Business Intelligence on the TCO Diet

Slashing the Cost of Insight with Analytical Fitness

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Michael Lock

Aberdeen Group
A Harte-Hanks Company

Executive Summary

Business Intelligence (BI) solutions promise visibility, insight, and performance improvements when deployed efficiently, but too much waste and underutilization in the process can lead to unnecessary cost and time pressures. Best-in-Class companies, leveraging a Total Cost of Ownership (TCO) approach to BI, have achieved a superior level of analytical fitness by optimizing their IT resource utilization and building higher BI adoption rates. Relying on a comprehensive set of organizational capabilities, top performing companies are able to plan, implement, and manage their BI strategies more efficiently, ultimately leading to a lower cost per user, and a higher return on their investment in BI. This report is based on feedback from 359 executives across the globe.

Best-in-Class Performance

Aberdeen used the following three key performance criteria to distinguish Best-in-Class companies:

- **92%** of BI projects are delivered within budget, compared with 64% for the Industry Average and 18% for Laggards

- **87%** of BI projects are delivered on-time or early, compared with 52% for the Industry Average and 11% for Laggards

- **71%** of user base is actively engaged with BI (weekly or more frequently) compared with 38% for the Industry Average, and 11% for Laggards

Competitive Maturity Assessment

Survey results show that the firms enjoying Best-in-Class performance shared several common characteristics, including:

- **2.2-times more likely** than Laggards to have a clearly defined and documented BI implementation plan

- **60% more likely** than the Industry Average to report a decision-making culture that values the use of supporting data

- **1.5-times more likely** to report that BI projects begin with a business case created and proposed by business users

Required Actions

In addition to the specific recommendations in Chapter Three of this report, to achieve Best-in-Class performance, companies must:

- Segment and measure the cost of each stage of the BI lifecycle

- Establish a process to gather and incorporate end-user BI needs

- Continue to build self-service BI capability among business users

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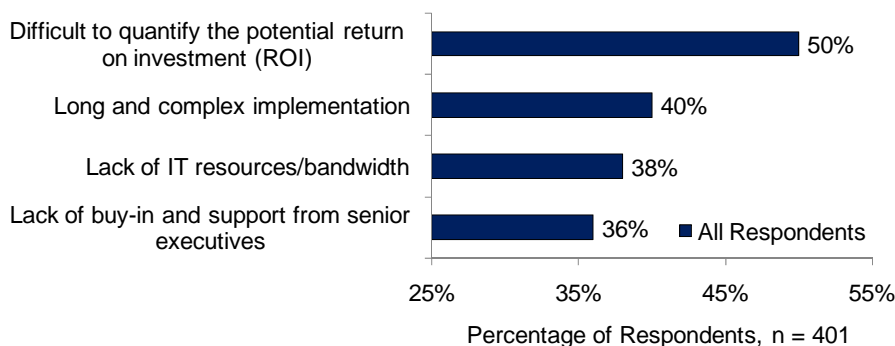## Table of Contents

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Chapter One:
Benchmarking the Best-in-Class

Business Context

As the economy continues its slow ascent out of the gutter of 2009, companies are looking to capitalize on opportunities for growth while maintaining a close adherence to the frugality and lessons learned from the past. Data from Aberdeen's recent *Quarterly Business Review Survey* demonstrates this cautiously optimistic approach that many companies are taking. Of the 1,565 executives surveyed, 73% report having cut discretionary spending over the course of 2010 and another 62% reported restrictions in travel expenditure, the majority of which are still in place. On the other hand, 51% of these same executives expect to increase their budget for IT expenditure in 2011, compared with 22% that anticipate a decrease. Moreover, enterprise applications such as Business Intelligence (BI) are expected to consume the most internal resources over the same period of time. In order to capitalize on the visibility and decision support capabilities of BI while at the same time optimizing their resource utilization, top performing organizations are adopting a Total Cost of Ownership (TCO) approach to BI that combines the right people, processes, and tools to generate a pervasive and efficient analytical strategy.

While executives overwhelmingly recognize the need for appropriate enterprise applications like BI, and are willing to put an economic shoulder behind these tools, the perception of complexity and difficulty of implementation is still quite prevalent. Aberdeen's previous examination of this same topic in April of 2010, *The TCO View of Business Intelligence: How to Get the Most Bang for Your Analytical Buck*, reveals the most prevalent barriers to efficient BI, as perceived by responding executives a year ago (Figure 1).

Fast Facts

√ **52%** of users at Best-in-Class companies are leveraging BI in a self-service, non IT-assisted, or minimally assisted capacity

Compared with:

√ **32%** for the Industry Average

√ **15%** for Laggards

Figure 1: Perceived Barriers to BI

Percentage of Respondents, n = 401

Source: Aberdeen Group, April 2010

The research shows that building a convincing Return on Investment (ROI) story is still the most challenging aspect of a BI implementation. Moreover, the ability to achieve a tangible return on BI investment is predicated on efficiency in several component areas of an analytical strategy. In other

words, it's not just about the up-front dollar expenditure. The time required to implement the solutions, the IT and business skill sets required for efficient deployment, and the level of engagement from key executives – all of these factor into delivering a productive analytical environment.

An organization's ability to maximize the business value of BI is directly tied to its execution during deployment as well as its efficiency of ongoing management. Up-front software license fees are but one aspect of the BI cost structure. From an IT perspective, often the existing hardware server infrastructure is insufficient to handle another significant application footprint and new hardware requisition is required. From the business standpoint, the easier the solution is to use, the fewer hours are spent learning the tool and its applicability to different functions and the lower the opportunity cost associated with BI. Organizations with a strong focus on managing and reducing the TCO of BI are seeing tangible benefits to the technical and business sides of the house.

With these concepts in mind, survey respondents were asked to report the top business pressures driving them to focus on BI cost management. Effectively, three main pressures rose to the top of the list. First, more business users are getting involved with analytical activity and are clamoring for better access to data. Second, with the growth in volume and complexity of enterprise data these days, companies are searching for ways to access more of that data, more efficiently and cost effectively. Third, with the growth in users and data, there is an increased urgency on the time frame of delivering actionable information, i.e. the decision window is being compressed. Essentially, a TCO approach is top of mind for companies because they have more users, more data, and less time (Figure 2).

