

The Top Five Worst Practices in Business Intelligence

A White Paper

WebFOCUS iWay Software Omni

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Introduction

Many business intelligence (BI) implementations don't deliver the anticipated results. In a 2015 study conducted by Dresner Advisory Services, only 35 percent of companies polled said they "completely agree" that they've had success with BI.¹

Companies of all sizes suffer from countless oversights and poor judgment calls during planning, tool selection, and rollout – mistakes that can be detrimental to BI success. Even the smartest, best-run businesses in the world commit the common missteps that doom BI projects to shelfware and failure.

The list below, culled through the real-world experiences of Information Builders' BI experts, comprises what we consider the five worst practices leading to poor results in BI deployments:

1. Depending on humans to operationalize insights
2. Expecting self-service BI to address all your needs
3. Underestimating the importance of data preparation
4. Using tactical BI tools to support broad BI strategies
5. Ignoring important data sources

This white paper discusses these five worst practices in business intelligence, outlines their negative impact from both a technology and a business perspective, and serves as a guide for avoiding them. You'll learn from the mistakes of others to ensure a successful BI implementation in your own organization.

¹ "2015 Wisdom of Crowds® Advanced and Predictive Analytics Market Study," Dresner Advisory Services, LLC, 2015.

Worst Practice #1: Depending on Humans to Operationalize Insights

Many progressive organizations talk about “operationalizing insights,” but what does that really mean? It means using information strategically to align behaviors with desired outcomes. While the insights delivered in most BI environments provide important facts, they rarely offer guidance about how to turn those facts into action and, ultimately, results. Users then engage in knee-jerk reactions that can have unintended consequences.

A solid BI strategy is one that empowers your end users not only with information, but also with the tools they need to understand what that information means, and how it should be used to achieve a desired outcome – whether it’s to move a metric, change a product, or encourage a behavior or process. This calls for a combination of precise measurement and real-time feedback as decisions are made. It also requires you to make insights available to all stakeholders and decision-makers, not just your analysts and power users. Your executives and management team, sales reps and call center staff, as well as your customers and partners, all need to participate.

“Executives need to embed analytics throughout the enterprise and improve timeliness of insights and accessibility to them by decision-makers,” according to Accenture. “Analytics by themselves don’t generate value. It takes a governance structure, processes, metrics, and technology support to facilitate wider use of analytics and to expedite movement from analysis and insights to actions.”²

To truly operationalize your insights, your BI strategy should include the implementation of a comprehensive platform that delivers insight. However, it should also go one step further by empowering your users to act on that insight to create impact. The platform should support:

- **The creation of precise, focused BI apps** that enable continuous monitoring of key metrics and indicators, and enhance operational decision-making by answering specific questions or helping to solve certain problems
- **Business performance management** that promotes strategic planning and execution, so insights can be leveraged to meet high-level goals and objectives

The ability to embed BI and analytics directly into business applications and processes is also critical. When data is available within the systems and processes that stakeholders use on a daily basis, insights become an inherent part of operational activities. They can be viewed in the context of their usual workflow and linked immediately to action.

² “Moving From Insights to Action: Building a Competitive Advantage with Commercial Analytics in CPG,” Accenture, 2012.

Worst Practice #2: Expecting Self-Service BI to Address All Your Needs

Self-service BI serves a very specific and important purpose: to empower non-technical employees, even customers and business partners, to retrieve and analyze information independently, whenever they need it. While self-service BI increases pervasiveness, some organizations make the mistake of deploying an environment consisting of static reports, basic queries, or limited ad hoc capabilities, and assuming it will address everyone's requirements. The reality is, it will satisfy only a portion of the user base.

"Just installing an easy-to-use BI tool doesn't automatically mean you have a self-service BI environment," said Claudia Imhoff, president and founder of BI consultancy Intelligent Solutions Inc. in Boulder, CO. "There are different needs within an organization. You need to know who your information workers are and what kind of self-service they really want."³

Analyst Wayne Eckerson agrees. "There's no 'one size fits all' in self-service BI," he says. "Different types of business users require different types of self-service approaches and tools. But this simple fact eludes most BI professionals and business-side sponsors. The biggest mistake most BI teams make is to buy a single self-service BI tool and give everyone in the company access to it."⁴

Self-service BI should be a part of your strategy – not the entire strategy itself. Different types of users have different requirements, and will therefore want to consume and operationalize data in different ways. Advanced users who can source their own data and manipulate it in more complex ways require sophisticated tools for creating their own ad hoc reports and visualizations, while non-technical users need intuitive and straightforward apps to satisfy their operational analytic needs. At the same time, executives and senior managers may want dashboards and scorecards for an at-a-glance view of the business, or real-time alerts when critical issues arise or certain conditions are met.

