Business Intelligence Pocket Guide A Concise Business Intelligence Strategy For Decision Support And Process Improvement

Learn to get the most out of your business data to optimize your business About This Book This book will enable and empower you to break free of the shackles of spreadsheets Learn to make informed decisions using the data at hand with this highly practical, comprehensive guide This book includes real-world use cases that teach you how analytics can be put to work to optimize your business Using a fictional transactional dataset in raw form, you'll work your way up to ultimately creating a fully-functional warehouse and a fleshed-out BI platform Who This Book Is For This book is for anyone who has wrangled with data to try to perform automated data analysis through visualizations for themselves or their customers. This highly-customized guide is for developers who know a bit about analytics but don't know how to make use of it in the field of business intelligence. What You Will Learn Create a BI environment that enables self-service reporting Understand SQL and the aggregation of data Develop a data model suitable for analytical reporting Connect a data warehouse to the analytic reporting tools Understand the specific benefits behind visualizations with D3.js, R, Tableau, QlikView, and Python Get to know the best practices to develop various reports and applications when using BI tools Explore the field of data analysis with all the data we will use for reporting In Detail Business Intelligence (BI) is at the crux of revolutionizing enterprise. Everyone wants to minimize losses and maximize profits. Thanks to Big Data and improved methodologies to analyze data, Data Analysts and Data Scientists are increasingly using data to make informed decisions. Just knowing how to analyze data is not enough, you need to start thinking how to use data as a business asset and then perform the right analysis to build an insightful BI solution. Efficient BI strives to achieve the automation of data for ease of reporting and analysis. Through this book, you will develop the ability to think along the right lines and use more than one tool to perform analysis depending on the needs of your business. We start off by preparing you for data analytics. We then move on to teach you a range of techniques to fetch important information from various databases, which can be used to optimize your business. The book aims to provide a full end-to-end solution for an environment setup that can help you make informed business decisions and deliver efficient and automated BI solutions to any company. It is a complete guide for implementing Business intelligence with the help of the most powerful tools like D3.js, R, Tableau, Qlikview and Python that are available on the market. Style and approach Packed with real-world examples, this pragmatic guide helps you polish your data and make informed decisions for your business. We cover both business and data analysis perspectives, blending theory and practical hands-on work so that you perceive data as a business asset.

Between the high-level concepts of business intelligence and the nitty-gritty instructions for using vendors' tools lies the essential, yet poorly-understood layer of architecture, design and process. Without this knowledge, Big Data is belittled – projects flounder, are late and go over budget. Business Intelligence Guidebook: From Data Integration to Analytics shines a bright light on an often neglected topic, arming you with the knowledge you need to design rock-solid business intelligence and data integration processes. Practicing consultant and adjunct BI professor Rick Sherman takes the guesswork out of creating systems that are cost-effective, reusable and essential for transforming raw data into valuable information for business decision-makers. After reading this book, you will be able to design the overall architecture for functioning business intelligence systems with the supporting data warehousing and data-integration applications. You will have the information you need to get a project launched, developed, managed and delivered on time and on budget – turning the deluge of data into actionable information that fuels business knowledge. Finally, you'll give your career a boost by demonstrating an essential knowledge that puts corporate BI projects on a fast-track to success. Provides practical guidelines for building successful BI, DW and data integration solutions. Explains underlying BI, DW and data integration design, architecture and processes in clear, accessible language. Includes the complete project development lifecycle that can be applied at large enterprises as well as at small to medium-sized businesses Describes best practices and pragmatic approaches so readers can put them into action. Companion website includes templates and examples, further discussion of key topics, instructor materials, and references to trusted industry sources.

Using Agile methods, you can bring far greater innovation, value, and quality to any data warehousing (DW), business intelligence (BI), or analytics project. However, conventional Agile methods must be carefully adapted to address the unique characteristics of DW/BI projects. In Agile Analytics, Agile pioneer Ken Collier shows how to do just that. Collier introduces platform-agnostic Agile solutions for integrating infrastructures consisting of diverse operational, legacy, and specialty systems that mix commercial and custom code. Using working examples, he shows how to manage analytics development teams with widely diverse skill sets and how to support enormous and fast-growing data volumes. Collier's techniques offer optimal value whether your projects involve "back-end" data management, "front-end" business analysis, or both. Part I focuses on Agile project management techniques and delivery team coordination, introducing core practices that shape the way your Agile DW/BI project community can collaborate toward success Part II presents technical methods for enabling continuous delivery of business value at production-quality levels, including evolving superior designs; test-driven DW development; version control; and project automation Collier brings together proven solutions you can apply right now--whether you're an IT decision-maker, data warehouse professional, database administrator, business intelligence specialist, or database developer. With his help, you can mitigate project risk, improve business alignment, achieve better results--and have fun along the way.

Business intelligence is a broad category of applications and technologies for gathering, providing access to, and analyzing data for the purpose of helping enterprise users make

better business decisions. The term implies having a comprehensive knowledge of all factors that affect a business, such as customers, competitors, business partners, economic environment, and internal operations, therefore enabling optimal decisions to be made. Business Intelligence provides readers with an introduction and practical guide to the mathematical models and analysis methodologies vital to business intelligence. This book: Combines detailed coverage with a practical guide to the mathematical models and analysis methodologies of business intelligence. Covers all the hot topics such as data warehousing, data mining and its applications, machine learning, classification, supply optimization models, decision support systems, and analytical methods for performance evaluation. Is made accessible to readers through the careful definition and introduction of each concept, followed by the extensive use of examples and numerous real-life case studies. Explains how to utilise mathematical models and analysis models to make effective and good quality business decisions. This book is aimed at postgraduate students following data analysis and data mining courses. Researchers looking for a systematic and broad coverage of topics in operations research and mathematical models for decision-making will find this an invaluable guide.

