

Self-Service BI: What You Need to Know

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Introduction

Listen to the hype, and you might think that the rise of self-service business intelligence (BI) software was less due to technological innovation and more like something out of a fairy tale. Here's how the story usually goes:

"Once upon a time, there were expensive, complicated BI tools that only IT specialists could use. In those bad, old days, it took a very, very long time for business leaders to get their reports. In fact, months would pass as specialists labored to model the data—and by the time the reports arrived, the information they contained was often out of date!

"Then, one day, self-service BI came along to decentralize the analytics process. Instead of submitting their analytics requests to IT, business users were able to use simple drag-and-drop interfaces to create reports, visualizations and dashboards themselves. This resulted in more efficient, data-driven organizations—and IT was satisfied, too, because they were able to dedicate their energies to other duties.

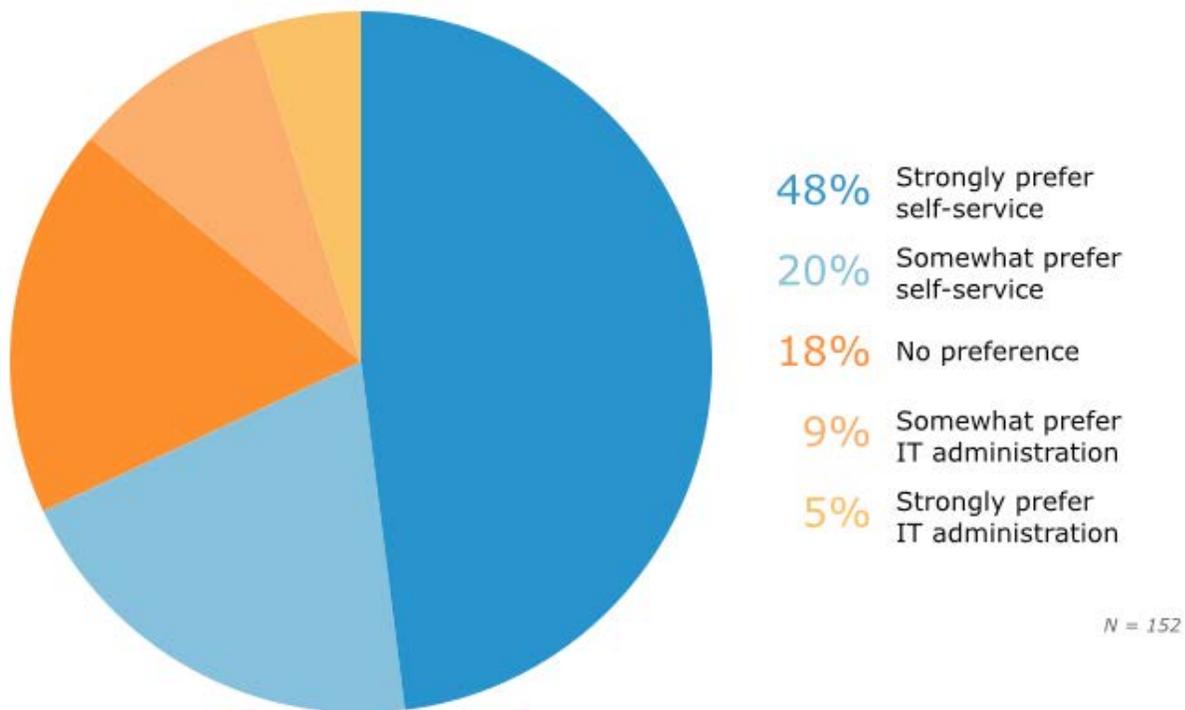
"And they all lived happily ever after."

Beautiful, isn't it? And so appealing is the idea of self-service BI that, in recent years, these tools have stolen both the thunder and the sales momentum of traditional, IT-led solutions.¹ Indeed, in the 2015 Gartner Magic Quadrant for Business Intelligence and Analytics, self-service data visualization specialist Tableau held the top position in the leaders' quadrant.

Little wonder, then, that many "big beasts" of BI are racing to catch up: IBM, Microsoft and SAP have all recently unveiled new "self-service" options to compete with their smaller, younger rivals.