Your BI strategy must embrace it all, and be powered by a unified, feature-rich platform with capabilities that satisfy the unique needs of even the most diverse user populations.

³ Stackpole, Beth. "Recipe for Self-Service BI Calls for Flexibility, Governance, User Aid," Tech Target Inc., February 2013.

⁴ Eckerson, Wayne. "The Promise of Self-Service BI," Inside Analysis, The Bloor Group, April 2013.

Worst Practice #3: Underestimating the Importance of Data Preparation

Bad data leads to bad decisions, yet data quality problems run rampant in today's organizations. Surveys show that as many as 60 percent of companies consider their data to be unreliable, with as much as 25 percent of the information in the average database containing inaccuracies.⁵

Applying BI and analytics to this dirty data is a recipe for disaster. No matter how sophisticated your visualizations and analytics are, you'll experience major problems if the underlying data is questionable.

First, your BI team will be forced to spend too much time fixing data quality issues, distracting them from the core goal of building and deploying the end-user environment. A recent survey confirms this, with 31 percent of analysts and data scientists claiming to devote up to three hours a day cleaning data.⁶

Second, your users will soon realize that the information they rely on to support planning and decision-making is flawed. They'll lose trust in the environment and eventually look for other ways to support their information needs. That leads to disparate and disjointed reports and spreadsheets, or one-off data discovery tools, which create the dreaded "multiple versions of the truth."

Incorporating data quality management and master data management into your overall BI strategy will help you identify and correct bad information before it reaches your end users. Capabilities like profiling, cleansing, matching and merging, and a single view of data across all sources can prepare and optimize data for analysis by ensuring its accuracy, completeness, timeliness, and consistency. Confidence in the data will promote widespread adoption among your users, which will drive greater value.

Self-service data preparation capabilities are also important to ensure data is analytics-ready without placing additional burden on IT for managing data assets. Since enterprise information exists in countless formats and sources, and your typical user is unable to consume it in its raw form, analysts and other more advanced end users need the ability to transform it and prepare it for analysis. Your supporting technologies should include features that enable quick, efficient aggregation, consolidation, and standardization of information prior to delivery.

⁵ Vasudev, Mahak. "What is Bad Data and Its Side-Effects," Business 2 Community, February 2015.

⁶ Prohens, Corry, "How Data Scientists Spend Their Time," IQ WorkForce Pvt, Ltd, October 2015.

Worst Practice #4: Using Tactical BI Tools to Support Broad BI Strategies

The most effective BI strategies don't revolve around departmental implementations, but instead are formulated with the entire organization in mind. A broad-reaching BI plan that addresses the full spectrum of enterprise needs will achieve widespread use and deliver the most value to your business.

Yet many companies build their BI strategies around a handful of core tactical solutions. For example, they implement disconnected data discovery tools that allow users to generate their own reports and analysis or create their own visualizations. These tools are too complicated for the typical business user. Only analysts and power users have the skills and knowledge to take advantage of them, leaving a large portion of the BI audience – executives, managers, frontline employees, customers, and partners – in the dark. This pleases only a few people in the organization, resulting in low adoption rates and minimal ROI.

BI apps address this issue, offering casual users a simple, intuitive way to engage in advanced information analysis. They offer the ease, simplicity, and convenience of consumer apps, so anyone – even stakeholders with little or no technical expertise – can perform precise, focused analysis to drive operational improvements.

Your BI plan shouldn't be about deciding whether tools or apps are the better approach – because you need both to succeed. Sophisticated analytical solutions will always be needed to satisfy the more complex information requirements of analysts and other power users. However, the majority of information consumers – the business users – require enterprise data to be delivered in ways that are simple, purposeful, and easy to translate into action.

Purchasing a bunch of one-off solutions to meet different user populations will also lead to technical headaches and unnecessary expenditures and should be avoided at all costs. Instead, look for a single comprehensive platform with a variety of capabilities and tools to meet the information needs of all your users – scorecards for executives, guided ad hoc and data discovery tools for power users, and BI apps, dashboards, and analytical documents for business users, customers, and partners.

