

# *10 Warning Signs*

That Your Business Intelligence Needs an Overhaul

# Introduction

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When you own a car, you learn that cars give warning signs in a variety of ways. Sometimes they display a warning light on your dashboard. Sometimes they start idling roughly. Or, maybe the brakes start squeaking one day.

When these warning signs appear, what do you do? Do you ignore them and hope they go away? Or, do you take it to the mechanic and get it fixed? Of course, you get it fixed (I hope). Ignoring those warning signs will eventually leave you stranded by the side of the road.

This analogy applies perfectly to Business Intelligence (BI). Every day, companies around the world use BI tools and processes that need replacing. In some cases, faulty BI processes slow them down. In other cases, outdated BI tools waste time and keep them from capitalizing on their data.

The good news: Just like a car, outdated BI displays warning signs. If you pay attention, these warning signs can save you from larger problems down the road.

The problem: Many companies don't recognize these signs.

What are the warning signs of bad BI? In this paper, we'll answer that question. Here are a few warning signs that your Business Intelligence needs an overhaul:



# 1. Creating reports is time consuming

We live in an increasingly data-driven world. Your ability to turn your data into meaningful management information plays a larger role on your business than ever before.

The problem: Reporting is still a time-consuming process for many businesses. They spend days formatting data and creating the reports they need.

The result: Reports are already outdated by the time they're created.

This slow reporting process impacts all areas of the business. Users wait around for the information they need. The decision-making process suffers because data isn't instantly available.

The question: How long does this process take in your business?

If your answer is anything more than “minutes or hours”, that's a warning sign. It might be time to replace your BI solution or make changes to your reporting process.

“Probably the biggest warning sign is based on the amount of time being spent “manually” preparing reports or charts,” says Dr. Alan McCabe, Deputy Chief Operating Officer at Software Group. “If it's time consuming or labor intensive to get the information you need (for example, if someone spends the best part of a week at the end of each month preparing reports, consolidating multiple spreadsheets, different data sources etc.), then this is a big fat warning sign.”



## 2. BI still runs through a single department

A similar problem that we see far too often: BI runs through a single department (usually the IT department). In the past, this process made sense. After all, creating BI applications required a fair amount of technical skill. Users couldn't do this on their own.

These days, that's no longer the case. With the availability of self-service BI options, there's really no need for a single department to handle reporting.

The problem: This still happens in many businesses—a problem that wastes time for all involved. The end users wait around for the reports they need, while the IT department must fit reporting into their already busy schedule. Not only does this waste time, it takes the IT department away from more mission-critical projects.

The question: Does BI still run through a single department in your business?

If so, this is a big warning sign. Try to understand why it happens. Is it just out of habit, or is your existing BI solution too difficult for end users? If the answer is “yes”, it's time to look for another BI solution.

“If users still submit reporting requests to a single department, that's a warning sign of bad BI,” says Rick Hurckes, Services Director at mrc. “When reporting goes through one department, it creates a bottleneck that wastes everyone's time. The users wait days for their reports, and the report creator gets overwhelmed with reporting and report customization requests. A modern BI solution should deliver self-service capabilities to the end users.”



### 3. People have stopped asking new questions

As data continues to grow, we've seen a concept emerge: The data-driven business. Everywhere you look, more and more thought leaders are touting the benefits of becoming "data-driven."

The question: What is a data driven company, and why is it important?

A data driven company isn't one that simply collects data and glances at it from time to time. A data-driven company is one that uses data to drive their decision-making process. Before making a decision, they analyze relevant data and let the conclusions drive that decision.

Now, this goes far beyond executive-level decisions. It extends across the business. Employees must analyze and learn from the data they have available to them.

One huge advantage offered by a good BI solution: It promotes questions. Because data is easily analyzed, users begin asking (and answering) new questions about the business. These types of activities lead to a data-driven culture, where employees use data to improve the business.

The opposite is also true. If users have no easy way to analyze data, the conversation changes. How so? As explained on the right, the conversation revolves around BI complaints rather than data.

"If most of the conversations about BI are about how expensive and slow it is, or how unresponsive IT is, and nobody is asking for new questions to be answered, you are in trouble," explains Gene Connolly, President/Principal Consultant at Connolly Consultants LLC.



