



PERFORMANCE DASHBOARDS

MEASURING, MONITORING, AND
MANAGING YOUR BUSINESS

SECOND EDITION

WAYNE ECKERSON

Performance Dashboards

*Measuring, Monitoring, and
Managing Your Business*

Second Edition

WAYNE W. ECKERSON



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To my wife, Christina, and my children, Henry and Olivia,
who are the light of my life.

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Foreword

The Power of FOCUS... Over the past several decades we all have been trying to use information through technology to optimize our businesses and make our lives easier. So why have so many businesses failed and why do most organizations continue to struggle to find that “competitive advantage” that will take them to the next level? If you are interested in finding a sustainable solution that will help you look forward to where your business should be heading versus only looking backward at where you have been, you need to look through Wayne’s “Organization Magnifying Glass” to help you focus on the future.

Whether you are just starting your career or have been in this industry for as long as I have, this book will take you on a thought-provoking journey and offer you many techniques that Wayne has gleaned for some of the best practitioners in the field on delivering real and sustainable value from your information. I have sold to, consulted with, and provided education to hundreds of organizations over the past 25 years and almost all of them struggled with putting all of the pieces of this puzzle together. As we move into the next decade and try to find our way in this new economy, we are quickly realizing that “business as usual” no longer applies. Businesses are facing a new global economic environment. If our businesses are to survive, we must figure it out quickly.

Wayne’s approach and ideas to get the entire organization—both business and IT—to collaborate on a proven approach to performance management make this a must-have survival guide for your business.

- Corporate executives, business executives, and IT executives, you must at a minimum, read Chapter 1 and Chapter 5, proactively commit to being an “agent of organizational change,” set a clear direction, and give a copy of this book to all of your team members.
- Department staff members, you should read this cover to cover, mark Chapters 1 and 5, ask your executive sponsors to read them, and work on developing a real partnership across your organization.

- If you are just getting out of college or starting your career, this book will serve you well as a best practice guide to designing and delivering actionable analytic solutions and will greatly increase your personal market value.

This book will help you put the pieces of the puzzle together with an organized and systematic strategy that will position you to take full advantage of whatever opportunities lie ahead.

Paul Kautza
Director of Education
The Data Warehousing Institute

Preface to the Second Edition

New and Different

A lot has changed since I wrote the original manuscript for this book in 2004. The book hit a sweet spot in a rapidly changing industry. Many organizations had discovered—independently of the products vendors were selling to them—that dashboards resonated with users and were a perfect way to deliver information to the masses. People snapped up the first edition and used it—much to my surprise—as a conceptual manual for how to implement a performance dashboard. Although I strove to add as much prescriptive advice as I could based on many conversations with practitioners in the field, I didn't have a methodology in mind when I wrote the book.

Given the book's success, my editor, Tim Burgard, needled me for several years to write a second edition or sequel. Work and personal commitments prevented me from acceding to his requests. But I finally relented in 2009. Only after I signed the contract and started outlining changes did I realize how much work I had taken on. So much had changed in the intervening five years that I realized I would basically have to rewrite large swaths of the book.

Thankfully, the framework that I outlined in Chapter 1 has stood the test of the time and remains basically intact. The only major change is that I have given the framework a name. It's now known as the MAD framework, which stands for Monitor, Analyze, and Drill to Detail. The name is a conglomeration of two of the “three threes,” which describe the prominent characteristics of a bona fide performance dashboard.

However, almost everything else has changed or advanced. While I was a pioneer in discussing performance dashboards in 2004, I've been joined by a host of other folks, many more intelligent and informed than I am. I have leaned on them heavily, and sometimes shamelessly, to produce this second edition.

First, I've replaced the featured case studies in Part II with new ones. And instead of one case study per chapter and type of dashboard, I profiled two. There is so much variation among performance dashboards that I felt

it important to cast as wide a net as possible when examining actual implementations. I've also created subtypes of dashboards. For example, I've defined "detect and respond" and "incent and motivate" operational dashboards. I also defined a new type of tactical dashboard that I call a "mashboard," which enables power users to create ad hoc dashboards from predefined report elements created with a vendor's business intelligence (BI) tool. I've also defined a new type of strategic dashboard that features many characteristics of a Balanced Scorecard but isn't one.

