KIM LANGFIELD-SMITH ▸ DAVID SMITH ▸ PAUL ANDON ▸ HELEN THORNE

MANAGEMENT ACCOUNTING

Information for creating and managing value

9TH EDITION

Mc Graw Hill

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PREFACE

Management accounting is a dynamic, constantly changing area. It must remain relevant to organisational needs in today's business world of global markets, irrepressible innovation and digital disruption. To understand the nature of management accounting practice, it is important to understand broader aspects of business practice across a range of areas, including strategy, marketing, human resource management, operations management and organisational behaviour. Management accounting both draws on and contributes to these areas.

Our approach in presenting this subject to students and managers is to focus on cutting-edge management accounting as practised by leading organisations in Australia and overseas, while at the same time acknowledging that some firms are satisfied with more traditional approaches. A key way in which we do this is through the inclusion of 'Real life' examples, where we provide practical illustrations of how organisations employ the techniques described in the text. Many of the 'Real life' sections are new or have been updated. They reflect the latest in business practice and include a number of direct examples from client work conducted by leading business advisory firm KordaMentha. We have also substantially revised the end-of-chapter questions, exercises, problems and cases, revising up to half the questions in each chapter.

Since the first edition of this book appeared in the early 1990s, there have been dramatic changes in thinking about the role of management accounting in organisations. Once it was sufficient to describe management accounting as being concerned with providing information for planning and control, and for decision making. However, the role of management accounting is now more complex. It is now concerned with the processes and technologies that enable the effective use of organisational resources to support managers in enhancing customer and shareholder value. Supply chain management approaches provide a framework for integrating contemporary cost management and performance measurement. The issue of sustainability is now increasingly important as businesses seek to understand and manage any adverse impact they have on the environment and society. Improvements in technology, and the development of data analytic and data visualisation tools also have potentially significant implications for the nature of the role of the management accountant. Our ninth edition includes substantial coverage of these issues in Chapter 3.

The processes and technologies of management accounting that enhance shareholder and customer value are evolving over time and require an intimate knowledge of the nature of the business, its markets, its strategy and its people. Someone working in the management accounting area in the 2020s needs to not only understand the internal characteristics of a business, but also have a detailed knowledge of competitors, customers and suppliers. Over the decades the practice of management accounting has developed to become more integrated with the process of management, and less a part of the practice of accounting, with management accountants playing a significant role as part of the management team. As such, management accountants have the ability to significantly shape an organisation's strategic direction.

The book has been written primarily as a text for one- or two-semester undergraduate management accounting courses. The references at the end of each chapter provide guidance on additional readings. With its description of current practice and strong emphasis on the new developments in management and management accounting, this book also provides a sound foundation for a management accounting unit within an MBA course.

While the origins of this text can be traced to the US text, *Managerial Accounting,* by Ronald Hilton, it has always differed from its US counterpart. The Australian book takes a broad perspective in viewing management accounting as the efficient and effective use of resources, supporting managers in the improvement of customer and shareholder value. The rapidly changing business environment is seen as having implications for the development of new approaches to management accounting, as highlighted through the many 'Real life' cases presented in the book, which focus on current management accounting practices and issues faced by organisations in Australia, New Zealand and the wider Asia–Pacific region.

We sincerely welcome any comments or suggestions from the lecturers and students who use this text.

Kim Langfield-Smith
David Smith
Paul Andon
Helen Thorne

ABOUT THE AUTHORS

Kim Langfield-Smith

Kim has a BEc from the University of Sydney, an MEc from Macquarie University and a PhD from Monash University. She is a fellow of CPA Australia and a graduate of the Australian Institute of Company Directors. She is an emeritus professor at Monash University. Kim is also the principal of Langfield-Smith Consulting, advising universities and government on research strategy and performance, governance and compliance. During her academic career she was Vice Provost at Monash University and Professor of Management Accounting. Prior appointments were at La Trobe University, the Universities of Melbourne and Tasmania, and the University of Technology, Sydney.

Her research interests are in the area of management control systems, and she has published in journals including *Accounting, Organizations and Society*; *Journal of Management Accounting Research*; *Management Accounting Research*; *Behavioral Research in Accounting; Journal of Accounting Literature;* and *Journal of Management Studies.*

Kim has played an active role in the accounting profession. She was chair of the Professional Qualifications Advisory Committee of CPA Australia, and a member of the International Accounting Education Standards Board (IAESB), representing the CA ANZ and CPA Australia. In 2014 she received a Lifetime Achievement Award from CPA Australia.

David Smith

David has a BCom (Honours) from La Trobe University and a PhD from Monash University. He is currently the Dean of the School of Accounting, Information Systems and Supply Chain at RMIT University. He previously held professorial appointments at Monash University and the University of Queensland.

David's research is in the area of management control systems, with a particular focus on performance measurement, and his research has been published in journals including *Accounting, Organizations and Society*; *Management Accounting Research*; *Behavioral Research in Accounting*; *Journal of Accounting Literature*; and *Accounting, Auditing and Accountability Journal.* He currently serves as an editor at *Behavioral Research in Accounting* and *Accounting and Finance,* as well as serving on several editorial boards.