> "Our cost management mentality is driven by a need to deliver more detailed reports at a lower cost. We feel that we can increase sales by improving the detail and relevance of our customer-facing reports.
>
> ~ Joel Cohen
>
> Principal BI Architect
>
> Silverlink Communications

Figure 2: Key Pressures Driving a Focus on TCO

Percentage of Respondents, n = 359
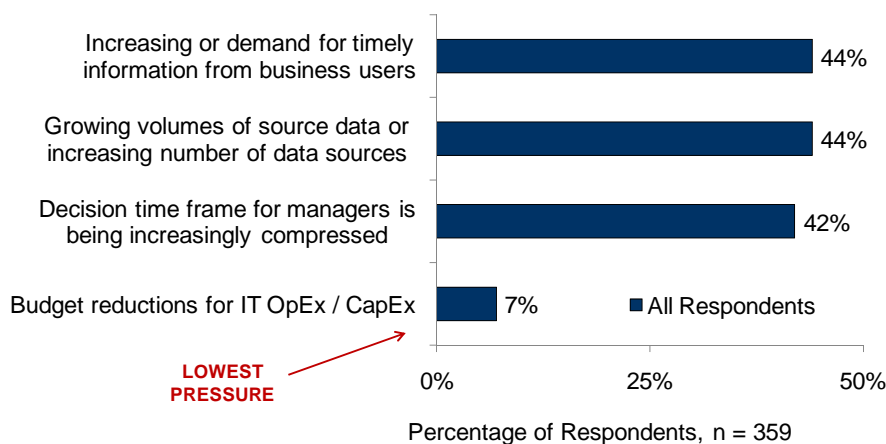
Source: Aberdeen Group, April 2011

Interestingly enough, the pressure around budget restriction was actually prioritized lowest of all the business pressures. This is not because these restrictions aren't place. On the contrary, the data discussed at the beginning of this chapter clearly demonstrates how a majority of

organizations are indeed tightening their belts when it comes to capital and operational expenditure. The fact is that the three main challenges that companies face (growing users, growing data, and truncated time frame) are becoming more prevalent, regardless of whether the actual budgets are expanding or contracting.

The Maturity Class Framework

The ability to extract the maximum business value out of BI and efficiently manage TCO is predicated on three key factors. First, analytical projects need to be delivered within the constraints of a particular organization or department, so the ability to stay within budget is crucial. Second, with the inextricable link between time and money, efficiency of deployment and time management is also a vital component. Third, as the business value to be derived from BI is so strongly correlated to usage and adoption rates, the ability to deliver a more widespread and pervasive deployment is a key underpinning of the TCO methodology. With these factors in mind, Aberdeen used three key performance criteria to distinguish the Best-in-Class from Industry Average and Laggard organizations:

- **On-budget delivery** is measured as an average percentage of BI / analytical projects delivered within budget

- **Efficiency of deployment** is measured as an average percentage of BI / analytical projects delivered on-time or early

- **BI user adoption rate** is measured as an average percentage of BI users who engage with the solutions on a weekly or more frequent basis

The weighted average performance across these metrics is depicted in Table 1.

Table 1: Top Performers Earn Best-in-Class Status

Definition of Maturity Class	Mean Class Performance
Best-in-Class: **Top 20%** of aggregate performance scorers	▪ **92%** of BI projects are delivered within budget ▪ **87%** of BI projects are delivered on-time or early ▪ **71%** of users leverage BI weekly or more frequently
Industry Average: **Middle 50%** of aggregate performance scorers	▪ **64%** of BI projects are delivered within budget ▪ **52%** of BI projects are delivered on-time or early ▪ **38%** of users leverage BI weekly or more frequently
Laggard: **Bottom 30%** of aggregate performance scorers	▪ **18%** of BI projects are delivered within budget ▪ **11%** of BI projects are delivered on-time or early ▪ **11%** of users leverage BI weekly or more frequently

Source: Aberdeen Group, April 2011

The Best-in-Class PACE Model

Leveraging a TCO methodology to drive efficiency into the analytical
infrastructure and extract the maximum value from BI requires a
combination of strategic actions, organizational capabilities, and enabling
technologies that can be summarized as shown in Table 2.

Table 2: The Best-in-Class PACE Framework

Pressures	Actions	Capabilities	Enablers
▪ Growing volumes of source data or increasing number of data sources	▪ Enable business users to be more self-sufficient with BI capabilities ▪ Formalize and centralize approach to BI projects	▪ Clearly defined and documented BI implementation plan in place ▪ Decision-making environment / culture that values the use of supporting data ▪ BI projects begin with business case created and proposed by business users ▪ Ability to measure end-user satisfaction with analytical capabilities	▪ Dashboard visualization of key metrics ▪ End-user query / discovery tools ▪ Data integration tools ▪ Data cleansing technology ▪ In-memory analytics ▪ Search-based query tools

Source: Aberdeen Group, April 2011

Best-in-Class Strategies

In response to the pressures depicted in Figure 2, Best-in-Class companies
are taking several actions at a strategic level, but one activity ranks
considerably higher than all others. In order to equip the growing business
user base with the analytical capability they need, top performing companies
are making efforts to deploy solutions that are more user-friendly and more
specifically tailored to a particular business function such that a typical user
can leverage BI capability in a self-service or minimally assisted capacity.
Increasing the organizational level of self-sufficiency when it comes to BI is
the most highly prioritized strategic action for Best-in-Class companies
(Figure 3).