Business Intelligence describes the basic architectural components of a business intelligence environment, ranging from traditional topics such as business process modeling, data modeling, and more modern topics such as business rule systems, data profiling, information compliance and data quality, data warehousing, and data mining. This book progresses through a logical sequence, starting with data model infrastructure, then data preparation, followed by data analysis, integration, knowledge discovery, and finally the actual use of discovered knowledge. The book contains a quick reference guide for business intelligence terminology. Business Intelligence is part of Morgan Kaufmann's Savvy Manager's Guide series. * Provides clear explanations without technical jargon, followed by in-depth descriptions. * Articulates the business value of new technology, while providing relevant introductory technical background. * Contains a handy quick-reference to technologies and terminologies. * Guides managers through developing, administering, or simply understanding business intelligence technology. * Bridges the business-technical gap. * Is Web enhanced. Companion sites to the book and series provide value-added information, links, discussions, and more.

Business Intelligence: The Savvy Managers Guide, Second Edition, discusses the objectives and practices for designing and deploying a business intelligence (BI) program. It looks at the basics of a BI program, from the value of information and the mechanics of planning for success to data model infrastructure, data preparation, data analysis, integration, knowledge discovery, and the actual use of discovered knowledge. Organized into 21 chapters, this book begins with an overview of the kind of knowledge that can be exposed and exploited through the use of BI. It then proceeds with a discussion of information use in the context of how value is created within an organization, how BI can improve the ways of doing business, and organizational preparedness for exploiting the results of a BI program. It also looks at some of the critical factors to be taken into account in the planning and execution of a successful BI program. In addition, the reader is introduced to considerations for developing the BI roadmap, the platforms for analysis such as data warehouses, and the concepts of business metadata. Other chapters focus on data preparation and data discovery, the business rules approach, and data mining techniques and predictive analytics. Finally, emerging technologies such as text analytics and sentiment analysis are considered. This book will be valuable to data management and BI professionals, including senior and middle-level managers, Chief Information Officers and Chief Data Officers, senior business executives and business staff members, database or software engineers, and business analysts. Guides managers through developing, administering, or simply understanding business intelligence technology Keeps pace with the changes in best practices, tools, methods and processes used to transform an organization's data into actionable knowledge Contains a handy, quick-reference to technologies and terminology

Building an analysis ecosystem for a smarter approach to intelligence Keith Carter's Actionable Intelligence: A Guide to Delivering Business Results with Big Data Fast! is the comprehensive guide to achieving the dream that business intelligence practitioners have been chasing since the concept itself came into being. Written by an IT visionary with extensive global supply chain experience and insight, this book describes what happens when team members have accurate, reliable, usable, and timely information at their fingertips. With a focus on leveraging big data, the book provides expert guidance on developing an analytical ecosystem to effectively manage, use the internal and external information to deliver business results. This book is written by an author who's been in the trenches for people who are in the trenches. It's for practitioners in the real world, who know delivering results is easier said than done – fraught with failure, and difficult politics. A landscape where reason and passion are needed to make a real difference. This book lays out the appropriate way to establish a culture of fact-based decision making, innovation, forward looking measurements, and appropriate high-speed governance. Readers will enable their organization to: Answer strategic questions faster Reduce data acquisition time and increase analysis time to improve outcomes Shift the focus to positive results rather than past failures Expand opportunities by more effectively and thoughtfully leveraging information Big data makes big promises, but it cannot deliver without the right recipe of people, processes and technology in place. It's about choosing the right people, giving them the right tools, and taking a thoughtful—rather than formulaic--approach. Actionable Intelligence provides expert guidance toward envisioning, budgeting, implementing, and delivering real benefits.

Learn how to embed data science, Big Data and AI in your organization's decision-making process and make your organization more data-driven, profitable, and intelligent in 10 steps. Book description This book covers every aspect of the implementation of data science, from the algorithms that make your decisions more refined, effective and faster to the people, skills, culture, and mindset required to make it happen. How do you set the right KPIs and targets? How are the best data-driven organizations structured? Why do you need a data warehouse or data lake? How do you manage a data science project? This book tackles every question relevant to implementing data science. Many

organizations start by collecting data without a goal, but that data science approach is doomed to fail. This book takes you through the process of implementing data science from the ground floor all the way to the top. It all starts with the question: what do we want to achieve? It covers all the subsequent steps on a macro and micro level, from the process of registering data, to processing it, to the organization's response. All the relevant data science techniques and technologies are discussed, from algorithms and AI to the right management strategies. Based on many practical case studies and best practices, this book reveals what works and what doesn't. Benefit from the author's many years of experience in making organizations more intelligent and data-driven as a consultant and an educator. What you will learn - The most important benefits of data science. - The essential aspects of decision making and the role of data science. - How to determine the right KPIs and use them to manage effectively. - How to turn data into knowledge and information. - How to make your organization more agile. - The many types of algorithms that can be used to make more effective decisions on every level. - How to manage data science projects - who and what do you need to effectively implement data science? - How to design a data science roadmap. - And much, much more. Who is this book for This book is for every manager or professional, and all those who want to learn how to embed the effective use of data science in every facet of the organization. This comprehensive management handbook is a must-read for (business) consultants, business managers, Chief Data Officers (CDOs), CIOs, and other executives, project managers, Data Science consultants, Data Scientists, AI consultants, (business) controllers, quality managers, and BI consultants.