David has been actively involved in the accounting profession and served as a board member of the Accounting and Finance Association of Australia and New Zealand (AFAANZ) for a number of years. David is also a past Chair of the Chartered Institute of Management Accountants' (CIMA) Centre of Excellence Australasia Research Panel.

Paul Andon

Paul has a BCom (Honours), MCom (Honours) and PhD from UNSW Sydney. He is a Professor in Accounting and Head of the School of Accounting, Auditing and Taxation at UNSW Sydney. Paul is also a Fellow of Chartered Accountants Australia and New Zealand. Paul teaches and researches in the areas of management accounting, fraud and control systems. His research in these areas has been published in leading international journals, including *Accounting, Organizations and Society*; *Journal of Management Studies*; *Management Accounting Research*; *Accounting, Auditing and Accountability Journal*; *Critical Perspectives on Accounting*; and *Journal of Business Ethics.* Recently, Paul received a major Australian Government research grant to study offender strategies and other factors mitigating against the effectiveness of management controls to prevent/detect serious workplace fraud.

Before commencing his academic career, Paul worked in a large professional services firm. He remains active in the accounting profession through his involvement with McGrathNicol's Financial Crime Exchange. Paul was also previously involved in Chartered Accountants Australia and New Zealand's CA Program.

Helen Thorne

Helen has a BEc and DipAcc from Flinders University, and a PhD from the University of Adelaide. She was Professor and Head of the International Graduate School of Business at the University of South Australia. Helen has also held appointments in the Graduate School of Management and the Commerce Department at the University of Adelaide.

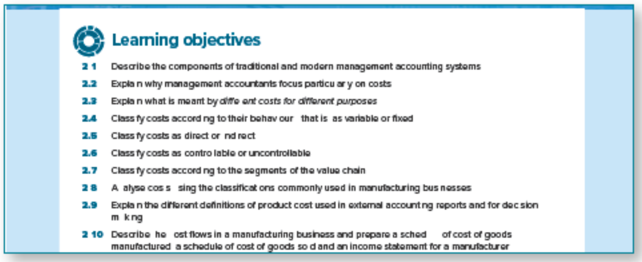
Her research focused on contemporary approaches to management accounting, including activity-based costing and strategic performance measurement systems, and she has published in a number of journals including *Journal of Accounting Literature*; *Journal of Cost Management*; *Advances in Management Accounting*; and *Australian Accounting Review.*

Before commencing her academic career, Helen worked as a management accountant with a major international company. Since then she has maintained her interests in the 'real world'. She is a past member of CPA Australia and has undertaken consulting work in management accounting for a number of organisations in the manufacturing and service industries.

TEXT AT A GLANCE

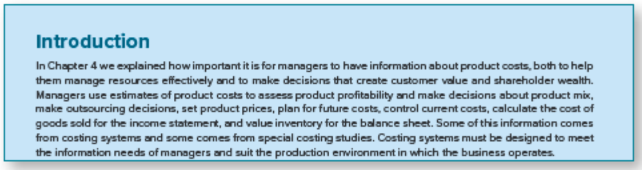
Learning objectives

Learning objectives map out the topics and learning goals of each chapter. End-of-chapter activities are linked to learning objectives, providing an opportunity to assess your understanding of the content.



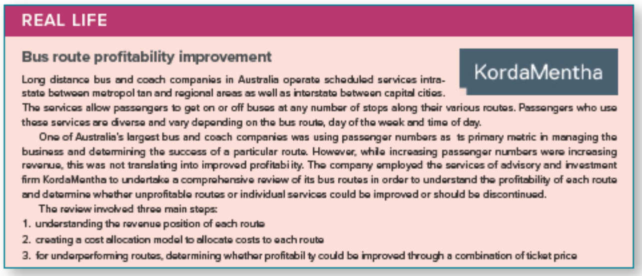
Chapter introduction

The start of each chapter features a chapter introduction providing an overview of the material to be covered and links to relevant topics in previous chapters.



‘Real life’ features

Theory is one thing—but what happens in reality? The ‘Real life’ case studies in each chapter showcase examples of management and management accounting in action, largely within Australian and New Zealand organisations. A number of these short case studies have been written by leading business advisory firm KordaMentha.

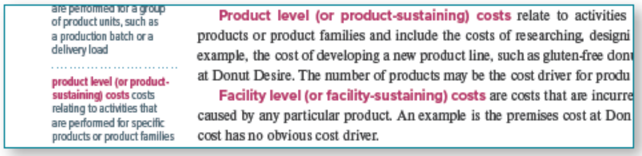


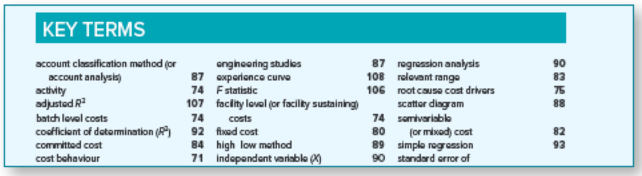
Exhibits

The chapter exhibits feature visual overviews of concepts, flow charts, handy checklists, examples of documents and worked examples adding another dimension to the topics covered and help to reinforce learning.