Figure 3: Top Strategic Actions for Managing TCO

Percentage of Respondents, n = 359
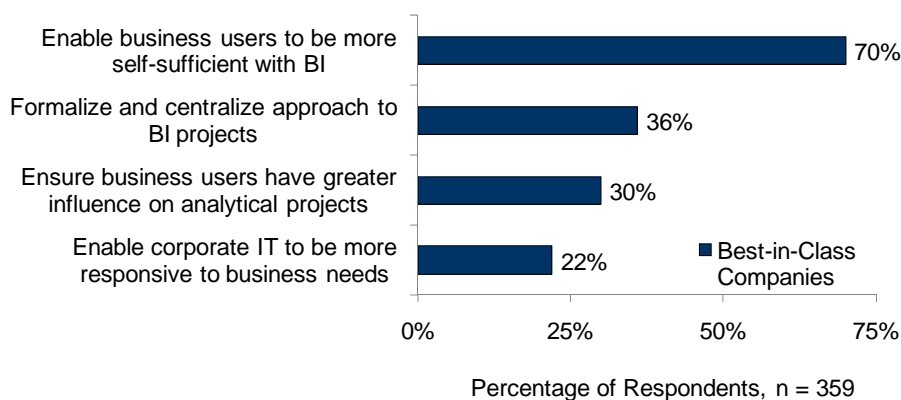
Source: Aberdeen Group, April 2011

Additional strategies are centered on the need for formalized processes and alignment between the IT organization and business end-users. Best-in-Class companies are looking to create a standard, well documented, and well understood process for deploying BI solutions across the organization. These top performers are also making efforts to involve business users to a higher degree in BI projects, as well as promote collaboration between IT and business when it comes to communicating and delivering functionality that meets the specific needs of the organization.

"For us, the main pressures behind BI cost management and efficiency are the need to improve both speed of delivery (the time it takes to get an answer) and reach (more information to more people)."

~ Director of Business Intelligence

Mid-Size Insurance Company

Aberdeen Insights — Managing BI Spend

At the end of the day, TCO management is not just about taking a raw dollar amount of BI spend and making that number smaller. Cost management is really about ROI. It's about taking precious resources and stretching them farther such that the organization is benefitting to a greater degree from the usage of its vital monetary and human capital resources. On an absolute basis, Best-in-Class companies are actually spending more money in total on BI (including software license cost, cost of dedicated or net-new hardware, and support / maintenance costs) than Laggards. The research shows that for every dollar that Best-in-Class companies spend on BI, Industry Average companies are spending $1.23, and Laggards are spending 60 cents. But those numbers mean very little in a vacuum. At a baseline, it behooves one to at least understand how that spend is correlated to the size of the company. The analysis shows that Best-in-Class companies have 4,250 employees on average, compared with 5,800 employees for the Industry Average, and 4,200 employees for Laggards. Applying that dimension to the spend numbers above yields the following approximation of BI spend per employee (Figure 4).

Figure 4: BI Spend per Employee
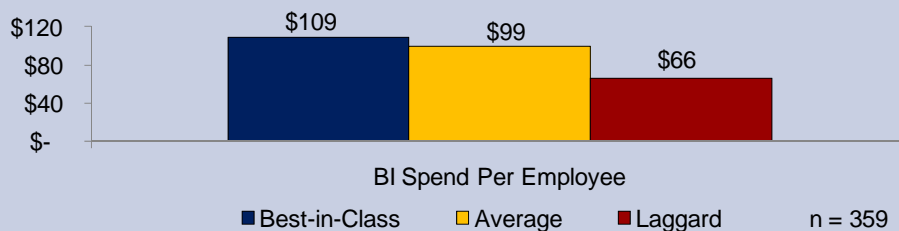
Source: Aberdeen Group, April 2011

In order to increase the relevance of these findings, it makes sense to understand the breadth and depth of BI exposure in the organization. For example, a six figure BI deployment could (and unfortunately sometimes does) sit on the shelf at one organization, while being deployed much more pervasively at another. A better approximation of the impact of BI comes with an understanding of the user base.

continued

Aberdeen Insights — Managing BI Spend

Survey data shows that, on average, 47% of employees at a Best-in-Class company have access to a dedicated BI solution, compared with 30% of employees at Industry Average companies, and 14% of employees at Laggard organizations. This translates to an approximate user base of 2,000 at Best-in-Class companies, 1,750 at Industry Average companies and 600 users at Laggard organizations. Applying the aforementioned spend figures to the BI user base reveals the following data on BI spend per user (Figure 5).

Figure 5: BI Spend per User
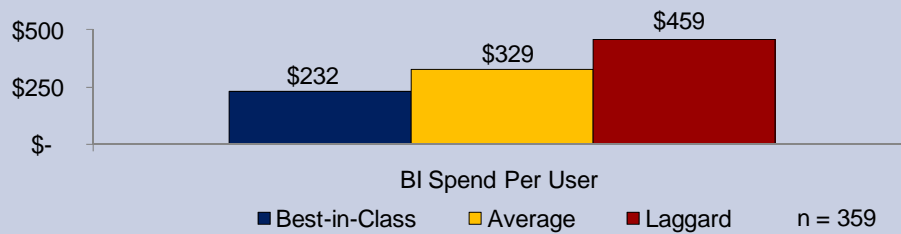
Source: Aberdeen Group, April 2011

Now we start to see some significant separation in terms of BI spend. With Laggards spending almost twice as many dollars per user as Best-in-Class companies, their return on BI investment goes down significantly. However, yet another dimension can be added to gain an even deeper understanding of BI spend. Despite a relatively large and widespread BI deployment, some companies might have a majority of their user base unengaged with the tool and simply not using it with any regularity. Based on the level of user adoption that defines Best-in-Class performance (Table 1), one last calculation yields the following approximation of BI spend per active user (Figure 6).

Figure 6: BI Spend per *Active* User
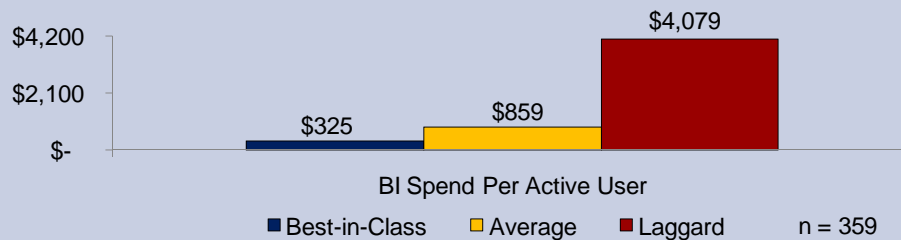
Source: Aberdeen Group, April 2011

Figure 6 reveals a major reason why Best-in-Class companies continually perform at a higher level than their peers, particularly when it comes to managing the TCO of BI.

continued

Aberdeen Insights — Managing BI Spend

By building up a larger user base, and ensuring a high level of engagement in their BI tools, Best-in-Class companies spend, on average, 12.5-times less per active user than their Laggard counterparts. This comparatively low spend per user translates to more business value being created for every dollar of spend, ultimately leading to a substantially higher ROI from BI deployment.

