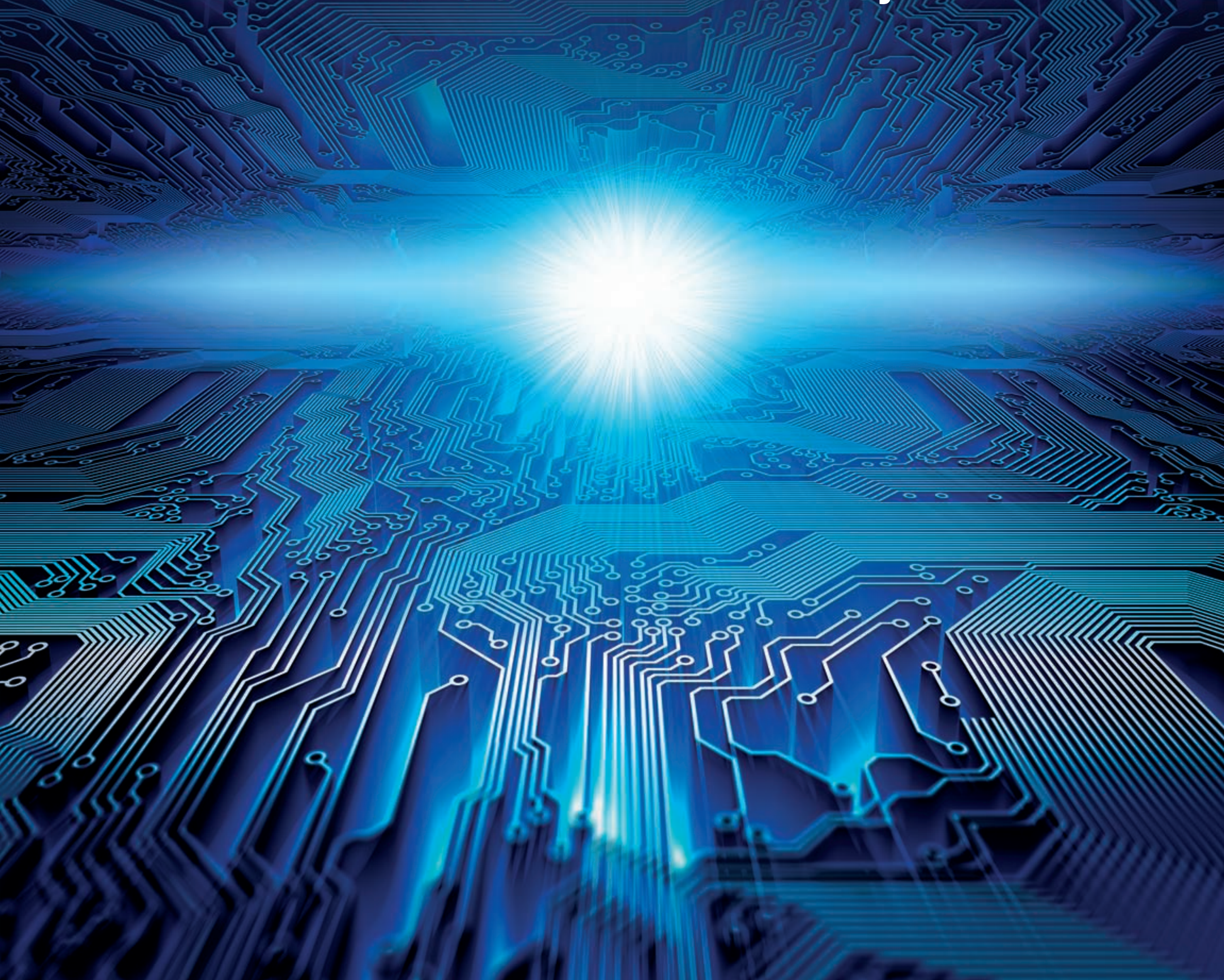
Sixth Edition

MANAGEMENT AND COST ACCOUNTING

Alnoor Bhimani Charles T. Horngren
Srikant M. Datar Madhav Rajan



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MANAGEMENT AND COST ACCOUNTING

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Alnoor Bhimani
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In memory of Charles T. Horngren 1926–2011

Chuck Horngren revolutionised cost and management accounting. He loved new ideas and introduced many new concepts. He had the unique gift of explaining these concepts in simple and creative ways. He epitomised excellence and never tired of details, whether it was finding exactly the right word or working and reworking assignment materials.

He combined his great intellect with genuine humility and warmth and a human touch that inspired others to do their best. He taught us many lessons about life through his amazing discipline, his ability to make everyone feel welcome, and his love of family.

It was a great privilege, pleasure, and honour to have known Chuck Horngren. Few individuals will have the enormous influence that Chuck had on the accounting profession. Fewer still will be able to do it with the class and style that was his hallmark. He was unique, special and amazing in many, many ways and, at once, a role model, teacher, mentor and friend.