Key terms/margin definitions

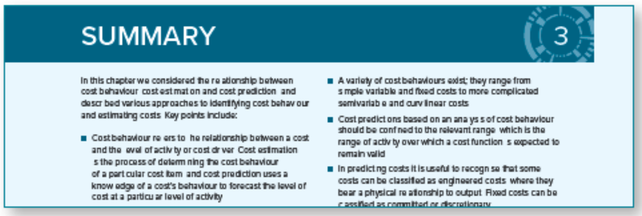
Key terms are provided in each chapter, highlighted where they first appear. They are defined in the margin and listed at the end of the chapter. End-of-chapter key term checklists are useful for testing yourself when you complete a chapter. Margin definitions are repeated in a full glossary at the end of the book to aid revision.





Chapter summary

A summary of the content is presented at the end of each chapter in dot-point format for easy reading and revision.



References

The end-of-chapter references list material referred to in the chapter and provide an opportunity to undertake additional in-depth research on specific topics.

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Self-study problems and solutions

Self-study problems provide an opportunity to better understand and revise key topics and techniques covered in the chapter.

SELF-STUDY PROBLEM 1: Economic order quantity

Alfred Wood operates a factory that manufactures bread and cakes. One of the major raw materials used is organic maize, which he buys for $5 per kilogram. The factory operates for 350 days each year. The following information has been provided:

Annual usage of maize	80 000 kilograms
Average time between placing and receiving order	4 days
Estimated cost of ordering and receiving inventory (per order)	$8
Estimated annual cost of carrying a k logram of maize in stock	$0.50

Appendixes

To help you extend and build your knowledge, end-of-chapter appendixes provide in-depth information on specific topics.

APPENDIX 3

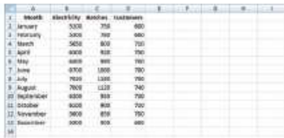
Part 1: Using Microsoft Excel to formulate a regression equation

LO 3.12

While regression estimates can be calculated manually [10] the usual procedure is to rely on a software package such as Excel or SPSS Using the data in Exhibit 3 8 the step by step procedures for calculating the regression equation (using Excel 2010) will be explained

Estimating the regression equation with Excel

1. Type the data for the dependent variable and the independent variable(s) in separate columns on the worksheet Include the name of the data in the first row of each column



2. From the options at the top of the screen select *Data/Data Analysis/Regression* [11]
3. Click on the box *Input Y Range* and then highlight the cells that contain data for the dependent variable Click on *Input X Range* and highlight the data for the independent variable(s) Note that more than one independent variable can be included by simply highlighting all of the cells that contain the data for the independent variables It is a good idea to include the column headings in the *Y* and *X* ranges so that the regression output will identify the name of each variable Check the label box to indicate that the first row in each column is a label rather than numeric data

Revised end-of-chapter material

Every chapter contains a significant amount of new and updated end-of-chapter material.

Review questions

Short-answer questions test your knowledge of key words, terms and concepts presented in the chapter.

REVIEW QUESTIONS

3.1 Define the following terms and explain the relationship between them: *cost estimation, cost behav* *cost prediction*. LO 3.1

3.2 In explaining cost behaviour we refer to the *level of activity* as a cost driver. What do we r *level of activity* and why is it a cost driver? What role do cost drivers play in identifying cost b patterns? LO 3.2

3.3 What types of cost drivers are used in traditional management accounting systems when c classified as fixed or variable? What types of cost drivers are used in more recent approaches, su activity-based costing? LO 3.3

Problems

Longer, in-depth problems allow you to apply quantitative techniques as well as theoretical concepts to organisational situations.

PROBLEMS

P3.31 LO 3.2, 3.3 **Cost drivers: service firm**
The Mary E len Hospice provides services for terminally il patients and their fami ies The hospice provides an accommodation unit for up to six patients and a support service for outpatients In preparing next year's budget, the accountant is analysing the behaviour of the hospice's major costs, listed below, and seeking possible cost drivers
(a) The salary of the administrator who manages the hospice and assists in the accommodation unit
(b) The salaries of the support staff who are employed on a casual basis to visit patients at home
(c) The salary of the physiotherapist who visits the hospice each week to run a three hour exercise clinic available to accommodation patients and outpatients

Exercises

Exercises provide an opportunity to apply some of the techniques and concepts relating to the chapter.

