

# From Data to Decisions

## DASHBOARD SELECTION AND DEPLOYMENT PROCESS

### A GUIDE FOR SMALL TO MEDIUM BUSINESSES



Your organization doesn't lack data, whether it's stored in excel spreadsheets, siloed in SQL databases, or simply held in the minds of your workforce. But you likely struggle to extract the full business value out of that data, and have difficulty using it to make effective day-to-day and long-term decisions.

#### CONTENTS

- 2 Data to Decisions
- 3 Step 1: Data Strategy and Business Intelligence
- 4 Step 2: Key Dashboard Considerations
- 7 Step 3: How to Select a Dashboard Tool
- 8 Dashboard Challenges: Things to Look Out for During the Process
- 9 Finding the Right Partner: How to Make an Informed Decision

## INTRODUCTION

Ad hoc systems and increasingly unmanageable spreadsheets are no longer sufficient to cope with the huge influx of information that even small enterprises now deal with. To take action today and remain competitive in the future, modern businesses need at-a-glance awareness of KPIs, metrics, and other key data points. They need to be able to act and adapt their operations in realtime, and accurately project market forces far beyond the next quarter.

Your solution? An effective business dashboard.



“We are drowning in information and starving for knowledge.”

**RUTHERFORD D. ROGERS**

DEPUTY LIBRARIAN AT THE  
LIBRARY OF CONGRESS,  
DIRECTOR OF LIBRARIES  
AT STANFORD UNIVERSITY,  
UNIVERSITY LIBRARIAN AT  
YALE UNIVERSITY

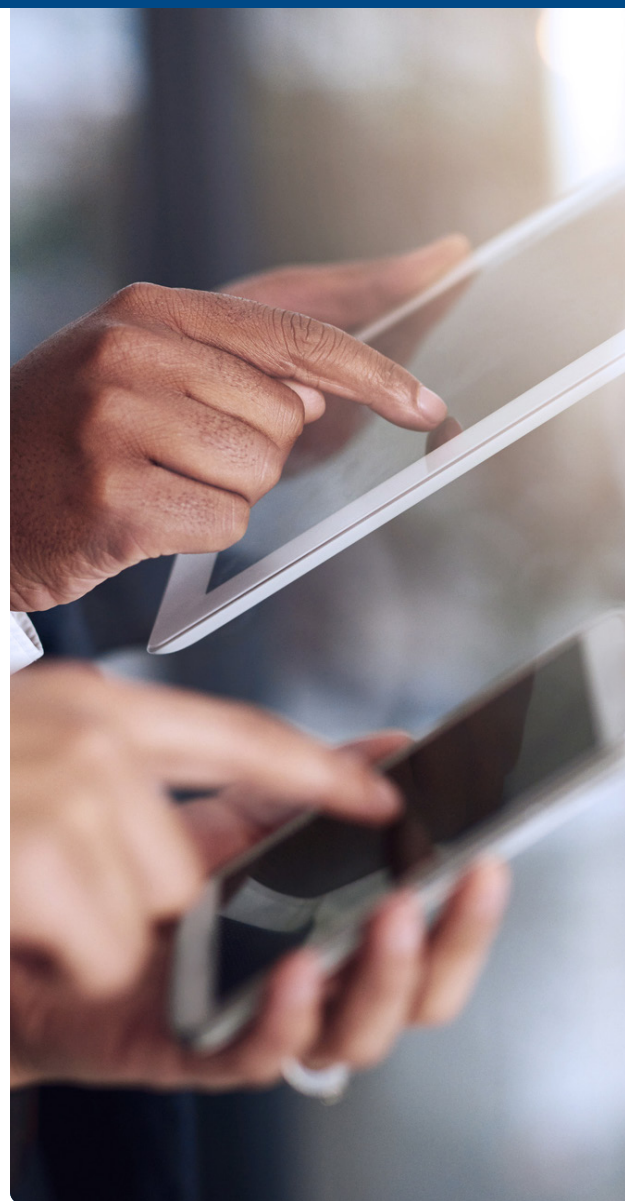
## DATA TO DECISIONS

Data can be one of your businesses most important assets, when leveraged effectively. How do you put your data to work? One way is through the creation of a business dashboard. In nearly every industry, from not-for-profits to enterprise organizations, a massive shift is occurring in the way information and analytics drive revenue and service.

