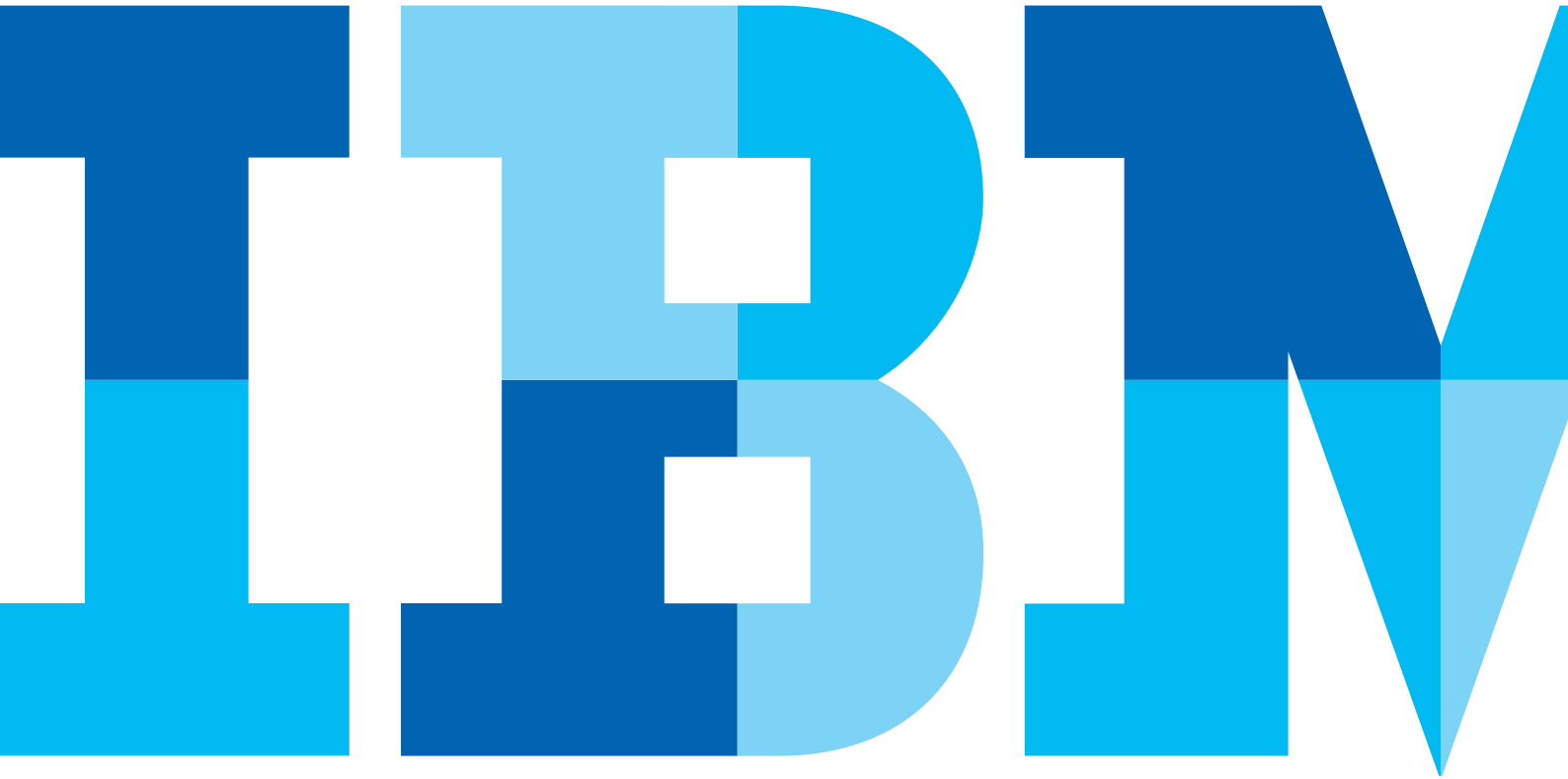


Picturing Performance: IBM Cognos dashboards and scorecards for retail



Abstract

More and more, retail organizations are using dashboards to provide at-a-glance views of current business performance and decision-making.