He is deeply missed.

Alnoor Bhimani
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Madhav V. Rajan
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AB: For all children whose lives were lost in meaningless violent circumstances in 2014

SD: Swati, Radhika, Gayatri, Sidharth

MVR: Gayathri, Sanjana, Anupama

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PART IV Management control systems and performance issues

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GUIDE TO THE CASE STUDIES

Case number	Case details	Short/long	Manufacturing/service	Budgeting	Pricing	Ethical issues	Environmental issues	Activity-based costing	Behaviour/organisation factors	Cash flow	Costing system	Profit/loss measurement	ROI	Transfer pricing system	Management control system	Balanced scorecard	Performance measurement	Variance	Market assessment/competitor analysis	Tableau de bord	Strategic issues	Profitability	Country/area of origin
	PART 1																						
101	**The European Savings Bank:** Legal and ethical issues involved in software piracy.	short	SS			●			●														Europe
102	**The ethical dilemma at Northlake:** How far does the notion of 'different costs for different purposes' extend?	mid	M			●	●														●		USA
103	**Electronic Boards plc:** Design of costing systems for a firm operating in a high-tech environment. Simplistic vs complex costing.	short	M	●				●	●		●						●				●		N/A
	PART 2																						
201	**Permaclean Products plc:** Analysis of costs and price-demand information using past sales data to make decisions on product pricing.	mid	M		●						●	●										●	UK
202	**Tankmaster Manufacturing Company:** ABC in an altered production environment. Behavioural, organisational and cultural issues are explored.	mid	M					●	●		●										●		UK
203	**Siemens Electric Motor Works:** Considers how a cost system can align with a new corporate strategy.	long	M			●			●	●			●		●		●		●	●			Germany
204	**Colombo Frozen Yogurt:** Explores adapting to competitive markets and development of strategies according to market.	short/mid						●	●		●	●					●		●				USA
	PART 3																						
301	**Zeros plc:** Use of ROI to measure divisional performance. Use of costing systems to produce meaningful profit statements.	mid	M	●	●				●		●	●	●				●					●	UK
302	**Instrumental Ltd:** Analysis of budgeted vs actual performance for different organisational functions. Considers strategic vs operational issues.	mid	M	●	●					●	●	●					●	●			●		UK

Case number	Case details	Short/long	Manufacturing/service	Budgeting	Pricing	Ethical issues	Environmental issues	Activity-based costing	Behaviour/organisation factors	Cash flow	Costing system	Profit/loss measurement	ROI	Transfer pricing system	Management control system	Balanced scorecard	Performance measurement	Variance	Market assessment/competitor analysis	Tableau de bord	Strategic issues	Profitability	Country/area of origin
303	**Hereford Steak Houses:** Use of variance analysis in the restaurant industry. Variance calculations using both standard and flexible budgets.	short	SS	●	●					●		●			●		●	●					UK
	PART 4																						
401	**BBR plc:** Transfer-pricing problem where divisional interests are pitted against total corporate profitability.	mid	M	●	●	●			●		●	●		●			●	●					UK
402	**Cresta Plating Company Ltd:** Considers issues of decentralisation and responsibility.	long	M	●	●	●			●		●	●	●	●	●		●					●	UK
403	**Clayton Industries, Inc.:** Discusses centralisation, sourcing and strategy issues.		SS						●			●			●				●		●		Germany
	PART 5																						
501	**High-Tech Ltd:** Importance of strategy and cost allocation within the IT manufacturing industry. Considers just-in-time inventory systems.	long	M & SS		●			●	●		●	●			●	●			●	●	●		N/A
502	**Empire Glass Company:** Considers control and responsibility alignment issues.																						
503	**Osram:** Analysis of potential savings made by newer, more efficient consumables as opposed to traditionally used ones.	mid/long	M	●	●						●	●							●			●	Germany
504	**Coors:** Demonstrates importance of supply chain management and compares strategies through the use of EVA.	long	M						●		●	●			●	●	●			●			USA

PREFACE

Accounting shapes our lives. It changes organisations and alters our social, economic and physical environment. Whether or not we engage in producing and/or reading accounting information, it influences what we can and cannot do and, therefore, affects our well-being. Corporate decisions regarding new product developments, pricing strategy, staff recruitment and salary levels are generally influenced by accounting information. The way in which a manager acts is often associated with how he or she reacts to accounting data. At times, accounting motivates certain types of behaviour and discourages others. In most organisations, decisions, actions and human behaviour find direct links with the nature, use and focus of accounting information. This text is about understanding the preparation and use of management and cost accounting information in this light.

