Thought Leadership

Dashboards

Best practice standards in dashboards

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Dashboards are easy to read displays of information, showing a graphical presentation of business information. Dashboards are interactive, flexible and adaptable to different business requirements. Their ability to display data at both micro and macro levels make them indispensable to the business decision making process.

For a dashboard to be useful, it must be designed around the needs of the user and the business. It should be implemented so that the business users can act on the information the dashboard displays.

To create a business driven dashboard, the information presented must be simple, focused, and actionable. Well-designed dashboards use the power of visual perception to communicate dense data in an instant with clarity.

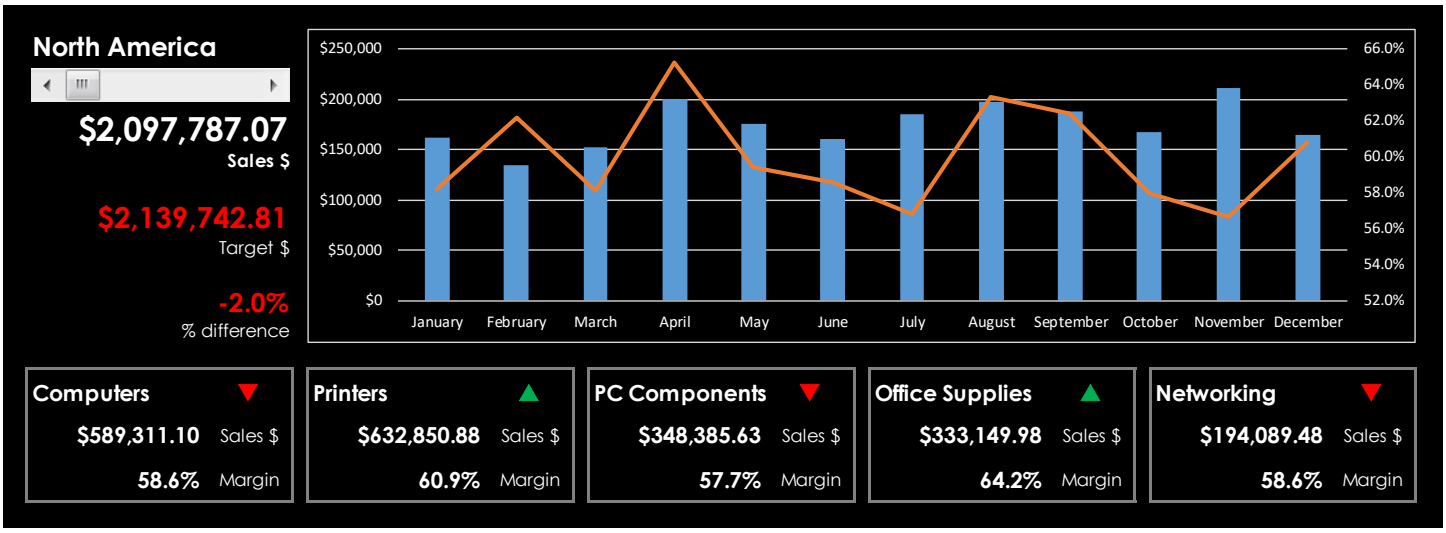


Figure 1: A dashboard to present insights at multiple levels makes it a powerful business tool.

Introduction to dashboards

Successful businesses have a consistent knowledge of operational performance. Industry leading businesses are able to leverage this knowledge to generate forecasts that help define strategic directions and goals.

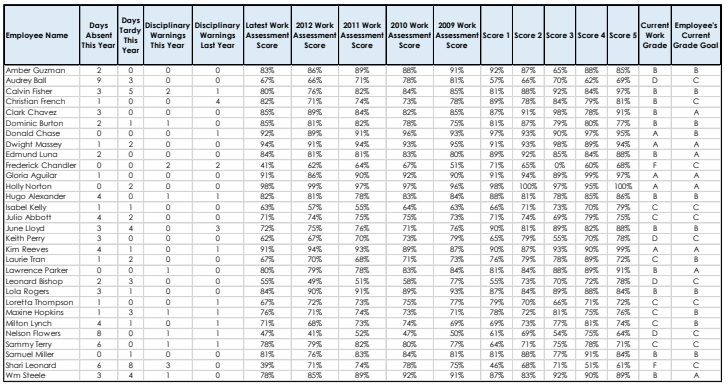
Achieving this ability requires a number of factors. Experience and intellectual capability is key. However, an important factor is access to conclusive facts – timely, accurate and precise business information presented in an insightful manner.

Dashboards vs. Spreadsheets

Microsoft Excel spreadsheets are the go-to tool for data analysis. According to Microsoft in 2010, there is an estimated 1 billion copies of Office installed worldwide. Excel spreadsheets are easy to use and have the basic functions needed for detailed analysis.