Knowledge management (KM) is the identification and analysis of available and required knowledge, and the subsequent planning and control of actions, to develop "knowledge assets" that enable businesses to generate profits and improve their competitive positions. This volume provides the framework for the strategic use of the information intelligence processes - business intelligence, content management, and knowledge management. In nine detailed chapters, the author explains every facet of these three subjects, enabling you to understand these sophisticated business concepts within the framework of information technology. Knowledge Management, Business Intelligence, and Content Management: The IT Practitioner's Guide discusses creation, protection, development, sharing, and management of information and intellectual assets through the use of business intelligence and other knowledge sharing and analytical techniques. About the Author Jessica Keyes is president of New Art Technologies, Inc., a high-technology and management consultancy, and is also founding partner of Manhattan Technology Group. Often a keynote speaker on the topics of competitive strategy, productivity, and quality, she is a founding board of directors member of the New York Software Industry Association, and has recently completed a 2-year term on the Mayor of New York City's Small Business Advisory Council. A noted columnist and correspondent, Keyes is the author of 19 books, including Auerbach Publications' Software Engineering Handbook, Software Configuration Management, and Implementing the IT Balanced Scorecard.

Solid business intelligence guidance uniquely designed for healthcare organizations Increasing regulatory pressures on healthcare organizations have created a national conversation on data, reporting and analytics in healthcare. Behind the scenes, business intelligence (BI) and data warehousing (DW) capabilities are key drivers that empower these functions. Healthcare Business Intelligence is designed as a guidebook for healthcare organizations dipping their toes into the areas of business intelligence and data warehousing. This volume is essential in how a BI capability can ease the increasing regulatory reporting pressures on all healthcare organizations. Explores the five tenets of healthcare business intelligence Offers tips for creating a BI team Identifies what healthcare organizations should focus on first Shows you how to gain support for your BI program Provides tools and techniques that will jump start your BI Program Explains how to market and maintain your BI Program The risk associated with doing BI/DW wrong is high, and failures are well documented. Healthcare Business Intelligence helps you get it right, with expert guidance on getting your BI program started and successfully keep it going.

The objective of this book is to teach what IoT is, how it works, and how it can be successfully utilized in business. This book helps to develop and implement a powerful IoT strategy for business transformation as well as project execution. Digital change, business creation/change and upgrades in the ways and manners in which we work, live, and engage with our clients and customers, are all enveloped by the Internet of Things which is now named "Industry 5.0" or "Industrial Internet of Things. The sheer number of IoT(a billion+), demonstrates the advent of an advanced business society led by sustainable robotics and business intelligence. This book will be an indispensable asset in helping businesses to understand the new technology and thrive.

The "Business Intelligence Pocket Guide" steps through the essential elements for creating a successful business intelligence capability in your organisation. Inside the guide: 3 pillars of a business intelligence strategy 5 essential ingredients of every business intelligence project 6 concise chapters of practical advice Written for the analyst, executive, manager, and technology professional alike, the "Business Intelligence Pocket Guide" is a jargon free and vendor neutral introduction to the opportunities and issues common to all business intelligence projects.

Design, develop, and master efficient Power BI solutions for impactful business insights Key Features Get to grips with the fundamentals of Microsoft Power BI Combine data from multiple sources, create visuals, and publish reports across platforms Understand Power BI concepts with real-world use cases Book Description Microsoft Power BI Complete Reference Guide gets you started with business intelligence by showing you how to install the Power BI toolset, design effective data models, and build basic dashboards and visualizations that make your data come to life. In this Learning Path, you will learn to create powerful interactive reports by visualizing your data and learn visualization styles, tips and tricks to bring your data to life. You will be able to administer your organization's Power BI environment to create and share dashboards. You will also be able to streamline deployment by implementing security and regular data refreshes. Next, you will delve deeper into the nuances of Power BI and handling projects. You will get acquainted with planning a Power BI project, development, and distribution of content, and deployment. You will learn to connect and extract data from various sources to create robust datasets, reports, and dashboards. Additionally, you will learn how to format reports and apply custom visuals, animation and analytics to further refine your data. By the end of this Learning Path, you will learn to implement the various Power BI tools such as on-premises gateway together along with staging and securely distributing content via apps. This Learning Path includes content from the following Packt products: Microsoft Power BI Quick Start Guide by Devin Knight et al. Mastering Microsoft Power BI by Brett Powell What you will learn Connect to data sources using both import and DirectQuery options Leverage built-in and custom visuals to design effective reports Administer a Power BI cloud tenant for your organization Deploy your Power BI Desktop files into the Power BI Report Server Build efficient data retrieval and transformation processes Who this book is for Microsoft Power BI Complete Reference Guide is for those who want to learn and use the Power BI features to extract maximum information and make intelligent decisions that boost their business. If you have a basic understanding of BI concepts and want to learn how to apply them using Microsoft Power BI, then Learning Path is for you. It consists of real-world examples on Power BI and goes deep into the technical issues, covers additional protocols, and much more.