In the next chapter, we will see what the top performers are doing to achieve these gains.

Chapter Two:
Benchmarking Requirements for Success

The selection of a BI solution and its integration with existing processes and software systems is critical to ensuring success with an analytical strategy. The following case study illustrates how one large organization undertook a significant effort to integrate a complex and disparate data infrastructure into a company-wide reporting environment in order to enable self-service discovery for its business users.

Case Study — A Large North American Aerospace Company

The larger the company, the more difficult it can be to identify a single version of the truth. At a large North American aerospace company that participated in Aberdeen's study, analysts from different departments often arrived at different conclusions based on different reporting standards.

"Information… was skewed based on who did the reporting and what kind of information they gathered," said a senior BI analyst at the company. "That was a major problem, because when you go to one meeting and see certain data, and go to another data displayed differently, which results in a different conclusion – there was no continuity in the information that was being presented." Competing information led to competing pictures of the business and to decisions that might clash with one another, the analyst said. "Everybody had their own ad-hoc reports, and where they got the information it varied from department to department, or organization to organization. You had skewed information. It was seat-of-the pants, and for a large corporation, it was ridiculous."

Two years ago, as part of an organization-wide ERP system upgrade, they rolled out a BI system which incorporates data from across the organization into a single system, and makes that data available to business users for report creation. While the organization has many different departments, the ultimate goal is to integrate these data sources. "The Business Intelligence solution gets all its information from the same database, so everybody sees the same information, and can formulate whatever reports they need from that information," the analyst said. "Now, users start out with the same data and should come up with the same conclusions."

Data analysis and report generation are ultimately in the hands of the business user at this company. While the BI system does have a core IT group dedicated to its support and maintenance, report creation itself is delegated to individual business departments, and placed in the hands of experts, who know what data their decisions require. Departments are trained on use of the BI tool, and further educational resources are available.

continued

Fast Facts

√ **38%** of BI users at Best-in-Class companies are considered "power users" (able to create own reports, ad-hoc analyses, drill down into existing data, advanced analytical capability)

Compared with:

√ **20%** for the Industry Average

√ **8%** for Laggards

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Case Study — A Large North American Aerospace Company

"I've spent [much of my career] in the core organization where we put together the reporting," the analyst said. "When we used to have to put together reports similar to what we have today, [the time involved] was atrocious, and there was little consistency between departments. We might have accounting showing one thing, and materials management showing something else involving inventory rates and flows. There's definitely been improvement since we went to the common, integrated BI." In the end, the analyst said, good, consistent data is essential for running a modern business. "[BI] is an excellent tool, and it's a necessity to this world. You have to have valid information in order to be successful in the business world today."

Competitive Assessment

Aberdeen Group analyzed the aggregated metrics of surveyed companies to determine whether their performance ranked as Best-in-Class, Industry Average, or Laggard. In addition to having common performance levels, each class also shared characteristics in five key categories: (1) **process** (the approaches they take to execute daily operations); (2) **organization** (corporate focus and collaboration among stakeholders); (3) **knowledge management** (contextualizing data and exposing it to key stakeholders); (4) **technology** (the selection of the appropriate tools and the effective deployment of those tools); and (5) **performance management** (the ability of the organization to measure its results to improve its business). These characteristics (identified in Table 3) serve as a guideline for best practices, and correlate directly with Best-in-Class performance across the key metrics.

"We make significant effort to capture more detailed end-user BI requirements up-front, but we're also prepared for changes mid stream. Agile development really helps with smaller deliverables, flexibility and ability to react more quickly.

~ Joel Cohen

Principal BI Architect

Silverlink Communications

Table 3: The Competitive Framework

	Best-in-Class	Average	Laggards
Process	Clearly defined and documented BI implementation plan		
	76%	49%	35%
	Standard method of gathering end-user analytical needs		
	69%	49%	45%
Organization	Decision-making environment / culture that values the use of supporting data		
	77%	48%	32%
	Cross-functional team(s) of IT and business professionals used to facilitate rollout of BI projects		
	76%	63%	56%
Knowledge	BI projects begin with business case created and proposed by business users		
	73%	51%	45
	Potential BI data sources understood and documented		
	58%	40%	24%

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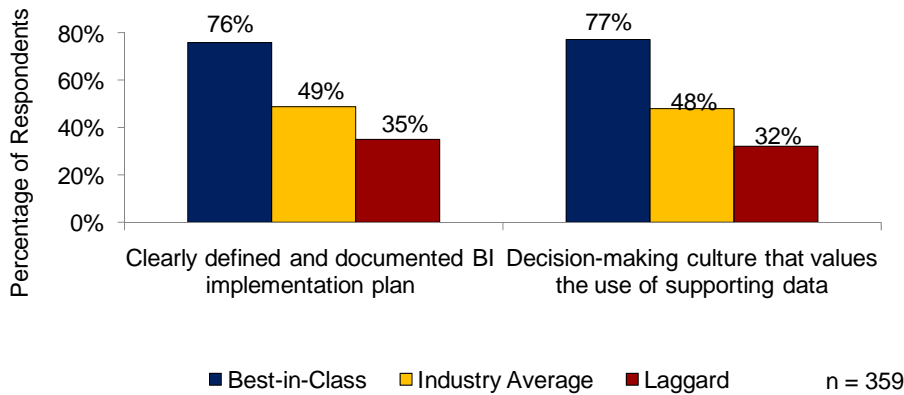|	Best-in-Class	Average	Laggards
Performance	Cost of each stage of BI project lifecycle is measured		
	51%	35%	19%
	Ability to measure end-user satisfaction with analytical capabilities		
	46%	41%	14%
Technology	Dashboard visualization of key metrics		
	83%	71%	54%
	End-user query/discovery tools		
	79%	66%	45%
	Data integration tools		
	81%	68%	53%
	Data cleansing technology		
	49%	43%	34%

Source: Aberdeen Group, April 2011

Capabilities and Enablers

Based on the findings of the Competitive Framework and interviews with
end-users, Aberdeen's analysis of the Best-in-Class demonstrates that the
success of a business intelligence strategy depends on a combination of
specific capabilities and technology enablers. Aberdeen's research has
identified several capabilities that Best-in-Class companies leverage in order
to achieve elevated performance.