It is not hype that this is where much of today's analytics demand currently lies, however. We surveyed 152 small and midsize business (SMB) owners and decision-makers on whether they would prefer to access data to create their own dashboards, or to outsource their analytics to IT. The results are overwhelming:

Self-Service vs. IT-Managed Analytics: SMB Decision-Makers' Preferences



Almost 50 percent of respondents “strongly prefer” self-service, while a further 20 percent “somewhat prefer” it. Thus, more than two-thirds, combined, want to “do data” themselves, versus a measly 5 percent who “strongly prefer” IT to handle it.

The good news is that self-service tools really do benefit both the business user and the IT department. According to a recent survey by BI vendor Logi Analytics, self-service tools can reduce IT requests by 37 percent,² which represents a huge jump in efficiency.

But how self-service *is* self-service, exactly? Will IT still need to be involved? And how do you prevent data liberation from turning into data chaos? Is it really all that straightforward? Whether buyers are excited by the possibilities or concerned about the hidden pitfalls, they need to know exactly what they are getting into before making an investment. After all, make the wrong choice, and those IT requests will start surging again.

So what to do? That’s where Software Advice comes in: Every day, we advise BI buyers on the tools that are best suited for their organizations. In this white paper, we speak with experts on the front lines of self-service to uncover critical issues you need to understand before investing in the technology.

Self-Service Selection: Strategic Questions

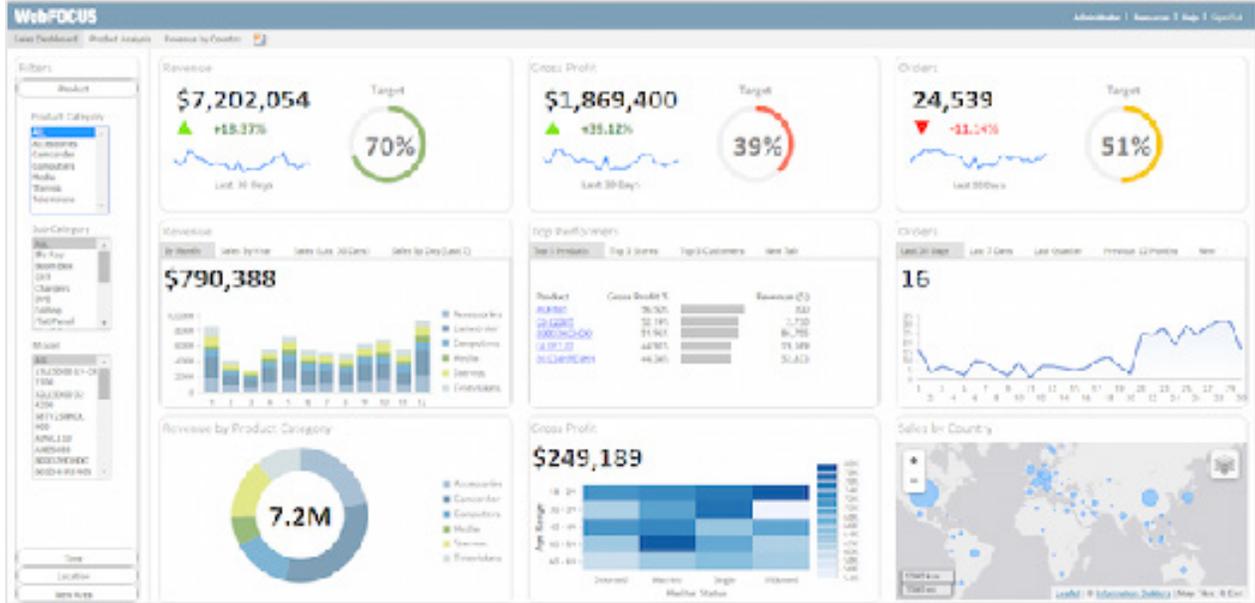
While the fairy tale sounds wonderful, it doesn't take much searching before the complexity of the self-service BI market reveals itself. So keen are vendors to jump on the seemingly unstoppable self-service train, buyers will swiftly find themselves confronted with a wide array of platforms from which they can depart.