This comprehensive and authoritative guide will teach you the DAX language for business intelligence, data modeling, and analytics. Leading Microsoft BI consultants Marco Russo and Alberto Ferrari help you master everything from table functions through advanced code and model optimization. You'll learn exactly what happens under the hood when you run a DAX expression, how DAX behaves differently

from other languages, and how to use this knowledge to write fast, robust code. If you want to leverage all of DAX's remarkable power and flexibility, this no-compromise "deep dive" is exactly what you need. Perform powerful data analysis with DAX for Microsoft SQL Server Analysis Services, Excel, and Power BI Master core DAX concepts, including calculated columns, measures, and error handling Understand evaluation contexts and the CALCULATE and CALCULATETABLE functions Perform time-based calculations: YTD, MTD, previous year, working days, and more Work with expanded tables, complex functions, and elaborate DAX expressions Perform calculations over hierarchies, including parent/child hierarchies Use DAX to express diverse and unusual relationships Measure DAX query performance with SQL Server Profiler and DAX Studio

Global Business Intelligence refers to an organization's ability to gather, process and analyze pertinent international information in order to make optimal business decisions in a timely manner. With a challenging economic and geopolitical environment, companies and executives need to be adept at information gathering in order to manage emerging challenges and gain competitive advantages. This book Global Business Intelligence assembles a cast of international experts and thought leaders and explores the implications of business intelligence on contemporary management. Global Business Intelligence will be a key resource for researchers, academics, students and policy makers alike in the fields of International Business & Management, Business Strategy, and Geopolitics as well as related disciplines like Political Science, Economics, and Geography.

In the modern business world, the pace of action continues to quicken. Businesses need to be able to get actionable insights from their data in order to make the right decisions to act rapidly and effectively. Closed Circuit TeleVision (CCTV) cameras have been increasingly deployed pervasively in public spaces including retail centres and shopping malls. Intelligent video analytics aims to automatically analyze content of massive amount of public space video data and has been one of the most active areas of computer vision research in the last two decades. Current focus of video analytics research has been largely on detecting alarm events and abnormal behaviours for public safety and security applications. However, increasingly CCTV installations have also been exploited for gathering and analyzing business intelligence information, in order to enhance marketing and operational efficiency. For example, in retail environments, surveillance cameras can be utilised to collect statistical information about shopping behaviour and preference for marketing (e.g., how many people entered a shop; how many females/males or which age groups of people showed interests to a particular product; how long did they stay in the shop; and what are the frequent paths), and to measure operational efficiency for improving customer experience. Video analytics has the enormous potential for non-security oriented commercial applications. This book presents the latest developments on video analytics for business intelligence applications. It provides both academic and commercial practitioners an understanding of the state-of-the-art and a resource for potential applications and successful practice.

Leverage the computational power of Python with more than 60 recipes that arm you with the required skills to make informed business decisions About This Book Want to minimize risk and optimize profits of your business? Learn to create efficient analytical reports with ease using this highly practical, easy-to-follow guide Learn to apply Python for business intelligence tasks—preparing, exploring, analyzing, visualizing and reporting—in order to make more informed business decisions using data at hand Learn to explore and analyze business data, and build business intelligence dashboards with the help of various insightful recipes Who This Book Is For This book is intended for data analysts, managers, and executives with a basic knowledge of Python, who now want to use Python for their BI tasks. If you have a good knowledge and understanding of BI applications and have a "working" system in place, this book will enhance your toolbox. What You Will Learn Install Anaconda, MongoDB, and everything you need to get started with your data analysis Prepare data for analysis by querying cleaning and standardizing data Explore your data by creating a Pandas data frame from MongoDB Gain powerful insights, both statistical and predictive, to make informed business decisions Visualize your data by building dashboards and generating reports Create a complete data processing and business intelligence system In Detail The amount of data produced by businesses and devices is going nowhere but up. In this scenario, the major advantage of Python is that it's a general-purpose language and gives you a lot of flexibility in data structures. Python is an excellent tool for more specialized analysis tasks, and is powered with related libraries to process data streams, to visualize datasets, and to carry out scientific calculations. Using Python for business intelligence (BI) can help you solve tricky problems in one go. Rather than spending day after day scouring Internet forums for "how-to" information, here you'll find more than 60 recipes that take you through the entire process of creating actionable intelligence from your raw data, no matter what shape or form it's in. Within the first 30 minutes of opening this book, you'll learn how to use the latest in Python and NoSQL databases to glean insights from data just waiting to be exploited. We'll begin with a quick-fire introduction to Python for BI and show you what problems Python solves. From there, we move on to working with a predefined data set to extract data as per business requirements, using the Pandas library and MongoDB as our storage engine. Next, we will analyze data and perform transformations for BI with Python. Through this, you will gather insightful data that will help you make informed decisions for your business. The final part of the book will show you the most important task of BI—visualizing data by building stunning dashboards using Matplotlib, PyTables, and iPython Notebook. Style and approach This is a step-by-step guide to help you prepare, explore, analyze and report data, written in a conversational tone to make it easy to grasp. Whether you're new to BI or are looking for a better way to work, you'll find the knowledge and skills here to get your job done efficiently.

You're intelligent, right? So you've already figured out that Business Intelligence can be pretty valuable in making the right decisions about your business. But you've heard at least a dozen definitions of what it is, and heard of at least that many BI tools. Where do you start? Business Intelligence For Dummies makes BI understandable! It takes you step by step through the technologies and the alphabet soup, so you can choose the right technology and implement a successful BI environment. You'll see how the applications and technologies work together to access, analyze, and present data that you can use to make better decisions about your products, customers, competitors, and more. You'll find out how to: Understand the principles and practical elements of BI Determine what your business needs Compare different approaches to BI Build a solid BI architecture and roadmap Design, develop, and deploy your BI plan Relate BI to data warehousing, ERP, CRM, and e-commerce Analyze emerging trends and developing BI tools to see what else may be useful Whether you're the business owner or the person charged with developing and implementing a BI strategy, checking out Business Intelligence For Dummies is a good business decision.

