HUMAN CAPITAL ANALYTICS:
ALIGNING PEOPLE AND RESULTS

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Organizations cannot compete effectively—at least for long—without aligning their people with results. And yet the decision-making processes for optimizing the people side of the business remains rudimentary in most organizations—often amounting to little more than guesswork and gut feel. At a minimum, this state of affairs results in lost opportunities: a failure to attract, motivate, and retain a talented and diverse workforce; unnecessary escalation in health care costs; lackluster sales; or disappointing result from mergers and acquisitions.

In some cases, this state of decision-making can even prove fatal to an organization. The decline of Circuit City from a widely-admired company to oblivion was a quick one. One of only eleven companies identified as "great" eight years ago in Jim Collins's book *Good to Great,* Circuit City filed for bankruptcy in 2008. Collins and others have pointed to a major decision on the people side of the business - Circuit City's 2007 decision to lay off 3,400 of its most experienced sales people and replace them with lower-wage workers - as a key contributing factor in the organization's demise.

Executives at Circuit City clearly didn't expect this decision to be so devastating. Why? At some level, the answer has to be that they failed to do their homework. They failed - or were unable - to do the analysis that would enable them to understand the true consequences of their cost-cutting decision. (Even at the time, commentators questioned how they knew which employees could not justify their higher pay through greater productivity.) Circuit City made this critical decision based on gut, rather than analytics. Had they developed the discipline of human capital analytics, the outcome may well have been different.

On the other hand, there are some organizations that have had great success in aligning their people with organizational results. Google, for example, is well-known for its innovative, data-driven practices, which it applies in all areas of its business - including the people side. For example, starting in 2006, Google did an extensive survey of a wide range of characteristics of all of its long-time employees. The company then linked the data to multiple measures of desired outcomes, including employee reviews as well as measures of contribution to the company as a whole. The resulting analysis yielded specific insights on employee traits that were tied to better performance in a variety of specific job areas, and moved the organization to target job applicants with those characteristics.

Similarly, Google recently began to analyze data from employee reviews, promotion, and pay histories to identify which of its employees are most likely to quit (getting "inside people's heads even before they know they might leave," according to an HR executive at the company[1]), and working proactively to address their concerns before they take steps to leave. By using existing data both to identify potential new hires who are most likely to contribute to organizational success, and to retain valuable existing employees who might

[1] Scott Morrison, "Google Searches for Staffing Answers," *Wall Street Journal,* May 19, 2009.

be inclined to leave, Google is using human capital analytics to drive continued business success.

Extreme examples? Perhaps. But the experiences of both Circuit City and Google point to an important underlying truth. When organizations make critical decisions about the people side of their business (which typically represents both their biggest asset and their largest cost), they owe it to themselves to develop - and use - as much insightful information as possible on the relationship between an organization's people and its results.

This white paper defines human capital analytics (HCA) in additional detail, delineates the types of problems that HCA can help solve for your organization, provides an overview of the "how to" of HCA (including some specific details for those who are interested), and ends with some suggestions on how to get started on HCA in your organization.

What is Human Capital Analytics?

Human capital analytics is the process for using quantitative methods to transform data relating to individuals and groups of people (such as their attributes, skills, development, costs, productivity) into actionable business intelligence that can help to drive and improve an organization's most important outcomes.

Types of Problems that HCA Can Help to Solve

Human capital analytics can help your organization to solve at least three categories of problems:

- Optimizing your HR policies and investments,
- Improving your business results, and
- Increasing the probability of success of mergers and acquisitions

Optimizing HR policies and investments

Human capital analytics can help HR professionals to create and use business intelligence to meet almost any challenge facing a modern HR department. This includes identifying the business impacts of employee training and leadership development, and how to optimize the return on these investments.

Fact-based answers can also be provided for other HR questions using similar HCA methods. These questions can include the following:

- How can we attract a diverse and talented workforce?
- What can we do to motivate and retain the categories of employees that are most critical to us?
- How do we preemptively spot and address managerial problems before they lead to productivity problems?
- How do we optimize our investments in employee wellness, and avoid escalating health care spending that does not result in improved health?

Improving business results

By helping your organization to identify the specific human factors that underlie variations in your business results (e.g., why some sales offices perform so much better than some other sales offices), human capital analytics can enable disciplined and well-informed choices for driving improvements in your organization's overall business results.

Whatever business result your organization is seeking - increased productivity in factories, patient satisfaction in medical facilities, revenues in professional services organizations, or student achievement in schools - HCA is an invaluable tool for developing the necessary actionable intelligence for improving the result.

Increasing the probability of success of mergers and acquisitions

The high rate at which mergers and acquisitions fail is testimony to the inadequacy of financial due diligence as a reliable method of predicting success. It is widely acknowledged that the failures all too often result from problems on the people side, rather than the financial side, of the deal.