In Part I, I combined the chapters on business intelligence and performance management, since this is background information that most readers are familiar with. I rewrote much of the chapter on technical readiness, which delves in my BI Maturity Model. The new chapter offers a more comprehensive and logical handling of the subject. I also moved the chapter "How to Align Business and IT," which proved to be one of the most popular chapters in the book, to the anchor position in Part I.

I extensively rewrote all the chapters in Part III and added Chapter 13, "How to Architect a Performance Dashboard," which discusses how to engineer the front-end interface for optimal performance and examines the pros and cons of eight architectural options. The chapters "How to Create Effective Performance Metrics" and "How to Design Effective Dashboard Displays" are almost entirely new, and I'm confident they offer practical advice for newcomers and veterans alike.

Sections in the Book

The book is divided into three sections. Part I, "The Landscape for Performance Dashboards," provides the framework and context for understanding performance dashboards. Chapter 1 defines performance dashboards and describes their primary characteristics. Chapter 2 provides background on business performance management (BPM) and business intelligence and how they factor into the design and creation of performance dashboards. Chapter 3 provides an organizational readiness assessment for organizations preparing to implement a performance dashboard, and Chapter 4 offers a technical readiness assessment based on a BI Maturity Model that I developed in 2004 and which has been well received by BI professionals and their business counterparts. Chapter 5 tackles the thorny topic of how to establish an effective partnership between business and the information technology (IT) department, which is required to deliver a long-lasting, high-value dashboard system.

Part II, entitled "Performance Dashboards in Action," adds flesh to the conceptual framework defined in Part I by examining six case studies in depth, two for each type of performance dashboard. Chapter 6 compares

the three types of performance dashboards and explains the major characteristics of each in detail. Chapter 7 examines operational dashboards at 1-800 CONTACTS and the Richmond Police Department. Chapter 8 looks at tactical dashboards at Rohm and Haas and Arizona State University. Chapter 9 examines strategic dashboards at Cisco and the Ministry of Works in the Kingdom of Bahrain.

Part III is titled “Critical Success Factors: Tips from the Trenches.” This section synthesizes recommendations and guidance from dozens of performance dashboard projects that I’ve researched. Chapter 10 discusses how to launch and manage a performance dashboard project. Chapter 11 examines the anatomy of performance metrics and examines various methods for creating effective ones. Chapter 12 shows how to create powerful dashboard screens that communicate relevant facts quickly and concisely. Chapter 13 provides an overview of how to architect a performance dashboard, showing a variety of options available with today’s technology. Chapter 14 describes where to start a performance dashboard initiative and how to integrate multiple dashboards. Chapter 15 provides advice on how to ensure end-user adoption and use a performance dashboard to drive positive organizational change.

Finally, I recognize that it is difficult to examine dashboard screenshots when they are printed in black and white. Thus, I’ve created a Web site where you can view the color versions of all the dashboard screenshots. The Web site is www.bileader.com. It also contains links to other reports, articles, and blogs that I have written, among other resources.

Acknowledgments

This second edition wouldn’t be possible without the contributions of many people. I’d like to thank the many practitioners who offered their stories for inclusion in this edition, especially David Hsiao, Nanzin Shroff, and Jason Sidhu from Cisco, Mike Masciandaro of Rohm and Haas, John Rome of Arizona State University, Mark Ranford of the Kingdom of Bahrain, Jim Hill and John Williams of 1-800 CONTACTS, Stephen Hollifield of the Richmond Police Department, Dongyan Wang of NetApp, and Angela Chen at LiquidNet.

Industry experts who contributed to this edition include Stephen Few, whose books and conversations shaped the chapter of designing dashboard displays; Bill Barberg, who again provide incomparable perspective on strategy management and the Balanced Scorecard methodology; and Stephen Few, who painstakingly reviewed my chapter on design and whose ideas and books proved a major source of information. I’d also like to thank Doug Cogswell, Andreas Lipphardt, and David Parmenter, who contributed ideas or screenshots to the book.