Process

The data above shows the degree of success that Best-in-Class companies
have had in delivering a broader and deeper deployment of BI across their
organizations. This is due in large part to their ability to tailor the
appropriate solution to their audience and not waste money delivering
functionality that is mismatched to the user need or just superfluous. For
example, if a static report is delivered to a business user who needs drill-
down capabilities or the data warehouse that feeds the analytical system is
missing key fields, time and money are wasted rebuilding reports or
cleansing the data environment. Sixty-nine percent (69%) of Best-in-Class
companies have a methodology in place to gather and incorporate end-user
BI requirements, paving the way for a leaner and more appropriate BI
solution. As a follow-on step to understanding user needs, Best-in-Class
companies are also more likely to have developed and rationalized an
implementation plan up front, to increase the chances of an on-budget and
on-time deployment. Research shows that the top performers are more
than twice as likely as Laggards to develop this type implementation plan up
front (Figure 7).

Figure 7: Process and Organizational Capabilities

Chart data: Clearly defined and documented BI implementation plan — Best-in-Class 76%, Industry Average 49%, Laggard 35%. Decision-making culture that values the use of supporting data — Best-in-Class 77%, Industry Average 48%, Laggard 32%. ■ Best-in-Class ☐ Industry Average ■ Laggard n = 359. Source: Aberdeen Group, April 2011
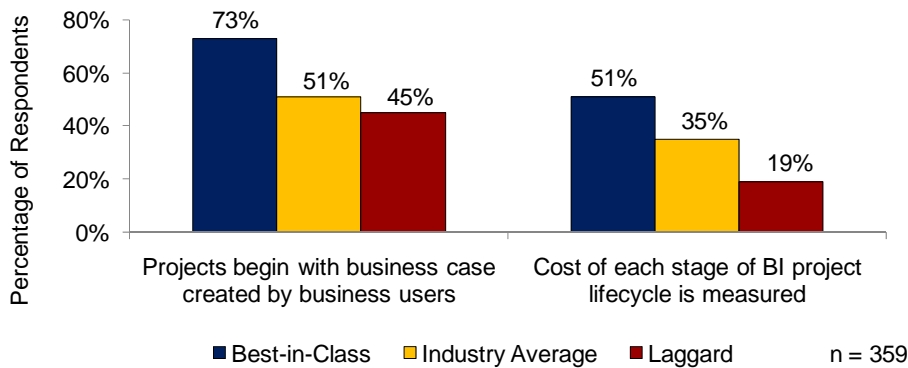
Organization

As discussed above, from an organizational standpoint, the ability to drive adoption and engagement in BI is crucial toward managing cost and increasing ROI. Best-in-Class companies are 60% more likely than the Industry Average to report a corporate environment or culture that understands the value of analytical methodology and is inclined to make data-driven decisions (Figure 7). This type of culture belies a sense of business curiosity at Best-in-Class companies. Their users are more involved in analytical activity, more likely to become creative with BI capability and more likely to disseminate those capabilities into more areas of the business. From a tactical standpoint, in order to promote this greater level of pervasiveness in different business functions, Best-in-Class companies are also likely to leverage multi-disciplinary teams. The research shows that top performers are 30% more likely than all others to have cross-functional teams in place, consisting of IT and business professionals used to facilitate the rollout of BI projects.

Knowledge Management

The successful deployment and ongoing management of a BI solution will always be predicated on efficient collaboration between the IT and business sides of the company. With the growth in volume and complexity of data that plagues so many companies a strong understanding of the data infrastructure in the IT department is crucial. From that perspective, Best-in-Class companies are 2.4-times more likely than Laggards to have a strong understanding and clear documentation of all the potential sources of data that could or should be incorporated into the BI system. On the business side of the house, it is imperative to at least have a base-level understanding of how the tools can deliver value to a specific function. That understanding starts with a business case being built by the users with domain specific knowledge in a particular function. Often times, when a BI project originates from within the IT department without input from the line-of-business, the tools are mismatched to the business needs, or the wrong metrics are

displayed, or there simply isn't a business justification for the project in the first place. Seventy-three percent (73%) of Best-in-Class companies report that BI projects originate from the business side of the organization, accompanied by a sound business case for deployment (Figure 8).

Figure 8: Knowledge and Performance Management Capabilities
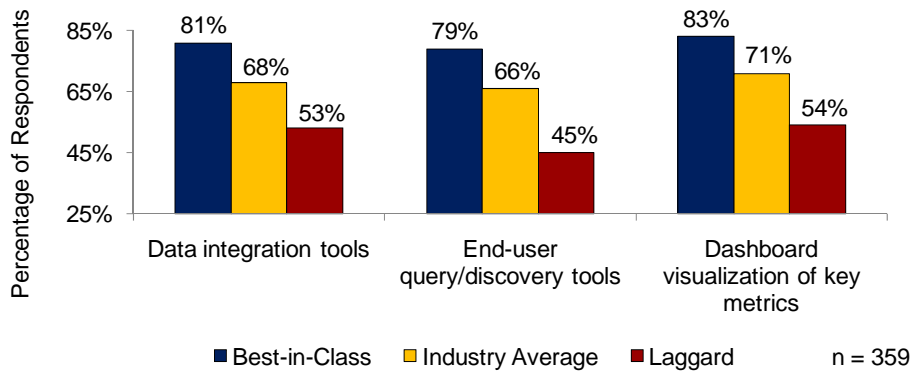

Source: Aberdeen Group, April 2011

Performance Management

When it comes to measuring success with BI - viewed through a TCO lens - two key metrics come to the forefront, one quantitative and one qualitative. Cost comes in many forms when deploying BI. The major buckets discussed above (software, hardware, support and maintenance) are valuable as categories, but contain no measurable time element to them. Best-in-Class companies measure cost, not just in terms of its categorization, but also in terms of phases or implementation stages. The data shows that these top performing companies are 2.7-times more likely than Laggards to track the cost of each stage of the BI project lifecycle (Figure 8). Additionally, from a more qualitative perspective, Best-in-Class companies see significant value in understanding how well the solutions are actually serving the user base. Top performing companies are 3.2-times more likely to measure end-user satisfaction with the analytical capabilities delivered to them.