Should you choose a newer tool, such as Tableau and QlikView, both of which are strong on visualization? Or should you stick with a mega-vendor with deep experience, such as IBM? But hold on a minute—IBM offers both Watson Analytics and IBM Cognos Express as “self-service” tools. Analytics titan SAP also offers its longstanding self-service tool, BusinessObjects, along with the newer SAP Lumira.

And what about cloud or on-premise deployment questions—or maybe going with a governed cloud solution, such as Birst? Information Builders offers the highly customizable WebFOCUS, as well as InfoApps, an interactive analytical app for business users less adept at data manipulation. Even advanced analytics provider FICO has its Analytic Cloud, designed for SMBs that may have been priced out of the market due to infrastructure costs.

With so many choices (and definitions), a buyer could easily dedicate months to analyzing all the possibilities.

One thing is certain, however: If your strategy is, as Michael Corcoran, chief marketing officer of BI firm Information Builders, puts it, “leave me alone, don't get involved with me, just give me some data,” then it isn't really much of a strategy. Indeed, Corcoran adds, this attitude “blows up on a lot of companies over time.



Self-service analytics app for Web browsers and mobile devices
(source: Information Builders)

It's crucial that you know the right questions to ask vendors during your search. But first, you need to know what questions to ask of *yourself*.

Gautam Kher, head of business architecture at analytics firm GoodData, stresses that “buyers must assess the variety of business questions their users are looking to answer, their level of familiarity with analytics and the maturity journey they want to take their users through over the next couple of years—e.g., do they want all of them to become data scientists?”

Choosing a more advanced tool than your users require will leave you with very shiny shelfware, and that’s about it. But buy something too limited, and frustrated users will start sourcing their own solutions, leading to all the problems associated with shadow IT.

“Top-down solutions might look good to management,” says David Lefkovich, vice president of sales and marketing at data analytics firm FreeSight Software. “But bottom-up solutions might actually be used by the people at the end of the line whose work the organization depends on.”

Lefkowich suggests a list of questions that buyers should ask at the start of their search:

- **What are the general objectives for the solution?** These may include some or all of the following: data prep (integration, cleaning, normalization etc.); analysis; visualizations; reporting; and reporting automation.
- **What are the specific objectives for the solution?** For example, is this to replace an existing tool or tool set? To replace or fix an existing process or set of processes? To create a new process? If it's to "replace," what was working and not working with the previous process(es)? If it's "new," what are the specific bottlenecks and pain points illustrating the need for a new solution?
- **What is the scale of implementation?** Is it small-scale (department-level), or enterprise-level?
- **Who will be using the software?** Who are the users, what are their roles and what are the levels of their technical proficiency?
- **Who are the customers?** Who are the internal (or external) customers, and what are the expectations for deliverables?
- **How well is the solution supported?** Is the solution provider flexible and available to work with the organization to train, implement, customize (if needed) or otherwise support the solution?

Answering these questions will make your research much more targeted and precise as you decide the type and scale of tool you select. This can even help you decide whether you want to use multiple tools.

Crucially, says Lefkowich,

“The best thing IT can do is to provide users with easy-to-learn and -use tools that provide the level of governance and transparency [that is required], with minimal IT overhead.”

—David Lefkowich, FreeSight Software

Implementation and Maintenance

“Minimal IT overhead”—that sounds great, doesn’t it? But here is another fact that doesn’t quite fit the fairy tale: Marketing hype notwithstanding, your company’s self-service BI solution is not as easy to use as a Playstation 4. It’s actually quite complex.

Certainly, self-service tools can be implemented a lot faster than traditional tools, which can take a long time to get up and running (“you’re going to love your dashboard next year when you get it,” as Information Builders’ Corcoran puts it.) But there is a trade-off in governance and scalability—discussed in the next section—and IT will still be involved, even when businesses select a tool deployed in the cloud.