I'd like to thank the following people who reviewed sections of the book and provided invaluable advice: Neal Williams, Mardell Cheney, Justin Manes, Douglas Chope, Mark LaRow, Brad Peters, Kevin Scott, Mark Brandau, Mark Gamble, Jeff Morris, and Nobby Akiha. I'm especially indebted to David Washo of Ingenium Consulting, who offered to review the book and was probably surprised when I took him up on the offer and sent him countless chapters, which he diligently read and provided welcome feedback.

Last but not least, I'd like to thank my wife and children, who once again patiently endured my long days, nights, and weekends hunched over my laptop writing about things they don't understand, nor want to!

Preface to the First Edition

A Path to Pursue

False Starts

Business Performance Management. The original focus of this book was business performance management (BPM). Tim Burgard, my editor at John Wiley & Sons, had read an in-depth report that I wrote on the topic in 2003 and asked whether I would be interested in turning it into a book geared to business professionals. Other than the normal reservations one might have about undertaking a book project in addition to a full-time job, I was not particularly thrilled about exploring BPM in greater depth.

My initial research showed that BPM meant different things to different people. It was a broad, catch-all category of applications and technologies, including everything from financial consolidation and reporting tools to planning, budgeting, and forecasting applications to dashboards and scorecards, among other things. BPM seemed to reflect whatever vendors had in their product portfolios at the time rather than representing a distinct and compelling discipline in itself.

Conceptually, however, most people seem to agree that the purpose of BPM is to focus organizations on things that really matter. Too many organizations spread their energies and resources far and wide and consequently never make much progress toward achieving their strategic objectives. The theory behind BPM is that organizations need to identify the key activities that contribute most to their success and make sure they do them well. In short, the purpose of BPM is to help organizations become more focused, aligned, and effective.

Dashboards and Scorecards. Thus, in the spirit of BPM, I decided to cast off BPM as a book topic and focus on something more tangible and concrete that organizations could use to implement the discipline of BPM. At the time, I did not know any companies that had implemented a BPM solution—whatever that might be—but I did notice that many companies were rolling out dashboards and scorecards. These applications seemed to resonate with workers up and down the organizational hierarchy, from boardrooms to shop floors and from customers and suppliers.

Better yet, dashboards and scorecards helped companies implement the principles of BPM better than any of the other so-called BPM applications or technologies that I saw in the marketplace. Now here was a topic worth exploring!

As I investigated dashboards and scorecards, I encountered much of the same definitional fuzziness as I did with BPM, albeit on a smaller scale. Every “dashboard” I saw looked and functioned differently and served different purposes. Some looked like reporting portals or electronic briefing books, while others contained mostly text and hand-entered data, and still others featured graphical dials and meters that flickered with real-time data.

The only clarity in the field came from the Balanced Scorecard community, which had a powerful and evolving methodology to help organizations create, display, and manage performance data. However, since there were already many excellent books about Balanced Scorecards that covered both theory and practice, I did not see how I could add much value to the topic.

Nevertheless, I knew that organizations were putting a great deal of energy into building dashboards and scorecards using business intelligence (BI) and data integration tools and technologies—two areas that I have been researching and speaking about for the past 15 years. I figured that I could add value by identifying the common threads among these initiatives, create a framework to clarify the discussion about their use, and synthesize best practices for designing, building, and growing these systems from organizations that have already done it. The result is this book.

The Puzzle of Performance Dashboards

Defining Performance Dashboards. It took many hours of thought, dozens of interviews, and thousands of words to piece together the puzzle of dashboards and scorecards in a way that provides a clear and complete picture without distorting current perceptions that people have about these systems. In highly abridged form, what I came up with is this: Dashboards and scorecards are part of a larger performance management system—which I call a performance dashboard—that enables organizations to measure, monitor, and manage business performance more effectively.

A performance dashboard is more than just a screen with fancy performance graphics on it: It is a full-fledged business information system that is built on a business intelligence and data integration infrastructure. A performance dashboard is very different from plain dashboards or scorecards. The latter are simply visual display mechanisms to deliver performance information in a user-friendly way whereas performance dashboards knit together the data, applications, and rules that drive what users see on their screens.