EXERCISES

E3.21 LO 3.2 **Cost drivers: service firm**
Friendly Skies Travel is a travel agency that has branches in many major shopping centres A typical branch employs five ful time staff a manager and four customer service staff Casual customer service staff are called in for periods of high demand and are normally employed for three hour shifts Customer service staff book flights for customers on most major airlines These staff also assist in identifying accommodation and rental car options for customers

Required:
1 Prepare a list of five major costs likely to be incurred by Friendly Skies Travel
2 For each cost, suggest a possible cost driver that could be used to estimate cost functions and predict cost behaviour
3 Having identified these cost drivers, describe the cost behaviour pattern that you would expect for each cost, giving your reasons

E3.22 LO 3.5 **Variable and fixed costs; graphical and tabular analyses: manufacturer**
Ross Sports Pty Ltd manufactures cricket balls Its fixed costs per month are $75 000, and its raw materials costs are $30 per finished ball

Required:
1 Draw a graph of the firm's raw material costs, showing the total cost at the following production levels 10 000 units, 20 000 units and 30 000 units

Cases

Cases provide comprehensive scenarios that require you to demonstrate your skills in applying both quantitative techniques and theoretical issues. The cases provide opportunities for higher-level analysis and may require you to integrate material from more than one chapter.

CASES 3

C3.41 LO 3.6, 3.9, 3.12 **(appendix) Cost estimation: hospital**
'I don't understand this cost report at all' exclaimed John Carter the newly appointed administrator of AngelCare General Hospital 'Our administrative costs in the new paediatrics clinic are difficult to understand One month the report shows $16 600 and the next month it's $32 200 What's going on?'
Carter's question was posed to Alice Baines the hospital's accountant 'The main problem is that the clinic has experienced some widely varying patient loads in its first year of operation' Baines replied 'There seems to be some confusion in the public's mind about what services we offer in the clinic When do they come to the clinic? When do they go to the outpatients' department? That sort of thing As the patient load has varied we've frequently changed our clinic administrative staffing Also we have found that the number of emergency procedures varies each month and emergency procedures cause additional staff costs'

ACKNOWLEDGMENTS

We would like to thank a number of people who have helped us with the development of this textbook, including the hundreds of management accounting students we have taught over many years and the numerous managers and management accountants with whom we have interacted. Their enthusiasm, comments, questions and experience have assisted our understanding and appreciation of management accounting. We also thank our academic colleagues from around Australia and New Zealand who have provided feedback or reviewed parts of the manuscript. They include the following:

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The authors and publisher would also like to thank the team at leading business advisory firm KordaMentha for supplying several Real Life cases for this edition.

KordaMentha

KordaMentha is an independent and trusted firm providing specialist corporate, forensic, real estate and restructuring services. We help clients grow and maximise value, protect from financial loss and reputational damage and help recover value at the most critical times. With diverse experience—in finance and real estate to law enforcement and the c-suite—and a team of specialists extending across Asia-Pacific, we apply a different mindset to our work. Our collaborative approach leverages experience across all levels from graduates to experts as we work together to solve the challenges facing corporations, financiers, lawyers, private investors and government clients. On every occasion, we provide bold and impactful solutions delivering growth, certainty and value for all involved.

PART 1
Introduction to management accounting

CHAPTER 1 Management accounting: information for creating value and managing resources

CHAPTER 2 Management accounting: cost terms and concepts

The first part of this book introduces management accounting, its purpose and basic concepts.

In Chapter 1, management accounting is defined as processes and techniques that are focused on the effective and efficient use of organisational resources to support managers in their task of enhancing both customer value and shareholder value. We outline the recent changes in the business environment that have influenced the development of management practices and management accounting systems, and management accounting is distinguished from financial accounting.

The processes and techniques of management accounting that are used to enhance value include systems to support the formulation and implementation of strategy; process improvement and cost management techniques to help develop and manage a firm's competitive advantage; planning and control systems to help managers manage resources; and estimates of the cost of products (goods or services) to support strategic and operational decisions.

In this first chapter we also consider factors that influence the design of a management accounting system, including an awareness of the behavioural implications of management accounting information, and the costs and benefits of designing, producing and using management accounting information. We also recognise that the design of management accounting systems can be influenced by a wide range of factors such as the organisation's competitive environment, strategies, size and organisational culture, as well as by institutional forces that encourage the adoption of management accounting practices that are used by other organisations.

Chapter 2 introduces some of the basic concepts and terminology used in management accounting. Management accounting systems often include costing, budgeting and performance measurement systems. Modern management accounting systems may also include cost management systems, which focus on the identification and elimination of wasteful activities.

Much of this chapter focuses on the different ways in which costs can be classified and reported to managers. These classifications include variable and fixed costs, direct and indirect costs, and controllable and uncontrollable costs. We use the concept of the value chain to explore the various cost classifications, paying particular attention to the classification of manufacturing costs as direct material, direct labour and manufacturing overhead costs. The key message in this chapter is that costs can be classified in different ways to meet the different information needs of managers.

GRADUATE SPOTLIGHT

NAME: KAYLOR LAING

Degree studied: Bachelor of Commerce (Accounting and Finance)

University: Curtin University

Current position: Analyst

Employer: Deloitte

Early on, what interested you about working in management accounting?

The use of intelligent analysis, forecasting of trends and the ability to assist in smart investments are among the main reasons I found myself with an interest in management accounting, as well as having a passion for providing smarter ways to assist stakeholders to budget and invest funds to receive a maximum return. Lastly, the opportunities that I would gain from the skills I would be equipped with from university would allow me to have a key role in assisting management in any organisation I work in.

What did you learn in your degree that has been most useful in your career?