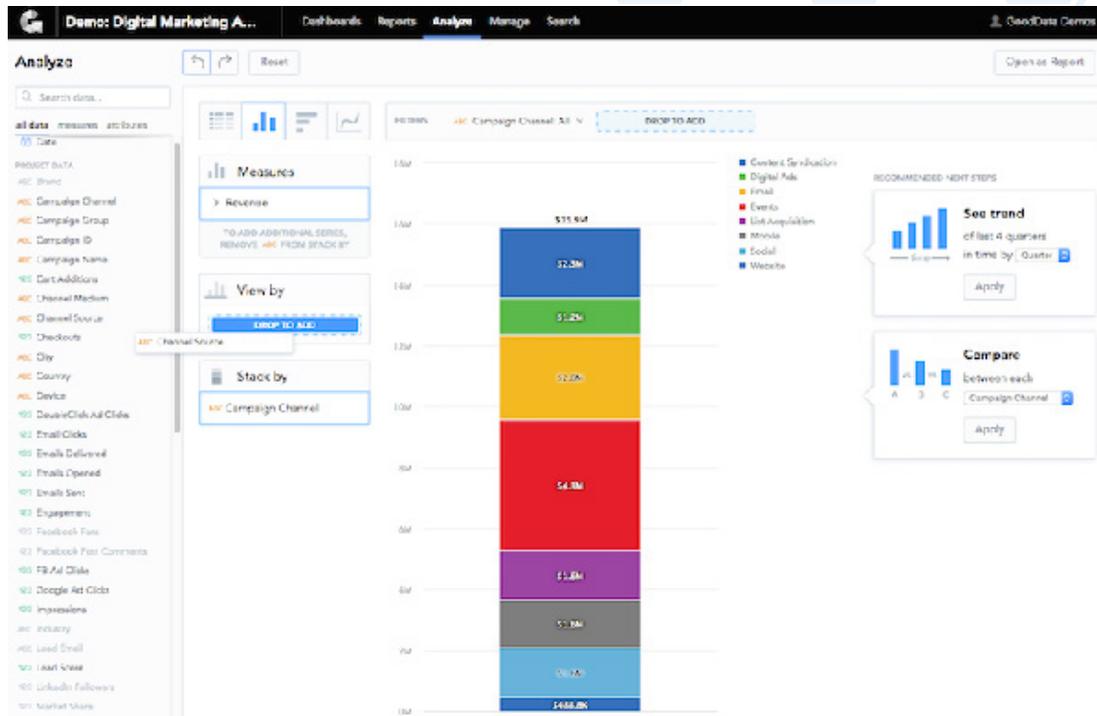
It is true that cloud tools limit IT involvement, as many of the maintenance and operational questions can be outsourced to the provider, says Marne Martin, CEO of workforce management software firm ServicePower. However, IT will still have to work with the vendor when identifying what data sources and which back-office systems the tool needs to collect information from, and which departments will have access to the data.

IT should also pay close attention to the speed of the systems they are testing during any trial or proof-of-concept phases.

As Martin stresses, “[the] tool must load data quickly—whether in memory or via the Web—so that accessing reports and creating new self-service reports is fast.”

After all, if it’s not fast, then you can be sure business users will complain to IT, or circumvent IT and look for their own tools ... and terrible headaches will lie ahead.

Ulrik Pedersen, chief operating officer (COO) of BI firm Targit, says you will know a good self-service BI vendor by its deeds more than its words. Reputable, responsible firms will always provide the IT department with lots of assistance during the initial setup phase, “taking the lead” to configure and control the server and applications for use across the organization.



Self-service digital marketing dashboard (Source: GoodData)

Pedersen adds that you should expect self-service systems to have permission options for sharing and utilizing data throughout the organization from within the tool itself: IT’s involvement, therefore, should primarily focus on ensuring the hardware can scale with the solution.

However, as users become more advanced, he says, IT may have to assist as “data integration experts” in order to add additional data sources and assist with more complex data mashup models.

Gautam Kher, head of business architecture for analytics firm GoodData, is even more precise: “IT teams usually need to dedicate [as many as three full-time employees] to help with ongoing maintenance, depending on the nature of the self-service tool selected.”

Regarding deployment options, Kher cautions that “responding to changing user needs can be quite cumbersome” if buyers opt for an on-premise or desktop solution. However, Targit’s Pedersen explains that the decision process of whether to deploy BI in the cloud or on-premise should be no different than for any other application the company relies on.

“If the ERP and CRM systems are in the cloud, then it makes sense to evaluate a BI platform in the cloud. If key source systems are on-premise, it makes no sense to move all the data up into the cloud just to do BI—so adding this as an on-premise tool makes the most sense.

