

Enterprise Performance Intelligence and Decision Patterns



Vivek Kale



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"Vivek Kale has written a great book on performance management that focuses on decision-making; on continuous, incremental improvement; and on identifying common patterns in becoming a more intelligent organization."

—James Taylor, CEO of Decision Management Solutions and
author of *Real-World Decision Modeling with DMN*

"Introducing the concepts of decision patterns and *performance intelligence*, Vivek Kale has written another important book on the issues faced by contemporary organizations."

—Gary Cokins, author of *Predictive Business Analytics and Performance Management: Integrating Strategy Execution, Methodologies, Risk, and Analytics*

Enterprise Performance Intelligence and Decision Patterns unravels the mystery of enterprise performance intelligence (EPI) and explains how it can transform the operating context of business enterprises. It provides a clear understanding of what EPI means, what it can do, and application areas where it is practical to use.

The need to be responsive to evolving customer needs and desires creates organizational structures where business intelligence (BI) and decision making is pushed out to operating units that are closest to the scene of the action. Closed-loop decision making resulting from a combination of on-going performance management with on-going BI can lead to an effective responsive enterprise; hence, the need for *performance intelligence (PI)*.

This pragmatic book:

- Introduces the technologies such as data warehousing, data mining, analytics, and business intelligence systems that are a first step toward enabling data-driven enterprises.
- Details decision patterns and performance decision patterns that pave the road for performance intelligence applications.
- Introduces the concepts, principles, and technologies related to performance measurement systems.
- Describes the concepts and principles related to balance scorecard systems (BCS).
- Introduces aspects of performance intelligence for the real-time enterprises.

Enterprise Performance Intelligence and Decision Patterns shows how a company can design and implement instruments ranging from decision patterns to PI systems that can enable continuous correction of business unit behavior so companies can enhance levels of productivity and profitability.



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Enterprise Performance Intelligence and Decision Patterns

To Professor Jagdish N. Sheth for his guidance
and support, especially during the initial stages
of my career as an author and thereafter.

Preface

An inevitable consequence of organizations using the pyramid-shaped hierarchy is that there is a decision-making bottleneck at the top of the organization. The people at the top are overwhelmed by the sheer volume of decisions they have to make; they are too far away from the scene of the action to really understand what is happening; and by the time decisions are made, the measures are usually too little and too late. Consequently, companies suffer by staggering from one bad decision to another. No small group of executives, regardless of their intelligence, hard work, or sophisticated computer systems, can make all those decisions in a timely or competent manner. Given the pace of change, companies need something more agile and responsive.

The centralized command and control methods that worked for hierarchies will not work for service delivery networks. Instead of a small group of executives telling everybody else what to do, people need to be given the authority to figure out for themselves what to do. The need to be responsive to evolving customer needs and desires creates organizational structures where business intelligence (BI) and decision-making are pushed out to operating units that are closest to the scene of the action. Closed-loop decision-making resulting from a combination of ongoing performance management with ongoing BI can lead to an effective and responsive enterprise; hence, the need for performance intelligence (PI).

The effect of continuous adjustments and enhancements to business operations can generate a steady stream of savings and new revenues that may sometimes seem insignificant from one day to the next, but as months go by, may become cumulatively substantial. The profits generated in this way can be thought of as the *agility dividend*. Real-time data sharing and close coordination between business processes (sales, procurement, accounting, etc.) can be employed to deliver continuous operating adjustments that result in steady cost savings over time (negative feedback) as well as to deliver timely new products and services to identified customers that result in significant new revenue (positive feedback).

What Makes This Book Different?

A company can design and implement instruments ranging from decision patterns to PI systems that can enable continuous correction of business unit behavior in order for companies to achieve enhanced levels of productivity and profitability.

Here are the characteristic features of this book:

1. It introduces the database and related technologies such as data warehousing, data mining, analytics, and business intelligence systems that were the first step toward enabling data-driven enterprises.
2. It details decision patterns and performance decision patterns that paved the road for performance intelligence applications.
3. It enables the reader to get a clear understanding of what *performance intelligence* really means, what it might do for them, and when it is practical to use it.
4. It gives an introduction to the concepts, principles, and technologies related to performance intelligence systems (PIS).
5. It gives an introduction to the concepts and principles related to balance scorecard systems (BCS).
6. It is not focused on any particular product, platform, or service offering; it describes solutions from several commercial vendors.
7. It introduces decision patterns, that is, performance patterns in the context of performance intelligence.

This book introduces the concepts of *decision patterns* and *performance patterns* in the context of performance intelligence. Patterns are conventional solutions to recurring problems in a specific domain. Patterns originated from the area of real architecture—C. Alexander gathered architectural knowledge and best practices regarding building structures in the form of patterns. Architectural patterns capture the essential properties required for the successful design of a certain building area or function while leaving large degrees of freedom to architects.

I wanted to write a book presenting performance measurement systems in the context of the requirements arising from the development and operations of performance intelligence solutions; the outcome is the book that you are reading now. Thank you!

How Is This Book Organized?

This book traces the road to performance intelligence, the detailed features and characteristics of performance measurement systems and environments, and, in the last section, high-potential application areas of performance intelligence, namely, performance management systems, balance scorecard systems, and real-time enterprises.

Chapter 1 provides an overview of agile enterprises. Chapter 2 focuses on the alignment of IT strategy with business because that exercise helps in establishing the value drivers, critical success factors (CSF), and decision patterns of an operating enterprise that would be relevant for on-going performance intelligence.

Part I provides a glimpse of the genesis of performance management systems. Chapter 3 provides an overview of traditional decision support systems.

Part II describes significant milestones on the road to performance intelligence. Chapters 4 through 8 review the basics of databases, data warehousing, data mining, analytics, and business intelligence systems, respectively.

Part III presents a detailed discussion on various aspects of performance intelligence. Chapter 9 introduces the basic idea of decision patterns and illustrates it with a discussion of decision patterns in finance and customer relationship management. Chapter 10 employs decision patterns to define performance decision patterns. Chapter 11 introduces the concept of performance intelligence.

Part IV presents major application areas of performance intelligence: Chapter 12 discusses performance management systems, while Chapter 13 describes the balance scorecard (BSC) system. Chapter 14 presents aspects of performance intelligence for the real-time enterprises.

Who Should Read This Book?

All stakeholders in performance management and improvement projects can read this book.

This book presents a detailed discussion on various aspects of enterprise performance. The approach adopted in this book will be useful to any professional who must present a case for a performance intelligence system or to those who could be involved in a performance management or improvement project.

All readers who are involved with any aspect of a performance management project will profit by using this book as a road map to make a more meaningful contribution to the success of their project(s).

This book is addressed to those interested in:

- Enterprise performance management
- Performance intelligence
- Performance measurement and management
- Compliance management
- Decision management and optimization
- Business intelligence
- IS/ IT project management and risk management

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Mumbai, India

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Author

Vivek Kale has more than two decades of professional IT experience during which he has handled and consulted on various aspects of enterprise-wide information modeling, enterprise architectures, business process redesign, and e-business architectures. He has been Group CIO of Essar Group, a major steel, oil, and gas company in India, as well as Raymond Ltd, a major textile and apparel company in India. He is a seasoned practitioner in transforming the business of IT, facilitating business agility, and enhancing IT-enabled enterprise intelligence. He is the author of *Big Data Computing: A Guide for Business and Technology Managers* (CRC Press 2017) and *Guide to Cloud Computing for Business and Technology Managers: From Distributed Computing to Cloudware Applications* (CRC Press 2015).

