



## The Value Propositions and ROI of Business Intelligence

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**M**any organizations are beginning to leverage their data with business intelligence (BI) technologies to gain insights, manage with metrics and support better informed decisions.<sup>1</sup> In Finance, leaders need data and insights to plan, forecast and identify risk. For marketers, data are used to develop insight about customers. Examples include measuring customers' lifetime value or predicting possible purchasing events. For HR leaders, data are used to monitor operational effectiveness, such as time to fill or percent of performance appraisals completed. More importantly, however, organizations are beginning to use analytics to support work force planning and talent optimization. The results are saving thousands in expenses or making millions of dollars in added revenue. Across the enterprise, the ability to use data in support of work force decisions is critical to driving optimal performance.

Today more than ever, organizations need to be able to measure the contribution of the work force. They need to assess the impact of work force investments. Yet, according

to Brian Gaspar, HCM Product Strategy director at Oracle, who focuses on business intelligence, "To date, HR has not been able to do simple things like provide head count. Many organizations cannot answer a fundamental question such as 'how much does a worker cost?' Being able to answer this fundamental question will provide immeasurable benefits to the business." Providing metrics and analytics from head count metrics to salary cost figures, worker contribution analysis, and investment analysis and more, can result in those immeasurable benefits.

But for those needing to make a business case for BI technologies, just what is the possible return on investment and how should the business case be made?

Some executives just "get it" when it comes to seeing the benefits of business intelligence, according to Brian Kelly, president of Infohrm.<sup>2</sup> "They don't need to do a business case. They understand the value of human capital and actively invest in people, process and technology to support the delivery of business intelligence." They have solutions that can be used broadly within their organizations, not just by analysts but by mid-line managers for programmatic and ad hoc analysis to support any and all decisions. Then there are the believers who have read about the successes of organizations that are able to quantify the impact of human capital and are moving forward with their investments. These people use case studies of other organizations, such as those in the CedarCrestone Metrics & Analytics white paper, to highlight the impact work force analytics/planning would bring to their own organization. Many in this camp use analytics to support work force planning. Then there is the group that tends to be "non-believers." They may not even believe in the value of human capital. If they do, they don't believe their internal team can achieve the successes of other organizations.

In this article, we explore how to justify your BI initiatives and look at how a few organizations are achieving value. We look at hard-dollar savings and strategic value. It is easiest to make the case on the hard-dollar cost savings, but these are often not very big. They are not compelling compared to other investments your organization can make. But it never hurts to know what to look for in hard-dollar cost savings. We also look at the deeper and more strategic value that analytics can achieve. The strategic value may be increasing customer satisfaction, growing revenues, supporting growth into new markets and more. While these values are less proven, and thus may need to be discounted, they can also contribute to a business case. Finally, we look at what happens to the total cost of ownership of the entire HCM technology portfolio when BI is factored in. Personally, I think BI solutions may just be the technology that justifies all those investments to date in the HRMS and all those talent management applications.

*In the broadest sense, business intelligence is the practice and a set of technologies to report, track, analyze, predict and present quantitative measures showing organizational performance that empower decision-makers with critical insight at the right time and place.*

## Benefits of Business Intelligence

There are many components to business intelligence technologies as shown in market adoption Figure 1. Each can contribute value. Simple management reporting done against an HR management system can deliver head count metrics. A head count number can be used to determine if an organization will fall into one software pricing range or another and save an organization from overpayment. Predictive analytics can deliver trend analysis and forecasts that can show management the impact of hiring xx number of people with yy kind of competencies and how this combination will potentially deliver millions in new revenue.