## 4. It's too complex for end users

There's an old saying: You can lead a horse to water, but you can't make him drink. The same goes for BI. You can deploy the perfect BI solution, but you can't force users to adopt the tool.

The fact is, BI user adoption rates remain low. In fact, one study found that BI adoption among employees was only at a measly 22%.

This creates problems for all involved. If users aren't using the self-service tools provided, it places more pressure on the IT department. They go back to the old reporting methods—where all reporting goes through IT. This wastes time for the IT department,

So, why is BI adoption so low among employees? While the reasons vary, it often boils down to one common problem: Many of the “self-service” BI tools are too technical for the common user.

“Non-technical business users are just not comfortable with complex IT implementation requirements for BI infrastructure such as Data Warehouse, and are not interested in learning advanced technical skills such as programming in order to build their analysis,” says Ben Tai, CEO of DrivenBI. “Meanwhile, IT and line of business users do need to overcome data silos formed as a result of static data warehousing and data modeling structures. All of these issues make it more difficult to have the right information available to right business user at the right time. IT wants to ensure that business users are able to have timely access to data when they need it. IT also is aware the if they are not getting the right tool for doing so, they will keep going back to demanding heavy IT support which often times causes delays on the delivery of more mission critical analysis and also creates tension between business users and IT.”



# 5. You have no built-in drill-down capabilities

Your BI solution must let you explore your data as needed. It starts you off with a high level view of your data, and lets you drill deeper to the most minute details.

For instance, if your dashboard displays product returns, it should also let the user drill down and see where products are being returned, reasons for the return, and any other pertinent information.

But, not every BI solution offers these drill-down capabilities. Some provide the data, but provide no options to dig deeper.

Why is this so important? Without this capability, your BI doesn't offer maximum value. It will give you the "what", but not the "why."

If this a struggle in your business, it's a glaring warning sign that it's time for a BI overhaul.

"In a scenario where your BI tools allow to you identify a problem (for example a region where your staff performance is abnormally low), users should be able to immediately "drill down" and look at the details that contribute to that region (e.g. is this poor regional performance just due to one or two poorly performing staff who could be re-trained or moved on?)," explains McCabe. "If users are unable to drill down and instead have to access another report, or worse, another system, then the odds of them doing so and quickly implementing solutions drop dramatically."



