# A Simple Cost Justification for Self-Service Analytics

February 2013

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Increasingly, self-service permeates many aspects of our lives. Self-service gas stations and self-service banking (in the form of ATMs) have become commonplace over the last 60 years. More recently, self-service airline check-in has found rapid adoption. In these cases, the consumer benefits from faster service and greater convenience, while the provider is able to cut the cost of service delivery. The same is true for self-service analytics (see sidebar definition). This Analyst Insight quantifies the savings in internal IT support costs that can be achieved while simultaneously improving the ability of business managers to find timely information. Internal support accounts for 68% of the total cost of a business intelligence solution (on average), so self-service analytics should be a goal for many companies.

## Self-Service BI Reduces Internal IT Support Costs

Expenditure on BI software licenses and related hardware is easy to quantify. As a result, these costs are usually the main focus when organizations consider the total cost of their analytics solutions. On the other hand, the cost of IT staff to implement and support a business intelligence solution is seldom tracked as rigorously. However, Aberdeen's research shows that organizations that deliver analytics using a self-service approach spend far less on internal IT support when compared to organizations that forgo self-service (Figure 1).

**Figure 1: Self-Service Delivers 60% Lower Support Cost per User**
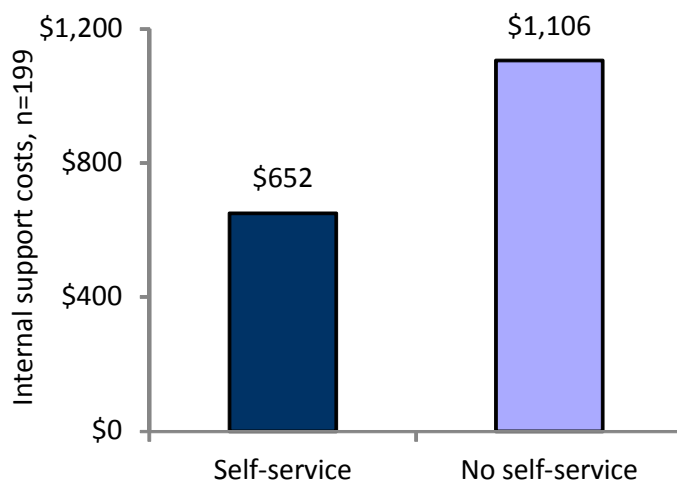


Source: Aberdeen Group, April 2012

**Survey Definition**

Data for this research was drawn from Aberdeen's April 2012 survey into agile business intelligence. Organizations were judged to have a self-service approach to BI when business managers had both:

√ The ability to tailor reports and dashboards to their particular needs without help from IT.

√ The ability to drill-down to detailed information from summary reports, charts, or dashboards

Based on these criteria, 74 survey respondents currently use a self-service approach to business intelligence, while 125 survey respondents do not.

As Figure 1 shows, companies that have a self-service philosophy when it comes to BI spend 41% less on IT support per BI user when compared to those firms that do not. This much lower cost for providing skilled IT support isn't magic. It's a simple shift of responsibilities.

Strong BI implementations depend on a successful collaboration between business users and skilled IT personnel. Between these two parties, the balance of responsibilities — exactly who does what — can vary. With some implementations the business community will simply define the information they need to see and how they need to see it. Skilled IT staff will then be primarily responsible for implementing the solution, in addition to modifying and enhancing it as time goes by. In this case, the ongoing involvement of business users is pretty minimal. Generally, it amounts to submitting enhancements requests and undertaking quality assurance (QA) when enhancements are completed.

That approach presents a big challenge: When business managers need to see new information, or simply different views of existing information, they are totally dependent on skilled IT staff to provide those enhancements for them. However, Aberdeen's March 2011 agile BI survey found that IT organizations have an average of 143 days of BI related project work outstanding. As a result, modification can often take longer to achieve than business managers are willing or able to wait because of the urgent nature of their decisions.

Happily, a self-service philosophy to analytics also improves the odds that business users can find the information they need when they need it.

**Table 1: Self-Service Provides More Effective Information Access**

| | Self-service | No self-service |
|---|---|---|
| **Percentage of respondents needing information within the hour** | 46% | 28% |
| **Frequency of finding information in the time required** | 85% | 69% |

n=199
Source: Aberdeen Group, April 2012

As Table 1 shows, self-service BI users are 23% more likely to find timely information to support their decisions. This is true despite having more demanding information needs. (Forty-six percent (46%) of managers with self-service analytics need information within one hour of business events occurring, compared to just 28% at other organizations).

## The Users Perspective on Self-Service

Self-service provides freedom for business users to analyze and manipulate data directly without help from IT. Managers are often called on to react

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### Calculating Support Costs

On average, internal BI implementation and maintenance account for 68% of the total annual cost of a BI solution. The average cost of internal BI implementation and maintenance was calculated using the following data:

√ Average number of full-time equivalents (FTEs) responsible for the implementation of analytics reported in Aberdeen's survey

√ Average number of full-time equivalents (FTEs) responsible for the ongoing maintenance of analytics reported in Aberdeen's survey

√ Average annual cost of $150,000 for a skilled IT FTE to implement or support analytics (Aberdeen's estimate)

√ Average number of analytics users derived from Aberdeen's survey

The data recorded in Aberdeen's survey for these factors was:

√ Self-service: **9.5 FTEs** implementing BI, **10.9 FTEs** maintaining BI, total estimated average support costs of **$3.06m** for an average of **4,689 BI users**