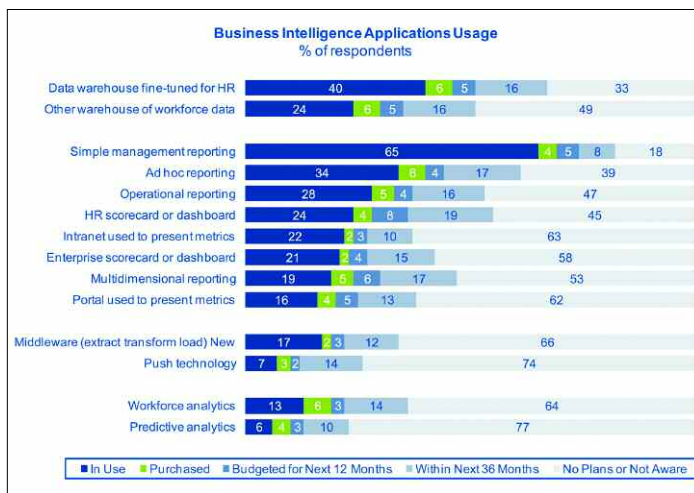


Figure 1. Market Adoption.

## The Simple Value of Reporting and Dashboards

Looking just at the value of a beginning set of BI tools, let's first look at reporting and dashboards. Benefits come from the automatic generation of reports or dashboards.

Key benefits include:

- **Reduced presentation development time:** Organizations with periodic executive meetings obtain *automatically generated* reports in a dashboard format showing headcount, turnover, productivity and scheduling. Technician time is eliminated and can be spent on higher-level tasks.
- **Reduced report creation time:** Managers can access the reports they need and make changes and updates if required through an easy-to-use interface, reducing the amount of time spent developing reports and requesting data and avoiding turnover lag time.
- **Improved data accuracy:** Through drill-down capa-

bility from a dashboard metric to underlying transactional detail, users access data directly and can make changes if required. With a BI solution tightly integrated to transactional data, they always have access to the most up-to-date and accurate data.

- **Avoided IT staff:** Again, with an easy-to-use reporting interface, users can develop and customize their own reports. The organization can significantly grow its reporting capabilities without adding reporting programmers.
- **Improved visibility:** If standard reports are updated periodically in a dashboard for executives, they can quickly identify trends or problems. An end result should be improved decision-making.

EMC has acquired and merged multiple organizations over the past few years and is also achieving organic growth. To support decisions on how to manage growth, EMC needs to know what the work force looks like. It needs head count, the pipeline of requisitions and offers, and attrition rates to forecast head count needs and support cost-effective work force deployment. It uses an Essbase data cube and will move to OBIEE – both from Oracle – along with dashboards from Infohrm. With its business intelligence efforts to date, it has achieved visibility, transparency, accuracy and timeliness of data. It is managing work force head count cost effectively. It can eliminate duplicate staff from acquisitions; it can supplement staff in fast-growing geographies.

## The Business Value of Analytics

Looking at analytical tools from statistical packages to predictive analytics that can support work force hiring, developing, and planning to optimize productivity and performance, key benefits include:

- **Avoid costly exodus of baby boomers:** Understanding the upcoming retirement plans of your older work force that have key skills, contacts, and knowledge of your business strategies will enable you to plan for alternatives to retirement such as promotions or alternative compensation packages. You avoid loss of loyal customers and minimize development of knowledge sources.
- **Minimized risk of key talent leaving:** By being able to see the revenue generated by high performers and the competencies they hold, and further being able to determine if any are at risk of leaving, both the revenue stream they generate can be protected and the cost of replacing them can be avoided.
- **Managing internal versus external hiring costs:** By being able to see the cost tradeoffs of hiring external versus internal talent and the interplay of the costs of development for either group, organizations can achieve lower costs of hiring and development. Organizations may also achieve increased revenue with the best mix of internal and external hires.

- **Avoiding over-or underpaying salaries and benefits:** By comparing your salaries and benefits to benchmark sources of market salaries and benefits, organizations can avoid overpaying. They can also avoid underpaying employees. Underpaying may result in increased turnover as employees leave due to dissatisfaction with their salaries and benefits. With increased turnover, there are also increased new employee acquisition costs.