Dashboards break down complicated data patterns and information revealing easily consumable data insights everyone can understand, and more important, turn into action. From forecasting revenue trends, to finding out what is working (and what isn't) to drive more business, to determining what factors lead to increases or decreases in capacity, dashboards capture the information you need to make data-driven business decisions.

To get the most out of your data, finding and selecting the right business dashboard tool is critical. Understanding the dashboard decision process upfront will assist in establishing clear objectives that guide you to the best decision for your business. At the conclusion of this whitepaper, you will understand the steps involved in evaluating and selecting a business dashboard.

According to estimates, the volume of business data worldwide **doubles** every **1.2 years**.<sup>1</sup>



# Step 1: Data Strategy & Business Intelligence

Before evaluating data visualization tools, it is important that leadership is on the same page with regard to the data strategy of the business. Ensuring a data strategy is in place will ease the tool selection process. Below is a high-level overview to get started.



## IDENTIFY ORGANIZATIONAL GOALS

What are your business objectives? How would a dashboard help you meet your goals? With a clear end goal, the tool selection process becomes more refined—preventing you from falling into the trap of having a solution in search of a problem to solve. **Gather key decision makers to identify business objectives and determine how you desire the tool to support those objectives.**

## COLLECT AND EVALUATE AVAILABLE DATA

Next, make sure the information needed to resolve the agreed upon problem is readily available. This may require data scrubbing or cleansing by subject matter experts or system owners. Today's tools make it easier than ever to build data visualizations, but for accurate reporting, the careful evaluation of data inputted is still as important as ever.

## SELECT YOUR AUDIENCE

Who is going to use the dashboard? How will they use it? These questions can help you focus the rest of your decision making and narrow down essential features. The balance between a centralized “single source of truth” approach to business intelligence (BI) and the decentralized or federated approach where users are empowered to add data and make changes, is an additional consideration to take into account.

**Prior to selecting a data visualization tool, determine the problems you want to solve and base the decision on the feasibility of data collection and the answers the data will provide.**

## Step 2: Key Dashboard Considerations

Dashboards are only as powerful as their underlying features and tools. When you chose a dashboard tool for your business, it's important to consider each potential feature and whether you want or need it—both now and in the months or years ahead. That way, your dashboard can evolve with your business for as long as possible, minimizing disruption as you add new programs, tweak your existing strategy, or perform standard maintenance.

**Below are key considerations and questions to ask when considering your options.**

### SPREADSHEET ISSUE:

#### Data Integrity

- With spreadsheets acting as database tools, data integrity becomes a concern due to out-of-date information, and often, manual entry of data.
- Many spreadsheet programs can only render a few hundred to a thousand data points before they have to resort to randomly sampling the data, potentially decreasing accuracy.

### MOBILITY

Everyone is mobile nowadays, with more than 68% of U.S. adults owning a smartphone and the majority of smaller firms allowing employees to telecommute. Depending on the software you choose, dashboards can be accessed locally, through the cloud, and/or on any mobile device. The more flexible the access to your dashboard is, the easier it is to access that information.

**Ask:** Do my users regularly work outside the office? Would mobile access compromise security in any way? Would mobile access improve the way we do business?

### VISUALS

The primary purpose of a BI tool is to visualize trends and patterns in data. Decide what visual features are important for you and check to see if the tool supports them. For example, you may need a bar graph with a line graph overlay if you are going to compare a measure to a target goal.

**Ask:** What kind of data needs to be represented? Who is the target audience for the dashboard visuals? How detailed is the data? How important are aesthetics?



## SUPPORT

In an industry that is rapidly evolving, it is worthwhile to consider the future of the tool you select. In addition to the availability of technical support, consider the tool's roadmap for improvements—both historical and future—to ensure the tool will remain up to date in the changing world of data.

**Ask:** Where does this tool need to be in three years? Will developers continue to make updates and improvements? What is the tool's track record? Will the tool still be around in three years?

