it to HCAHPS scores at the manager level, using structural equations modeling. On a tactical level for the analysis, we lined up the survey results for each manager and then aligned their year-to-date HCAHPS scores. We then used the AMOS program in SPSS statistical software to analyze the data using structural equations modeling. What we discovered from these senior level analytics is in Exhibit 2.

Exhibit 2 shows that Quality and Safety are the two survey categories that significantly drive HCAHPS at Baptist. More specifically for Safety, it was that employees at Baptist felt safe at work, literally in the building and walking to their car. The beta-value (impact measure) of 0.12 was statistically significant, meaning that feeling safer at work was a direct cause of employees treating patients more effectively. This result made sense as it is difficult to focus on making patients feel cared for if you are looking over your shoulder or feel uncomfortable in your surroundings.

Furthermore, the hospital had recently experienced a significant safety incident in the emergency department. As a result of the linkage analysis, Baptist raised the sense of urgency around safety even higher. Survey results that were not high on the to-do list now had the full support of the entire senior team, including the CFO, because of the demonstrated impact on financial outcomes. Having the facts and data to support the improvement of a critical business outcome (HCAHPS), and the ability to show the level of impact and specifically on what needs work creates impact opportunities for HR.

Bringing Analytics Results to Front-line Leaders

Making HR analytics available and actionable to front-line leaders will expand your impact in the organization. An important approach/tool that makes employee opinion survey data more business-focused is the use of analytics-driven HeatMaps. We created Strategic Survey HeatMaps™ (Exhibit 3) to provide each leader with an easy-to-understand chart that summarizes their local survey data into four areas that prioritize action—based on cause-effect business impact. Front-line leaders simply do not have the time to pore over numerous survey items with average scores, percentile favorable scores, and benchmark scores prior to making any informed decisions on strengths, weaknesses and what needs their work to see an improvement or a business impact).

The HeatMaps allow you to provide all leaders, at all levels a quick way to incorporate analytics to prioritize exactly what needs their attention to impact results.

The Mechanics of the Strategic Survey HeatMap™

In this example, the outcome were the HCAHPS results. Using structural equations modeling, we lined up each manager’s employee opinion survey data with their year-to-date HCAHPS data. The vertical axis on the heatmap is the percent favorable score that was achieved on each of the categories from the survey. The horizontal axis shows the level of impact that each of the survey categories had on the business outcome (HCAHPS). The vertical bolded line near the middle of the heatmap reveals the cutoff where the impact was significant or not significant. Every survey category to the right of the vertical bold line had a significant impact. Every survey category to the left of the vertical bold line did not have a significant impact.

The horizontal bold line represents the average “overall percent favorable goal” for the entire organization. We determined this average by holding a meeting with senior leaders to gain their input. Any survey categories that are above the horizontal bold line are considered strengths. Any survey categories that are below the horizontal line are considered a developmental area.
The four quadrants of the HeatMap help leaders to determine how to combine the level of impact and the level of strength of each survey category and turn those results into a business-focused action plan.

**Focus**
The bottom right quadrant is labeled Focus. This quadrant is the most important because any survey category that falls into this area is 1) scoring below the organizational average as measured by percent favorable, and 2) a significant driver of HCAHPS. Simply put, these two survey categories (Career Development and Management Communication) are important, and this particular leader is not very good at either of them. It makes sense that this particular leader should put these two categories on his or her action plan. The HeatMap is designed to help the leader get very detailed quickly by providing the specific items that make up each of these survey categories. Then, he or she can see specifically where to spend the most time. If you think back to any past employee surveys that you have conducted, you will remember that it would be difficult to reach such quick conclusions on where to spend your time to have a business impact. Most standard reports only list performance on each survey item. Front-line leaders love the four-quadrant approach, because it significantly reduces their data analysis time and allows them to get down to creating plans quickly. When they realize that these are not just low scores, but are also elements critical to a performance metric that directly impacts their bonus, they buy-in on a personal level and a business level.

**Promote**
The upper-right quadrant of the HeatMap is labeled Promote, because these are the survey categories on which the leader is scoring well; and they are important drivers of business outcomes. For these survey categories, the leader would want to get the word out to his or her people and brag about the outcomes the leader has achieved as a result of his or her actions.