But not all dashboards are the same. Chains must be careful to adopt dashboard strategies that provide each user group with information that is appropriate to their role, is updated on a schedule that meets their needs and is shared consistently across the enterprise.

A series of disconnected dashboards is of no value, so IT investments must accommodate these factors to ensure a successful deployment.

Overview

In his TDWI Best Practices Report *Deploying Dashboards and Scorecards*, Wayne Eckerson provides a helpful definition of an often misunderstood term:

“Dashboards and scorecards are multilayered performance management systems, built on a business intelligence and data integration infrastructure, that enable organizations to measure, monitor, and manage business activity using both financial and non-financial measures.”¹

Dashboards and scorecards share three basic characteristics, or what Eckerson calls “The three threes.” These characteristics are: applications, layers and types. Let’s look at these in more detail:

Three Applications: Every dashboard contains these three applications: monitoring, analysis and reporting, Eckerson writes. These sets of related functionalities are woven together seamlessly and built on an information infrastructure designed to fulfill user needs. (see Figure 1)

Figure 1: Three dashboard applications

	Monitoring	Analysis	Management
Purpose	Convey information at a glance	Analyze exception conditions	Improve coordination and collaboration
Components	<ul style="list-style-type: none"> Multi-paned screens w/ visual elements Graphs (dials, thermometers, etc.) Symbols, alerts Charts, tables with conditional formatting Alerts 	<ul style="list-style-type: none"> Analytics (i.e., dimensional, time-series, segmentation) Forecasting, modeling, and predictive statistics Visual analysis Reporting 	<ul style="list-style-type: none"> Annotations Thread discussions Meetings Strategy maps Workflows

Three Layers: The most distinctive feature of a dashboard, writes Erickson, is its three layers of information:

1. Graphical, abstracted data to monitor key performance metrics.
2. Summarized dimensional data to analyze the root cause of problems.
3. Detailed operational data that identifies what actions to take to resolve a problem.

Much like peeling the layers of an onion, he writes, a performance management system lets users peel back layers of information to get to the root cause of a problem. Each layer provides additional details, views and perspectives that enable users to understand a problem and identify the steps they must take to address it.

¹Wayne W. Eckerson, *Deploying Dashboards and Scorecards*, TDWI Best Practices Report, July 2006.

Three Types: Finally, writes Eckerson, dashboards come in three types: operational, tactical and strategic. Each type features the three applications and layers, albeit in different ways.

- **Operational dashboards** track core operational processes and often display real-time data. These dashboards emphasize monitoring more than analysis or management.
- **Tactical dashboards** track departmental processes and projects and emphasize analysis more than monitoring or management. They are often implemented using portals and run against data marts or data warehouses.
- **Strategic dashboards** (or scorecards) monitor the execution of corporate strategic objectives at each level of the organization and emphasize management more than monitoring or analysis. They are often implemented to support a Balanced Scorecard methodology.

Any organization should deploy multiple version of each type of dashboard, writes Eckerson, as each employee is responsible for different aspects of corporate performance. The critical thing to remember is that organizations need to build each dashboard on a single data infrastructure and application platform to deliver consistent information to each user.

Why use a dashboard or scorecard?

For the same reason that car companies build cars with fuel gauges and speedometers – retailers deploy dashboards to give employees an easy-to-understand view of the performance metrics that matter most so they can make decisions to keep their operations running smoothly and provide a valued shopping experience.

In the automotive industry, dashboarding has always been a simple and necessary component: low fuel = buy fuel; high speed = slow down or get speeding ticket.

In retail, however, balanced scorecards and dashboards are much more complex, repeatedly falling in and out of favour – their successes and failures as much attributable to immature technologies as to uncertainties about the goals they were meant to achieve.