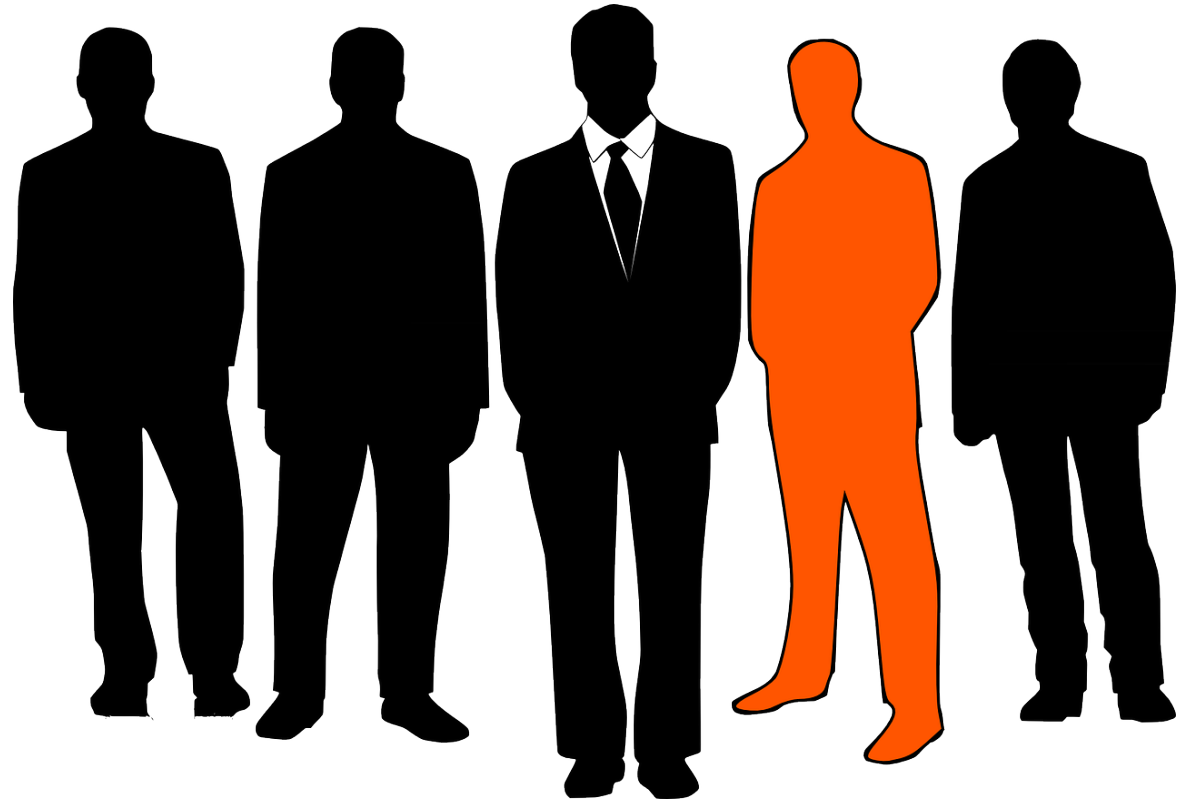
## 6. You can't identify who "owns" BI

It's a common problem: Many people get involved during the implementation phase of a BI solution. But, after it's rolled out, no one owns it. Everyone thinks another department is in charge. The IT department thinks the business owns it, while the business thinks that IT owns it.

Why is this a problem? Without clear ownership, the BI solution will stagnate. It won't improve. Adoption will decline. The BI project as a whole will fail.

This doesn't necessarily mean you need a new tool. Rather, it's a call for an overhauled BI process. If you want to get the most out of your BI solution, you need a clear "owner" who will ensure that it succeeds.

"IT put it in because they thought they should, but doesn't have a business strategy for BI," says Connolly. "No one outside of IT has a BI strategy, and thinks IT should. You built it, but they didn't come. Time to reboot and get the basics in place regarding accountability and a strategy to generate measurable business value with a BI investment."





# 7. Getting an Executive Dashboard is a “Big Deal”

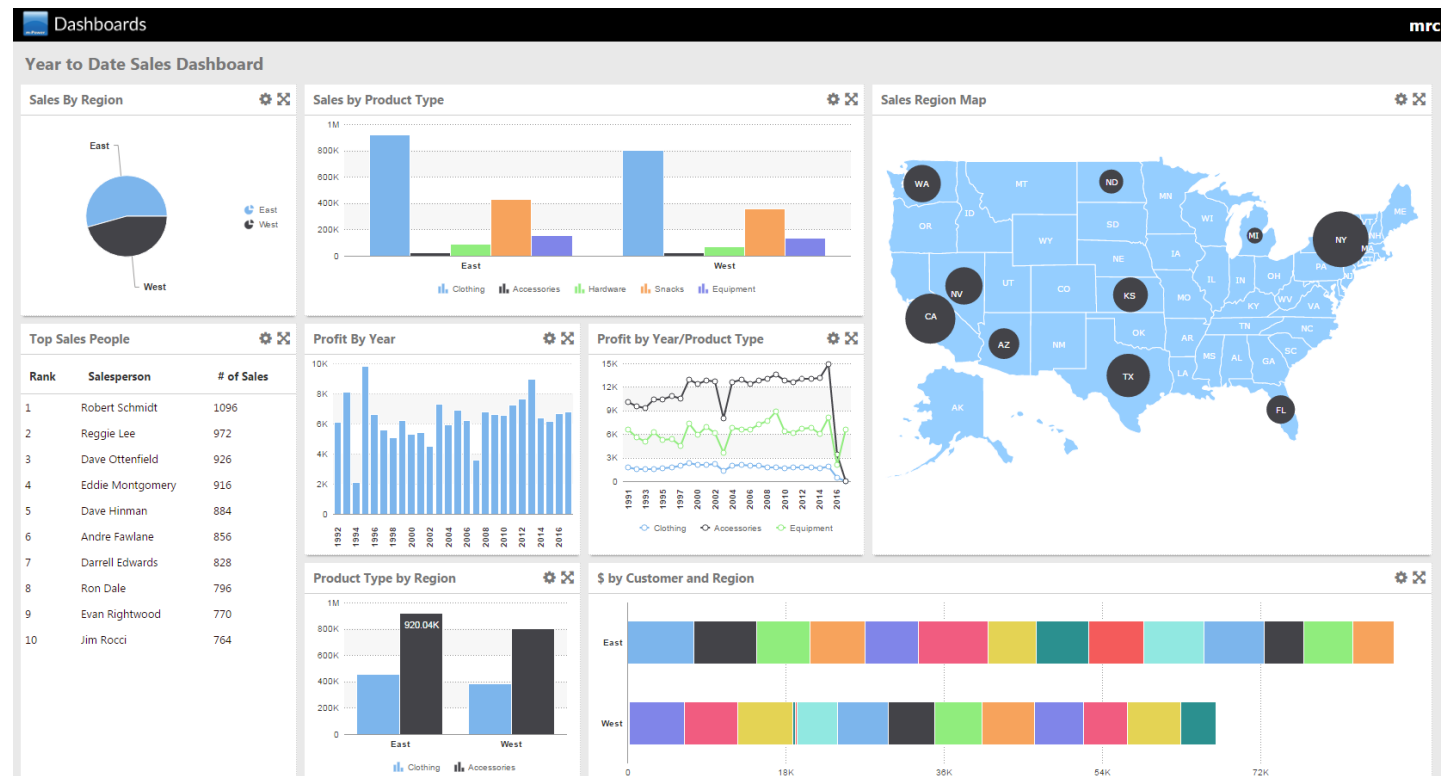
As data volumes rise, business dashboard adoption has skyrocketed. More and more companies rely on dashboards to make sense of their data. They build dashboards with the hopes that it will turn mountains of data into actionable insights.