"While business analytics sounds like a complex subject, this book provides a clear and non-intimidating overview of the topic. Following its advice will ensure that your organization knows the analytics it needs to succeed, and uses them in the service of key strategies and business processes. You too can go beyond reporting!"—Thomas H. Davenport, President's Distinguished

Professor of IT and Management, Babson College; coauthor, Analytics at Work: Smarter Decisions, Better Results Deliver the right decision support to the right people at the right time Filled with examples and forward-thinking guidance from renowned BA leaders Gert Laursen and Jesper Thorlund, Business Analytics for Managers offers powerful techniques for making increasingly advanced use of information in order to survive any market conditions. Take a look inside and find: Proven guidance on developing an information strategy Tips for supporting your company's ability to innovate in the future by using analytics Practical insights for planning and implementing BA How to use information as a strategic asset Why BA is the next stepping-stone for companies in the information age today Discussion on BA's ever-increasing role Improve your business's decision making. Align your business processes with your business's objectives. Drive your company into a prosperous future. Taking BA from buzzword to enormous value-maker, Business Analytics for Managers helps you do it all with workable solutions that will add tremendous value to your business.

Learn to create an effective business strategy using Microsoft's BI stack Microsoft Business Intelligence tools are among the most widely used applications for gathering, providing access to, and analyzing data to enable the enterprise to make sound business decisions. The tools include SharePoint Server, the Office Suite, PerformancePoint Server, and SQL Server, among others. With so much jargon and so many technologies involved, Microsoft Business Intelligence For Dummies provides a much-needed step-by-step explanation of what's involved and how to use this powerful package to improve your business. Microsoft Business Intelligence encompasses a broad collection of tools designed to help business owners and managers direct the enterprise effectively This guide provides an overview of SharePoint, PerformancePoint, the SQL Server suite, Microsoft Office, and the BI development technologies Explains how the various technologies work together to solve functional problems Translates the buzzwords and shows you how to create your business strategy Examines related technologies including data warehousing, data marts, Online Analytical Processing (OLAP), data mining, reporting, dashboards, and Key Performance Indicators (KPIs) Simplifies this complex package to get you up and running quickly Microsoft Business Intelligence For Dummies demystifies these essential tools for enterprise managers, business analysts, and others who need to get up to speed.

Adaptive business intelligence systems combine prediction and optimization techniques to assist decision makers in complex, rapidly changing environments. These systems address fundamental questions: What is likely to happen in the future? What is the best course of action? Adaptive Business Intelligence explores elements of data mining, predictive modeling, forecasting, optimization, and adaptability. The book explains the application of numerous prediction and optimization techniques, and shows how these concepts can be used to develop adaptive systems. Coverage includes linear regression, time-series forecasting, decision trees and tables, artificial neural networks, genetic programming, fuzzy systems, genetic algorithms, simulated annealing, tabu search, ant systems, and agent-based modeling.

This book will show you how to use Power BI effectively to create a variety of visualizations and BI dashboards. Right from gathering data through various data sources, you will learn to perform effective visual analytics. By the end of this book, you will be able to gain unique, hidden insights into your data using Microsoft Power BI.

Business intelligence (BI) has evolved over several years as organizations have extended their online transaction processing (OLTP) capabilities and applications to support their routine operations. With online analytical processing (OLAP), organizations have also established the capability to extract internal and external data from a variety of sources to specifically obtain intelligence about non-routine and often less-structured arrangements. BI therefore refers to applications and technologies that are used to gather, provide access to, and analyze data and information about the operations of an organization. It has the capability of providing comprehensive insight into the more volatile factors affecting the business and its operations, thereby facilitating enhanced decision-making quality and contributing to the creation of business value. Larger and more sophisticated organizations have long been exploiting these capabilities. Business Intelligence for Small and Medium-Sized Enterprises (SMEs) guides SMEs in replicating this experience to provide an agile roadmap toward business sustainability. The book points out that successful BI implementations have generated significant increases in revenue and cost savings, however, the failure rates are also very high. More importantly, it emphasizes that a full range of BI capabilities is not the exclusive purview of large organizations. It shows how SMEs make extensive use of BI techniques to develop the kind of agility endowing them with the organizational capability to sense and respond to opportunities and threats in an increasingly dynamic business environment. It points to the way to a market environment in which smaller organizations could have a larger role. In particular, the book explains that by establishing the agility to leverage internal and external data and information assets, SMEs can enhance their competitiveness by having a comprehensive understanding of the key to an agile roadmap for business sustainability.

Data analysis is an important part of modern business administration, as efficient compilation of information allows managers and business leaders to make the best decisions for the financial solvency of their organizations. Understanding the use of analytics, reporting, and data mining in everyday business environments is imperative to the success of modern businesses. Business Intelligence: Concepts, Methodologies, Tools, and Applications presents a comprehensive examination of business data analytics along with case studies and practical applications for businesses in a variety of fields and corporate arenas. Focusing on topics and issues such as critical success factors, technology adaptation, agile development approaches, fuzzy logic tools, and best practices in business process management, this multivolume reference is of particular use to business analysts, investors, corporate managers, and entrepreneurs in a variety of prominent industries.