With technical knowledge being the core of the accounting profession, the knowledge I have gained on various accounting standards has been invaluable. A strong grasp of the fundamental underlying principles and methodical approaches that can be applied to problem-solving are among some of the key takeaways from my degree.

What have you been up to since graduation?

I joined Deloitte as an undergraduate analyst during my first year of studies, where I have had the opportunity to work on many clients during this time. This has allowed me to travel to client sites extensively throughout Western Australia.

What do you enjoy most about this job?

Analysing data and various contributing factors that play a role in the organisation's profitability going forward is something I enjoy. A further aspect of my job I enjoy is being able to challenge my analytical abilities to constantly improve my skills and knowledge of the accounting principles, which I have gained from working with clients who deal with a large volume of complex transactions. Being abreast of the latest amendments to various accounting standards has also allowed me to apply this knowledge when problem-solving for various organisations.

What advice would you share with prospective students who want to work in management accounting?

Management accounting is more than just collecting and crunching numbers: if you keep yourself equipped and up-to-date with the latest changes and requirements, it provides an extensive platform that can be used to leverage into various other fields. It is the basis and core of any organisation and therefore gives rise to opportunities that allow you to implement the vast range of skills you have been equipped with; this will be invaluable to any organisation.

What are your thoughts on the future of the management accounting industry?

With automation being at the forefront of the accounting profession, the industry will undoubtedly need to adapt to the changes that come with revolutionising technologies. However, the extensive critical-thinking skills and tools accounting provides to professionals in the industry allows the demand for accountants to remain well-regarded, especially with the increased complexity, relative to financial reporting, faced by accountants on a regular basis. Furthermore, areas that require large input of professional judgement from accounting professionals will also be a skill that will continue to drive the industry forward.

CHAPTER 1

Management accounting: information for creating value and managing resources

Learning objectives

1.1 Describe changes that have taken place in the business environment in recent years.

1.2 Define *management accounting* in terms of value creation.

1.3 Describe the major differences between management accounting and financial accounting information.

1.4 Explain where management accountants are located in organisations.

1.5 Describe the major processes that management accounting systems use to create value and manage resources.

1.6 Explain the basic concepts of strategy and how management accounting systems can support strategies.

1.7 Explain how planning and control mechanisms can be used to support resource management.

1.8 Explain how costing systems can provide information to support a range of operational and strategic decisions.

1.9 Describe the factors that may influence the design of management accounting systems, including behavioural issues, cost–benefit trade-offs and the implications of contingency and institutional theories.

1.10 Identify the organisational responses and management accounting responses to changes in the business environment.

1.11 After studying the appendix, describe how the focus of management accounting has evolved.

1.12 After studying the appendix, discuss the professional qualifications that are relevant to becoming an accountant, and the ethical standards to which accountants must adhere.

Introduction

We all deal with many different types of organisations as part of our daily lives. Manufacturers, retailers, service providers, not-for-profit organisations[1] and government enterprises provide us with a vast array of goods and services. These organisations seem very different, but they have three things in common. First, every organisation should have a stated purpose and objectives. For example, a police department may state that its purpose is to make the community a safer place in which to live. The specific objectives of an organisation flow

1. In New Zealand, not-for-profit organisations (NFPs) are known as public benefit organisations, reflecting the fact that they are generally organised for socially beneficial purposes.

from its purpose. In the case of the police department, the objectives may be to reduce the crime rate by 50 per cent and decrease the number of road fatalities by 30 per cent within the next five years. The objectives of organisations generally focus on adding value from the perspective of major stakeholders—in particular, owners and customers.

Second, in pursuing objectives managers need to make many decisions, and for this they need information. The information needs of managers extend across financial, production, marketing, legal and environmental areas. Generally, the larger the organisation, the more complex are its operations, and the greater is management's need for information. In the police department, senior officers will need information to assess progress towards objectives. Relevant information could include crime statistics for each quarter of the year, explanations why crime rates may be meeting or exceeding targets, and details of the strategies put into place to reduce crime.

Last, to help achieve the organisation's objectives, managers need to manage their resources effectively and efficiently. Resource management can involve using resources more effectively (i.e. achieving better outcomes) and using resources more efficiently (i.e. using fewer resources to achieve an objective). In the police department, management will need to know the cost of new crime-reduction programs that have been put in place.

Management accounting information helps to satisfy the information needs of managers in setting worthwhile objectives, managing resources efficiently and effectively, and adding value for customers, owners and other key stakeholder groups. Major challenges presented by twenty-first century business environment trends mean that managers rely on management accounting information expertise more than ever for crucial business intelligence as they seek to evolve, adapt and compete in response to rapidly evolving market conditions.