A good dashboard will put your Key Performance Indicators (KPIs) at your executive’s fingertips. They provide a business health overview at a glance, and help you catch problems before they get out of hand.

The problem: Many BI tools still struggle in this area. Creating an executive dashboard is a “big deal.”

Let me ask you a question: If an executive requests a dashboard, how quickly can you deliver that dashboard? This is very telling. If creating a simple dashboard is a complicated process... that’s a glaring warning sign you need better BI.

“There was a time when BI teams struggled to get information to executives in the form they wanted,” says Dan Mallinger, Principal Data Scientist at Think Big Analytics. “Creating dashboards often required custom logic and engineering. Updating those dashboards frequently was often impossible or too expensive. Modern BI tools are built with the assumption that fast data stores exist and business teams want access at all times, including while mobile.”



# 8. Your BI relies on spreadsheets

Unfortunately, MS Excel is still the most commonly used “BI tool” in businesses today. What’s so wrong with Excel? Here are a few reasons it should be avoided:

**1. It’s inefficient:** Pulling data out of your system and then formatting/manipulating that data is time consuming, often requiring hours (or even days) of work. A true BI tool puts the data at your fingertips, giving you instant access to actionable data without much extra effort on your part.

**2. It’s not secure:** With a spreadsheet, you can’t control user access. You can’t control who shares it with whom. You don’t know how many people have edited a single document. You can’t even control how many versions of a single spreadsheet exist—or which one is current. Do you want your business data floating around in spreadsheets, completely out of your control?

**3. It leads to data errors:** The more people with access to a spreadsheet, the greater the chances for mistakes. One study estimated that 80% of spreadsheets contain significant errors. Do you want to base business decisions off of a spreadsheet that an unknown amount of users could’ve accessed and edited?

The fact is, if your BI processes rely heavily on spreadsheets, you’re asking for problems. It’s time to consider overhauling those processes.

“Business intelligence today has evolved far beyond electronic spreadsheets which are now half-a-century old,” says Brian Kelley, CIO of Portage County. “Spreadsheets lack integrity, consistency, security, and the ability to provide real-time up-to-date data.”

Item	Date	Quantity	Price
26-inch Mens Mountain	400339 August 7, 2015	10	\$195.00
26-inch Mens Mountain	700339 October 17, 2015	10	\$195.00
24-inch Mens Mountain	500005 August 6, 2015	20	\$200.00
23-inch Boys Racer	400339 August 7, 2015	25	\$400.00
23-inch Boys Racer	300221 July 11, 2015	20	\$380.00
23-inch Boys Racer	700339 October 17, 2015	25	\$400.00
23-inch Boys Racer	600221 September 8, 2015	20	\$380.00
24-inch Black XTrainer	800222 October 7, 2015	30	\$175.00
24-inch Black XTrainer	400441 October 17, 2015	25	\$175.00
24-inch Black XTrainer	700441 September 30, 2015	25	\$175.00
24-inch Black XTrainer	700099 October 29, 2015	40	\$195.00

## 9. Manual processes drive BI

Over the past few years, BI has made great strides in automation. However, it's still one of the biggest barriers to successful BI efforts. Far too many organizations still rely on manual processes in their BI strategy.