## DISTRIBUTION

An important feature often not apparent during demos or trials is how a tool allows you to share visualizations with others. Many tools divide users into two groups, viewers (authors) and developers (creators). Viewers are users who can see visuals created by the tool but cannot modify or design new ones. Developers either design the dashboards or create reports and visualizations. How the company defines these roles can have a significant impact on the cost of the tool.

**Ask:** How widely will the information be circulated? How often will reports need to be made? Who needs access to design reports?

## SECURITY

This depends greatly on the sensitivity of the data used in your reports. Some companies set up independent secure servers to host the BI tool and related data. Others are comfortable uploading their reports to the cloud. Take some time to consider what your unique security needs are and how they might change in the coming years.

**Ask:** Where does the data reside? Are there any regulatory requirements around security? Will users be able to access the dashboard on mobile devices?

## SPREADSHEET ISSUE:

### Multi-User Limits

Spreadsheet programs are not designed to be multi-user, making it difficult to share results with other stakeholders in the organization, especially while using low-latency data.

### Memory Limitations

Many popular spreadsheet programs limit their memory space to just a few gigabytes, which can be inadequate to deal with large, enterprise-level data sets.

## ACCOUNT MANAGEMENT

The size and complexity of your business and how you manage who has access to information and visualizations could have a big impact on the effectiveness of your tool. One account management feature that might be important to you is the ability to create smaller groups of users that you share dashboards with. For example, you may want to share a new dashboard with the leadership team but not the entire company. Consider how groups will modify and consume dashboards before selecting a tool.

**Ask:** Who will be using the dashboards? How often will employees change positions?

## DATA CONNECTIONS

Most BI tools, at a minimum, will connect to Excel (.xlsx) and Comma Separated Value (.csv) formats, but new tools offer a wider array of connection options. You may need to connect your BI tool directly to your accounting system, CRM system, cloud-based data, or a local data mart. Determine in advance what connections will be most important and make sure they are supported by the tool.

**Ask:** What is essential and non-essential information? How difficult is the data to access? How frequently is the data refreshed?

## SELF-SERVICE DATA PREPARATION

An emerging feature among newer tools is the ability for end users to prepare data on the fly. This feature takes self-service visualization to a whole new level—allowing users to quickly combine data sets without having to contact a database administrator.

**Ask:** Do you need to add data on the fly to solve problems? Does the problem value quick data access above data control and governance?

## ANALYTICAL TOOLS

Many new BI tools include sophisticated features for combining and analyzing data. These tools are important if you need to combine data sets and analyze them on the fly. Alternatively, you could do your joining and calculations before loading the data into the tool.

**Ask:** What kind of forecasts will need to be made? What are the timeframes available in the data? How will analysis be used elsewhere in the company?

## USER EXPERIENCE

User experience across modern BI tools varies. Some tools take a ridged, pragmatic approach intended more for developers than leaders, while other tools have the ability to publish to mobile and cloud-based systems. Carefully consider the type of interface and user experience that will be most valuable for your business.

## HARDWARE REQUIREMENTS

Hardware costs can considerably grow depending on the type of BI platform. The most obvious cost is the investment in servers to support on-premise networks. Even desktop heavy solutions may require new computers to run effectively, especially if users will be using large data files.

**Ask:** Do you need an on-premise or desktop-based solution? If so, what resources are needed to acquire and support the necessary hardware?

## SPREADSHEET ISSUE:

### Mobile Support

Many spreadsheet programs were never created with mobile support in mind, making them difficult or impossible to use or share with tablets, smartphones, or other remote devices.





48%

of business intelligence users at companies that use visual data discovery are able to find the information they need without the help of IT staff all or most of the time.<sup>4</sup>

## Step 3: How to Select a Dashboard Tool

With a data strategy in place and complete evaluation of the features necessary to achieve your goals, it is time to find and select the right tool.

### IDENTIFY TOOLS

Based on your careful analysis, select a few tools you believe will solve the business problem you previously identified.

### DEMO TOOLS

Once you have narrowed the search and stakeholders are in agreement about which tools to test, reach out to the companies to set up demos or trials, if they are offered.