Business Intelligence Strategy and Big Data Analytics is written for business leaders, managers, and analysts - people who are involved with advancing the use of BI at their companies or who need to better understand what BI is and how it can be used to improve profitability. It is written from a general management perspective, and it draws on observations at 12 companies whose annual revenues range between $500 million and $20 billion. Over the past 15 years, my company has formulated vendor-neutral business-focused BI strategies and program execution plans in collaboration with manufacturers, distributors, retailers, logistics companies, insurers, investment companies, credit unions, and utilities, among others. It is through these experiences that we have validated business-driven BI strategy formulation methods and identified common enterprise BI program execution challenges. In recent years, terms like "big data" and "big data analytics" have been introduced into the business and technical lexicon. Upon close examination, the

newer terminology is about the same thing that BI has always been about: analyzing the vast amounts of data that companies generate and/or purchase in the course of business as a means of improving profitability and competitiveness. Accordingly, we will use the terms BI and business intelligence throughout the book, and we will discuss the newer concepts like big data as appropriate. More broadly, the goal of this book is to share methods and observations that will help companies achieve BI success and thereby increase revenues, reduce costs, or both. Provides ideas for improving the business performance of one's company or business functions Emphasizes proven, practical, step-by-step methods that readers can readily apply in their companies Includes exercises and case studies with road-tested advice about formulating BI strategies and program plans Business intelligence (BI) used to be so simple—in theory anyway. Integrate and copy data from your transactional systems into a specialized relational database, apply BI reporting and query tools and add business users. Job done. No longer. Analytics, big data and an array of diverse technologies have changed everything. More importantly, business is insisting on ever more value, ever faster from information and from IT in general. An emerging biz-tech ecosystem demands that business and IT work together. Business unIntelligence reflects the new reality that in today's socially complex and rapidly changing world, business decisions must be based on a combination of rational and intuitive thinking. Integrating cues from diverse information sources and tacit knowledge, decision makers create unique meaning to innovate heuristically at the speed of thought. This book provides a wealth of new models that business and IT can use together to design support systems for tomorrow's successful organizations. Dr. Barry Devlin, one of the earliest proponents of data warehousing, goes back to basics to explore how the modern trinity of information, process and people must be reinvented and restructured to deliver the value, insight and innovation required by modern businesses. From here, he develops a series of novel architectural models that provide a new foundation for holistic information use across the entire business. From discovery to analysis and from decision making to action taking, he defines a fully integrated, closed-loop business environment. Covering every aspect of business analytics, big data, collaborative working and more, this book takes over where BI ends to deliver the definitive framework for information use in the coming years. As the person who defined the conceptual framework and physical architecture for data warehousing in the 1980s, Barry Devlin has been an astute observer of the movement he initiated ever since. Now, in Business unIntelligence, Devlin provides a sweeping view of the past, present, and future of business intelligence, while delivering new conceptual and physical models for how to turn information into insights and action. Reading Devlin's prose and vision of BI are comparable to reading Carl Sagan's view of the cosmos. The book is truly illuminating and inspiring. --Wayne Eckerson, President, BI Leader Consulting Author, "Secrets of Analytical Leaders: Insights from Information Insiders"

Data Mining for Business Analytics: Concepts, Techniques, and Applications in Python presents an applied approach to data mining concepts and methods, using Python software for illustration Readers will learn how to implement a variety of popular data mining algorithms in Python (a free and open-source software) to tackle business problems and opportunities. This is the sixth version of this successful text, and the first using Python. It covers both statistical and machine learning algorithms for prediction, classification, visualization, dimension reduction, recommender systems, clustering, text mining and network analysis. It also includes: A new co-author, Peter Gedeck, who brings both experience teaching business analytics courses using Python, and expertise in the application of machine learning methods to the drug-discovery process A new section on ethical issues in data mining Updates and new material based on feedback from instructors teaching MBA, undergraduate, diploma and executive courses, and from their students More than a dozen case studies demonstrating applications for the data mining techniques described End-of-chapter exercises that help readers gauge and expand their comprehension and competency of the material presented A companion website with more than two dozen data sets, and instructor materials including exercise solutions, PowerPoint slides, and case solutions Data Mining for Business Analytics: Concepts, Techniques, and Applications in Python is an ideal textbook for graduate and upper-undergraduate level courses in data mining, predictive analytics, and business analytics. This new edition is also an excellent reference for analysts, researchers, and practitioners working with quantitative methods in the fields of business, finance, marketing, computer science, and information technology. "This book has by far the most comprehensive review of business analytics methods that I have ever seen, covering everything from classical approaches such as linear and logistic regression, through to modern methods like neural networks, bagging and boosting, and even much more business specific procedures such as social network analysis and text mining. If not the bible, it is at the least a definitive manual on the subject." —Gareth M. James, University of Southern California and co-author (with Witten, Hastie and Tibshirani) of the best-selling book An Introduction to Statistical Learning, with Applications in R

Leverage the integration of SQL Server and Office for moreeffective BI Applied Microsoft Business Intelligence shows you how toleverage the complete set of Microsoft tools—includingMicrosoft Office and SQL Server—to better analyze businessdata. This book provides best practices for building complete BIsolutions using the full Microsoft toolset. You will learn how toeffectively use SQL Server Analysis and Reporting Services, alongwith Excel, SharePoint, and other tools to provide effective andcohesive solutions for the enterprise. Coverage includes BIarchitecture, data queries, semantic models, multidimensionalmodeling, data analysis and visualization, performance monitoring,data mining, and more, to help you learn to perform practicalbusiness analysis and reporting. Written by an author team thatincludes a key member of the BI product team at Microsoft, thisuseful reference provides expert instruction for more effective useof the Microsoft BI toolset. Use Microsoft BI suite cohesively for more effective enterprisesolutions Search, analyze, and visualize data more efficiently andcompletely Develop flexible and scalable tabular and multidimensionalmodels Monitor performance, build a BI portal, and deploy and managethe BI Solution