Australasian organisations in the twenty-first century

LO 1.1

Businesses across Australia and the Asia-Pacific are competing in a rapidly changing and unpredictable business environment characterised by a number of broad trends. Ongoing trade liberalisation through continued negotiation of free trade agreements, and harmonisation of standards and regulations, are reducing trade barriers and increasing competitive pressures around the world. With many tariffs, quotas and subsidies reduced or eliminated, businesses are exposed to a global marketplace, and can no longer ignore the activities of companies overseas, particularly within the Asian region. This has markedly affected business activity in many sectors. For example, with the winding back of government support, Australian-based car manufacturers found it increasingly difficult to compete with competitively priced imports, leading to Holden, Ford and Toyota (the remaining Australian-based manufacturers) all ceasing production in Australia. The liberalisation of the airline industry across Asia has seen established carriers face intense competition from new providers, particularly from low-cost airlines (e.g. Scoot and AirAsia X), placing significant downward pressure on airfares and slashing airline profit margins. The effects of COVID-19 have created further financial pressure and uncertainty in the industry. The Real Life that follows highlights the increased competitive pressures being experienced within the airline sector across Asia.

Digital and information technologies have also had a profound effect on the contemporary business environment. E-commerce sites (e.g. Amazon, Alibaba, Expedia) and peer-to-peer platforms (e.g. Airbnb, Uber) have challenged traditional 'bricks and mortar' modes of business operation in many areas, including retail, travel and transportation. Social media and mobile technologies are also fundamentally changing how businesses interact with their customers (consider, for example, the way that everyday banking has changed for many people through the introduction of on-line and mobile applications, on-line chat, and the like).

REAL LIFE

Increasing competitive pressures faced by Asian airlines

Prior to the COVID-19 outbreak in 2020, demand for air travel was continuing to grow within the Asian region, highlighted by the fact that seven of the ten fastest growing origin-destination passenger markets for 2015 were located in Asia. Much of this is being driven by strong growth in China for both domestic and international travel.

Despite this growth, the airline sector in Asia has been highly competitive, with market participants facing a range of challenges and pressures stemming from increased globalisation and deregulation of the sector. For example, the three major Middle-Eastern airlines (Emirates, Qatar and Etihad) are adding significant capacity and pricing aggressively. Also, increasingly price-conscious customers have fostered the spread of low-cost carriers in the region, which now account for 54 per cent of capacity in South-east Asia. Such challenges place ever increasing pressure on passenger yields and squeeze airline profits. Recently, the COVID-19 pandemic has had a substantial impact on operations, with travel bans causing airlines to suspend flights on certain routes, or in some cases, temporarily suspend their operations altogether. It is unclear at this stage what impact this will have on the viability of the airline sector going forward.

Established carriers have sought to respond to these competitive pressures in different ways. For example, Jetstar Asia implemented a suite of strategies, including restricting capacity investment, boosting interline and codeshare traffic, and rationalising its network to focus on growing and underserved destinations. Other airlines, such as Singapore and Cathay, have looked to play to their strengths, by leveraging their strong brand and bolstering their service quality with updated aircraft and in-flight services, while trying to keep their costs down to remain competitive in a tough market.

Sources: Bagchee (2012); Park (2016); Ramchandani (2016); Tani (2015); CAPA (2020).

Technological innovation has also lowered the cost of doing business, facilitating access to global market opportunities for large and small businesses alike.

Australian and overseas businesses have also been confronted by a range of other significant challenges in recent times. Customers have become more demanding and vocal, facilitated by access to on-line ratings/review facilities and social media. In terms of overall economic activity, there has been a structural shift towards services sectors, with growth areas in Australia encompassing tourism, education and 'knowledge-based' industries, such as software programming and consulting. Increasing reliance on strategic alliances, outsourcing and various business networks have created more complicated business structures and relationships, and led to the emergence of virtual organisations. Increased labour mobility has added to the complexity of managing human resources. Spectacular collapses of major corporations followed by the global financial crisis have brought increased pressure for accountability. Finally, organisations are now also grappling with increasingly important sustainability issues, which require organisations to specifically address their impact on the community and the environment.

In summary, twenty-first century businesses face a more global, fluid and technologically-influenced competitive environment than ever before. The major changes described above offer both opportunities and threats to organisations based in Australia and the Asia-Pacific. Organisations have to continue to evolve, adapt and innovate to find better ways to compete. New organisational structures, strategies and management philosophies have been adopted to enable organisations to be more responsive to market shifts and customer needs, and be better able to make quick, informed decisions.

In such a fast-paced and changing environment, reliable and instructive organisational information and analysis is as important as ever. Consequently, management accounting techniques have had to keep pace with the information needs of contemporary organisations. Later in this chapter, we give an overview of organisational and management accounting responses to these latest business environment trends, while, in the appendix, we provide a more historical perspective on the changing focus of management accounting over time.

LO 1.2

management accounting the processes and techniques that focus on the effective and efficient use of organisational resources to support managers in their tasks of enhancing both customer value and shareholder value

customer value the value that a customer places on particular features of a product

shareholder value the value that shareholders, or owners, place on a business

What is management accounting?

Management accounting refers to the processes and techniques that focus on the effective and efficient use of organisational resources to support managers in their tasks of enhancing both customer value and shareholder value.[2] Let's look more closely at this definition.

Value creation is a central focus for managers and can refer to both customer value and shareholder value. Customers have always been a key concern for organisations. However, it is only in recent years that managers have come to recognise explicitly that understanding **customer value**—the value that a customer places on particular features of a product[3]—and satisfying customers are critical to achieving increased sales and market share, and therefore to achieving shareholder value.