Technology

In the face of the analysis showing Best-in-Class success with reducing the cost-per-user of BI, deploying solutions on-budget, and delivering solutions on-time or early, a natural reaction would be to wonder the extent of the technology being put into place. In other words - are Best-in-Class companies simply using less technology or limited analytical functionality? In reality, the opposite is actually true. Looking up and down the stack of potential analytical technology, from data collection to information assembly and insight delivery, Best-in-Class companies are more likely to augment their analytical strategy with the appropriate tools (Figure 9).

"We established a BI Competency Center (BICC) a couple of years ago because it was recognized that the alignment between BI (being encompassed within IT) and the line of business units was not working. The flip side of that is that the BICC needs to have business value as the end goal and they need to be held accountable to that."

~ Director of Business Intelligence

Mid-Size Insurance Company

Figure 9: Technology Enablers in Use

Source: Aberdeen Group, April 2011

When it comes to back-end analytical activity, Best-in-Class companies are leveraging technology to help cleanse and integrate their data and improve its usability and overall value to the organization. Top performers are also more likely to deploy end-user focused data discovery and query tools, allowing for business users to ask their own tailored questions of the data and generate new insights based on its analysis. On the front end, when it comes to delivering business insight to the key decision makers who depend upon it, 83% of Best-in-Class companies are using dashboards, portals, and other visual tools to help display that crucial insight in an intuitive way.
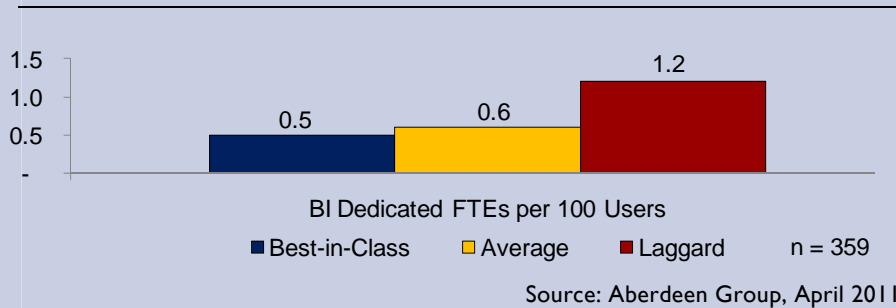
Aberdeen Insights — FTE Utilization

Drilling down further into the spend/cost analysis depicted above leads to an equally interesting finding about IT resource management. Upon seeing the increased percentage of users with access to BI, and the higher level of BI engagement in Best-in-Class companies, a reasonable assumption might be that these top performing companies are spending all their money on the IT skill sets required to deploy and manage a BI tool. Regardless of how large or small a BI deployment is, what functionality is delivered, or how quickly it happens, at some point someone with a modicum of knowledge of the organization's IT infrastructure is needed in order to ensure that the tools are deployed properly and work as intended. Once again speaking in absolute terms, Best-in-Class companies rely on an average of 9.2 FTEs in total for the deployment and ongoing support of their BI solutions, compared with 11.2 FTEs for the Industry Average and 7.0 FTEs on average for Laggards.

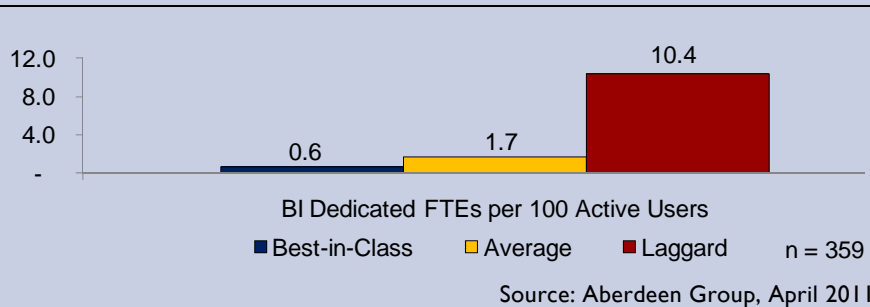*continued*

Aberdeen Insights — FTE Utilization

Using a similar method as above and applying these numbers to the total
user base for each maturity class reveals that Best-in-Class companies are
using 2.4-times fewer FTEs for every 100 BI users (Figure 10).

Figure 10: FTEs for Every 100 BI Users

BI Dedicated FTEs per 100 Users

■ Best-in-Class   □ Average   ■ Laggard   n = 359

Source: Aberdeen Group, April 2011

However, this data once again falls short of telling the full story. Thinking
about the support and maintenance costs for a reasonable sized BI
deployment begs the question - how much support could an infrequent
user require? With only a small segment of users leveraging BI on a
regular basis Laggards find themselves in a situation of significant under-
utilization when it comes to their key IT assets. The data shows that
Laggards are employing more than 17-times the number of FTEs for
every 100 active BI users as compared to the Best-in-Class (Figure 11).

Figure 11: FTEs for Every 100 *Active* BI Users

BI Dedicated FTEs per 100 Active Users

■ Best-in-Class   □ Average   ■ Laggard   n = 359

Source: Aberdeen Group, April 2011

The implications of this data speak volumes about the efficiency of a Best-
in-Class company, particularly in light of the performance described in
Figure 1. Depending on the metric, Best-in-Companies - either in spite of,
or because of the fact that they leverage fewer IT resources - are able to
stay within budget, leverage their people effectively to deliver solutions
on-time or early, and build analytical engagement with more users in the
organization.

Chapter Three:
Required Actions

Whether a company is trying to move its performance in BI cost management from Laggard to Industry Average, or Industry Average to Best-in-Class, the following actions will help spur the necessary performance improvements:

Laggard Steps to Success

- **Develop a clear ROI methodology for BI.** With any significant software deployment, measuring and managing return on investment is as tricky as it is variant from company to company. However, the challenge of measuring ROI is not a valid reason not to do it. Best-in-Class companies are 2.7-times more likely to have a clearly documented and well understood ROI methodology in place. The key is to develop an intimate understanding of how the tools are affecting the organization and what business value is delivered as a result. Using BI as a sales tool? Look at the change in new pipeline accounts identified, lead conversion rates, or new accounts sold. As a customer service solution? Start tracking changes in customer profitability, customer response rates, or overall customer satisfaction levels. With an understanding of the true business impact that BI is delivering, Laggards will be in a better position to develop a clear picture of the ROI achieved from BI and pave the way for improvement as well.