### PREPARE DATA

During demos or trials, make sure you have data at the ready to utilize. Using real company data will give you the insights you need to make an effective decision and prototype solutions.

### TEST & EVALUATE

If possible, set aside a few days or afternoons for end users, executives, and technical teams to test out the tools together. Selecting a dashboard tool is a major company investment and should not be chosen in haste or by any single user.

# Dashboard Challenges: Things to Look Out for During the Process

While business dashboards can help produce significant change within a business, they're not infallible. For the best experience, it's important to consider everything that goes into establishing and using a dashboard effectively—from the data it visualizes to the people who use it. Here are some of the chief areas to watch.

## INACCURATE DATA

As with other reporting solutions, the information shared in a business dashboard is only as accurate as the data that goes into it. If users cannot trust the data that goes into a dashboard, they will not trust the dashboard.

## LOW INVOLVEMENT

A dashboard is only useful if it shares information that is relevant to the user. To ensure higher adoption rates, dashboards should be developed in line with a specific user or type of user and allow for some customization.

## DISCONNECTED FROM ORGANIZATION GOALS

When dashboards aren't aligned with an organization's goals, they can provide information overload and confuse the users. To avoid this problem, continue to monitor KPIs and benchmark metrics to ensure your dashboards are aligning with goals and helping—rather than hindering—your productivity.

## NO CONTEXT

The data provided in a dashboard is only useful if the user has the necessary context to understand it. Providing additional cues, such as forecasts or past trends, can help a user understand the data and act on it.

## BAD VISUALS

Presentation is important, especially when you're trying to quickly convey a large quantity of information. The more attractive and intuitive the visuals, the easier it will be to consult and act on the information provided.

## **Moderation is key when creating a dashboard.**

Additional items to be wary of include:

- Too many KPIs
- Rushing the process
- Implementing your solution without benchmarks to compare performance against
- Enacting too many user changes
- Lack of testing

## **Remember that you can hire a consultant to help at any step in the process. A consultant can help you leverage your data and drive effective operational policy changes over the short and long term.**

When looking for the right consultant, consider:

- Experience
- Problem-solving skills
- Level of communication
- Vertical expertise
- Culture fit

# Finding the Right Partner: How to Make an Informed Decision

Dashboards have the ability to impact the way your business operates. Before embarking on the journey to implement a business dashboard, ensure you have outlined a solid business case and then work toward finding the right tool to meet your needs. While keeping up with the day-to-day demands of a business, this can be a challenging undertaking. To make an informed decision, considering working with a partner.

**Here are some key considerations to look for in a partner:**

## EXPERIENCE

Does the partner have experience helping companies select and implement an effective business dashboard solution? Ask potential partners about their past successes.

## PROBLEM-SOLVING SKILLS

With any engagement, issues are bound to arise. Find a partner that has the skills needed to take on these challenges.

## COMMUNICATION

Ask potential partners to share their communication protocols. Do they have a single point of contact for your team? How will you get in contact if an issue arises?

## VERTICAL EXPERTISE

The partner you select should have an understanding of your industry and its processes.

## CULTURE FIT

Because you will be working closely, it is important to ensure your values and culture are aligned. Consider the teams that will be working together before establishing the new relationship.

- 1 ASU, Ebay study: How to build trust and improve shopping experience, 2012
- 2 Pew Research Center, Technology Device Ownership: 2015, 2015
- 3 NSBA, 2013 Small Business Technology Survey, 2013
- 4 Aberdeen Group, Visualization, August 2013
- 5 Aberdeen Group, Visualization: Set Your Analytics Users Free, 2013

## ABOUT RESULTANT

Our team believes solutions are more valuable, transformative, and meaningful when reached together. Through outcomes built on solutions rooted in data analytics, technology, and management consulting, Resultant serves as a true partner by solving problems with our clients, rather than for them.



### DATA ANALYTICS

We help organizations understand their data landscape and solve problems by turning data into insight. While data can be dense, our team's empathetic approach to problem solving creates meaningful solutions with deep technical foundations.

© Copyright 2020 Resultant

**Learn more about Resultant business intelligence services.**

VISIT **RESULTANT.COM.**