Whereas management accounting is concerned with the measurement and reporting of financial and other types of information to managers in their pursuit of organisational and other goals, cost accounting is more concerned with information on the acquisition and consumption of resources. Cost accounting tends to provide a useful input into management accounting. Our concern is to encompass both management and cost accounting, stressing particularly the design, use and role of accounting information in the management of organisational activities. The intent is to balance technical detail and organisational insight so as to discuss issues of primary interest to the discharge of management activities. The focus is thus on technical and organisational concepts, analyses and practice vis-à-vis management decision making.

Management and cost accounting is a dynamic discipline which interacts with many facets of the organisational environment in which it exists across nations, industrial settings and management functions. It entails the application both of long-established techniques and of newly emerging concepts. Consequently, the book covers conventional topic areas such as job costing and process costing, cost–volume–profit relationships, capital investment decisions and budgetary control systems in the light of changes in modern-day operational circumstances. In addition, we have addressed innovative approaches in management accounting which relate to, for example, quality concerns, throughput concepts, non-financial performance issues and strategic analysis. Throughout the book's chapters we point to emerging themes within the field of management accounting which are regarded as important for organisations seeking to evolve their management accounting systems. Additionally, we discuss the possible implications for management accounting practices of management and organisational concerns which are recent but fast evolving. We point, therefore, to the relevance of many issues, including sustainability, digitisation, knowledge management and intellectual capital, enterprise governance, Big Data and inter-organisational cost management, which hold significance for potential management accounting practice changes.

We have also explicitly incorporated discussions of the management accounting implications of the use of flexible organisational technologies in the production and delivery of physical goods and services. Further, some of the potential influences of e-business innovations, the 'digitisation' of the economy and Internet technologies on management accounting practices are considered. The rise of Web applications and social networking present important lessons of interest to management accountants. The convergence of telecommunications and digital technologies embedded within the Internet has given rise to the restructuring of business activities while also bringing to the fore questions concerning the continued relevance of established management accounting principles within highly web-enabled enterprises. We are now in a more mature and advanced phase of the growing impact of the Internet on society and the economy.

Although no established body of research exists in this domain, our intent is to highlight some of the management accounting implications brought about by the Internet.

Throughout the text an emphasis is placed on developing a context-based understanding of management and cost accounting practices. By this, we mean that, although generalisations need to be made to introduce topics and issues, it is essential to recognise that these practices are highly dependent upon the situational and organisational factors within which such application takes place. We therefore discuss global themes and concepts in management and cost accounting while stressing the need to understand the context in which it is practised. This focus extends to addressing issues of social and ethical concern. Enterprise governance as an issue of increasing corporate concern is discussed at some length. Likewise, the deployment of social media platforms by enterprises and deriving insights from 'Big Data' analysis are regarded as being of very significant concern to management accounting developments. Rather than accord a separate chapter to consider organisational and social aspects of management accounting, we integrate this perspective throughout the text to lend it a greater degree of realism.

This text pays particular attention to concerns and issues within an international setting. Our endeavour to cover fundamental concepts and techniques of management and cost accounting, while also highlighting the diversity of approaches and practices which management and cost accounting are viewed to encompass in different countries, has made the writing of this text a unique and interesting challenge. We draw comfort from the realisation that other management accounting texts have begun to attempt to present a similar mix of practical examples, case studies and coverage of research findings while also sharing our preference for the format and structure adopted here. In this edition we provide new illustrative examples, survey findings and case studies relating to many global enerprises, and have drawn on a wide range of business writings. This is regarded as an important feature of this book, especially with the growing number of economies which are shaped by and affect globalisation forces. Moreover, we consider management accounting changes under the 'new normal' conditions facing economies as they recover from the global economic crisis which started in 2008.

Deciding on the sequence of chapters in a management and cost accounting textbook which spans introductory through to relatively detailed analysis of material is a challenge. Every lecturer has a favourite way of organising his or her course. The five-part structure of this text and the sequencing of chapters have been designed to facilitate fexibility and diversity in the teaching of different topic areas and the use of the text for a range of courses and levels. An outline of the coverage and component chapters of each part is given in the part openers.

Assessment material

This book includes a high quantity and broad range of assessment material to further facilitate the use of the text on a diverse range of courses:

- **Review questions** These short questions encourage students to review and/or critically discuss their understanding of the main topics and issues covered in each chapter, either individually or in a group.
- **Exercises** These comprehensive questions are graded and grouped by their level of difficulty: basic, intermediate and advanced. Each question is preceded by a note of its topic coverage and an indication of the time it should take to complete. Where appropriate, the exercises include questions taken from recent examinations of several professional accountancy bodies. There is an average of fourteen exercises per chapter. Fully worked solutions to a selection of exercises in each chapter (identified by an asterisk) are provided in Appendix A.

Case study problems

At the end of each of the five parts are problem-based illustrative cases. Each is more substantive and typically more demanding than the end-of-chapter exercises, integrating topics from several chapters in each of the core parts of the text, allowing you to apply your understanding of accounting concepts, issues and techniques within a broader organisational context, and to develop your critical thinking and analytical skills. The questions which follow the case material include some aspects suitable for group discussion/assignment.