For instance, most data is not formatted correctly for use with a BI tool. To make matters worse, data typically exists in multiple systems/applications within a business...and it's formatted differently in each one.

The problem is, many businesses falsely assume they can just put a BI tool on top of their existing systems, and start building reports. Unfortunately, it's not that easy. As mentioned in this article<sup>1</sup>, with data living in different places (and formatted in different ways), you need a data warehouse along with an ETL tool.

However, many businesses still don't have an automated way to deal with this issue. They still address it manually. They consolidate that data outside of their BI tool, wasting hours of time.

In the near future, we'll have even more data sources. BI will play an even greater role in the success of a business. We'll need to make sense of that data faster than ever. Businesses can no longer afford to rely on manual processes in their BI efforts. From data gathering to formatting (and everything in between), automation will become table stakes.

“Business intelligence technology of the 21st century no longer requires manual data entry and manipulation from disparate systems and paper reports which was so common in the nineteenth century,” explains Kelley.



<sup>1</sup> <http://www.mrc-productivity.com/blog/2016/06/6-hidden-costs-of-business-intelligence/>

# 10. It doesn't deliver current data

Business Intelligence falls into four categories: Descriptive analytics, real-time analytics, predictive analytics, and prescriptive analytics.

**Descriptive analytics** make up the vast majority of current BI. It tells you what happened in the past. It helps you understand data over the last day/week/month/year, and make decisions based on that information.

**Real-time analytics** make up the next category of BI. Real-time analytics let you monitor your business health with up-to-the-minute data.

**Predictive analytics** is the next step up in analytics. It analyzes past data and predicts future outcomes based on that information.

**Prescriptive analytics** takes it one step further. It not only predicts future outcomes, it makes recommendations based on that prediction.

Right now, predictive analytics are picking up steam. Over the next few years, we can expect this to take a step further, into the prescriptive realm.

The problem: Many BI tools only cover the first category. They tell you what happened in the past, and nothing more. As explained below, these limited capabilities will hold your business back, and should be a glaring warning sign that you need better BI.

“If you are reviewing scorecards on a weekly or monthly basis, and asking ‘What we should have done?’ or ‘How can we go back and fix this problem?’; these are dead giveaways you’re not on the front lines of what Business Intelligence is today,” says Eric Mauch, Partner at Razor Consulting Solutions. “BI is meant to help you make better decisions now, this minute. If you can’t immediately react to what your information is telling you, you are simply using Reporting, not Business Intelligence.”



# Summary

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Many companies are stuck using BI tools and practices that are in desperate need of replacement. These outdated BI tools/practices waste precious time, harm decision-making, and keep these companies from truly taking advantage of their data.

How do you know? Outdated BI displays many warning signs. Unfortunately, many companies either ignore, or don't recognize these signs. Maybe they don't like change. Maybe they don't realize there's a better way. Whatever the reasons, ignoring these warning signs will ultimately lead to larger problems.

In this paper, we explored 10 such warning signs you can't ignore. To recap, these warning signs include:

- Creating reports is time-consuming
- BI still runs through a single department
- People have stopped asking new questions
- It's too complex for end users
- You have no built-in drill-down capabilities
- You can't identify who "owns" BI
- Getting an Executive Dashboard is a "Big Deal"
- Your BI relies on spreadsheets
- Manual processes drive BI
- It doesn't deliver current data

Out of the warning signs listed above, how many do you notice in your company? If you noticed more than one, you're not alone. Many companies are stuck in the same boat. The big question: What are you going to do about it? Remember, just like with a car, ignoring the warning signs won't make them go away.

## About mrc

Michaels, ross & cole, ltd. (mrc) is a global software company which specializes in web application development software. Headquartered in Oak Brook, IL, and established in 1981, mrc has offices in the U.S. and the UK. mrc offers award-winning development software, as well as consulting, mentoring, and training services.

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