What is required is a process for conducting "human capital due diligence" on the overall strengths and weaknesses of an organization's workforce, culture, and processes as a whole - a process that goes well beyond whatever cursory methods that are currently used (which usually focus exclusively on the executive team of the acquired organization). Human capital analytics can be used to preemptively spot and correct critical weaknesses and/or incompatibilities in culture, processes, and management, by knowing which strengths are most critical to driving results and hence must be preserved, and which weaknesses are most threatening to the business and need to be corrected.

The "How To" of Human Capital Analytics

Most fundamentally, human capital analytics is based on putting together disparate pieces of information in a way that makes it possible to identify previously unknown relationships between various data elements.

Most often, information on the "people side" of an organization - its work, learning, and leadership environment - is most easily (and most accurately) captured through a well-designed employee survey (see below for additional information). Employees in different locations or with different managers will be working in somewhat different environments, and their survey responses will vary accordingly. Information on an organization's sales office productivity or customer satisfaction may exist in a different database, often housed and managed elsewhere in the organization.

By combining the two through the HCA process, it's possible to examine, for example, which elements of an organization's employee work environment are most closely linked to sales productivity or customer satisfaction differences between high- and low- performing units.

While the overall concept is relatively simple - combine information on the human side of the business with the business's bottom line to yield business intelligence that would not otherwise be possible - it does require close attention to detail. As described below, there are multiple elements of data that can be combined, depending on the purpose of the analysis.

Combining survey data with HR outcome measures, by organizational group

Individual (employee) level data from employee surveys can be aggregated and mapped to team-level measures of retention, diversity, employee wellness for each employee's organizational group (department, location, etc.) This provides the basis for a statistical analysis of the linkage between work environment or other factors measured in the survey and outcomes relevant to informing HR policy (e.g., retention, diversity, and wellness). The insights from this linkage analysis provide HR professionals with actionable intelligence for guiding their strategies and their optimizing investments.

Combining survey data with performance measures, by organizational group
Similarly, individual (employee) level data from employee surveys can be aggregated and mapped to corresponding team-level measures of performance for the organizational group (such as revenue, productivity, or safety measures). The insights from linkage analysis can provide customized intelligence for improving the unique human drivers of your organization's most important business results.

Adding information on employee attributes
By adding in data on the attributes of individual employees (years of experience, educational background, or job history), it is possible to develop an understanding of how individuals' profiles interact with their environment to produce either exceptional or inferior results (e.g., sales productivity). This insight can be used both to inform individual hiring decisions, as well as to guide investments in organizational development.

Analyzing data at the individual employee level
It is also possible to capture quasi-outcomes like employee commitment through an employee survey itself. When this information is available, HCA can identify which elements of an organization's work environment are most closely associated with employee commitment throughout the organization. This form of analysis is particularly useful in cases when the above methods of data linking are not possible, perhaps due to issues of data availability.

Sample size and analytic techniques
HCA can use a variety of quantitative techniques. The specific technique that is most appropriate in any given case will depend primarily on the sample size - the number of "units of observation" for which the outcome measures of interest are available. The greater the number of units for which comparable outcome measures are available, the more sophisticated can be the quantitative techniques that are applied (e.g., t-tests for comparisons of means when there only a small number of observations is available vs. panel regression techniques for when there are a large number of observations over multiple time periods).

Further, the greater the granularity at which outcomes can be measured, the more precise can be the linkage analysis in identifying key differences between high and low performing units. That is, an analysis using a business outcome that can be compared across 25 different office locations will yield more precise results than one that can only be compared across 8 locations.

Important employee survey qualities
Being able to quantify important elements of "the people side" of an organization is the cornerstone for using human capital analytics as a source of business intelligence and competitive advantage. As mentioned above, the best way to gather this information is through well-researched and thoughtfully designed employee surveys. Your employee surveys need to go beyond capturing traditional measures of employee satisfaction or one-size-fits all measures of engagement.

Traditional HR surveys typically miss critical aspects of the environment that have little to do with employee satisfaction (such as work processes and information sharing) but are essential to identifying the human drivers of business results. Moreover, many of these surveys are administered without any unique employee identifier, often making it impossible to link to business results.

Getting Started

Once you have a useful employee survey and have ensured that its results can be linked to the desired business outcomes, all that remains is to map and merge the employee survey data and the outcomes data, as described above, and to identify and deploy the appropriate quantitative methods for the actual HCA analysis.

Often, the skills necessary for an organization to launch the types of analysis described in this paper are in short supply.[2] Many organizations don't have the necessary skills (typically found in the fields of economics, statistics, and operations research) available in-house. For this reason, many organizations conclude that it is more cost-effective to work with outside consultants on their human capital analytics issues.

A final consideration is the importance of involving the leaders in your organization who will be acting on the insights that you develop through human capital analytics. By involving them early in the process, and helping them to understand the benefit it will create for them, you will maximize the impact that human capital analytics can have on your organization. This will enable the organization to emulate Google in making well-supported decisions that help ensure its long-term future, while avoiding disastrously uninformed missteps like those made by Circuit City and others.

[2] See Thomas Davenport and Jeanne Harris, *Competing on Analytics: The New Science of Winning* (2007).