Three Applications. To flesh out this skeletal definition a tad more, I came to realize that a performance dashboard is actually three applications in one, woven together in a seamless fashion: (1) a monitoring application, (2) an analysis application, and (3) a management application.

The monitoring application conveys critical information at a glance using timely and relevant data, usually with graphical elements; the analysis application lets users analyze and explore performance data across multiple dimensions and at different levels of detail to get at the root cause of problems and issues; the management application fosters communication among executives, managers, and staff and gives executives continuous feedback across a range of critical activities, enabling them to “steer” their organizations in the right direction.

Three Layers. When I looked at the data that performance dashboards display, I discovered that it let users navigate through three layers or views of information: (1) a graphical metrics view, (2) a multidimensional view, and (3) a detailed or operational view. Users can access the performance dashboard at any of these layers, but most start at the graphical metrics view and drill down along fairly pre-defined pathways through the multi-dimensional and detailed views.

This layered approach meets the information and analysis needs of a majority of individuals in an organization who are not number crunchers by training and only want to use information as a tool to perform their jobs. Performance dashboards conform to the natural sequence in which these users want to interact with information. First, they want to monitor key metrics for exceptions; then, they want to explore and analyze information that sheds light on the exceptions and reveals hidden trends and issues; and finally, they want to examine detailed data and reports to identify root causes of problems and take action to remedy the situation.

New Face of BI. What I discovered in my journey is that performance dashboards are the new face of BI. They transform BI from a set of tools used primarily by business analysts and power users to a means of delivering actionable information to everyone in an enterprise. Thus, performance dashboards fulfill the promise of BI to help organizations leverage information to increase corporate agility, optimize performance, and achieve strategic objectives.

Three Types. The final thing I discovered about performance dashboards is that there are three types—operational, tactical, and strategic—that are distinguished largely by the degree to which they use the three types of applications listed above (i.e., monitoring, analysis, and management).

Operational dashboards track core operational processes and emphasize monitoring more than analysis or management; tactical dashboards track departmental processes and projects and emphasize analysis more

than monitoring or management; and strategic dashboards monitor the execution of strategic objectives and emphasize management more than monitoring or analysis. An organization can and should have multiple versions of each type of performance dashboard, but they should integrate them using consistent metric definitions, shared data, and a common infrastructure.

Success Factors. It is one thing to know what a performance dashboard is and another to implement one successfully. In the course of interviewing people at organizations that have deployed performance dashboards (regardless of what they call them), I discovered many critical success factors. On a macro level, the keys to success are: (1) get proper sponsorship and resources for the project, (2) create the right metrics and standardize their meaning, (3) design a compelling graphical user interface, and (4) plan ahead to ensure end-user adoption and drive organizational change.

Beyond these major success factors, I discovered dozens of tips and techniques that often spell the difference between a successful project and a mediocre one. This book does not pretend to provide a step-by-step methodology for implementing a performance dashboard or a comprehensive list of critical success factors; instead, like a good performance metric, it provides reasonable guidance for the road ahead.

Who Should Read This Book

This book is geared to business and technical managers who oversee performance management projects or who have been recently appointed to create or overhaul an organization's performance management system, including information systems and corporate policies and procedures. These managers generally have deep knowledge of their business and suitable experience managing information technology projects. Most are prime candidates to become Chief Performance Officers.

At the same time, business executives can benefit by reading this book. Although it covers the technical underpinnings of performance management and dives into project management and technical details at points, the book tries to convey all concepts in plain English. Conversely, technologists will find value in this book because it provides an overview of performance management concepts and a technical framework for implementing them. In addition, Balanced Scorecard professionals will find the book helps them understand how Balanced Scorecards relate to and can be integrated with other types of performance dashboards in their organizations.

Skim, Drill, and Examine. To help you get the most out of the next 250+ pages, let me tell you how I have approached writing the text. First,

I know that businesspeople are busy. If you are like me, you rarely get to read an article or report from beginning to end, let alone a book. You really just want the prescriptions, the key takeaways that you can apply at work tomorrow, next week, or next month.

