DOMO

The 7 Deadly Sins of Dashboard Design

Overview

In the new world of business intelligence (BI), the front end of an executive management platform, or dashboard, is one of several critical elements needed to maximize the value of your data and traditional BI investments. Dashboards have the ability to leverage and transform your business intelligence into the real-time at-a-glance insights you need to enhance decision-making, reduce costs, increase productivity, respond faster to market conditions, simplify process management, optimize business operations and outpace the competition. Unfortunately, too many dashboard projects fail to meet their potential as a result of organizations committing any one, or all, of the following common mistakes:

- Focusing on meaningless measures

- Designing from the bottom up

- Not allowing actual users to be involved with the dashboard design

- Neglecting the user interface

- Trying to accomplish too much

- Not planning for growth

1 Focusing on Meaningless Measures

Many organizations, when they first start implementing dashboards, see them as such a great way to measure performance on so many different aspects of their business that they go too far in defining what they believe are their key performance indicators (KPIs). Some even end up defining a metric for literally every minute task that everyone in the company does. Unfortunately, it's difficult for dashboards to provide instantaneous visual recognition of key problems or success areas if the significant KPIs are surrounded by irrelevant measures.

In defining appropriate KPIs, more emphasis should be given to the function and focus of the metrics than the sheer number. While once considered bad practice, today a dashboard with dozens of KPIs displayed may be appropriate, depending on the user's objectives and the breadth of his or her responsibilities. On the other hand, even three or four KPIs are too many if the function and focus are off target.

When designing dashboards, organizations need to thoughtfully consider what their true KPIs are. Whether it's for a CEO, CIO, business line manager, supervisor or some other managerial role, a dashboard needs to be tailored to the primary needs of a specific role. While an organization might have a dashboard for its sales director, one for manufacturing, one for human resources and one for finance, the CEO shouldn't have to look at the detail of all those different dashboards in order to visualize what is going on in the business. For her role, she needs a summary level view of those dashboards, but with the ability to drill down through different levels of detail as needed.

Likewise, line of business managers, directors and managers need dashboards suited to their specific roles. They need dashboards that give them an at-a-glance view of the few main KPIs that affect the aspects of the business under their stewardship.

Unfortunately, a common trap that organizations fall into when defining KPIs is that they focus too much on outcome indicators. The problem with outcome indicators is that they are a measure of things that have already occurred. They're completed business, which

can't be changed. A dashboard that is loaded with only outcome KPIs doesn't help individuals get to the root of problems, which is needed in order to change outcomes.
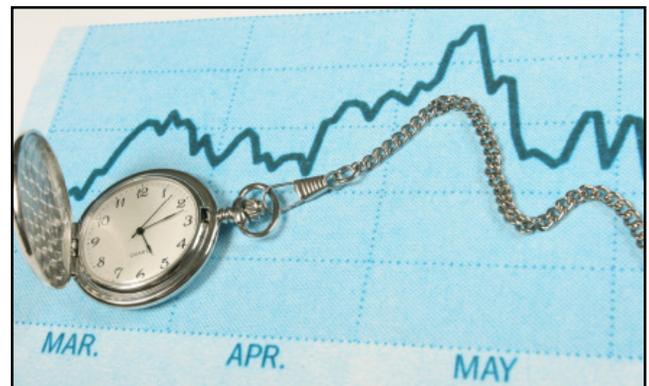
Instead of focusing so much on outcomes, organizations need to look at the key drivers for their main outcomes. For example, an organization might want to monitor its revenue stream. While revenue stream is an important outcome indicator that the organization needs to measure, it's the metrics that drive the revenue that the organization must look at in order to improve revenue. So, in addition to monitoring the revenue stream on the dashboard, it might want to look at the three key things that affect the revenue stream. Such drivers might be sales leads, completed business and on-time projects. While the drivers might be different for every organization, the point is that each organization needs to determine what its key drivers are that it needs to monitor to help it make the decisions or changes needed to accomplish its objectives.

An effective dashboard doesn't force its user to look at every detail of what is going on. Rather, it presents the smallest number of the most meaningful KPIs needed for the role of that user (though the overall number may be relatively large). It provides just the right amount of detail, with the ability to drill down to more detail if the user's interest is peaked by what she sees on one of those main KPIs.

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2   Failing to Get Support from Key Stakeholders

A dashboard project can easily be derailed if it doesn't have strong support from organizational leadership. Since dashboard projects touch several key areas within an organization, their development typically requires access to some key or secure systems in the organization. Without key stakeholder support, project implementers will spend most of their time fighting or waiting for the needed access. Getting access to that key data requires winning over its gatekeepers.