Appendix B: Compound and interest rate tables

Students will need to use these tables in studying Chapter 13 of the text and undertaking the end-of-chapter exercises. For ease of reference, we recommend students make a photocopy of these pages.

Glossary

This comprises an alphabetical listing of all the key terms, including a concise definition, so allowing revision of all the key concepts and techniques in the text.

Academic supplements

Lecturers who adopt this text are provided with a range of additional materials to assist in the preparation and delivery of courses. These include:

- complete, downloadable Instructor's Manual with teaching ideas and solutions to end-of-chapter exercises not given in the text;
- suggested solutions to all case study problems;
- editable PowerPoint slides and overhead projector masters, organised by chapter, allowing you to provide a lecture or seminar presentation (and/or to print handouts). These incorporate colourful graphics, outlines of chapter material, text exhibits, additional examples and graphical explanations of difficult topics;
- solutions to additional questions and spreadsheet problems.

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Srikant Datar
Madhav Rajan
January 2015

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PART I

Management and cost accounting fundamentals

The first part of the book is intended to provide an introduction to fundamental concepts and ideas in management and cost accounting. Chapter 1 considers the role of accounting and accountants in organisations. Chapters 2–7 discuss relevant technical and broader organisational issues in the design and functioning of cost systems. Specifically, Chapter 2 provides an introduction to costing terminology and its aims. Chapters 3 and 4 discuss what might be considered ends of a continuum in costing systems: job order costing and process costing. Chapter 5 addresses fundamental cost allocation issues while Chapter 6 deals with joint-costing situations. The final chapter in this part discusses absorption costing and variable costing as two distinct approaches to stock costing.

CHAPTER 1

The accountant's role in the organisation

Former accountants have headed many large companies across the world, including Coca-Cola, P&O, Gulf Oil, Bass, Royal Bank of Scotland, Asda and Nike. Finance leaders' roles in organisations change continuously. About 30% of Fortune 500 (the 500 largest US industrial corporations by revenue) Chief Executive Officers spend the first four years of their careers developing a strong foundation in finance (Sanders 2011). In the UK, half of FTSE 100 (a share index of the 100 companies listed on the London Stock Exchange with the highest market capitalisation) CEOs have a background in accounting or financial management (Savage 2014). What is clear is that from back office accountant to front-line executive, the rapid rise of the chief financial officer is unrivalled by any other corporate role (Karaian 2014). Certainly, since the global financial crisis of 2008, accountants are far more involved in risk management, business strategy and communications than ever before (CFO/ACCA 2009). The evidence points to a growing managerial engagement by accountants in modern enterprises. In many organisations, the accountant's duties are intertwined with management planning, control and decision making. Accounting in such organisations is considered to provide a very good training field for senior management positions.

The study of management and cost accounting yields insights into the changing roles and relationships between managerial activities and accounting intelligence. What types of decisions do managers make? How can accounting help managers make these decisions? Are managerial needs proactively being met by management and cost accounting solutions? This book addresses these questions. In this chapter we look at some dimensions of the role of management accounting in modern enterprises, why management accounting is subject to continual change and where the accountant fits into the organisation. A consideration of these issues will give us a framework for studying the succeeding chapters.

Learning objectives

After studying this chapter, you should be able to:

- Differentiate management accounting from financial accounting and cost management
- Recognise the growing role of strategy in management accounting processes
- Identify five broad purposes of accounting systems
- Understand how accounting can influence planning, control and decision making
- Distinguish between the scorekeeping, attention-directing and problem-solving functions of management accounting
- Recognise that economic benefits and costs are to be considered alongside contextual and organisational process issues in the design, implementation and use of accounting systems
- Describe evolving themes that are shaping management accounting systems
- Discuss forces of change in management accounting, including enterprise structure, digitisation, intellectual capital and knowledge management

Accounting, costing and strategy

Management accounting, financial accounting and cost accounting

A distinction is often made in practice between management accounting and financial accounting. **Management accounting** measures and reports financial information as well as other types of information that are intended primarily to assist managers in fulfilling the goals of the organisation. Additionally, a management accounting system is an important facet of overall organisational control, as is discussed later in this book. The Chartered Institute of Management Accountants (CIMA) – the largest association of management accountants in the UK – considers management accounting to be an integral part of management. It considers management accounting as combining accounting, finance and management with the leading-edge techniques needed to drive successful businesses. Professional management accountants apply the principles of accounting and financial management to create, protect, preserve and increase value for the shareholder of for-profit and not-for-profit enterprises in the public and private sectors. They might engage in the identification, generation, presentation, interpretation and use of relevant information relevant to:

- inform strategic decisions and formulate business strategy;
- plan long-, medium- and short-term operations;
- determine capital structure and fund that structure;
- design reward strategies for executives and shareholders;
- inform operational decisions;
- control operations and ensure the efficient use of resources;
- measure and report financial and non-financial performance to management and other stakeholders;
- implement corporate governance procedures, risk management and internal controls;
- explore the potential for managerial and organisational value creation.