To accommodate your needs, I have tried to make the book as easy as possible to skim while staying within the publisher's constraints. For example, I have made liberal use of headings, lead-ins, exhibits, captions, and sidebars so they serve as visual guideposts to the content. Glance at these markers as you flip through the pages, and if you spy something that catches your interest, drill down and read the text for a while. (Does this sound like a performance dashboard in book form? I hope so. That was my intent!)

Feedback Please! As someone who works for an educational organization, I know that the best learning occurs not in classrooms but in discussions with peers and colleagues. Once you finish reading (or skimming) this book, I hope that you take the time to send me your thoughts. Ideas do not stop evolving once they are put on paper. This book is not my final word on the subject; there is always more to learn! Undoubtedly, there are numerous perspectives I did not cover and nuances I overlooked. Please help me write the next edition; send your thoughts to weckerson@tdwi.org. Happy reading!

The Landscape for Performance Dashboards

Part I provides context for understanding performance dashboards. Chapter 1 describes the MAD framework for designing performance dashboards, including the “three threes.” Chapter 2 provides background on the disciplines of performance management and business intelligence, which intersect in the form of a performance dashboard. Chapters 3 and 4 help you evaluate the organizational and technical readiness of your organization to deploy performance dashboards. Chapter 4 in particular describes my BI Maturity Model, which shows how organizations evolve their BI environment, including performance dashboards. Chapter 5 zeroes in on the key to the success of any BI application, which is a strong partnership between business and the information technology (IT) department.

What Are Performance Dashboards?

The Context for Performance Dashboards

The Power of Focus

Executives in Training. In the summer of 2004, I found my 11-year-old son, Henry, and his best pal, Jake, kneeling side by side in our driveway, peering intensely at the pavement. As I walked over to inspect this curious sight, I saw little puffs of smoke rising from their huddle. Each had a magnifying glass and was using it to set fire to clumps of dry grass as well as a few unfortunate ants that had wandered into their makeshift science experiment.

In this boyhood rite of passage, Henry and Jake learned an important lesson that escapes the attention of many organizations today: the power of focus. Light rays normally radiate harmlessly in all directions, bouncing off objects in the atmosphere and the earth's surface. The boys had discovered, however, that if they focused light rays onto a single point using a magnifying glass, they could generate enough energy to burn just about anything and keep themselves entertained for hours.

By the time Henry and Jake enter the business world (if they do), they will probably have forgotten this simple lesson. They will have become steeped in corporate cultures that excel at losing focus and dissipating energy far and wide. Most organizations have multiple business units, divisions, and departments, each with its own products, strategies, processes, applications, and systems to support it. A good portion of these activities are redundant at best and conflicting at worst. The organization as a whole spins off in multiple directions at once without a clear strategy. Changes in leadership, mergers, acquisitions, and reorganizations amplify the chaos.



Companies need an “organizational magnifying glass” that focuses the energies and activities of employees on a clear, unambiguous set of goals and objectives laid out in the corporate strategy.

EXHIBIT 1.1 Organizational Magnifying Glass

Organizational Magnifying Glass. To rectify this problem, companies need an “organizational magnifying glass”—something that focuses the work of employees so everyone moves in the same direction. (See Exhibit 1.1.) Strong leaders do this. However, even the voice of a charismatic executive sometimes is drowned out by organizational inertia.

Strong leaders need more than just the force of their personality and experience to focus an organization. They need an information system that helps them clearly and concisely communicate key strategies and goals to all employees on a personal basis every day. The system should focus workers on tasks and activities that best advance the organization’s strategies and goals. It should measure performance, reward positive contributions, and align efforts so that workers in every group and level of the organization are marching together toward the same destination.

Performance Dashboard. In short, what organizations really need is a *performance dashboard* that translates the organization’s strategy into objectives, metrics, initiatives, and tasks customized to each group and individual in the organization. It provides timely information and insights that enable business users to improve decisions, optimize processes and plans, and work proactively. A performance dashboard is really a performance management system. It communicates strategic objectives and enables businesspeople to measure, monitor, and manage the key activities and processes needed to achieve their goals.

