The Quantified Organization: Creating Data Driven HR

The Quantified Self
In 2007, Wired editors Gary Wolf and Kevin Kelly coined a new term “Quantified Self” to describe the growing group of like-minded individuals interested in capturing, documenting, and eventually learning more about their personal lives and habits from massive amounts of data now available through devices carried or worn on a daily basis. While initially the focus was primarily on health and fitness as Fitbits and Jawbones tracked movement and sleeping patterns, to take data a step further wearers moved into mood trackers, relationship trackers, cognitive thinking trackers, and productivity trackers, to become the best version of one’s self. The concept of the Quantified Self assumes that people who know more about themselves are literally more self aware and will take action to make changes.

During our analysis of the Sierra-Cedar 2014–2015 HR System Survey, 17th Annual Edition, we posed the question of whether this quantification concept could be applied to an organization. Could we identify organizations that gather more data, share that data openly, and leverage it in processes and decision making, and see improved outcomes from their efforts?

For the past few years, we focused our efforts on finding high value from HR technologies and associated best practices by looking at Top Performers—those with high financial performance. This year, we found little difference between Top Performers and all others, leading us to infer that the competitive advantage Top Performers once achieved from HR technologies has minimized as more organizations adopt similar HR technologies and practices. So we dug deeper into our data by following one of the key lessons learned from our 2013–2014 Survey results about Business Intelligence (BI) adoption, and we came up with a new set of top-performing organizations. We found a group of organizations that are data driven. We call these the Quantified Organizations.

Introducing the Quantified Organization
The Quantified Organization is one that invests in HR technologies, processes, and practices that enable it to improve workforce operations and achieve organizational goals beyond all other organizations. Through their HR practices and technology adoption, Quantified Organizations support an environment of data-driven decision making.

Quantified Organizations were selected based on their leadership in four areas:

1. **BI process maturity** of the organization is at a high level. Business Intelligence is used in a way that is effective (aligned, best practice, and strategically focused) or transformational (unique, stands above others, contributes to competitive advantage financially, and enables the organization to be an employer of choice). On a scale of 1 (manual), 2 (efficient), 3 (effective), and 4 (transformational), the Quantified Organizations are clearly effective and approaching transformational.

2. **Direct access by managers** to HR analytics and BI supports their workforce decision making. The average for all respondents whose managers had such direct access was 19% in 2014, up from 15% in 2013; 74% of Quantified Organizations’ managers have direct access to BI and HR analytics.
3. **More data sources** are juxtaposed with workforce data, including core HR, Talent Management (TM), Workforce Management (WFM), financials, sales, and various operational systems. Organizations that use multiple data sets are more “quantified” in their ability to show the contribution of workforce efforts to business outcomes.

4. **More categories of HR metrics** help organizations make informed business decisions and optimize their workforce. We included six categories in our Survey including recruiting, absence, learning, compensation, performance, and productivity.

In our analysis, we compared Quantified Organizations to those organizations that did not meet our criteria listed above. Those organizations that did not meet our criteria were labeled “Not Quantified.”

**Figure 1: Introducing the Quantified Organization**

<table>
<thead>
<tr>
<th></th>
<th>Quantified Organization</th>
<th>Not Quantified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Better BI Process Maturity</td>
<td>BI Process Maturity</td>
<td>BI Process Maturity</td>
</tr>
<tr>
<td></td>
<td><strong>3.2</strong> Effective</td>
<td><strong>1.8</strong> Efficient</td>
</tr>
<tr>
<td>More Manager Access to Analytics</td>
<td>Managers with BI access</td>
<td>Managers with BI access</td>
</tr>
<tr>
<td></td>
<td><strong>74%</strong></td>
<td><strong>20%</strong></td>
</tr>
<tr>
<td>More Data Sources</td>
<td>BI Sources</td>
<td>BI Sources</td>
</tr>
<tr>
<td></td>
<td><strong>4.8</strong></td>
<td><strong>2.4</strong></td>
</tr>
<tr>
<td>More Categories of Metrics</td>
<td>Metrics Categories Tracked</td>
<td>Metrics Categories Tracked</td>
</tr>
<tr>
<td></td>
<td><strong>4.2</strong></td>
<td><strong>2.8</strong></td>
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</table>