However, a spreadsheet with tables containing many rows and columns of data can quickly become difficult to read without presenting an overview of the key business information needed. Executive-level users are unlikely to reformat the data into a meaningful format.

On the other hand, business users will continue to use spreadsheets because of their availability and ease of use. With the right skills, an Excel spreadsheet can be transformed into an Excel-based dashboard that will allow for quick and easy customization of key business data.



Employee Name	Days Absent This Year	Days Tardy This Year	Disciplinary Warnings This Year	Disciplinary Warnings Last Year	Latest Work Assessment Score	2012 Work Assessment Score	2011 Work Assessment Score	2010 Work Assessment Score	2009 Work Assessment Score	Score 1	Score 2	Score 3	Score 4	Score 5	Current Work Grade	Employee's Current Grade Goal
Amber Guzman	2	0	0	0	83%	86%	89%	88%	91%	92%	87%	65%	88%	85%	B	B
Audrey Ball	9	3	0	0	67%	66%	71%	78%	81%	57%	66%	70%	62%	69%	D	C
Calvin Fisher	3	5	2	1	80%	76%	82%	84%	85%	81%	88%	92%	84%	97%	B	B
Christian French	1	0	0	4	82%	71%	74%	73%	78%	89%	78%	84%	79%	81%	B	C
Clark Chavez	3	0	0	0	85%	89%	84%	82%	85%	87%	91%	98%	78%	91%	B	A
Dominic Burton	2	1	1	0	85%	81%	82%	78%	75%	81%	87%	79%	80%	77%	B	B
Donald Chase	0	0	0	1	92%	89%	91%	96%	93%	97%	93%	90%	97%	95%	A	B
Dwight Massey	1	2	0	0	94%	91%	94%	93%	95%	91%	93%	98%	89%	94%	A	A
Edmund Luna	2	0	0	0	84%	81%	81%	83%	80%	89%	92%	85%	84%	88%	B	A
Frederick Chandler	0	0	2	2	41%	62%	64%	67%	51%	71%	65%	0%	60%	68%	F	C
Gloria Aguilar	1	0	0	0	91%	86%	90%	92%	90%	91%	94%	89%	99%	97%	A	A
Holly Norton	0	2	0	0	98%	99%	97%	97%	96%	98%	100%	97%	95%	100%	A	A
Hugo Alexander	4	0	1	1	82%	81%	78%	83%	84%	88%	81%	78%	85%	86%	B	B
Isabel Kelly	1	1	0	0	63%	57%	55%	64%	63%	66%	71%	73%	70%	79%	C	C
Julio Abbott	4	2	0	0	71%	74%	75%	75%	73%	71%	74%	69%	79%	72%	C	C
June Lloyd	3	4	0	3	72%	75%	76%	71%	76%	90%	81%	89%	82%	88%	B	B
Keith Perry	3	0	0	0	62%	67%	70%	73%	79%	65%	79%	55%	70%	78%	D	C
Kim Reeves	4	1	0	1	91%	94%	93%	89%	87%	90%	87%	93%	90%	99%	A	A
Laurie Tran	1	2	0	0	67%	70%	68%	71%	73%	76%	79%	78%	89%	72%	C	B
Lawrence Parker	0	0	1	0	80%	79%	78%	83%	84%	81%	84%	88%	89%	91%	B	A
Leonard Bishop	2	3	0	0	55%	49%	51%	58%	77%	55%	73%	70%	72%	78%	D	C
Lola Rogers	3	1	0	0	84%	90%	91%	89%	93%	87%	84%	89%	88%	84%	B	B
Loretta Thompson	1	0	0	1	67%	72%	73%	75%	77%	79%	70%	66%	71%	72%	C	C
Maxine Hopkins	1	3	1	1	76%	71%	74%	73%	71%	78%	72%	81%	75%	76%	C	B
Milton Lynch	4	1	0	1	71%	68%	73%	74%	69%	69%	73%	77%	81%	74%	C	B
Nelson Flowers	8	0	1	1	47%	41%	52%	47%	50%	61%	69%	54%	75%	64%	D	C
Sammy Terry	6	0	1	1	78%	79%	82%	80%	77%	64%	71%	75%	78%	71%	C	C
Samuel Miller	0	1	0	0	81%	76%	83%	84%	81%	81%	88%	77%	91%	84%	B	B
Shari Leonard	6	8	3	0	39%	71%	74%	78%	75%	46%	68%	71%	51%	61%	F	C
Wm Steele	3	4	1	0	78%	85%	89%	92%	91%	87%	83%	92%	90%	89%	B	A