Luxottica Group uses an ROI approach to analytics; one that is widely understood.<sup>3</sup> By analyzing the financial returns (ROI) possible with various HR practices, the team at Luxottica can show how each practice addresses the two key pains in the retail industry: how to improve sales and how to reduce unwanted turnover. For example, the analytics team did an ROI analysis on sales from associates that went through a pre-hire analysis to show the tens of millions in revenue achieved from the practice versus a control group that had not.

### Putting it All Together into a Business Case

Several years ago, I worked with a major pharmaceutical to build a business case for a HRMS warehouse and analytics solution. We were able to justify not only the purchase and implementation of these technologies, but to also cover the total cost of ownership of the core HRMS and various talent management solutions.

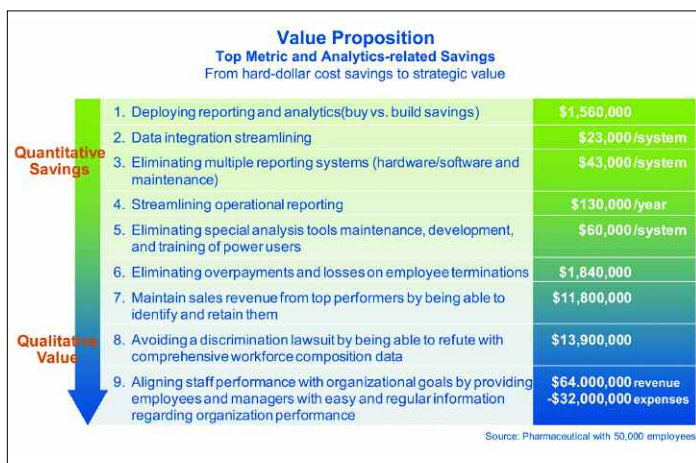


Figure 2. Business Case.

First, a pre-built data warehouse, embedded analytics in key business processes, pre-built metrics with standard definitions and role-based dashboards are cheaper in terms of total cost of ownership and faster time to value than building such a solution yourselves. Figure 3 from Oracle summarizes this value proposition.

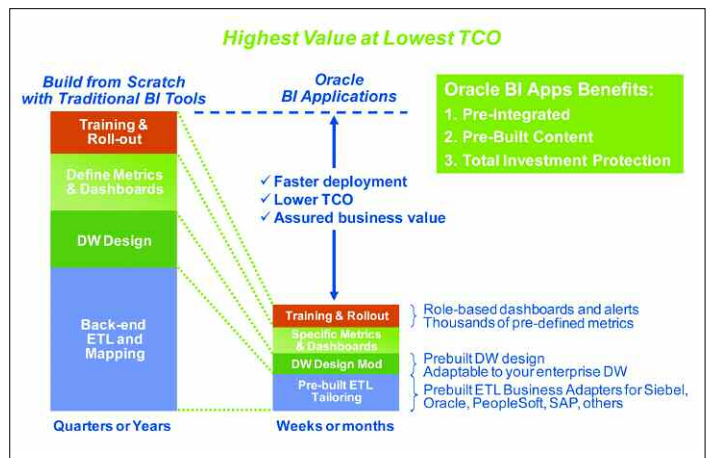


Figure 3. Pre-built Data Warehouse.

There were also hard-dollar savings and productivity benefits from streamlining data integration and operational reporting and from eliminating multiple reporting systems and their associated hardware, software and maintenance. Streamlining the process of creating and distributing basic operational reports saved tens of thousands of dollars a year.

As we move down the list, we move towards more qualitative value, where strategic savings revolve around the impact of better decision-making – just giving managers more options to select the best course of action and providing faster/better access to information enables managers to see trends that can impact revenue or create savings opportunities, as well as avoid costly risks.

Aligning your employees' performance with the goals of your organization can both increase revenue and decrease expenses simply because your employees can more clearly see for themselves the impact of their own performance, or the performance of their department.

We found that the combined savings and revenue improvement (even significantly discounting the latter), provided a return on investment that covered not only the warehouse and analytics, but also provided payback for much of the sunk costs of the HRMS and various talent management applications.

We've tested these value propositions in our business case work and have helped organizations to justify the enterprise warehouse and work force analytics, showing them that a pre-built solution is more cost-effective than building from scratch.