**Quantified Organizations Outperform**

Sierra-Cedar has always analyzed Top Performing organizations based on four key financial metrics: revenue per employee, profit per employee, operating income growth, and return on equity. Over time, the Return on Equity (ROE) measure has grown in relative importance in our research because it is a ratio that is fully based on externally verified financial results and also factors in both the benefit and costs of HR technology. In addition to this, ROE has been linked statistically to HR technology adoption through a series of statistical analysis efforts conducted by Dr. Janet Marler, School of Business, University at Albany, SUNY.

Return on Equity (ROE) is a ratio that represents net income divided by average shareholder equity and is a well accepted measure of an organization’s success at generating profits from its shareholders equity. A company that earns an ROE in excess of its cost of equity capital adds value.
For the Quantified Organizations, we saw higher levels of financial performance, as well as positive HR and Talent outcomes, but the most dramatic difference in outcome analysis was in the Return on Equity outcomes. “Not Quantified Organizations,” those that did not qualify for choice as a Quantified Organization, have a 10.1% ROE; the Quantified Organizations have an 18% ROE—79% greater ROE than Not Quantified Organizations.

Lessons from the Quantified Organization

The practices of Quantified Organizations provide valuable insight into how they maintain their advantage in today’s data-driven world. These organizations differ greatly from Not Quantified organizations in three key areas:

- Foundation and Basics
- Strategy and Culture
- Innovation

Foundation and Basics

Leveraging data to inform organizational decisions requires that an organization gather, label, and house that data in similar ways; this data curation is important no matter the size or global reach of an organization. The Quantified Organizations in our Survey range in size from Small with just over 100 employees plus contingents to Very Large with over 410,000 employees plus contingents. Many Quantified Organizations are also global organizations operating in an average of 29 different countries.

As seen in Figure 2, we find that Quantified Organizations are more likely to have high percentages of HR process standardization and high levels of overall HR process maturity on a four-point scale. They are also more likely to deploy an Integrated Talent Management (ITM) solution that is on their human resource management system (HRMS).

Figure 2: Lessons from the Quantified Organization – Get the Basics Right

- Process Standardization
- Process Maturity
- ITM on HRMS

<table>
<thead>
<tr>
<th>Process Standardization</th>
<th>Process Maturity</th>
<th>ITM on HRMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>QO 3.0</td>
<td>QO 2.0</td>
<td>QO 62%</td>
</tr>
<tr>
<td>Effective</td>
<td>Efficient</td>
<td>QO 57%</td>
</tr>
<tr>
<td>Not QO</td>
<td>Not QO</td>
<td>Not QO 52%</td>
</tr>
<tr>
<td>42%</td>
<td>62%</td>
<td>42%</td>
</tr>
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</table>
Strategy and Culture

Strategy and culture are two areas that every organization strives to cultivate, but often struggles to clearly define. This is true at the enterprise level as well as the functional HR level. Strategy and culture create an environment of common understanding where the workforce members are clear about the outcomes they are trying to achieve and how an organization expects them to be accomplished.

Quantified Organizations embrace the importance of strategy and culture within HR. As seen in Figure 3, these organizations are almost twice as likely to have an enterprise HR Systems Strategy that is updated regularly, as well as an Enterprise Integration Strategy (EIS) that leverages an integration platform. The focus on enterprise-wide strategies continues into their future plans. Quantified Organizations are also more likely to have plans to migrate to an enterprise Business Intelligence solution for HR data analysis.

Finally, these are organizations that understand the importance of creating a Culture of Change Management. Quantified Organizations are more likely to practice Change Management efforts with every technology upgrade, release, or implementation the organization manages.

