chapter 1

Dashboard Definition

If you drive a car or fly an aircraft, vital information about speed, oil pressure, temperature, and so on is available to you through the dashboard in front of you. Gauges, red and green lights, and odometers are strategically positioned so that with a quick glance, without losing focus on where you are going, you know if everything is okay (or not) and can make decisions accordingly.

Just as drivers and pilots rely on their dashboards to do their jobs, managers today are increasingly turning to business dashboards to help them run their organizations. The ideas and benefits are very much the same as the example with the driver: Give managers a dashboard that on one well-designed screen shows the key information they need to monitor the items they are responsible for, and then they can quickly discover problems and take action to help improve the performance of their organizations.

Although this book is focused on the topic of business dashboards, it is good to have an understanding of the broader area of business intelligence (BI) software because they are closely related. BI software first arrived on the market in the late 1980s labeled as Executive Information Systems. They promised senior-level managers colorful, graphical screens with big buttons to make it easy for a nontechnical executive to see what was going on within the company. The major problem at that time was that data was not readily available because of proprietary databases (or simply no database at all) and lack of good extraction, transformation, and loading (ETL) tools to get data from the source and into the dashboard in an automated and meaningful way. It was not until the early 21st century that databases, ETL tools, and dashboard software had matured to a level that made sustainable, organization-wide dashboards a realistic possibility.

The term business intelligence was coined in 1989 by Howard Dresner, a research analyst at the Gartner Group. He popularized "business intelligence" as a broad term to describe a set of concepts and methods to improve business decision making by using fact-based support systems. Performance management is built on a foundation of BI but marries it to the planning and control cycle of the enterprise—with enterprise planning, consolidation, and modeling capabilities.

Since around 2005, BI software has been one of the fastest growing business software technologies in the world. As more and more users, vendors, and industry analysts have focused in on BI, a number of interchangeable or overlapping terms have been introduced. A more narrow area of BI is business performance management; the following definition emerged in 2003:

> Business performance management is a framework for organizing, automating and analyzing business methodologies, metrics, processes and systems that drive business performance.[1]

In other words, business performance management (BPM or Corporate performance management, Enterprise performance management, or Operational performance management) is a set of processes that helps organizations optimize their business performance. In this book we will mostly use the term Business Intelligence (BI) and we will categorize dashboarding as a part of BI. Most people agree that the area of BI includes the following processes and related technologies:

- Budgeting
- Forecasting
- Reporting
- Strategic planning
- Scorecarding
- Analysis
- Dashboarding
- Data mining
- Data warehousing

In summary, BI helps businesses make efficient use of their financial, human, material, and other resources. Good executives have always sought to drive strategy down and across their organizations, but without proper decision support systems they have struggled to transform strategies into actionable metrics. In addition, they have grappled with meaningful analysis to expose the cause-and-effect relationships that, if understood, could give valuable insight for their operational decision makers.

BI software and related methods allow a systematic, integrated approach that links enterprise strategy to core processes and activities. "Running by the numbers" now means something in the form of planning, budgeting, reporting, dashboarding, and analysis and can give the measurements that

empower management decisions. When properly implemented, these systems and processes also motivate information workers to support organizational objectives by giving them actionable tools, objectives, and information.

Data warehouses and Online Analytical Processing (OLAP) (see Part 2 for more detail) are two of the fundamental technologies that have supported the adaptation and long-term success of modern dashboards. Whereas the data warehouse gathers, organizes, and stores information from various internal and external data sources, OLAP adds business logic to data by calculating and aggregating it. Together, these two technologies allow a dashboard to

- Display data that originally came from many sources
- Display metrics that are the result of simple or complex calculations
- Quickly provide new information on the screen, with minimal processing time
- Offer drill down from summary data to detailed transactions

For managers, dashboarding is now perhaps the most popular area of their BI strategy, and after about 20 years of evolution in BI software and related technologies, this business tool is coming of age.

Finally, just as there has been an evolution in the equipment available in a car's dashboard, there has been an evolution driving business dashboard technology. Whereas the first dashboards predominantly were a set of "cool" charts and indicators placed on a single screen or piece of paper, today's dashboards are increasingly more versatile (see Exhibit 1.1).

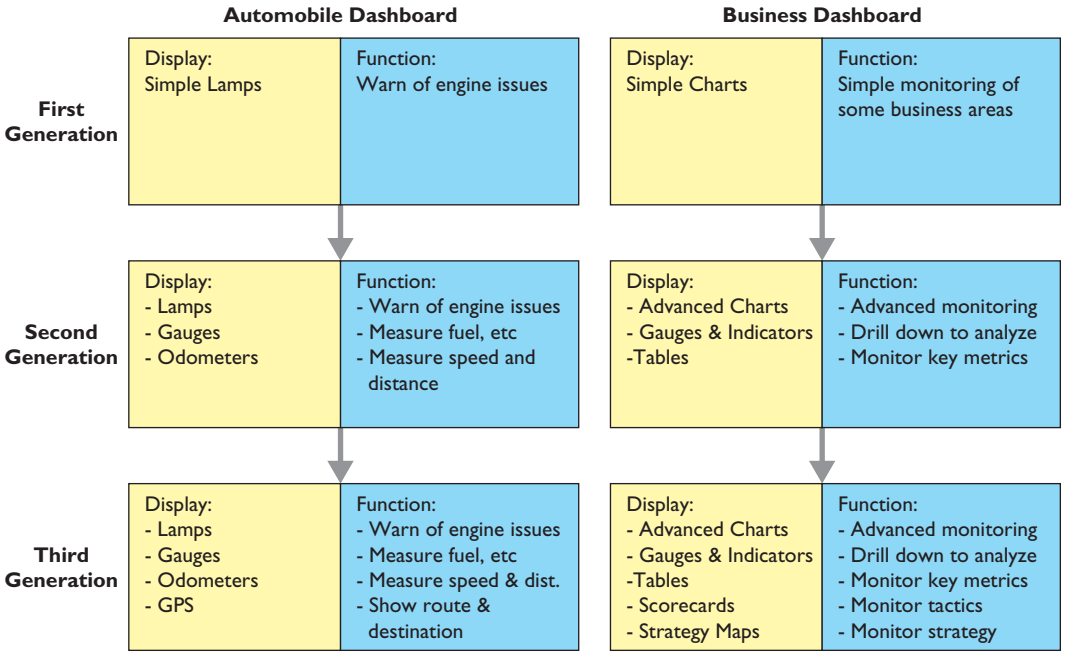

EXHIBIT 1.1 Evolution of Automobile Dashboards versus Business Dashboards

Automobile dashboards are now starting to include GPS (geographic positioning system) screens. Drivers not only know how fast they are going and how much gas is left; they can also plot the destination, select a route, and monitor the course on the GPS screen. Just like an organization's strategy and tactics, the GPS allows drivers to have a structured plan for where they are going and how they are getting there. Along the same lines, many of today's business dashboards can include strategy maps and scorecards, thereby integrating the monitoring of strategy and tactics along with the other analysis provided by the dashboard, so that at any point in time an information worker can stay on course.

This book is focused on how to successfully deploy dashboard technology with valuable metrics and graphical components to help your organization's employees manage and improve performance.

Note

1. David Blansfield, *Business Performance Management Magazine*, June, 2003.