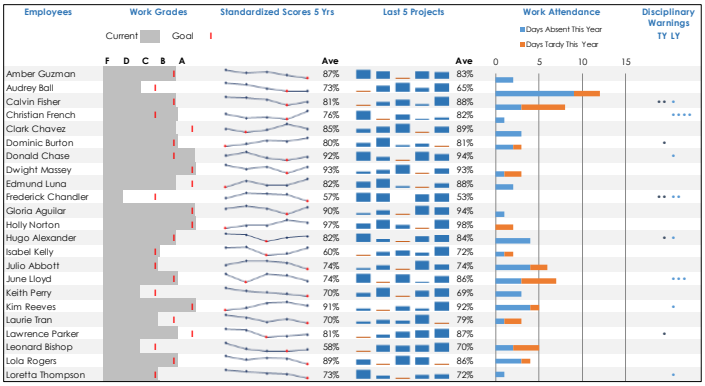


Figure 2, 3: Spreadsheets are typically too dense to provide a quick and comprehensive overview of information. Dashboards provide business data and insights in an instant with clarity.

Designing dashboards

How is a dashboard created that presents actionable information and not just a pretty picture? The key is that the dashboard must present only the information relevant to the business activity. The information must be actionable by the business user. If the user can't action the information, than it serves no real business value.

When planning the design of the dashboard, the business should answer the following questions to ensure that it will serve the needs of the end business users:

- Who will use the report?
- What will the dashboard be used to monitor, and what objectives will it support?
- What questions should the dashboard answer? What actions will be taken in response?
- What specific items of information should be supplied? At what level of detail should the information be expressed?
- Which items are most important?
- What are the logical groupings to organize information on the report?
- What are the useful comparisons that will allow you to see the items of information in a meaningful context?
- How frequently should the information be updated?

Figure 4: The data presented in the dashboard should be relevant to the business so that business users can act on the insights.

For the dashboard to be of use within the business, there are a number of user requirements that need to be met when designing the dashboard:

Requirements	Rationale
Easy to access information	Little time is required by the user to learn the dashboard and manually manipulate data.
Standardized format	Allows for consistent comparison of information over time.
Accurate, precise and correct information	Provides credibility for decision making.
Level of analysis	The dashboard can provide the required level of insight needed to answer a business question, to present a high level overview or identify outlier values.
Printing	Ensure that the dashboard and accompanying reports can be easily printed on standard-sized paper with no manual intervention.
Colours, charts and KPIs	Provides the visual guidance to quickly and easily obtain an overview of the business state and identify key performance changes.
Ability to share information	Capacity to export and present information in other Microsoft Office formats (Outlook, Word, PowerPoint) or through PDF.

While the dashboard must be business driven, there are a number of IT and user related design guidelines that need to be considered:

Guidelines for consideration	Potential decisions
Update Frequency	Daily, Hourly, Realtime
User Expertise	Novice, Experienced, Expert
Audience Size	One person, Multiple people with the same requirements, Multiple people who need to monitor different data subsets
Technology Platform	Desktop / laptop, Web server / browser, Mobile device
Screen Type	Extra-large screen, Standard screen, Small screen, Variable screens
Data Type	Quantitative, Non-quantitative

Considering user preferences and business requirements will ensure a business-focused dashboard.

Common mistakes in implementing dashboards

The following are some common mistakes made by organizations that prevent a successful dashboard implementation:

Common mistakes	Rationale
Beauty over brains	It's easy to create attractive and flashy dashboards, but the content and usefulness of the data is most important.
Everyone will love the dashboard	Just because a dashboard looks great it doesn't ensure everyone will use it. The dashboard needs to be marketed to the business users.
Customizability for every scenario	Customizability should be limited to just the most needed features to avoid an overly complex dashboard.
The more the better	Limit the dashboard to only the most important KPIs.
Non-business user implementation	The business users of the dashboard should lead the process of creating and implementing the dashboard.
No IT involvement	For complex dashboards, IT should be part of the process to ensure availability of data and compatibility with technology standards.
No link between the strategy and the tactics	Many of the details presented by the dashboard cannot be translated into actionable tactics by the business.
Data quality	Available data is never perfect, but must be validated to be "good enough." Poor data will discount the validity of the dashboard's recommendations.

The creation and implementation of the dashboard should be managed to avoid these mistakes and ensure business users will have confidence in the insights the dashboard provides.

Conclusion

Dashboards are a vital business tool. Well-designed dashboards use the power of visual perception to communicate dense data in an instant with clarity and generate insights. The key for success of any dashboard is to ensure that the dashboard is designed to serve the needs of the business users with the right balance of clarity and content. Most importantly though, is that organizations must action the insights the dashboards presents them with.

Want more information about creating dashboards? Looking for a professional Excel-based dashboard?

Contact DHE Consulting (see below).

Contact

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