To help you decide on the right dashboard deployment, let's look further into Eckerson's categories.

Operational dashboards: Focus on monitoring

Operational dashboards enable managers to track core operational processes. They provide immediate visibility into KPI performance, allowing people to make quick decisions or take corrective action as soon as a problem or opportunity arises.

Typically, they also generate alerts that notify users of exception conditions in the processes being monitored. For example, web inquiries or scheduling processes – those that impact real-time consumer response and satisfaction – can be monitored with timely insight to ensure a quality first impression for customers.

Tactical dashboards: Emphasis on analysis

Tactical dashboards help managers and analysts track and analyze activities, processes and projects. Analysis is their key strength. They display at-a-glance results in a BI portal or professionally authored report format that contains the charts and tables that users need.

Users can drill down or through the data using multidimensional (OLAP) analysis and advanced reporting to pinpoint the causes of trends or issues. When deployed correctly, they can provide the detail needed to inform key decisions and workflow process changes.

Scorecards: Managing strategy

A scorecard is a strategy management application that helps organizations measure and align the strategic and tactical aspects of their business and processes via goals and targets.

Because of their role in executive decision-making, scorecards demand a more structured approach and framework than operational and tactical dashboards. As a result, they often use a methodology such as The Balanced Scorecard, TQM or Six Sigma. Scorecards deliver quick, at a glance comparative data to key channels and regions.

Dashboarding and scorecarding with IBM

IBM Cognos® software offers the full range of dashboards – operational, tactical and strategic—to help organizations monitor, measure and manage their performance.

Cognos dashboards provide an at-a-glance view of operational, tactical and strategic information to meet the needs of the complete range of business users within an organization.

What's more, you can pursue a dashboard deployment knowing that the data, metrics and thresholds are all integrated and share a common data source.

Cognos dashboards and scorecards enable retailers to consolidate performance data from disparate sources into a coherent system that people can trust. They can create a single view using dashboards, graphical displays, scorecards and reporting capabilities that help them firmly pinpoint opportunities and roadblocks in key functional areas.

The result of all this integration? Business users at every level receive precisely the information they need to make better decisions that improve business performance.

What sets us apart

IBM is the only vendor that delivers a complete performance management system – a system that is designed as a single enterprise architecture that can meet the needs of all users across the organization.

Founded on a purpose-built SOA platform that is open and fits complex environments, our system allows retail organizations to leverage existing investments in transactional systems, data sources, application servers, security systems, portals and more.

We deliver the full range of capabilities that retailers need to monitor their operations, make better decisions and plan for better business outcomes.

Dashboards

Cognos dashboards provide managers with daily, weekly or monthly performance updates, as well as real-time updates for monitoring operations. They provide managers with access to the full complement of related performance management capabilities through interactive charts and tables.

With dashboards, managers can drill into or through related reports and other data sources to explore and understand the trends and issues affecting performance at the operational level.

The financial workbench dashboard, for example, allows management to integrate operational plans for stores, merchandise and promotions with three key financial statements: P&L, balance sheet and cash flow.

It helps management understand how to better control costs by looking at plans, what-if scenarios and actuals. The financial numbers roll up into a set of high-level KPIs, giving them the tools to more accurately measure business results.



Figure 2: Dashboards allow management to monitor both process and performance.

A scorecard includes a collection of your important metrics, each with an associated target, thresholds for good and poor performance, and a clearly identified owner. However, a proper scorecard must provide more than red, green or yellow status indicators.

To enable executives to manage strategy effectively, scorecards must reveal the relationships among and between each metric, as well as the ways in which performance in one area affects outcomes in another. This is often done through a strategy map.

In addition, scorecards allow executives to drill into supporting details in related reports, or conduct multidimensional analysis to determine why a metric is performing a certain way.

When executives change targets, forecasts or resource allocations, these changes are also reflected in the tactical and operational dashboards (as well as their related forecasts, HR and marketing plans, etc.) throughout the organization.