Financial accounting focuses on external reporting that is directed by authoritative guidelines. Organisations are required to follow these guidelines in their financial reports to outside parties. **Cost accounting** measures and reports financial and non-financial information related to the organisation's acquisition or consumption of resources. It provides information for both management accounting and financial accounting.

Financial accounting is guided by prescribed accounting principles. These principles define the set of revenue and cost measurement rules and the types of item that are classified as assets, liabilities or owners' equity in balance sheets. Sources of authority for accounting regulation differ across countries. In Spain, for instance, the Instituto de Contabilidad y Auditoria de Cuentas (ICAC) has been appointed by the government for this purpose. In the UK, the Financial Reporting Council has the authority to issue accounting standards. The FRC's regulator philosophy is underpinned by its belief that promoting confidence in corporate reporting and governance can make the creation of wealth more likely. In France, the Autorité des Normes Comptable (ANC), a public body, oversees accounting legislation, whereas in Denmark, the Føreningen af Statsautoriserede Revisører (FSR), a professional accounting body, oversees the setting of accounting standards. Other bodies which are concerned with accounting standards include: in Australia, the Australian Accounting Standards Board (AASB); in China, the China Accounting Standards Committee (CASC); and in South Africa, the South Africa Accounting Standards Board. In contrast, management accounting is not restricted by those accounting principles acceptable for financial reporting. For example, a car manufacturer may present a particular estimated 'value' of a brand name (say, the Volvo brand name) in its *internal* financial reports for marketing managers, although doing so is not in accordance with the legal framework within which externally oriented financial reports can be prepared in Sweden.

In some countries, close links exist between accounting information produced internally for managers and that intended for the compilation of external financial accounts. For instance, the French Plan Comptable Général (PCG) provides a model for integrating the needs of corporate management with the requirements of statute and fiscal authorities. In Portuguese enterprises, the Chart of Accounts is used both as a detailed coding matrix and as a management tool and a way of involving personnel in the operations of their individual organisations (see Alexander et al. 2011).

While the work of management accountants and financial accountants tends to be organisation-specific, some broad differences generally exist. They may be categorised as follows:

- *Regulations*. Management accounting reports are generally prepared for internal use and no external regulations govern their preparation. Conversely, financial accounting reports are generally required to be prepared according to accounting regulations and guidelines imposed by law and the accounting profession.
- *Range and detail of information*. Management accounting reports may encompass financial, non-financial and qualitative information which may be very detailed or highly aggregated. Financial accounting is usually broad-based, lacking detail and intended to provide an overview of the position and performance of an organisation over a time period. It tends to focus on financial information.
- *Reporting interval*. Management accounting reports may be produced frequently – on an hourly, daily or weekly basis, possibly to span several years. The interval covered by management accounting information will be dictated by the decision-making and control needs of the information users. Conversely, financial accounting reports are produced annually. Some large companies also produce semi-annual and quarterly reports.
- *Time period*. Management accounting reports may include historical and current information but also often provide information on expected future performance and activities. Financial accounting reports provide information on the performance and position of an organisation for the past period. They tend to be backward-looking.

Cost management and accounting systems

A central task of managers is cost management. We use the term **cost management** to describe the actions managers undertake in the short-run and long-run planning and control of costs that increase value for customers and lower the costs of products and services.

An important component of cost management is the recognition that prior management decisions often commit the organisation to the subsequent incurrence of costs. Consider the costs of handling materials in a production plant. Decisions about plant layout and the extent of physical movement of materials required for production are usually made before production begins. These decisions greatly influence the level of day-to-day materials handling costs once production begins. For this reason, cost management has a broad focus. It typically includes the continuous reduction of costs and encompasses the whole life cycle of the product from product conception to deletion. Cost management is often carried out as a key part of general management strategies and their implementation. Examples include enhanced customer satisfaction programmes, quality initiatives and more efficient supplier relationships management via the Internet.

Managers around the globe are becoming increasingly aware of the importance of the quality and timeliness of products and services sold to their external customers. In turn, accountants are particularly sensitive to the quality and timeliness of accounting information required by managers. For example, a management accounting group at Johnson & Johnson (a manufacturer of many consumer products) has a vision statement that includes the phrases 'delight our customers' and 'be the best'. The success of management accounting depends on whether managers perceive their decisions as being improved by the accounting information provided to them. This does not necessarily imply that management accountants should shed past techniques and practices, but that they will undergo change in line with how they and other managers believe they can be most effective. There is evidence that, in many organisations, accountants are regarded as 'hybrid accountants' who combine the skills of business managers with those of accountants. Scapens notes that:

> **The accountants' analytical skills, supplemented by extensive knowledge of the business, can put the management accountant in a position to recognise the more strategic impacts and value creation potential of decisions taken in the individual areas of the business. Such a role for the management accountant is crucial for the organisation as it helps to integrate the various activities and functions of the business.** (2006, p. 339)

Management accounting's primary purpose is to enhance value creation within both private and public sector organisations. The management accountant must make use of a sound body of knowledge as well as abide by ethical guidelines (discussed in the appendix of this chapter). Of particular relevance is the growing contribution which management accountants make to strategic financial management information production and analysis and to strategic management action itself.