“Keep in mind, though, that the BI tool selected for an on-premise implementation should still allow the users to mashup data living in the cloud,” Pedersen says.

The Importance of Governance

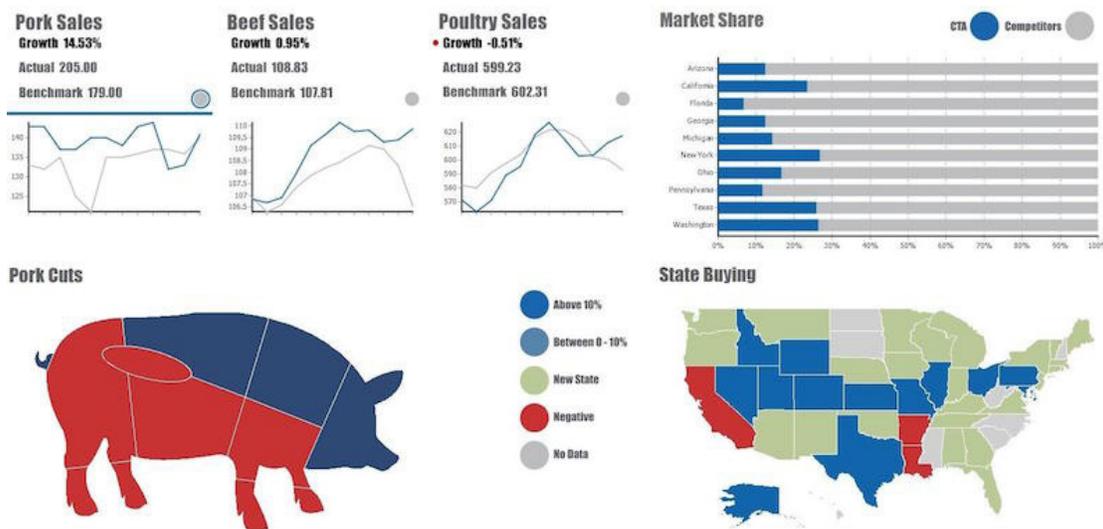
IT also has an important role to play in data governance—for example, in issues surrounding data access, source data relationship mapping and user-level data access privileges. In fact, without data governance, the self-service fairy tale runs the risk of mutating into a nightmare, in which Freddy Krueger claws at beleaguered IT-department heads as they are relaxing in the bath at the end of the day.

Well, maybe it's not that bad. But it can get pretty scary: While it may initially save time and improve efficiency if business users are liberated to conduct their own analyses, self-service can also unleash data chaos, with users working in silos and developing reports that may not correspond with other reports.

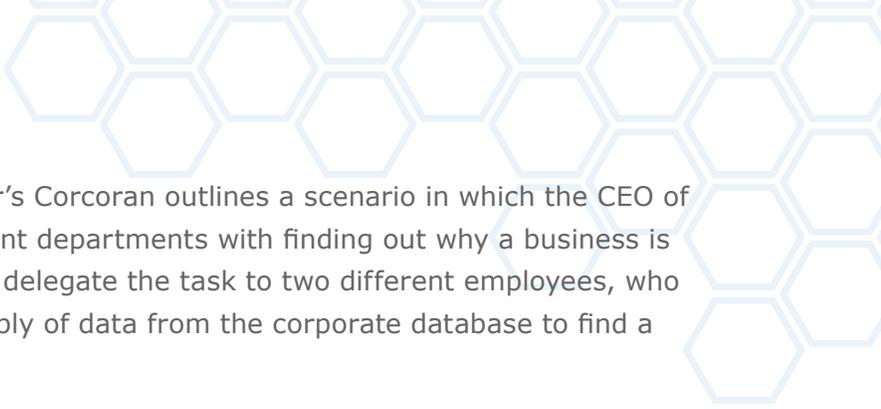
As Pedersen puts it:

“You will wind up in the ‘Excel Hell’ situation that many companies are trying to break free from—namely, a set of data that has been altered, added to, filled with ‘random’ calculations and, in worst case[s], leading to decisions being made on incorrect reports.”