We're also starting to see some of the strategic value returns. In the 2007-2008 CedarCrestone HR Systems Survey,<sup>4</sup> we see indications of 15 percent improvement in revenue from recruiting and performance management analytics.

Jeff Higgins, currently executive vice president of Client Services at IHRIM shares his experience with work force analytics at a former employer, The Irvine Company. With a thorough analysis of current hiring practices and sources, modeled against alternative approaches, he was able to

show significant ROI in turnover reduction and recruiting optimization. The turnover ROI was around US\$10 million in annual savings from a 35 percent drop in turnover rate for the company. The recruiting optimization was estimated at US \$1 to 3 million in reduced HR spending from lower cost per hire, improved hire quality and higher productivity of newly hired employees, including an increase in first-year high-performing employees.

## Maximizing ROI

While the benefits are compelling, organizations will not achieve them unless they have a successful deployment. Best practices for deployment we at CedarCrestone see in our implementation work include:

- 1. Invest in data cleansing.** The volume of data used in reporting and analytics can be quite large. Further, organizations often have multiple sources of data. We encourage a realistic evaluation of data available and allocate time to clean and align data sets. We support organizations to move to a single system of record and suggest standardizing processes as a way to support data cleansing and thereby data credibility.
- 2. Start with the end in mind.** While an organization may use simple metrics reports or do analysis in Excel, to institutionalize metrics-based management a more complete technology environment will be needed. Develop a technology blueprint that includes everything you will need – reporting, warehouse, analytics, presentation through dashboards or other visualization approaches, and notification and distribution.
- 3. Plan for incremental deployment.** The taste of an organization for data and analytics will evolve. The products evolve and get easier to understand and implement. Start small with your metrics, but be prepared to deploy more.
- 4. Focus data and analytics on business results.** Look for key pains of your organization to address with your initial efforts. Start with a limited number of key metrics that contribute to your organization's business issues, but be prepared to expand. Help your end users understand how to use the data and the tools so that they can be effective in solving business problems. Learn to speak in business, finance, marketing and talent management terms, not tool terms.
- 5. Use a data-driven business case.** We develop an analytical framework for the business case that can serve as a baseline for the organization to track the performance of its work force management processes and support further needed investments.

**It is easy to make the case for business intelligence. Automatic generation of reports and dashboards can deliver cost savings of technical and analytical effort as a start.**

- 6. Manage change.** If you are not already an organization that is driven by numbers, metrics and analytics is a shift, not only for HR and IT, but for operational managers. Do not underestimate the cost of change management to ensure a successful deployment.

It is easy to make the case for business intelligence. Automatic generation of reports and dashboards can deliver cost savings of technical and analytical effort as a start. But the strategic value that early adopters are achieving with work force analytics and other business intelligence technologies is where the real value lies.

## Endnotes

- 1** CedarCrestone Metrics & Analytics, 2008 HR Systems Survey Mid-Year Update white paper, [www.cedarcrestone.com](http://www.cedarcrestone.com).
- 2** Inforhrm is a leading work force planning, reporting and analytics services and solution provider, [www.inforhrm.com](http://www.inforhrm.com).
- 3** CedarCrestone Metrics & Analytics, 2008 HR Systems Survey Mid-Year Update white paper, [www.cedarcrestone.com](http://www.cedarcrestone.com).
- 4** CedarCrestone 2007-2008 HR Systems Survey: HR Technologies, Service Delivery Approaches, and Metrics

## About the Author



Alexia "Lexy" Martin (Alexia.Martin@CedarCrestone.com) works with the HCM vendor community defining the value of HCM technologies. Her work with customers includes strategy development, benchmarking and business case. She is the research director and lead author for the annual CedarCrestone HR Systems Survey, now in its 11th year. She presents on the survey results and on return on investment/value analysis at numerous conferences and special events including IHRIM, HR Technology, Corporate Leadership Council, Oracle OpenWorld, Human Capital Metrics, IQPC and others.