Often the lack of stakeholder support comes from pre-conceived ideas that some people have on the usefulness, or lack thereof, of dashboard projects. This might be due to a number of reasons, including past dashboard projects that failed as a result of committing any one of the mistakes outlined in this paper. So, one of the best ways to change those pre-conceived attitudes is to demonstrate dashboard success.

Winning the interest of key leadership requires the ability to demonstrate the actual value that a dashboard can deliver. However, rather than trying to win over the leadership of the entire organization, it's usually best to focus on a single leader over a discreet line of business who can eventually be enlisted as a dashboard champion within the organization. This would require the creation and implementation of a high-quality dashboard for this specific business leader. As the business leader recognizes the value of the dashboard, additional high-quality dashboards can be designed and implemented as needed for the business leader's subordinates. This eventually can grow into a full-blown pilot that has the ability to demonstrate to other groups in the organization the real value and benefit that the dashboards have provided to that line of business.

In addition to being able to demonstrate actual benefit, the success of the pilot can lead to having an internal stakeholder that is willing to champion the advantages of dashboards to peer business leaders, opening the necessary doors to its success. In addition to garnering and growing the needed support from other key internal stakeholders, the internal champion can ensure the ongoing success of an organizational dashboard project if problems are encountered along the way. The champion becomes a positive influence to help others see past short-term setbacks to long-term benefits.

3   Designing from the Bottom Up

Too often organizations design dashboards based on what data is available or easily accessed rather than on addressing the actual needs of the organization. That type of bottom-up approach is certain to doom any dashboard project. Taking a top-down approach is the only way to ensure the relevancy and usefulness of created dashboards. Implementing a top-down approach also helps an organization identify data strategy problems that the company must address to become more effectively driven.

The top-down approach to dashboards requires a needs analysis of what answers or information the dashboard users require on a daily basis to govern their part of the business. The results of that analysis form the basis of what gets designed into the dashboard. At times, that design might require access to data that is not easily accessed or that is not currently collected. A successful dashboard project addresses the actual needs of its users, which often requires that processes be changed or added that allow the dashboard to access the essential data that supports those needs.

4   Not Allowing Actual Users to Be Involved with the Dashboard Design

Sometimes those in charge of a dashboard project have decided ahead of time exactly how a dashboard should look, how data should be presented, and how users can drill down from one area of a dashboard to another. When this happens, the resulting dashboard might not cater to how its users work or the way they need the dashboard to operate. Just as a top-down approach requires an understanding of the information that users need to run their business, dashboard usability requires design input from its users.

Successful dashboard design invites users to express how they would like to interact with their data to get to the answers they need. When dashboards are designed in a vacuum without user input, they often end up not being used because they don't match how the users think about the business. For example, a sales manager might break sales down by product then by region and then by sales rep. If in this case the dashboard first brings data up by sales rep, it will clash with how that sales manager expects to be able to interact with that data.

Sometimes it can be helpful to involve a third-party in getting the necessary level of user feedback that an organization needs. These third parties can objectively interview and workshop with users to better determine how users need to work with their data, as well as helping users identify the key drivers and outcomes that they need monitored.

5 Neglecting the User Interface

Similarly, dashboards that neglect the user interface will suffer in terms of adoption rates. Organizations need to realize that dashboards are not just a series of pretty pictures, but they're visual applications that need to be designed so they're intuitive and easy to use. As such, the interface needs to be planned out and designed in a cohesive manner so that all elements of the dashboard can interact consistently with each other and the organization's other dashboards. When a user clicks one area of a dashboard, they should be able to expect the same type of behavior when clicking on a similar area in a different dashboard.

This means that there should be a uniform and intuitive design to the elements and layers of the interface that spans all the dashboards for the entire organization and not just one aspect of a business unit. This facilitates the ability for the interface to present information in a reliable manner that engenders insight rather than confusion. Unless the interface is consistent and easy to use, it simply won't be used and the dashboard project will fail.
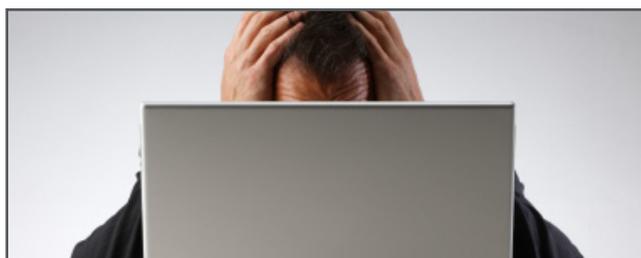
6 Trying to Accomplish Too Much

A successful dashboard project is carried out in phases. Trying to design and implement too many aspects of a dashboard at once leads to significant delays that can ultimately keep the project from ever reaching completion. Even if the project does reach some level of completion, those delays often have a negative impact on overall dashboard quality because they typically fail to keep up with the users' evolving requirements. Taking a phased approach alleviates these problems and enables organizations to get successful launches in front of their users faster to ensure the dashboards meet their changing needs.