Strategic decisions and management accounting

Many organisations seek to be more expansionist, entrepreneurial, risk taking and innovative as a conscious move away from inwardly focused management techniques. Entirely new markets are emerging for products and services and avant-garde innovative firms are reaping significant benefits. Consider, for instance, the Oculus Rift, a virtual reality headset produced by the company Ocular VR. Facebook's CEO Mark Zuckerberg paid $2 billion for the company in 2014 to help Facebook's mission to 'make the world more open and connected' (Zuckerberg 2014) by tying in to Oculus VR's mission 'to experience the impossible'. Zuckerberg says of the headset 'When you put it on, you enter a completely immersive computer generated environment, like a game, or a movie scene or a place far away. The incredible thing about the technology is that you feel like you're actually present in another place with other people.' Peter Berkman (www.peterberkman.tumblr.com/post/80827337212) identifies Facebook's value creation possibilities from the Oculus VR acquisition:

> **Between head and iris tracking, in-game data, and Facebook's incredible systems – there will be a plethora of information to mine . . . Facebook will know where you're looking, what you're doing, and how long you do it. . . . When they cross-reference that with all the other information they already have on a billion people . . . the data is actively . . . used as a way to make Facebook more revenue.**

Big Data analysis is altering the value creation possibilities that are increasingly open to companies and, as a consequence, the opportunities for management accounting practitioners to process different forms of data in diverse ways for managerial use. Consider also the service of M-PESA, which is operated by Safaricom – Kenya's largest mobile operator. M-PESA is used by more than a quarter of the country's population to 'zap' money via mobile telephones from one location to another. Customers can convert real money into 'e-float', which is credited to a person's mobile-money account. E-float can be used to make purchases or it can be converted into cash by M-PESA agents. The system has altered significantly the economics of trading. Such forays into new markets via technological innovations have many financial implications which management accounting tools can help assess.

Research reveals that companies that emphasise creating long-term value for shareholders are likely to outperform those that focus on preserving shareholder value in the short term. Companies whose primary focus is on internal control and value preservation do not increase their stock market valuations as effectively as those that look outside for opportunities to create value. Outperformers in business are those with the strategic and external awareness to evolve and change when need arises. Studies have also revealed that performance-based pay focusing on highly tangible near-term measurable variables damages the creation of longer-term shareholder value. At the heart of such findings are the emerging roles that management accounting is starting to play in enterprises. Management accounting information is called upon not only to help managers make balanced decisions in the face of organisational changes and the opportunities their environments offer but increasingly also to monitor and evaluate strategic progress.

The trend for professional institutes of management accounting is to reorient the field towards strategic management information preparation and analysis and the actual participation of management accountants in such activities. Operational accounting techniques and issues continue to be relevant but their roles are being recasted in the context of their contributions and relationships with organisation-wide financial management and strategic concerns.

The shift towards managerial and strategic engagement rather than just acting as providers of largely financial information about enterprises allows management accountants to align their work to the changing business and organisational landscape. The beginning of the millennium has seen a radical shift in the economic context in which companies operate. Early in the twentieth century, the Ford Motor Company demonstrated the ability of mass production to lower the price of a product by 60% or more. This enables consumption to move its focus away from elite consumers to the masses. Today, another transformation is taking place away from mass consumption to a focus on individuals. New societal and enterprise forms are being created to serve individual end-users. Consumers, in many sectors, are building platforms, tools and relationships which enable a high degree of personalisation. Companies such as Amazon.com, eBay, Apple, YouTube and Facebook fall into this new category. Interactive technologies allow consumers greater self-determination. The owner of a tablet computer, for instance, is allowed a new experience where consumption is self-defined at a fraction of the old cost. Assets, information, relationships and management are now 'distributed' because of the availability of the Internet, mobile computing, wireless broadband and new software applications. As a result, individualised goods and services can now be experienced at very low costs. Organisations are strategically seeking to engage in a form of 'distributed capitalism' (Zuboff 2010). Management accountants are now called upon to understand, control and manage such new cost structures. Even though many management accounting concepts used in traditional industrial and service sectors continue to find application, new circumstances are also reshaping management accounting activities.

Accounting systems and management controls

What are the objectives of accounting systems? Is Tata's management control system more effective than Audi's? Is Nestlé's more effective at planning than Cadbury's? This section provides an overview of the broad purposes of accounting and management control systems, illustrating the role of accounting information.