To work this magic, a performance dashboard provides three main sets of functionality, which I will describe in more detail later. Briefly, a performance dashboard lets businesspeople:

1. **Monitor** critical business processes and activities using metrics that trigger alerts when performance falls below predefined targets.
2. **Analyze** the root cause of problems by exploring relevant and timely information from multiple perspectives at various levels of detail.
3. **Manage** people and processes to improve decisions, optimize performance, and steer the organization in the right direction.

Agent of Organizational Change

A performance dashboard is a powerful agent of organizational change. When deployed properly, it can transform an underperforming organization into a high-flier. Like a magnifying glass, a performance dashboard can focus people and teams on the key things they need to do to succeed. It provides executives, managers, and workers timely and relevant information so they can measure, monitor, and manage their progress toward achieving key strategic objectives.

One of the more popular types of performance dashboards today is the balanced scorecard, which adheres to a specific methodology for monitoring and managing the execution of business strategy. A balanced scorecard is a strategic application, but, as we shall soon see, there are other types of performance dashboards that optimize operational and tactical processes that drive organizations on a weekly, daily, or even hourly basis.

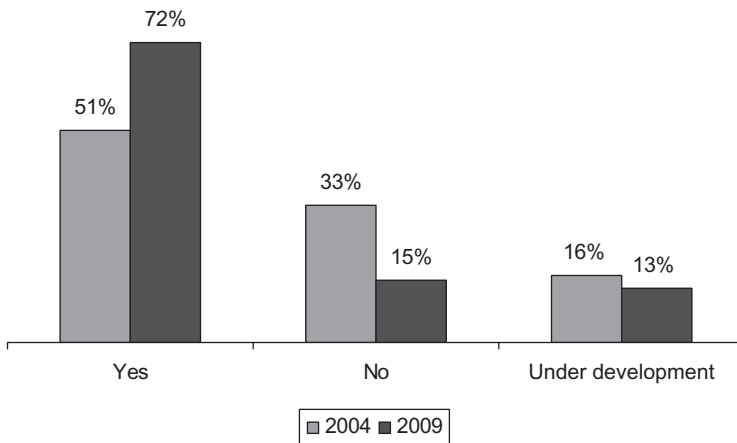
Historical Context. Although dashboards have long been a fixture in automobiles and other vehicles, business, government, and nonprofit organizations have only recently adopted the concept. The trend started among executives who became enamored with the idea of having an “executive dashboard” or “executive cockpit” with which to drive their companies from their boardroom perches. These executive information systems (EISs) actually date back to the 1980s, but they never gained much traction because the systems were geared to so few people in each company and were built on mainframes or minicomputers that made them costly to customize and maintain.

In the past 20 years, information technology has advanced at a rapid clip. Mainframes and minicomputers gave way in the 1990s to client/server systems, which in turn were supplanted by the Web this decade as the preferred platform for running applications and delivering information. Along the way, the economy turned global, squeezing revenues and profits and increasing competition for more demanding customers. Executives have responded by reengineering processes, improving quality, and cutting costs, but these efforts have provided only short-term relief, not lasting value.

Two Disciplines. During the 1990s, organizations began experimenting with ways to give business users direct and timely access to integrated information, an emerging field known as business intelligence (BI). At the same time, executives began turning to new techniques and methods to manage strategy and optimize performance, a discipline broadly defined as business performance management (BPM), or just performance management. (See Chapter 2 for background on BI and BPM.) Many organizations began using BI to provide the technical scaffolding to deliver information for performance management initiatives. Starting in 2000, it became clear that BI was converging with performance management to create the “performance dashboard.”

This convergence created a flood of interest in performance dashboards. A study by The Data Warehousing Institute (TDWI) in 2004 showed that a majority of organizations (51 percent) were already using a dashboard or scorecard. The same study showed that almost one-third of organizations were using it as their *primary* application for reporting and analysis. The popularity of performance dashboards has continued to surge. In 2009, TDWI repeated the survey and found that almost three-quarters (72 percent) of organizations have deployed a performance dashboard. (See Exhibit 1.2.)