During the 21st century business environments have become more complex and dynamic than ever before. Companies operate in a world of change influenced by globalisation, volatile markets, legal changes and technical progress. As a result, they have to handle growing volumes of data and therefore require fast storage, reliable data access, intelligent retrieval of information and automated decision-making mechanisms, all provided at the highest level of service quality. Successful enterprises are aware of these challenges and efficiently respond to the dynamic environment in which their business operates. Business Intelligence (BI) and Performance Management (PM) offer solutions to these challenges and provide techniques to enable effective business change. The important aspects of both topics are discussed within this state-of-the-art volume. It covers the strategic support, business applications, methodologies and technologies from the field, and explores the benefits, issues and challenges of each. Issues are analysed from many different perspectives, ranging from strategic management to data technologies, and the different subjects are complimented and illustrated by numerous examples of industrial applications. Contributions are authored by leading academics and practitioners representing various universities, research centres and companies worldwide. Their experience covers multiple disciplines and industries, including finance, construction, logistics, and public services, amongst others. Business Intelligence and Performance Management is a valuable source of reference for graduates approaching MSc or PhD programs and for professionals in industry researching in the fields of BI and PM for industrial application. Decision Support and Business Intelligence Systems provides the only comprehensive, up-to-date guide to today's revolutionary management support system technologies, and showcases how they can be used for better decision-making. The 10th edition focuses on Business Intelligence (BI) and analytics for enterprise decision support in a more streamlined book.

For courses on Business Intelligence or Decision Support Systems. A managerial approach to understanding business intelligence systems. To help future managers use and understand analytics, Business Intelligence provides students with a solid foundation of BI that is reinforced with hands-on practice. The second edition features updated information on data mining, text and web mining, and implementation and emerging technologies.

Learn how to leverage the power of R for Business Intelligence About This Book Use this easy-to-follow guide to leverage the power of R analytics and make your business data more insightful. This highly practical guide teaches you how to develop dashboards that help you make informed decisions using R. Learn the A to Z of working with data for Business Intelligence with the help of this comprehensive guide. Who This Book Is For This book is for data analysts, business analysts, data science professionals or anyone who wants to learn analytic approaches to business problems. Basic familiarity with R is expected. What You Will Learn Extract, clean, and transform data Validate the quality of the data and variables in datasets Learn exploratory data analysis Build regression models Implement popular data-mining algorithms Visualize results using popular graphs Publish the results as a dashboard through Interactive Web Application frameworks In Detail Explore the world of Business Intelligence through the eyes of an analyst working in a successful and growing company. Learn R through use cases supporting different functions within that company. This book provides data-driven and analytically focused approaches to help you answer questions in operations, marketing, and finance. In Part 1, you will learn about extracting data from different sources, cleaning that data, and exploring its structure. In Part 2, you will explore predictive models and cluster analysis for Business Intelligence and analyze financial times series. Finally, in Part 3, you will learn to communicate results with sharp visualizations and interactive, web-based dashboards. After completing the use cases, you will be able to work with business data in the R programming environment and realize how data science helps make informed decisions and develops business strategy. Along the way, you will find helpful tips about R and Business Intelligence. Style and approach This book will take a step-by-step approach and instruct you in how you can achieve Business Intelligence from scratch using R. We will start with extracting data and then move towards exploring, analyzing, and visualizing it. Eventually, you will learn how to create insightful dashboards that help you make informed decisions—and all of this with the help of real-life examples.

Offering seven techniques for transforming data into decisions, this text covers these approaches in depth, for both the business decision-maker and the technologist. It shows how to enhance organizational intelligence, both human and artificial. It presents detailed up-to-date coverage of all major AI techniques, including genetic algorhithms, rule-based systems, fuzzy logic, case-based systems and machine learning algorhithms. The book discusses OLAP and data warehousing systems, and shows how to select the most appropriate tool for each business challenge. It includes detailed checklists of key organizational and technical issues, seven detailed case studies, a common methodology, and new analysis techniques.

This software will enable the user to learn about business intelligence roadmap.

For courses on Business Intelligence or Decision Support Systems. A managerial approach to understanding business intelligence systems. To help future managers use and understand analytics, Business Intelligence provides students with a solid foundation of BI that is reinforced with hands-on practice.

Praise for Successful Business Intelligence "If you want to be an analytical competitor, you've got to go well beyond business intelligence technology. Cindi Howson has wrapped up the needed advice on technology, organization, strategy, and even culture in a neat package. It's required reading for quantitatively oriented strategists and the technologists who support them." --Thomas H. Davenport, President's Distinguished Professor, Babson College and co-author, Competing on Analytics "When used strategically, business intelligence can help companies transform their organization to be more agile, more competitive, and more profitable. Successful Business Intelligence offers valuable guidance for companies looking to embark upon their first BI project as well as those hoping to maximize their current deployments." --John Schwarz, CEO, Business Objects "A thoughtful,