The major purposes of accounting systems

The accounting system is among the most significant quantitative information systems in almost every organisation. This system aims to provide information for five broad purposes:

- *Purpose 1: Formulating overall strategies and long-range plans*. This includes new product development and investment in both tangible (equipment) and intangible (brands, patents or people) assets, and frequently involves special-purpose reports. Increasingly, many organisations seek market-, supplier- and customer-based information for determining longer-term strategic action.

- *Purpose 2: Resource allocation decisions such as product and customer emphasis and pricing*. This frequently involves reports on the profitability of products or services, brand categories, customers, distribution channels, and so on.
- *Purpose 3: Cost planning and cost control of operations and activities*. This involves reports on revenues, costs, assets, and the liabilities of divisions, plants and other areas of responsibility.
- *Purpose 4: Performance measurement and evaluation of people*. This includes comparisons of actual results with planned results. It can be based on financial or non-financial measures.
- *Purpose 5: Meeting external regulatory and legal reporting requirements where they exist*. Regulations and statutes often prescribe the accounting methods to be followed. Financial reports are provided by some organisations to shareholders who are making decisions to buy, hold or sell company shares. These reports ordinarily attempt to adhere to authoritatively determined guidelines and procedures which exist in many European countries.

Each of the purposes stated here may require a different presentation or reporting method. Accountants combine or adjust the method and data to answer the questions from particular internal or external users.

The nature of management-oriented accounting information alters in line with changes in the business environment. Over the past decade, many enterprises have experienced a shift from a traditional monitoring and control perspective to a more business- and support-oriented focus. This requires a broad-based understanding of the business, with management accountants working alongside managers in cross-functional teams rather than in a separate accounting function. Some present-day key influences on changes in accounting information include:

- an increased pace of change in the business world
- shorter product life cycles and competitive advantages
- a requirement for more strategic action by management
- the emergence of new companies, new industries and new business models
- the outsourcing of non-value-added but necessary services
- increased uncertainty and the explicit recognition of risk
- novel forms of reward structures
- increased regulatory activity and altered financial reporting requirements
- more complex business transactions
- increased focus on customer satisfaction
- new ethics of enterprise governance
- the need to recognise intellectual capital
- enhancing knowledge management processes.

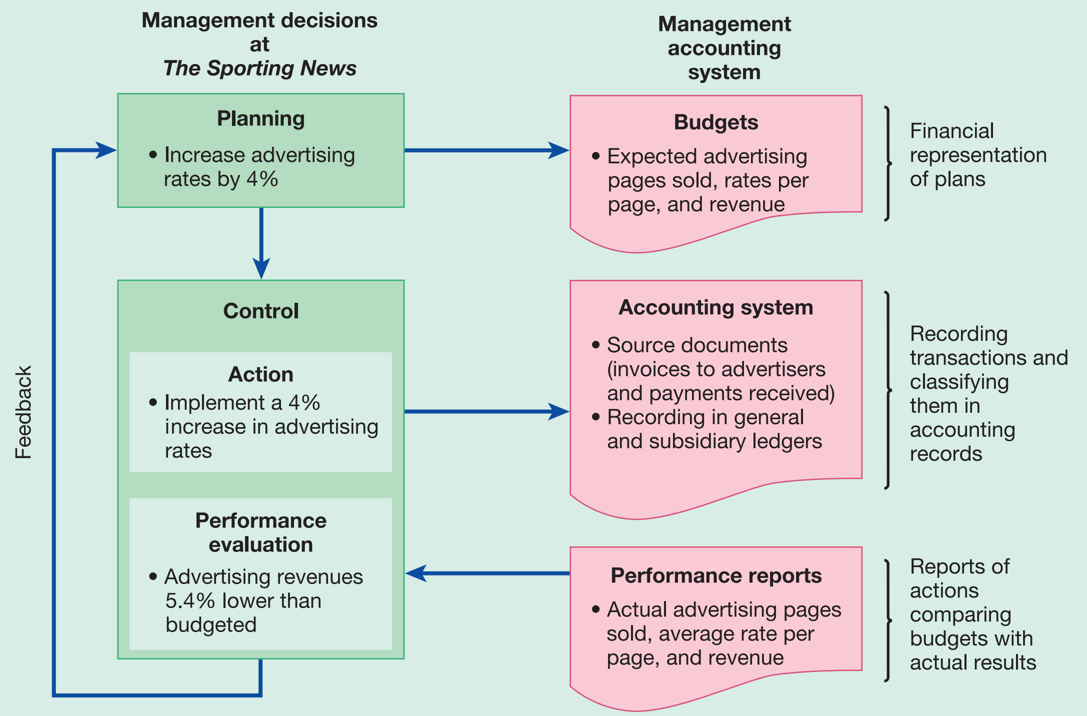
In this book we consider the accounting information implications of many of these developments.