—Ulrik Pedersen, Target



Self-service dashboard showing data related to meat sales by region (Source: Target)



To illustrate the risks, Information Builder's Corcoran outlines a scenario in which the CEO of a company tasks the heads of two different departments with finding out why a business is losing customers. The department heads delegate the task to two different employees, who are responsible for pulling last year's supply of data from the corporate database to find a solution.

However, while the two employees are pulling the same data, only one notices an error and makes the necessary correction. Two dashboards are then published with two different sets of answers.

In the monthly boardroom meeting, the CEO says, "now go back and spend the next few weeks figuring out why you guys had different answers.' And everyone's yelling at the IT guy who did nothing wrong. So the tools are creating *more* discrepancy, so there's a new problem," explains Corcoran.

To help prevent this problem, says Lefkovich, buyers should always keep two questions in mind when considering a solution:

- **Is there visibility and transparency built into the solution—for instance, can you see what changes were made, and by whom?**
- **At any time, how easily can you answer the question, "where did this number come from?"**

Indeed, Pedersen says "robust" data governance means that:

- **The data is only seen by those who are meant to see it;**
- **You can track data back to the source for control when needed; and**
- **Metadata can be added for better understanding and interpretation by users.**

In short: Even in this self-service era, it's up to IT technicians to ensure that the data presented to management is correct and factual.

A user- and IT-friendly BI tool is one that gives administrators complete control of critical data without limiting business users' ability to self-serve, Pedersen adds.

“Users should be able to create new data models [that] they can share with the organization. However, an administrator should have the ability to override such shares, and be able to review the data models such that layman users can trust the information made available to them.”

—Ulrik Pedersen, Targit

A good self-service BI tool will also let users set permissions and control who has access to what data for their everyday analytics use. Without such controls, analytics tools can compromise security and privacy.

Indeed, GoodData's Kher stresses that while self-service is good for boosting individual productivity, traditional BI tools still have the strongest data governance and controls, which are necessary for distributing consistent answers to universal questions across the business—“especially [in] decentralized, geographically dispersed organizations.”

In fact, earlier this year, tech consultancy Gartner predicted that³ through 2016, “less than 10 percent of self-service business intelligence initiatives will be governed sufficiently to prevent inconsistencies that adversely affect the business.”

Therefore, while many business users may be itching to get their hands on analytics tools, IT departments still need to work to maintain the quality and consistency of data.

Should IT Train Business Users?

We began with a fairy tale—a heartwarming story of stupendous simplicity and extraordinary ease of use. But while it’s true that self-service tools are optimized for business users in comparison to traditional BI tools, it’s also true that the aforementioned business users can vary wildly in the degree of their own analytics proficiency. Nor is there any universally agreed-upon definition of what “ease of use” actually means in a BI context.