Shareholder value is also a key focus for managers and involves improving the worth of the business from the shareholders', or owners', perspective.[4] So what is important to shareholders? Shareholders are usually interested in increased profitability, increased share price, and dividends, and management has responsibility for meeting these expectations.

However, increasing customer value comes at a cost and, at times, managers may need to make trade-offs between undertaking actions that increase customer value and actions that increase shareholder value. For example, more seating at ice-cream retailer Cold Rock Ice Creamery's outlets may enhance customer value and, by increasing sales, also enhance shareholder value. On the other hand, the push towards bigger sites with seating comes at a cost—which may have a detrimental effect on the potential to grow shareholder value. Where there is a conflict between increasing customer value and increasing shareholder value, shareholder value is likely to be given priority as this is the key strategic objective for most organisations. (Alternative objectives and priorities can be expected in not-for-profit organisations.) Resolving this conflict is not always straightforward. For example, undertaking activities to increase customer value may decrease shareholder value in the short run as costs also increase, but shareholder value may increase in the longer run as market share increases.

To enhance customer value or shareholder value, managers need to understand what drives value. That is, they need to understand and make decisions about the activities or aspects of their business that lead to improvements in customer value or shareholder value. To use our earlier example, how important is seating: do most Cold Rock customers want to 'eat in' or 'take away' their ice-creams? Later in this book we will learn about management accounting processes and techniques that may be used to assist managers to identify and manage those drivers and to make decisions. Important decisions for managers include which products to produce, what prices should be set, what equipment should be purchased, and so on.

The effective and efficient use of resources is essential to creating both customer and shareholder value, and management accounting provides information to assist managers to perform this role. Effectiveness focuses managers on the successful achievement of an objective, whereas efficiency focuses managers on achieving the objective with the least possible consumption of resources. Resources can be defined broadly to include not only the financial resources of the organisation, but also non-financial resources such as information, work processes, employees, committed customers and suppliers. Non-financial resources determine the capabilities and competencies of the organisation, which allow it to survive and prosper in an increasingly turbulent global environment.

We will see in later chapters that a variety of management accounting techniques and skills can be used to manage resources to achieve increased customer and shareholder value.

management accounting system an information system that produces the information required by managers to create value and manage resources

Management accounting systems

A **management accounting system** is an information system that produces the information required by managers to create value and manage resources. It forms part of an organisation's wider management

2. Adapted from International Federation of Accountants (IFAC, 2002).
3. Throughout this book, the term *product* includes goods and services.
4. The concept of shareholder value applies not only to the shareholders of listed companies; it applies to all types of business owners. These other owners may also seek profits and capital growth.

information systems. Management accounting information can be provided on a regular basis and can include estimates of the costs of producing goods and services, information for planning and controlling operations, and information for measuring performance. Management accounting systems also provide information on an *ad hoc* basis, to satisfy the short-term and long-term decision-making needs of management. The management accounting system may not be able to provide all of the information to satisfy managers' decision-making needs; sometimes information also needs to be obtained from other sources, including those outside the organisation. For example, manufacturing organisations may need information about the prices of competitors' products in order to be able to determine a competitive price for their own product.

Management accounting information

The focus of management accounting is on the needs of managers within the organisation. Because accounting standards apply only to external financial reports, there is great flexibility in deciding the type of information that should be generated for managers. As managers' information needs vary, and as the nature of the resources that they manage varies, the type of management accounting information required will also vary. Other factors that cause management accounting systems to differ include differences in production or service technologies, organisational structure and organisation size, the external environment in which the organisation competes, and the levels of sophistication of computer systems. These aspects can affect managers' needs for, and the supply of, information, and will be an important influence on the design of a management accounting system.

Finally, it should be noted that management accounting information is relevant to managers from the top of the organisation through to managers in operational areas of a business. Senior managers need information that provides them with an overview of the entire organisation, whereas middle managers require more detailed information about their areas of responsibility. And operational managers will need information to help them manage their specific operations on a day-to-day basis, to help ensure that their performance targets are met. (**Operational managers** are managers who have responsibility for activities in the manufacturing areas of manufacturing firms, or for the areas that directly provide services to customers in service firms.)

operational managers managers who have responsibility for manufacturing activities in manufacturing firms, or for service delivery areas in service firms

With the widespread use of technologies that capture large volumes of data, the emergence of what has been described as 'big data' has the potential to transform the manner in which organisations do business, and also to change the role of the management accountant. The following Real Life discusses big data and its potential implications for accountants.

REAL LIFE

'Big data' and the changing role of the accountant

Big data refers to the 'vast amount of data continually collected through devices and technologies such as credit cards and customer loyalty cards, the internet and social media and, increasingly, WiFi sensors and electronic tags' (ACCA & IMA, 2013).

While the idea that organisations are increasingly dealing with larger amounts of data is not new, big data is different because it includes data that is much more likely to lack 'form'—it resides outside traditional databases. Its presence is accompanied by the continual development of advanced analytical tools that organisations can use to derive meaningful insights from the data with a speed and level of accuracy not previously attainable.