Planning and control

There are many definitions of planning and control. Study the left side of Exhibit 1.1, which uses planning and control at *The Sporting News* (SN) as an illustration. We define **planning** (the top box) as choosing goals, predicting results under various ways of achieving those goals, and then deciding how to attain the desired goals. For example, one goal of SN may be to increase operating profit. Three main alternatives are considered to achieve this goal:

1. Change the price per newspaper.
2. Change the rate per page charged to advertisers.
3. Reduce labour costs by having fewer workers at SN's printing facility.

Exhibit 1.1 How accounting facilitates planning and control



Assume that the editor, Bérangère Saunier, increases advertising rates by 4% to €5200 per page for March 2015. She budgets advertising revenue to be €4 160 000 (€5200 × 800 pages predicted to be sold in March 2015). A **budget** is the quantitative expression of a plan of action and an aid to the coordination and implementation of the plan.

Control (the bottom box in Exhibit 1.1) covers both the action that implements the planning decision and deciding on performance evaluation and the related feedback that will help future decision making. With our SN example, the action would include communicating the new advertising-rate schedule to SN's marketing sales representatives and advertisers. The performance evaluation provides feedback on the actual results.

During March 2015, SN sells advertising, sends out invoices and receives payments. These invoices and receipts are recorded in the accounting system. Exhibit 1.2 shows the March 2015

Exhibit 1.2 Advertising revenue performance report at *The Sporting News* for March 2015

	Actual results	Budgeted amounts	Variance
Advertising pages sold	760	800	40 unfavourable
Average rate per page	€5 080	€5 200	€120 unfavourable
Advertising revenue	€3 860 800	€4 160 000	€299 200 unfavourable

advertising revenue performance report for SN. This report indicates that 760 pages of advertising (40 pages less than the budgeted 800 pages) were sold in March 2015. The average rate per page was €5080 compared with the budgeted €5200 rate, yielding actual advertising revenue in March 2015 of €3 860 800. The actual advertising revenue in March 2015 is €299 200 less than the budgeted €4 160 000. Understanding the reasons for any difference between actual results and budgeted results is an important part of **management by exception**, which is the practice of concentrating on areas not operating as expected (such as a cost overrun on a project) and placing less attention on areas operating as expected. The term **variance** in Exhibit 1.2 refers to the difference between the actual results and the budgeted amounts.

The performance report in Exhibit 1.2 could spur investigation. For example, did other newspapers experience a comparable decline in advertising revenue? Did the marketing department make sufficient efforts to convince advertisers that, even with the new rate of €5200 per page, advertising in the SN was a good buy? Why was the actual average rate per page €5080 instead of the budgeted rate of €5200? Did some sales representatives offer discounted rates? Did a major advertiser threaten to transfer its advertising to another newspaper unless it was given a large rate-per-page reduction? Answers to these questions could prompt Saunier to take subsequent actions, including, for example, pushing marketing personnel to renew efforts to promote advertising by existing and potential advertisers.

A well-conceived plan includes enough flexibility so that managers can seize opportunities unforeseen at the time the plan is formulated. In no case should control mean that managers cling to a pre-existing plan when unfolding events indicate that actions not encompassed by the original plan would offer the best results to the company.

Planning and control are so strongly intertwined that managers do not spend time drawing artificially rigid distinctions between them. Unless otherwise stated, we use control in its broadest sense to denote the entire management process of both planning and control. For example, instead of referring to a management planning and control system, we will refer to a management control system. Similarly, we will often refer to the control purpose of accounting instead of the awkward planning and control purpose of accounting.

Do not underestimate the role of individuals and groups in management control systems. Both accountants and managers should always remember that management control systems are not confined to technical matters such as the type of computer system used and the frequency with which reports are prepared. Management control is primarily a human activity that tends to focus on how to help individuals do their jobs better. For example, it is often better for managers to discuss personally with underperforming workers how to improve performance rather than just sending those workers a report highlighting their underperformance.

Moreover, do not view accounting's intended roles as being shared by all organisations. Accounting practice tends to be informed by technical considerations but is always indicative of many organisational, social and political processes which are specific to the enterprise context. Thus, two equally profitable companies of the same size within the same industry and having comparable accounting systems at their disposition may exhibit very different uses and purposes served by these accounting systems. This is because, although accounting systems may be designed with similar aims in mind, users of accounting information will perceive different possibilities and priorities as to the roles accounting can play within their organisations. Do not be surprised to see accounting systems in practice being used in ways which reflect the preferences and idiosyncrasies of their users rather than the predefined functions identified by accounting information system designers.

Feedback: a major key

Exhibit 1.1 shows a feedback loop from control back to planning. Feedback involves managers examining past performance and systematically exploring alternative ways to improve future performance. It can lead to a variety of responses, including the following: