

The business value of a well-crafted dashboard is tremendous.

7 Steps to a Dazzling Dashboard

OVERVIEW

Once your organization has satisfied the basic data needs of the masses with operational reporting, organizations tend to jump at the chance to implement dashboards due to their flashy nature and exponential value. The ability to see a snapshot view of the organization without thumbing through countless reams of data can be an incredibly powerful thing.

Unfortunately, it is our experience that a truly good dashboard is a rare feat. Often times, dashboards are bogged down from lack of clarity, irrelevance to the audience, or poorly defined metrics. Like your automobile's dashboard, the comprehensive view of metrics being displayed should show you the current performance of your organization relative to you.

Good dashboards account for perspective and completeness.

After countless Business Intelligence implementations for a range of clients from SMBs to the Fortune 50 across geographies, industries, and complexity, we have identified 7 key steps that should be followed to ensure a successful dashboard implementation.

1. **Identify Primary Audience:** Being able to focus the dashboard to a single audience or workflow is paramount to its relevance and effectiveness.
2. **Identify KPIs:** Selecting the metrics and their relative goals/targets for the intended audience is often made too hastily.
3. **Understand the Relationship Between KPIs:** An effective dashboard visually clarifies the dependencies between each of the displayed metrics.
4. **Understand What is Used Today:** Prior to the dashboard, business decisions are being made every second of every day. Understanding how the dashboard may impact this is critical to its success.
5. **Storyboard:** The multiple layers of a dashboard often provide focus and clarity in an intuitive manner to the audience.
6. **Technology Considerations:** Dashboards come in all shapes and sizes. Implementing a right-size technical solution for the organization can be the difference between positive/negative ROI.
7. **Development / Test Cycles:** The approach to manage IT development,

user involvement, and thorough testing is a delicate balancing act to ensure project efficiencies and minimize time to market.

In the following white paper, we will share our best practices and approach to consistently deliver relevant, impactful, and successful dashboards.

IDENTIFY PRIMARY AUDIENCE

While it is easy to ignore this task in your enthusiasm to rollout dashboards, the potential impact to lack of focus can be devastating to say the least. Beyond the obvious confusion that may be caused, a poorly focused dashboard can thwart all expected efficiencies in many ways.

Depending on the audience, a dashboard should summarize information into digestible segments. Executives may need a broad understanding across a range of work processes while mid-level managers may only need immediate access to the state of current operations within their workflow.

The audience should be defined by their business function and work process rather than just department and name. This helps to organize related data sources, business rules, and work flows. Each business function should be prioritized by their ability to take meaningful action based on the insights gleaned from the dashboard.

With the primary audience identified and a clear picture of the process, it will be easier to identify relevant KPIs and analytical data flows in order to increase productivity and reduce inefficiencies.

IDENTIFY KPIs

While there are multiple methodologies that may help select the best metrics for your dashboard, all of them require thorough discussion and understanding. Individually, the best metrics have a clear definition, can be calculated with available data, can be measured against a target/goal, and can be impacted by the dashboard's audience. Collectively, the selected KPIs should paint a comprehensive picture of the business as it stands relative to the primary audience.

One of the leading approaches to performance management and the identification of KPIs is defined by the balanced scorecard. As originated by Drs. Robert Kaplan (Harvard Business School) and David Norton, the balanced scorecard offers a performance measurement framework that combines financial and non-financial metrics to provide a "balanced" view of an organization's performance broken down into four categories: Financial, Customer, Internal

Business Processes, and Learning & Growth.

UNDERSTAND THE RELATIONSHIP BETWEEN KPIS

Once the relevant KPIs have been identified, the dependencies and potential impacts relative to the primary audience should be evaluated.

Sales may be a good measure of overall business performance, but the manufacturing executive may not have a direct impact on this KPI. For a manufacturing audience, the manufacturing dashboard might omit sales as financial measure focusing instead on costs (from a financial perspective) and finished product availability as a work process output.

The dashboard should focus on the metrics that are owned by the audience. Of primary importance should be the metrics that are leading indicators and can be directly impacted by the primary audience. Other downstream effects (lagging metrics) can be measured but should be handled with secondary importance.

UNDERSTAND WHAT IS USED TODAY

While the dashboard should be a welcome compliment to today's business processes, you should keep in mind how decisions are made today. Consider the way that data is collected, how it is reported, the audience that has visibility into it, and how the future changes may have an impact.

While most dashboards provide real-time or near-time availability of information, today's world may not be so. Decisions may be made on sample data, gut feel, intuition, or other circumstances. Providing a real-time dashboard does not necessarily mean that there will be a sudden culture shift and that everyone involved will start relying on it. There will likely be hurdles to overcome or culture changes that need to be made.

We've witnessed numerous organizations where managers have skewed data collection or calculations in order to support their current decision making only to become obstinate when the dashboard is being presented as a better alternative moving forward. To overcome such adversity, make sure that business users are adequately represented in all phases of the design, development, and test processes.

STORYBOARD

So, you've got a great idea for a dashboard. You know exactly what KPIs the users will need. You know precisely how to gather the data and calculate the metrics.

Now, what?

The next step to the process is to design the visualizations. Different than a traditional report, you'll need to create a visual representation of numerous KPIs. Some may be directly related while others may not.

Not only do you need to keep this in mind, but you also need to pre-empt the "what next?" question(s). So, you've displayed 8 KPIs on the main page of your dashboard. You've even color coded the results to draw the user's attention to areas of concern. 5 KPIs show a perfect green. 1 shows a cautionary yellow. 1 shows an alarming red.

What is the next level of analysis that a user would likely want to see in order to investigate the reds or yellows?

In some cases, you'll need to show a further breakdown of certain components of the calculation. In other cases, you'll want to use the same calculation over a different breakdown of the organizational hierarchy.

In nearly every case, the main dashboard page is just the beginning. Users will have follow up questions. Users will need supporting data. And, eventually, those users will likely need to call in others to further investigate.

On its surface, the dashboard acts as an alarming beacon. Working the multiple permutations of follow up questions, further analysis, and support to all involved parties ensures that the dashboard can truly act as a resource to solve today's business problems.

TECHNOLOGY CONSIDERATIONS

A fancy dashboard created in the latest technology with the flashiest widgets can be an attractive thing. Never underestimate the power of a great visual – especially, when trying to sell an idea to the executive team. However, the latest and greatest is not the only way to accomplish your dashboard project.

Even with the continuous growth of the BI software market, Excel is still the single most widely used BI tool on the market today. Users are comfortable with it. It has tremendous power to allow further analysis. And, it is widely available to nearly all users within your organization.

Despite these positives, there are numerous challenges with using this as your platform of choice. There are concerns with security and data access or the ease in which calculations can be changed and manipulated.

Your dashboard platform should consider all of these (and more):

- Current reporting standards
- License costs
- Available visualizations
- Security controls
- Navigation options
- Portal integration

DEVELOPMENT/TEST CYCLES

While the dashboard development seems similar to many other projects after having walked through the KPI selection and storyboard process, the development effort should not be underestimated. Not to say that the effort is too great, but if not managed accordingly, test defects, organizational resistance, and nagging inconsistencies can easily overrun your budget and timeline.

We strongly recommend the following 9 step iterative process for each metric:

1. Develop a process for extracting detail data for a single metric
2. Manually calculate the metric
3. Validate the results against today's reports with the business user's involvement
4. Automate the metric calculation process
5. Validate the results of the automated process against what was calculated manually
6. Create the supporting visualizations (dashboard widget/reports/navigation)
7. Validate the visualizations are accurate and work as expected
8. Apply security/integration details
9. Test end-to-end process

CONCLUSION

While hard to define, the business value of a well-crafted dashboard is tremendous. It has the power to transform a culture of complacency to one of accountability. The process of defining KPIs, assigning ownership, and building the visualization tools often brings clarity in the midst of confusion.

If done well, cultural transformations will soon follow and become a source of new requirements. In time, metric calculations may change to help further define or clarify the results. Metric targets will be redefined. Ownership may be realigned or further divided.

In total, the sensitivity of the information and the thirst for insight will elevate and business decisions will become factual rather than “gut feel” or otherwise.

ABOUT STRATEGIS

Founded in 2006, Strategis Consulting is a boutique technology consulting firm specializing in building strategic information solutions. Our range of services include advanced analytics, business process management, data warehousing, portals, reporting, workflows, mobile apps, integration, custom solutions, and training.