The implications of big data for organisations are huge. It has the potential to allow organisations to scan their environment more effectively than previously thought possible, so that they can better identify relevant trends, threats and opportunities. As such, it can impact the decisions made in all parts of an organisation.

(continued)

Despite the potential benefits, big data comes at a cost. Not only is it difficult and expensive to extract value from big data, but the data becomes less valuable over time. Also, as more and more organisations use big data, the competitive advantage associated with gaining access to big data is likely to decrease.

A report by the Association of Chartered Certified Accountants and the Institute of Management Accountants (2013) identified a number of implications that the emergence of big data has for the accounting profession. The report recommends that accountants need to:


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- *Develop new performance measures.* Different data sets will need to be combined to enable the measurement of organisational performance. These will include unstructured data that does not reside in organisational databases, such as social media comments, on-line product reviews, information on credit and political risks of new overseas markets, and data about climate change and environmental risks. Such data will need to be collected, synthesised, analysed and built into performance measures and reports.
- *Learn new analytical skills.* Accountants need to learn to interrogate the right databases to find the insights that managers need. Analysis of performance trends will be deeper than was previously possible, involving diverse data that go well beyond financial data. It will be crucial for accountants to work closely with IT staff and other organisational analysts to use analytical tools to best advantage.
- *Be able to unravel the meaning of data and communicate this meaning effectively.* With so much data available, the challenge for accountants will be to work out which information is the most important for managers and other decision makers in the organisation, and to communicate this critical information to these decision makers in a way that can be easily understood. Communication may be enhanced through the development of company dashboards with various forms of data visualisation.

A more recent report from the Institute of Management Accountants (IMA) (2019) predicted that the number of organisations analysing big data will double in the near future, highlighting the importance for accountants to embrace big data's potential. Despite this the IMA noted that the implementation of approaches used to analyse big data remain a 'work in progress for most organisations, with most having started but very few having completed implementation.' The report highlighted that organisations that had implemented approaches to managing and analysing big data reported improvement in their organisation's performance.

Sources: Association of Chartered Certified Accountants and Institute of Management Accountants (ACCA & IMA) (2013); Institute of Management Accountants (2019)

LO 1.3

financial accounting
the practice of preparing and reporting accounting information for parties outside the organisation

Differences between management accounting and financial accounting information

It should be clear from the above discussions that the orientation of management accounting is quite different to the external reporting focus of financial accounting. Exhibit 1.1 contrasts management accounting and financial accounting information.

Financial accounting is concerned with preparing and reporting accounting information for parties outside the organisation. The balance sheets and income statements within the annual reports distributed by Amcor and BHP Billiton to their shareholders are examples of the output from a financial accounting system.

EXHIBIT 1.1 Management accounting versus financial accounting

	Management accounting	Financial accounting
Users of information	Internal: managers and employees at all levels	External: shareholders, creditors, banks, securities exchange, trade unions and government agencies
Regulations	No accounting standards or external rules are imposed. Information is generated to satisfy managers' information needs	Accounting standards and corporations law regulate the content of external financial reports
Source of data	Both financial and non-financial data drawn from many sources—the core accounting system, physical and operational data from production systems, and market, customer and economic data from sources external to the organisation	Financial data almost exclusively drawn from the organisation's core transaction-based accounting system
Nature of the information	Past, current and future-oriented; subjective; relevant; timely; and supplied at various levels of detail to suit managers' specific needs	Past, reliable, verifiable, not timely, not always relevant and highly aggregated

Users of financial accounting information include current and prospective shareholders, lenders, investment analysts, unions, consumer groups and government agencies. In contrast, management accounting focuses on satisfying the needs of internal users (i.e. managers).

Financial accounting reports are based on past information that emphasises reliability and verifiability. Management accounting information and reporting are not constrained by accounting standards or regulations, so the content and design of management accounting information is determined by managers' needs. The nature of management accounting information is current and future-oriented. Relevance and timeliness are considered more important than verifiability.

There is clearly some overlap between management accounting information and financial accounting information, because both draw data from an organisation's transaction-based accounting system. However, to manage the wider resources of the organisation, management accounting also draws on data from many other sources, both internal and external to the organisation. These may include data from operations (production) systems, personnel systems and customer information systems, as well as market share data and competitor costs from industry bodies and customer feedback from social media sites. Also, the level of detail and the frequency of reporting of management accounting information is greater than for financial accounting.

One part of a firm's accounting system that is common to both financial accounting and management accounting is the costing system. The **costing system (or cost accounting system)** estimates the cost of goods and services, as well as the cost of organisational units, such as departments. Managers may need information about product costs for a range of strategic and operational purposes including setting prices, controlling operations and making decisions about the continuation of a particular product. These are management accounting uses. However, product cost data are also used to value inventory in a manufacturer's balance sheet and cost of goods sold on the income statement, which are financial accounting uses.

costing system (or cost accounting system) a system that estimates the cost of goods and services, as well as the cost of organisational units, such as departments