**Monitor**
The bottom-left quadrant of the HeatMap is called Monitor, because the survey categories that land here represent areas of weakness for this leader; but they are not highly significant to driving the HCAHPS business outcome.

**Maintain**
The top-left quadrant of the HeatMap is called Maintain—this represents the areas in which the leader is doing a great job, but these survey categories are not highly impactful on the HCAHPS outcome.

**HR Integrated Analytics Case Study: Succession/Talent Planning**

Employee surveys and 360s are two of many opportunities to apply process analytics to important HR initiatives. Integrated analytics bring multiple processes under one umbrella and can have even larger strategic impact in your organization—as evidenced in the following paragraphs.

Succession/talent planning is critical to building that long-sought-after pipeline of leadership for the organization. Unfortunately, this process has been plagued by favorites being selected as high potentials and ratings of performance/potential that are not based on any type of rigorous measurement. Many components of succession planning can and should be made more rigorous and scientific to reap the greatest benefit for the organization. These include:

- Discovering what aspects of employee performance drive business outcomes.
- Assessing the health of the talent pool.
- Creating leadership programs based on true talent pool development needs and individual development needs that are driving business outcomes.

Our specific approach to analytics-based succession planning is depicted in Exhibit 4.

The analysis of key business drivers serves as the foundation for a talent/succession scorecard. Integrating the business drivers from key HR process analytics and applying them to individuals across the organization will neutralize the biases that come into play when creating succession/talent plans.

A sample of our Talent/Succession Scorecard™ is provided in Exhibit 5. This scorecard

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**EXHIBIT 4: ANALYTICS-BASED SUCCESSION PLANNING**

1. Assess Business Impact of Current People Data
   - Review business strategy and key business metrics
   - Link people assessments (competencies, performance, attitude surveys) to business metrics
   - Focus on people assessments that drive business outcomes

2. Build and Customize the Succession Plan and Ready Now Scorecard
   - Incorporate stakeholder ratings of performance and potential
   - Analytics may eliminate Ready Now’s from the pool and may uncover overlooked Ready Now’s
   - Reveals strengths and gaps across the talent pool
   - Assess Talent Pool Health

3. Conduct Facilitated Talent Planning Sessions
   - 90-day rating exercise
   - Calibrate ratings distributions
   - Create customized development plans—making differential investments based on performance and potential
   - Map plans against current career pathing

4. Launch Focused Leadership Development Program & Assess Results
   - Leadership Development Program can include:
     - Executive Assessments (personality, 360, experience)
     - Action Learning Teams focused on business issues
     - Group Learning
     - Individual Coaching
allows you to focus exclusively on factors that drive the business because it only displays those key areas of performance and behaviors that were proven to have a cause-effect impact on business outcomes. This approach helps to calibrate “9-box” ratings and reduce the amount of bias inherent to less rigorous succession planning approaches.

If you read the scorecard from left to right for each leader, you can see very quickly the specific areas in which they need individual development help. Additionally, if you read top-to-bottom for each area that was assessed, you can quickly identify key development needs across the entire talent pool. For example, the most glaring issue raised by the scorecard in Exhibit 5 is employee attitudes. The scorecard gives you the opportunity to identify both individual and organizational development needs. Another key outcome from this scorecard is the ability to calculate an overall Talent Pool Health Score that can be used to track progress in developing the key talent in your organization. The Talent Pool Health Score represents a summation of all of the talent health scores for each individual being assessed.

By incorporating information from all leaders in an organization beyond the high-potentials, the scorecard will reveal individuals who are high-performers on the critical business drivers who may not have been considered part of the original pool of future leaders. Reconsidering talent will help the organization to avoid missing opportunities to develop talent that may have been overlooked. This highly objective, analytics-based approach also helps reveal high-potential leaders who are vastly underperforming on competencies/results that are critical to the business. Reconsidering the placement of such individuals in the future leader pool can save the organization from over-investing in under-performing employees.

Final Thoughts

The analytics process presented here is straightforward and numerous organizations have used it to gain competitive advantages. It is time for HR leaders to start attacking business outcomes versus trying to improve an employee engagement score or increase participation rates on their initiatives. The proper implementation of analytics is a key initiative to making HR a strategic function in any organization.

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