Picturing performance

Dashboards provide critical information in a single display (often a single computer screen image). Therein lies their appeal, and the reason why retailers often deploy them as a “front door” to their performance management initiatives, in concert with other management functions – analytics, reporting, budgeting and forecasting.

Like any other strategic initiative, performance management initiatives and dashboards and scorecards are most successful when coupled with the strategic vision and endorsement from the senior executive team.

Cognos software supports the development of a collaborative environment, promotes accountability through aligned performance metrics and enables retailers to make better decisions about their business: from store operations, supply chain management, capital expenditure planning and strategic initiatives.

The value of an IBM system

Many factors influence your organization’s performance. But few areas under your management are more important than your organization’s decision-making ability.

Through the integration of reporting, analytics and metrics, these insights provide the visibility retailers need to improve operations and meet profitability objectives – while providing the best shopping experience for customers.

Retail organizations can make smart bets to maximize investment, optimize store-level assortment, improve product selection and quantities, and manage to a single set of financial goals. The result can help them achieve sustainable, profitable growth.

Performance management framework

Cognos software provides a performance management framework that allows retailers to measure and monitor performance, plan for the future and provide management with reporting and analytics that enhance operations.

It helps users to measure and monitor the business, and provides reporting and analytics that allow users to analyze historical data and understand trends. Planning gives decision makers a forward-looking perspective to gain a clear understanding of what the organization should be doing.

Cognos software enables retail organizations to deliver targeted and timely information to users throughout the organization to optimize performance and enable better decisions.

Things to consider

Eckerson concludes his paper with several key considerations for IT teams to apply to their dashboard initiatives. Among them:

- **Plan for the long haul:** Word about successful dashboard solutions spreads like wildfire. If you've delivered a successful solution, you'll be bombarded with requests to deliver them to other departments. The number of users may grow rapidly, placing undue burden on your IT infrastructure. If you're not careful, response times will plummet, along with your reputation.
- **Plan for real time:** A performance management system populated with more timely data lets executives and managers proactively optimize performance. So even if your users don't ask for more than daily updates, be prepared to deliver them. Select dashboard solutions that support event-driven processing and can prove their scalability across users, sources and data volumes.
- **Develop on a single platform:** It's very easy for managers to build or buy their own solutions independent of each other. These dashboard silos eventually compete with each other for resources, and undermine an organization's ability to get a single picture of performance.
- **Develop effective metrics:** Among the many best practices in this area, Eckerson advises companies to avoid cluttering dashboards with more metrics than a user can understand or act on. If you have more than seven, writes Eckerson, you should create hierarchies using folders, tabs or drill-downs to preserve the clarity and simplicity of the display.

Conclusion

High-performing retail organizations need information that will improve their decision-making in a way that drives better performance. And more often than not, they need it in an easy-to-understand, at-a-glance format that leads them to making those decisions. Increasingly, this format is the dashboard.

However, not all dashboards are created equal; nor are all dashboards the same. Retailers pursuing a dashboard strategy must ensure that each user receives information that is specific to their role and task, and that is refreshed according to the frequency of their decisions.

Operational managers need timely information and analytics on a frequent basis. Executives, on the other hand, may only need to see updated results every month.

Dashboards must be easy to use, provide the right level of interactivity and enable users to drill down into the results. Also, the dashboards must be integrated across the organization and share a common data source.

Finally, dashboards must be deployed within the context of a performance management strategy, with metrics, thresholds and targets all tied to commonly understood and shared business goals.

To build a successful dashboard deployment, chains must take into account these considerations. In a performance management system, disconnected dashboards that do none of the above are of little value to anyone.

For more information on Cognos solutions for retail please visit ibm.com/cognos/retail.

About IBM Business Analytics

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Combined with rich industry solutions, proven practices and professional services, organizations of every size can drive the highest IT productivity and deliver better results.

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