Figure 3: Lessons from the Quantified Organization – Strategy and Culture

Updated HR Systems Strategy | Enterprise Integration Strategy | Migrate to Enterprise BI | Change Management Culture
--- | --- | --- | ---
QO 64% | Not QO 37% | QO 75% | Not QO 61%
QO 35% | Not QO 11% | |
 |

Innovation

How an organization approaches innovation can mean the difference between catching a wave, riding a wave, or being bowled over by the wave. Over the years, Sierra-Cedar research has found that the very early adopters choose innovative technologies. Almost without proof of value at first, they sense that these technologies will give them an early advantage. In 1997, when very early adopters initially described their first forays into self-service, they characterized the technology as having “intrinsic value.” They were true pioneers and achieved early benefits. Over time, however, the early majority follows, then the majority of organizations follow, and by then
improved results are common. There is no longer a competitive advantage. There will always be an optimal window for adopting innovative technologies.

As seen in Figure 4, Quantified Organizations have higher levels of adoption in three innovative HR technology categories, all of which are showing value for early adopters. Individually, Workforce Management solutions and Talent Management solutions would no longer be considered innovative technologies; most organizations have some elements of each of these technologies. The innovative factor for these technologies is for organizations that choose to adopt complete suites of Workforce Management and Talent Management solutions, as well as Business Intelligence solutions. It is the high level of module adoption and intersection of data from these solutions that allows organizations to optimize their workforce. Organizations that leverage these solutions fully have data that allows them to deploy their workforce quickly, change course rapidly, and plan for multiple workforce scenarios based on data-driven insights. Quantified Organizations are seven-times more likely to be top adopters of WFM, TM, and BI solutions.

**Figure 4: Lessons from the Quantified Organization – Innovation**

<table>
<thead>
<tr>
<th>Adoption of WFM, TM, and BI</th>
<th>Higher level of Social adoption</th>
<th>Higher level of Mobile adoption</th>
</tr>
</thead>
<tbody>
<tr>
<td>QO 41%</td>
<td>QO 24%</td>
<td>QO 32%</td>
</tr>
<tr>
<td>Not QO 5%</td>
<td>Not QO 6%</td>
<td>Not QO 14%</td>
</tr>
</tbody>
</table>

Quantified Organizations have three times the adoption of Social-enabled technologies and twice the adoption of Mobile-enabled technologies. Both Social- and Mobile-enabled processes appear to lead to increased usage of HR technologies.

A Quantified Organization is one that invests in HR technologies, processes, and practices that enable it to improve workforce operations and achieve organizational goals.
Quantified Organizations: Playbook for a Data Driven Organization

The lessons learned from this year’s leaders—Quantified Organizations—provide a great playbook for HR functions that wish to increase their strategic value to an organization. Each step an HR organization takes toward greater levels of efficiency, internal reflection, and data-driven decision making improves its ability to add greater value.

Get the Basics Right
- Focus on process standardization
- Attend to process maturity
- Consider a complete platform solution combining Integrated Talent Management on your HRMS

Create a Strategy and Culture that Supports Performance
- Create and consistently update an HR Systems Strategy
- Implement an Enterprise Integration Strategy
- Migrate to an enterprise Business Intelligence solution
- Implement a Culture of Change Management

Innovate with HR Technologies
- Adopt and integrate Workforce Management, Talent Management, and Business Intelligence Applications
- Adopt Social-enabled processes
- Adopt Mobile-enabled processes
Special Thanks to Lexy Martin for her contribution and thought leadership on the Quantified Organization research effort.

Information contained in this white paper and our Annual Survey analysis is compiled and analyzed by Sierra-Cedar as part of the organization’s commitment to provide thought leadership on Human Resources technologies, trends, and the impact their adoption has on enterprise performance. Sierra-Cedar encourages customers, media, partners, analysts, and other readers to share the information found herein and to quote liberally from the Survey with appropriate credit provided to Sierra-Cedar. However, this report cannot be publicly posted in its entirety without explicit permission.

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To request a media interview, please email us here: HRSystemsSurvey@Sierra-Cedar.com.

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