Benefits. The reason so many organizations are implementing performance dashboards is a practical one: They offer a panoply of benefits to everyone in an organization, from executives to managers to staff. Here is a condensed list of benefits:

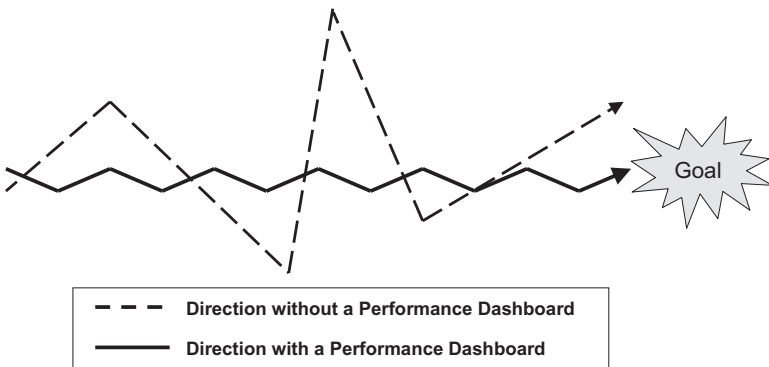


Based on 437 and 495 respondents respectively.

EXHIBIT 1.2 Has Your Organization Implemented a Performance Dashboard?

Source: TDWI Research.

- **Communicate strategy.** Performance dashboards translate corporate strategy into measures, targets, and initiatives that are customized to each group in an organization and sometimes to every individual. Each morning when businesspeople log into the performance dashboard, they get a clear picture of the organization’s strategic objectives and what they need to do in their areas to achieve the goals.
- **Refine strategy.** Executives use performance dashboards like a steering wheel to fine-tune corporate strategy as they go along. Instead of veering drastically from one direction to another in response to internal issues or industry events, executives can use performance dashboards to make a series of minor course corrections along the way to their destination. (See Exhibit 1.3.)
- **Increase visibility.** Performance dashboards give executives and managers greater visibility into daily operations and future performance by collecting relevant data in a timely fashion and forecasting trends based on past activity. This helps companies avoid being surprised by unforeseen problems that might affect bottom-line results.
- **Increase coordination.** By publishing performance data broadly, performance dashboards encourage staff from different departments to work more closely together, and they foster dialogue between managers and staff about how to improve performance.
- **Increase motivation.** By publicizing performance measures and results, performance dashboards engender friendly competition among peer groups, improving motivation and productivity. Performance dashboards impel people to work harder out of pride and



A performance dashboard enables executives to chart a steady course to their destination by making a series of fine-tuned course corrections instead of veering dramatically from one direction to another in response to internal or industry events.

EXHIBIT 1.3 Charting a Course

desire for extra pay when compensation is tied to performance results.

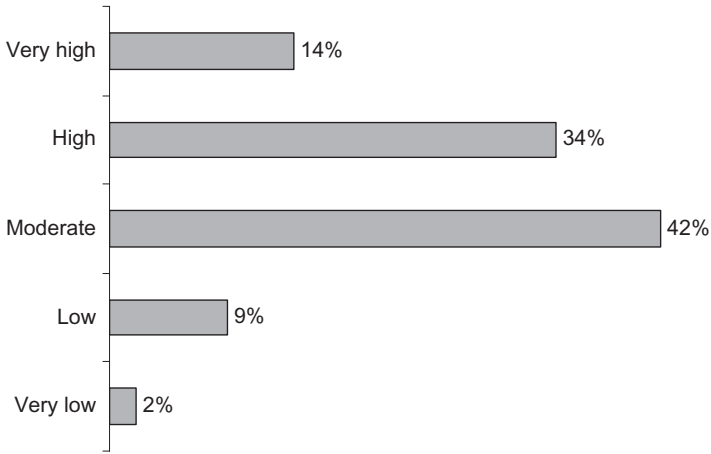
- **Consistent view of the business.** Performance dashboards consolidate and integrate corporate information using common definitions, rules, and metrics. This creates a single version of business information that everyone in the organization uses, avoiding conflicts among managers and analysts about whose version of the data is “right.”
- **Reduce costs and redundancy.** By consolidating and standardizing information, performance dashboards eliminate the need for redundant silos of information that undermine a single version of business information. A single performance dashboard can help an organization shut down dozens, if not hundreds, of independent reporting systems, spreadmarts, data marts, and data warehouses.
- **Empower users.** Performance dashboards empower users by giving them self-service access to information and eliminating their reliance on the information technology (IT) department to create custom reports. Through layered delivery of information, structured navigation paths, and guided analysis, performance dashboards make it easy for average businesspeople to access, analyze, and act on information.
- **Deliver actionable information.** Performance dashboards provide actionable information—data delivered in a timely fashion that lets users take action to fix a problem, help a customer, or capitalize on a new opportunity before it is too late. A performance dashboard prevents users from wasting hours or days searching for the right information or report.