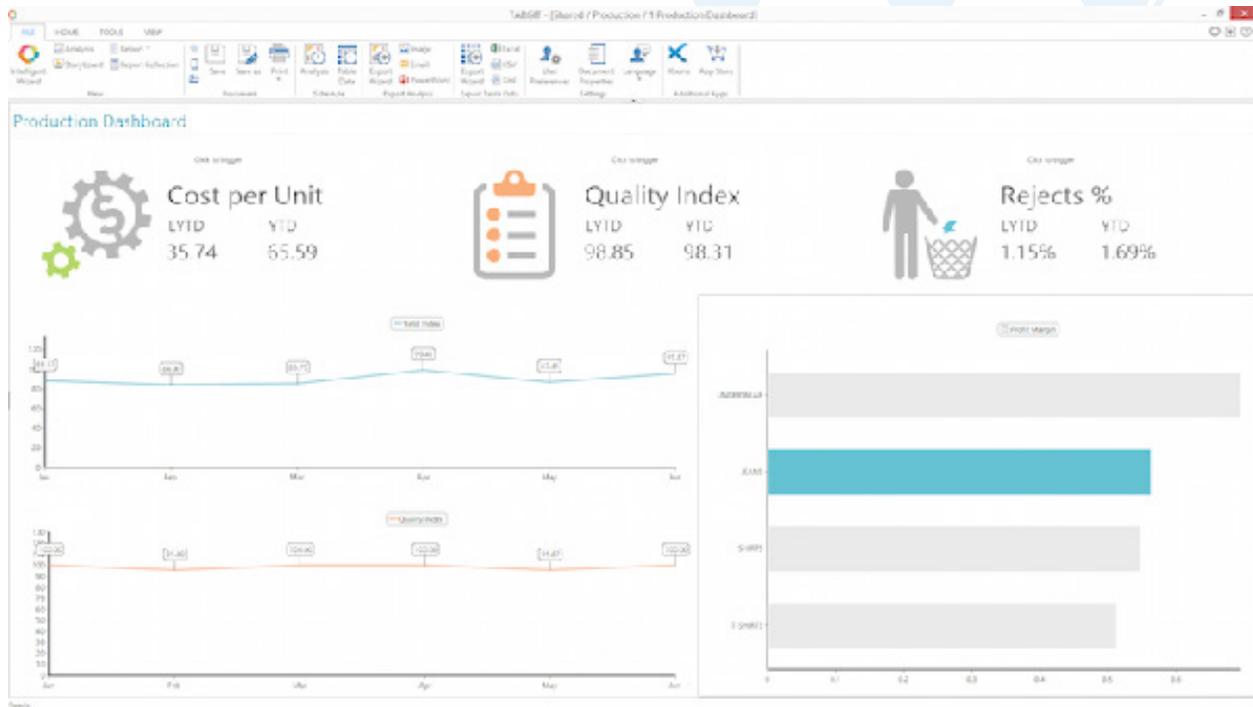
After all, even Excel can get very complicated. In the kingdom of the blind, the moderately competent data wrangler is king: In other words, in some businesses, an “Excel wizard” may be defined as the guy who can perform a couple of formulae, even if he has never seen a pivot table in his life.

Vendors’ talk of simple drag-and-drop interfaces and nifty visualizations can make self-service tools sound easier to deploy than they actually are. Meanwhile, most business users never think about data governance or quality, or about how easy it will be to add additional data sources down the road.

Fundamentally, a self-service tool should be easy to learn; as Lefkovich puts it, “how quickly and easily the solution can begin to provide results is critical to ROI.”

Lefkovich adds that IT’s role should go beyond implementation and governance: In fact, IT can play a role in *driving* adoption of self-service tools by working with vendors to develop end-user training and ongoing engagement.

And that’s not all: He adds that IT should host workshops with power users to “better understand their requirements, and ensure that power users can answer other end-users’ questions.”



*Dashboard measuring key metrics of output costs and revenue for denim sales
(Source: Target)*

Teach a business user to fish for data, and he'll conduct analytics for a lifetime. Well, not quite, but it's definitely an improvement on tossing the tool at them and waiting for them to figure it out.

Meanwhile, if IT puts in this work, then early adopters will better understand the tools they are using and start educating each other—and IT will spend less time answering queries.

Pedersen suggests two ways of looking at training: one related to analysis and visualizations of the data, and the other around the discipline of mashing up the data or building data models.

"The first set of training will typically be available in tutorials, e-learning and user manuals," says Pedersen. "Some vendors will also offer instructor-led training to really teach the users all the features available to analyze and visualize the data."

But when it comes to visualizations, Pedersen thinks IT may be "better off not getting involved," as the discipline of creating an effective visualization "is not a typical IT developer skillset." On the other hand, he says there is "just no way around IT" for more elaborate data models.

"Although internal training can weed out the biggest no-nos for joining and mashing up data, IT should have an active role in validating and governing user-generated data mashup models," Pedersen notes.

Conclusions: “... And They All Lived Happily Ever After”

Self-service BI may not quite be the fairy tale vendor marketing sometimes makes it out to be—but if you ask the right questions and conduct careful research, you will find a tool that end users and IT alike will be able to use to improve insight into the business and boost results.

So, what’s next for BI software buyers?

Finding a trusted resource can help. At Software Advice, our team of Advisors has expert knowledge of multiple BI platforms—and they have helped more than 1,000 buyers find the software that is a fit for their business.

Here are three things you can do right now:

- **Read [reviews](#) of BI tools written by real users, and discover what your peers think of specific platforms.**
- **Chat with a Software Advice BI expert, who can provide a free consultation and pricing information to connect you with the best BI software for your business.**
- **Take a BI solution for a test drive with a [free demo](#).**

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