Worst Practice #5: Ignoring Important Data Sources

BI initiatives tend to focus on the information contained in ERP and CRM applications, relational databases, data warehouses and marts, and other enterprise systems. However, important other data sources, such as machine-generated, mobile, location, social media, and web monitoring data, which contain a wealth of crucial insight, have emerged. Today, IDC estimates that as much as 90 percent of available content is unstructured, residing in various formats and places.

Companies who choose to ignore these sources do so at the risk of missing important opportunities. For example, vital insight into consumer sentiment can be found on Facebook and Twitter. Location data enhances the study of purchasing patterns, service consumption, and other activities by demonstrating the role geography plays. In addition, sensor or RFID data can alert you to potential manufacturing or supply chain problems.

Yet, studies show that unstructured data remains an untapped, although highly valuable resource, with only about one-third of it being properly used for strategic decision-making.

To drive the most value from your BI initiative, you'll need to tap into all available information assets. That includes your structured sources, and your unstructured ones, whether they reside on-premise or in the cloud. Your supporting technologies must be able to access it all, and make it readily available for analysis – without forcing you to rely on extensive custom coding or embark on long and cumbersome integration initiatives. Only a unified platform with broad data access, metadata management, and integration capabilities can accomplish that.

⁷ Vijayan, Jaikumar. "Solving the Unstructured Data Challenge," CIO Digital Magazine, June 2015.

⁸ Evelson, Boris. "Make Your BI Environment More Agile With BI on Hadoop," Forrester Research, Inc., August 2015.

Conclusion

Some of the worst practices mentioned in this paper may seem like common sense. However, high BI failure rates demonstrate that these worst practices are, indeed, put into effect more frequently than you might think. When trade journalists, vendors, and industry consultants are constantly promoting the latest and greatest technology and all its benefits, it's easy to get caught up in the hype.

Now that you are aware of these five worst practices, you can prevent them from standing in the way of success in your organization. You'll make the right choices, with the right goals in mind, to lay the groundwork for widespread user adoption and maximum value.

WebFOCUS is a comprehensive BI and analytics platform that offers everything you will ever need to avoid these and other BI worst practices:

BI and Analytics for Everyone

A set of fully integrated BI and analytics solutions, delivered through a unified platform, to address the information needs of all decision-makers:

- Dashboards and scorecards to give executives and managers a high-level view of critical indicators and metrics
- Self-service and data discovery tools to allow analysts and power users to perform analyses and visualizations, and easily create and share InfoApps™ for guided ad hoc exploration of data
- Mobile BI that allows people to interact with right-time data on any device, whether connected to the Internet or not
- InfoApps that enable users to analyze and manipulate information, with no training required

Unparalleled Data Access

WebFOCUS provides direct access to more data sources than any other BI and analytics solution on the market today. This includes big data, structured and unstructured information, cloud-based sources, social networks, and machine-generated data.

Embedded Tools to Manage Data Integrity

Fully integrated data quality, master data management, and data governance tools ensure the ongoing accuracy, consistency, completeness, and timeliness of the information used in analysis. So your users always have confidence in the data they rely onto support decision-making.

A Robust Architecture

WebFOCUS is built on a flexible and scalable infrastructure that can easily adapt as data volumes grow, new information sources emerge, or analytics needs change. Because it dynamically generates metadata, it ensures complete consistency across all reporting activities – whether it's an executive tracking KPIs, an analyst performing visual discovery, or a customer accessing account information.

Most importantly, Information Builders solutions help organizations move away from the tools approach to broader strategies that drive ongoing BI and analytics success. From a comprehensive, fully unified BI, data integrity, and integration platform that provides features and capabilities to address current and future needs to InfoApps, which bring the popular apps paradigm to BI environments, Information Builders allows every organization to take the kind of user-focused approach that delivers big returns on BI and analytics investments.

About Information Builders

Information Builders helps organizations transform data into business value. Our software solutions for business intelligence and analytics, integration, and data integrity empower people to make smarter decisions, strengthen customer relationships, and drive growth. Our dedication to customer success is unmatched in the industry. That's why thousands of leading organizations rely on Information Builders to be their trusted partner. Founded in 1975, Information Builders is headquartered in New York, NY, with offices around the world, and remains one of the largest independent, privately held companies in the industry. Visit us at informationbuilders.com, follow us on Twitter at [@infobldrs](https://twitter.com/infobldrs), like us on Facebook, and visit our LinkedIn

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