clearly written, and carefully researched examination of all facets of business intelligence that your organization needs to know to run its business more intelligently and exploit information to its fullest extent." --Wayne Eckerson, Director, TDWI Research "Using real-world examples, Cindi Howson shows you how to use business intelligence to improve the performance, and the quality, of your company." --Bill Baker, Distinguished Engineer & GM, Business Intelligence Applications, Microsoft Corporation "This book outlines the key steps to make BI an integral part of your company's culture and demonstrates how your company can use BI as a competitive differentiator." --Robert VanHees, CFO, Corporate Express "Given the trend to expand the business analytics user base, organizations are faced with a number of challenges that affect the success rate of these projects. This insightful book provides practical advice on improving that success rate." --Dan Vesset, Vice President, Business Analytics Solution Research, IDC
2016 eLIT GOLD AWARD - BEST BUSINESS REFERENCE BOOKNOMINATED FOR 2016 SMALL BUSINESS BOOK AWARDSToday, an organization's survival ultimately rests on how well (and fast!) it creates value. That's why decision-makers consistently rate business intelligence as one of their top investment priorities. They depend on information to help them compete in a world where disruption is a constant and speed an obsession. But recognizing the need for BI is one thing. Effectively using it to create value is an entirely different matter.Hyper is the essential quick-read guide for busy business and IT professionals struggling to make BI work. Packed with pragmatic advice, proven methods, and real-world tools, this book provides straight talk on how to finally deliver BI in a hyper-responsive, hyper-agile, and hyper-flexible way. Inside you will discover:* Ways to overcome the 4 primary challenges associated with BI planning and execution* Methods to create, validate, and communicate requirements that accelerate decision-making* How to deliver quick wins that drive end-user adoption and long-lasting solutionsPlus, you'll find practical tips from years of hands-on field work. Hyper will change the way you think about, plan, and execute BI. For real results, real fast!TABLE OF CONTENTSForeword"The Age Of The Customer Demands A New Approach To BI Planning and Execution" by Boris Evelson, Vice President and Principal Analyst | Forrester Research, Inc.Section 1 - Understanding BI - Chapter 1 - Value Creation - Chapter 2 - The BI Value Chain - Chapter 3 - Value Enablers - Chapter 4 - The Problem with BISection 2 - The Imperatives for Success - Chapter 5 - Addressing the Problem with BI - Chapter 6 - Unify - Chapter 7 - Simplify - Chapter 8 - Amplify - Chapter 9 - Qualify - Chapter 10 - The Importance of CollaborationSection 3 - Methods to Accelerate Planning - Chapter 11 - Building Requirements for Quick Wins and Beyond - Chapter 12 - Painting the Big Picture - Chapter 13 - Prioritizing Mission-Critical Information Needs - Chapter 14 - Building the Information Universe - Chapter 15 - Validating the Information Model - Chapter 16 - Bridging the Gap Between Business and IT - Chapter 17 - Mapping the Data - Chapter 18 - Creating the Execution Plan - Chapter 19 - Documenting Your FindingsSection 4 - Ways to Accelerate Execution - Chapter 20 - Be Quick and Nimble - Chapter 21 - Socialize, Market and Sell - Chapter 22 - Monitor, Evaluate and Evolve - Chapter 23 - Bringing It All TogetherSection 5 - Beyond Planning and Execution - Chapter 24 - Effective Group Facilitation - Chapter 25 - Thoughts On Information Delivery - Chapter 26 - Another Perspective on Big Data - Chapter 27 - Working With Consultants - Chapter 28 - Characteristics of a Hyper Mindset - Chapter 29 - A Final WordRecommended Resources - Websites - Research Community - Professional Services Organizations - Specialists
Following the footsteps of the first edition, the second edition of Business Intelligence is a full overview of what comprises business intelligence. It is intended to provide an introduction to the concepts to uncomplicate the learning process when implementing a business intelligence program. Over a relatively long lifetime (7 years), the current edition of book has received numerous accolades from across the industry for its straightforward introduction to both business and technical aspects of business intelligence. As an author, David Loshin has a distinct ability to translate challenging topics into a framework that is easily digestible by managers, business analysts, and technologists alike. In addition, his material has developed a following (such as the recent Master Data Management book) among practitioners and key figures in the industry (both analysts and vendors) and that magnifies our ability to convey the value of this book. Guides managers through developing, administering, or simply understanding business intelligence technology Keeps pace with the changes in best practices, tools, methods and processes used to transform an organization's data into actionable knowledge Contains a handy, quick-reference to technologies and terminology.
Praise for the First Edition "This is the most usable decision support systems text. [i]t isfar better than any other text in the field" —ComputingReviews Computer-based systems known as decision support systems (DSS)play a vital role in helping professionals across various fields ofpractice understand what information is needed, when it is needed,and in what form in order to make smart and valuable businessdecisions. Providing a unique combination of theory, applications,and technology, Decision Support Systems for Business Intelligence,Second Edition supplies readers with the hands-on approach that isneeded to understand the implications of theory to DSS design aswell as the skills needed to construct a DSS. This new edition reflects numerous advances in the field as wellas the latest related technological developments. By addressing alltopics on three levels—general theory, implications for DSSdesign, and code development—the author presents anintegrated analysis of what every DSS designer needs to know. ThisSecond Edition features: Expanded coverage of data mining with new examples Newly added discussion of business intelligence andtransnational corporations Discussion of the increased capabilities of databases and thesignificant growth of user interfaces and models Emphasis on analytics to encourage DSS builders to utilizesufficient modeling support in their systems A thoroughly updated section on data warehousing includingarchitecture, data adjustment, and data scrubbing Explanations and implications of DSS differences across culturesand the challenges associated with transnational systems Each chapter discusses various aspects of DSS that exist inreal-world applications, and one main example of a DSS tofacilitate car purchases is used throughout the entire book.Screenshots from JavaScript® and Adobe® ColdFusion arepresented to demonstrate the use of popular software packages thatcarry out the discussed techniques, and a related Web site housesall of the book's figures along with demo versions of decisionsupport

packages, additional examples, and links to developments inthe field. Decision Support Systems for Business Intelligence, SecondEdition is an excellent book for courses on information systems,decision support systems, and data mining at the advancedundergraduate and graduate levels. It also serves as a practicalreference for professionals working in the fields of business,statistics, engineering, and computer technology.