√ No self-service: **13.6 FTEs** implementing BI, **11.2 FTEs** maintaining BI, total estimated average support costs of **$3.73m**, for an average of **3,372 BI users**

rapidly to unexpected events, or a changing business environment. Because of this, BI solutions need to adapt and change to facilitate fresh insight, often at short notice. And, as noted earlier, it is often not possible for that change to be delivered in a timely way by a corporate IT team. Self-service BI provides a way for business users to interact with and explore data to answer questions for themselves, understanding cause-and-effect relationships so that they can take timely action. For example, imagine a call center manager has a dashboard that includes a number of high level KPIs. Further, imagine that one of those KPIs indicates a higher than expected daily call volume. The ability to move seamlessly from the summarized information in that KPI to more detailed data can help the manager investigate and quickly understand what has occurred and how to fix it.

However, a self-service approach places a greater responsibility on business users to get involved, hands-on, in implementing and maintaining the solution. For example, business users may assume the task of configuring the solution to meet their individual needs. This may be as simple as changing the colors or layout on a dashboard. On the other hand, users may be empowered to choose the key performance indicators (KPIs) that they wish to see on a dashboard and apply appropriate filters to the data. While this may sound like a burden, there are significant benefits. BI users can tailor their own personal solution so that the exact information they need to see is presented to them exactly how they want to see it. In practice, analytics users within the same business function may need to see different views of the same data. For example, a regional vice president of sales will want to see a higher level of information than an individual account manager. Even two accounts managers may prefer to see different information on a dashboard, or set different thresholds for when they will be alerted to potential problems. When the IT organization has such a backlog of work, it makes perfect sense for end users to take care of such details themselves, whenever possible. Most likely, such users will also feel a greater sense of commitment to success of the BI project if they take ownership of this part.

Notably, this approach also helps new BI projects to be completed faster. Organizations that use a self-service approach complete comparable new projects 77% faster than those that do not. Shifting responsibility for simple tasks in analytics projects — such as configuration of the final presentation — can help the IT department to focus on more strategic areas and improve overall productivity.

## Key Takeaways and Recommendations

On the face of it, BI (or analytics) meets the basic win-win requirements for successful self-service. To wit, analytic consumers benefit from superior service, while corporate IT gets to reduce the cost of serving those users. However, the majority of organizations in Aberdeen's survey has not yet implemented self-service BI as defined in this Analyst Insight. Aberdeen recommends companies consider the following:

### BI Styles

BI solutions can be classified into 3 broad types:

√ **Managed reporting** — Typically creates and delivers lists, or cross-tab style reports. Usually centralized and delivered by corporate IT, often only static views of data are available. Advanced solutions allow some interaction, such as filters or sorting.

√ **Interactive dashboards** — Allow several metrics to be displayed on a single screen. Often highly visual with charts and dials, dashboards frequently allow users to interact with information and "drill-down" to detailed data from summarized information. Corporate IT is normally heavily involved in dashboard projects.

√ **Visual data discovery** — A rich, highly interactive, visual tool is provided to business users to allow them to manipulate and explore information freely in (near) real-time. Although corporate IT provides the IT infrastructure and data, business managers and analysts create visualizations independently.

- **Self-service cuts the cost of internal support.** Organizations that have implemented self-service BI spend 41% less on IT support per user compared to those firms that have not. This is possible by shifting responsibility for some simple "last-mile" customization of the solution from skilled IT staff to business users. In addition, business managers are empowered and encouraged to move beyond static views of data to interactive exploration and manipulation.

- **Self-service improves the ability to access timely information.** This is a natural consequence of providing BI users with the means to be more "hands-on" with information. Managers that are able to manipulate information directly, in a self-service fashion, are 23% more likely to find the information they need in the timeframe that they need it.

- **The right tools help self-service happen.** Companies that have adopted self-service BI still used managed reporting (see sidebar definition) to provide basic management information — 67% of BI users have access to this type of tool. But, interactive tools comprise a large part of their analytics solution portfolio too. Sixty-six percent (66%) of business users have access to interactive dashboards, while 46% have access to visual data discovery tools. Organizations, should consider the mix of tools they make available to users in order to facility self-service.

- **Cultural changes may be necessary.** Providing appropriate software tools is only part of the story. For self-service analytics to take hold and provide value to the business, organizational culture may also need to be addressed. Unless managers are also empowered to act autonomously on the insights they gain from working hands-on with information, gains are likely to be limited. In addition, it is likely that appropriate training and intensive support is provided — at least initially — to ensure that business managers are comfortable manipulating and analyzing data in ways that they may never have done before. However, with a suitably supportive culture in place, self-service analytics can thrive, fostering a "culture of curiosity" than can help to drive business performance to new heights.

As IT support accounts for **68%** of the average total cost of a BI solution, evolving towards a self-service approach to analytics is one of the most important steps organizations can take to reduce the total cost of ownership of their implementations.

For more information on this or other research topics, please visit www.aberdeen.com

## Related Research

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| *Packaged Analytics: The Gift that Keeps on Giving*; January 2013 | *Agile or Fragile? Your Analytics, Your Choice*; July 2012 |
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| *Real-Time Data Integration: Driving Near Real-Time Analytics*; September 2012 | *SaaS BI: The Compelling Economics of Cloud-based Analytics*; February 2012 |
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