Implementing a phased approach requires an organization to divide the project into logical groupings and then launch the dashboard into steps by those groupings. This greatly simplifies manageability and allows for faster delivery of results, which shows project progress and feeds project momentum. Breaking down the work into these smaller logical groupings is also more conducive to an agile or iterative development and launch cycle, where the project team can constantly be putting new versions of dashboards in front of users in a way that allows for greater refinement of user-required functionality and overall quality.

A phased approach can be undertaken in a variety of ways. Logical project groupings can be divided by business units or by organizational roles within a business unit. For example, an entire dashboard project might provide a summary dashboard for the CEO, dashboards for the executives over each business unit, and more detailed dashboards for the direct reports of each business unit executive. Instead of trying to deliver dashboards for all those areas at once, the project team focuses on a logical grouping that can deliver and demonstrate the greatest benefit to the project and business.

For instance, if the vice president of sales is viewed as an internal stakeholder champion, that executive's dashboard would likely be an ideal place to start. Once that dashboard has been developed, launched and fine tuned, the project team can move onto a dashboard for one of the sales VP's direct reports, and so on. Or, rather than focusing on one business unit, it might be best to first focus on developing a dashboard that provides a summary view of key metrics for

the CEO. Once that dashboard is done, the project could move to delivering summary dashboards for each business line executive one at a time.

The ideal time table for a project's logical grouping efforts is to manage them into six-week cycles that allow users to receive the latest views of their dashboards every six weeks. If an effort has more requirements than can fit into a six-week cycle, it's advised to further divide them into smaller groupings and launch the dashboards in steps according to those groupings.

7 Not Planning for Growth

Successful dashboards always grow. They gain momentum, along with more and more users. They also spark interest in having other types of dashboards created and made available. Ultimately, a dashboard project will fail or come up significantly short of its potential if the dashboard architecture is not designed to scale and handle a great deal of user growth. Too often a dashboard project reaches a successful adoption rate only to discover that the dashboard product itself can't adequately handle a large number of users or the hardware infrastructure it was built upon is maxed out. When that happens, dashboard performance drops and users stop using their dashboards because they tire of waiting on the spinning hour glass on their screen.

To avoid this problem, scalability needs to be planned for and built into the design from the beginning. Unfortunately, many dashboard products max out at the 50 or 100 user mark. So, organizations need to invest in dashboard products that can handle their entire user base and scale beyond that to stay ahead of the growth of their business. Dashboard implementations should also be designed from the backend with a centralized server that can easily service that growing user base.

Additionally, when considering the size of the user base, organizations shouldn't consider dashboards as just tools to be used by executives and managers. Anyone in the organization that has aspects of their job that can be measured should also be considered as dashboard candidates. This approach gives these other employees the ability to view how they're being measured and know what they can do improve their performance in those measured areas. Organizations need to take this perspective into their dashboard design so they can have a more accurate picture of the potential user load and growth for their dashboards.

Overcoming Dashboard Pitfalls

Dashboards are one of several critical elements needed to maximize the value of your data and traditional BI investments. Domo has the industry experience, software, services and thought leadership needed for a well-planned and successful project. Domo offers unmatched scalability, giving organizations a solution that can easily stay ahead of user adoption and growth. Domo provides the flexibility in design and implementation that enables organizations to completely personalize their dashboards to meet the needs of executives and business users.

Additionally, to reduce investment costs, speed up development and deployment time, and improve ROI, Domo has the unique ability to leverage data scattered across an enterprise. This ability to federate in real-time all of an organization's data from different sources eliminates the need to invest in expensive and time-consuming data cleansing and data consolidation projects and allows organizations to bring value to the business faster and at a lower cost.

About Domo

Domo is a new form of BI that helps executives and managers transform the way they run their business. Domo gives executives a way to get business value out of the tens of billions of dollars that's been spent on collecting data through traditional business intelligence systems.

Domo changes the BI user experience from an incomplete and complex process to a consumer-friendly and real-time interaction with all the information users need and want to know to run their business.

Domo combines a powerful backend that connects into and across any enterprise system (CRM, ERP, HR, financials), data repository or current reporting system (data warehouse, Excel) and seamlessly delivers real-time intelligence from those sources into one browser-based view of the business. For more information about Domo, its growing partner ecosystem and how Domo can help you get more value from your BI investments, visit www.domo. com or call +1 (800) 899-1000.