When we asked organizations the degree to which their performance dashboards have had a positive impact on business results, almost half (48 percent) responded either “very high” or “high.” Another 42 percent said the impact has been “moderate” and only 11 percent said “low” or “very low.” Thus, performance dashboards are not only pervasive; they are effective. (See Exhibit 1.4.)

In short, performance dashboards deliver the right information to the right users at the right time to optimize decisions, enhance efficiency, and accelerate bottom-line results.

Pretenders to the Throne

Although many organizations have implemented dashboards and scorecards, not all have succeeded. In most cases, organizations have been tantalized by glitzy graphical interfaces and have failed to build a solid foundation by applying sound performance management principles and implementing appropriate business intelligence and data integration tech-



Based on 495 respondents, 2009.

EXHIBIT 1.4 To What Degree Has Your Dashboard Had a Positive Impact on Business Results?

Source: TDWI Research.

nologies and processes. Here are the common symptoms of less than successful solutions:

Too flat. Many organizations create performance management systems, especially tactical and strategic dashboards, using Microsoft Excel, Microsoft PowerPoint, and advanced charting packages. Although these applications often look fancy, they generally do not provide enough data or analytical capabilities to let users explore the root cause of problems highlighted in the graphical indicators.

Too manual. In addition, some organizations rely too heavily on manual methods to update performance dashboards that contain sizable amounts of information. Highly skilled business analysts spend several days a week collecting and massaging this information instead of analyzing it. The best performance dashboards automate the collection and delivery of information, ensuring a sustainable solution over the long term.

Too isolated. Some performance dashboards source data from a single system or appeal to a very small audience. As a result, they provide a narrow or parochial view of the business, not an enterprise view. In addition, these dashboards often contain data and metrics that do not align with the rest of the organization, leading to confusion and chaos.

In the end, performance dashboards are only as effective as the organizations they seek to measure. Organizations without central control or coordination will deploy a haphazard jumble of nonintegrated performance dashboards. However, organizations that have a clear strategy, a metrics-driven culture, and a strong information infrastructure can deliver performance management systems that make a dramatic impact on performance.

Composition of Performance Dashboards

Layered Delivery System. Every performance dashboard looks and functions differently. People use many different terms to describe performance dashboards, including portal, BI tool, and analytical application. Each of these contributes to a performance dashboard but is not a performance dashboard by itself. Here is my definition:

A performance dashboard is a layered information delivery system that parcels out information, insights, and alerts to users on demand so they can measure, monitor, and manage business performance more effectively.

This definition conveys the idea that a performance dashboard is more than just a screen populated with fancy performance graphics; it is a full-fledged business information system designed to help organizations optimize performance and achieve strategic objectives. An equivalent, and perhaps better, term is *performance management system*, which conveys the idea that it is a system designed to manage business performance. Since the title of this book uses the term *performance dashboards*, I will stick with that term on most occasions, although I feel that the two are interchangeable.

Three Threes. One of the most salient features of performance dashboards are the “three threes”: three applications, three layers, and three types. The “three threes” provide a convenient way to describe the major characteristics of performance dashboards and a litmus test to differentiate imposters from bona fide performance dashboards.

Three Applications

A performance dashboard weaves together three applications in a seamless fashion. These applications are (1) monitoring, (2) analysis, and (3) management. Each application provides a specific set of functionality. The applications are not necessarily distinct programs or code bases but sets of related functionality built on an information infrastructure designed to fulfill user requirements to monitor, analyze, and manage performance. (See Exhibit 1.5.)