- **Segment and measure the cost of each stage of the BI lifecycle.** Part of the challenge that Laggards face when managing the TCO of business intelligence is poor visibility into the end-to-end process of BI deployment and management. Best-in-Class companies are 2.6-times more likely than Laggards to develop a phased approach to deployment where they can measure the cost of each stage. For any significant deployment, there needs to be a planning phase, an understanding of user needs, an integration plan - and so on. Implementation may involve staggering and prioritizing users and business functions. There is a time and a cost associated with each of these steps. Tracking these costs on a segmented basis will also provide early insight into when projects are going off the rails and will ultimately help Laggards better manage the TCO of business intelligence

- **Define and document a standard BI implementation plan.** While different users and business functions within the organization will have different needs when it comes to analytical functionality, a thoroughly conceived and time-tested implementation plan will translate well across multiple areas of the company. Best-in-Class companies are more than twice as likely as Laggards to have a well documented and standardized BI implementation plan. By

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Fast Facts

Top BI vendor selection criteria:

1. Ease of integration with enterprise applications or portals

2. Estimated TCO

3. Ease of use

4. Initial purchase price

How Does Your Performance Compare to the Best-in-Class?

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developing and continually refining a standardized plan for
implementing BI, Laggards will position themselves to deliver
analytical capability across their organization in a shorter time frame
and within budget.

Industry Average Steps to Success

- **Establish a process to gather and incorporate end-user BI
  needs.** The first step toward building engagement in BI and reaching
  the adoption levels of a Best-in-Class company involves
  understanding and delivering on end-user requirements. Perhaps the
  operational leaders need hourly or near real-time dashboards, the
  strategic analysts need ad-hoc query and discovery tools, and the
  senior executives require a daily report of higher-level metrics.
  Best-in-Class companies are 73% more likely than the Industry
  Average to regularly collect and incorporate end-user analytical
  needs. Putting this process in place on a regular basis will help
  Industry Average companies increase the end-user involvement in BI
  leading to higher adoption rates.

- **Actively develop BI knowledge and skills among business
  staff.** Some non-technical business users are simply born with a
  degree of analytical curiosity that drives them towards engagement
  in BI. Others require a more active approach to training and
  nurturing their analytical skills. Best-in-Class companies are twice as
  likely as the Industry Average to actively develop analytical skills in
  house and augment the overall analytical prowess among business
  users. Through training, demonstrations, internal case studies, and
  other methods of showcasing the value of BI, Industry Average
  companies can foster a higher level of organizational intelligence,
  become more analytically inclined organizations, and improve their
  return on BI investment.

- **Remove unnecessary restrictions on end-user data
  exploration.** Information security and rights management are
  crucial aspects of any IT environment. Employees simply cannot
  have unimpeded access to any data in the company at any time.
  However, sometimes the restrictions on that very data access can
  become cumbersome and counterproductive to the employees'
  ability to make informed business decisions. Best-in-Class companies
  are 34% more likely than the Industry Average to examine their
  data access policies and remove unnecessary restrictions that are
  likely to hinder the analytical process. Without actually
  compromising the security of sensitive organizational information,
  Industry Average companies can accelerate the generation of
  analytical insight by lifting unnecessary barriers to information
  access. With analytical tools better tailored to user needs, an
  increased level of analytical skill, and a more direct and unimpeded
  path to relevant data, these organizations will be able to deliver

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more business value from their BI deployment, putting them on the path to Best-in-Class TCO management.

Best-in-Class Steps to Success

- **Start benchmarking BI project costs against industry peers.** Top performing companies are generally quite adept at measuring and managing cost when it comes to BI, developing internal benchmarks, and developing best-practices that apply across the company. These processes, as valuable as they are, nevertheless remain internal and are devoid of any insight that could come from outside the company walls. The research shows that only 18% of Best-in-Class companies have processes in place to benchmark their own BI project costs against peers of similar size or within the same industry. Given the wide variety of factors that could affect BI cost (company size, geography, industry, etc.) Best-in-Class companies should consider measuring themselves against their closest peer companies in order to increase the relevance of the comparison, thus improving their understanding of BI cost management strategies and facilitating an even more refined TCO strategy.

- **Continue to build self-service BI capability among business users.** According to the research 52% of BI users at a Best-in-Class company have the ability to build their own charts and views of the data, and generate their own business insight in a self-service capacity. This capability is a key underpinning of their ability to reduce the amount of support and maintenance needs and rely on fewer IT resources when it comes to BI. Top performing companies should seek ways to maintain and improve the level of analytical self-sufficiency in the organization. By delivering more relevant data, allowing for self-service business discovery among the users, and broadening the access and delivery of business insight, Best-in-Class companies will build an even greater degree of analytical engagement and continue to drive down their cost per BI user.

- **Provide more pre-built advanced analytical functionality to power users.** The research shows that Best-in-Class companies, in addition to having a larger percentage of active BI users, also have a larger number of "power users" with an advanced level of analytical capability. In order to build an even greater degree of organizational intelligence, the effort shouldn't focus exclusively on the non-technical business user, but on the more sophisticated analytical thinkers as well. Only 43% of top performing companies are delivering pre-build advanced analytical functionality (predictive modeling, statistical functions, or high performance querying, for example) to their power users. Companies at the level of performance and sophistication of the Best-in-Class should consider enabling even more analytical prowess at the power user level through the delivery of advanced analytical functionality.

Fast Facts

√ **48%** of Best-in-Class companies are using **predictive analytics**

Compared with:

√ **26%** of all other companies

Aberdeen Insights — Summary

The cornerstone of a Best-in-Class strategy for TCO management is BI adoption. In order to get more "bang for the buck" when it comes to their analytical infrastructure, top performers are consistently seeking ways to drive the solutions deeper into the organization and foster a higher degree of involvement. Best-in-Class enable this in four key ways:

- **Access:** 47% of employees at Best-in-Class companies have access to BI capability, compared with 30% for the Industry Average, and 14% for Laggards.

- **Usage frequency:** 71% of BI users at Best-in-Class companies leverage the solutions on a weekly or more frequent basis, compared with 38% for the Industry Average and 11% for Laggards.

- **Self-sufficiency:** 52% of BI users at Best-in-Class companies are involved with the solutions in a self-service, non-IT assisted, or minimally assisted capacity, compared with 32% for the Industry Average, and 15% for Laggards

- **Advanced usage:** 35% of BI users at Best-in-Class companies are considered to be "power users" compared with 20% for the Industry Average and 8% for Laggards.

This multi-tiered system of analytical engagement facilitates a much more widespread deployment, allowing for a significant magnification of the business impact of BI. With a superior level of adoption and a greater degree of IT resource efficiency, Best-in-Class companies are able to deliver BI faster, within budget, and reduce their TCO of business intelligence.

Appendix A:
Research Methodology

Between March and April 2011, Aberdeen examined the use, the experiences, and the intentions of 359 enterprises using business intelligence in a diverse set of enterprises.

Aberdeen supplemented this online survey effort with interviews with select survey respondents, gathering additional information on BI strategies, experiences, and results.

Responding enterprises included the following:

- *Job title:* The research sample included respondents with the following job titles: C-level executive (20%); EVP / SVP / VP (11%); Director (19%); Manager (29%); Consultant (10%); and other (11%).

- *Department / function:* The research sample included respondents from the following departments or functions: procurement, supply chain, or logistics manager (11%); operations manager (17%); IT manager or staff (36%); sales and marketing staff (10%); senior management (11%); and other (15%)

- *Industry:* The research sample included respondents from a variety of industries. The largest segments represented were: Software (15%); Manufacturing (12%); Financial Services (10%); Consumer Products (8%); and Government/Public Sector (7%).

- *Geography:* The majority of respondents (60%) were from North America. Remaining respondents were from the Asia-Pacific region (13%) and EMEA (27%).

- *Company size:* Thirty percent (30%) of respondents were from large enterprises (annual revenues above US $1 billion); 37% were from midsize enterprises (annual revenues between $50 million and $1 billion); and 33% of respondents were from small businesses (annual revenues of $50 million or less).

- *Headcount:* Forty-six percent (46%) of respondents were from large enterprises (headcount greater than 1,000 employees); 28% were from midsize enterprises (headcount between 100 and 999 employees); and 26% of respondents were from small businesses (headcount between 1 and 99 employees).

Study Focus

Responding executives completed an online survey that included questions designed to determine the following:

√ The degree to which BI is deployed in their operations and the financial implications of the technology

√ The structure and effectiveness of existing BI implementations

√ Current and planned use of BI to aid operational and promotional activities

√ The benefits, if any, that have been derived from BI initiatives

The study aimed to identify emerging best practices for BI usage, and to provide a framework by which readers could assess their own management capabilities.

Table 4: The PACE Framework Key

Overview
Aberdeen applies a methodology to benchmark research that evaluates the business pressures, actions, capabilities, and enablers (PACE) that indicate corporate behavior in specific business processes. These terms are defined as follows: **Pressures —** external forces that impact an organization's market position, competitiveness, or business operations (e.g., economic, political and regulatory, technology, changing customer preferences, competitive)   **Actions —** the strategic approaches that an organization takes in response to industry pressures (e.g., align the corporate business model to leverage industry opportunities, such as product / service strategy, target markets, financial strategy, go-to-market, and sales strategy)   **Capabilities —** the business process competencies required to execute corporate strategy (e.g., skilled people, brand, market positioning, viable products / services, ecosystem partners, financing)   **Enablers —** the key functionality of technology solutions required to support the organization's enabling business practices (e.g., development platform, applications, network connectivity, user interface, training and support, partner interfaces, data cleansing, and management)

Source: Aberdeen Group, April 2011

Table 5: The Competitive Framework Key

Overview	
The Aberdeen Competitive Framework defines enterprises as falling into one of the following three levels of practices and performance: **Best-in-Class (20%) —** Practices that are the best currently being employed and are significantly superior to the Industry Average, and result in the top industry performance. **Industry Average (50%) —** Practices that represent the average or norm, and result in average industry performance. **Laggards (30%) —** Practices that are significantly behind the average of the industry, and result in below average performance.	In the following categories: **Process —** What is the scope of process standardization? What is the efficiency and effectiveness of this process? **Organization —** How is your company currently organized to manage and optimize this particular process? **Knowledge —** What visibility do you have into key data and intelligence required to manage this process? **Technology —** What level of automation have you used to support this process? How is this automation integrated and aligned? **Performance —** What do you measure? How frequently? What's your actual performance?

Source: Aberdeen Group, April 2011

Table 6: Relationship Between PACE and the Competitive Framework

PACE and the Competitive Framework – How They Interact
Aberdeen research indicates that companies that identify the most influential pressures and take the most transformational and effective actions are most likely to achieve superior performance. The level of competitive performance that a company achieves is strongly determined by the PACE choices that they make and how well they execute those decisions.

Source: Aberdeen Group, April 2011

Appendix B:
Related Aberdeen Research

Related Aberdeen research that forms a companion or reference to this report includes:

- *The ABCs of Executive Analytics: A-List Performance Using BI in the C-Suite*; February 2011

- *Data Management for BI: Fueling the Analytical Engine with High-Octane Information*; December 2010

- *BI for the SMB 2010: Unlocking Hidden Business Insight to Drive Profit*; October 2010

- *Operational Intelligence: Boosting Performance with "Right-Time" Business Insight*; August 2010

- *Self-Service BI: Empowering the Line-of-Business Manager*; May 2010

- *The Intelligent Insurer: Enhanced Business Performance with Pervasive Analytics;* May 2010

- *The TCO View of Business Intelligence*; April 2010

- *Business Intelligence in Banking: Analytical Customer Focus Drives Performance;* April 2010

- *Data Management for BI: Strategies for Leveraging the Complexity and Growth of Business Data*; December 2009

Information on these and any other Aberdeen publications can be found at www.aberdeen.com.

Author: Michael Lock, Senior Research Analyst, Business Intelligence,
michael.lock@aberdeen.com