C H A P T E R

тwо

Management yesterday and today

Chapter outline

Learning outcomes Opening vignette: Workplaces going 'green' Historical background of management Classical approach Scientific management Frederick W. Taylor Frank and Lillian Gilbreth How do today's managers use scientific management? General administrative theory Henri Fayol Max Weber How do today's managers use general administrative theories? Quantitative approach How do today's managers use the quantitative approach? Organisational behaviour approach Early advocates The Hawthorne Studies The human relations movement and behavioural science theorists How do today's managers use the behavioural approach? Contemporary approaches Systems theory The systems approach and managers Contingency theory The contingency approach and managers Current trends and issues Globalisation Ethics Workforce diversity Entrepreneurship Learning organisations and knowledge management Sustainability

Since the birth of modern management theory in the early 1900s, management experts have developed theories to help organisations and their managers coordinate and oversee work activities as effectively and efficiently as possible. In presenting the history of modern management, Chapter 2 explores the evolution of management thought and practice during the 20th century. Students discover how knowledge of management history can help us better understand current management practices while avoiding some mistakes of the past. The practice of management has always reflected historical times and societal conditions. For instance, innovation, global competition and general competitive pressures reflect a reality in today's business world: 'Innovate or lose'.

The opening section to Chapter 2 looks at how researchers are now trying to evaluate whether office buildings that are environmentally certified as being high in 'Green Star' ratings (built with sustainability in mind) offer positive business benefits in relation to performance and productivity. While the general economic and environmental benefits of greener workplaces are commonly accepted, researchers are now trying to assess what benefits employees get out of working in green workplace environments. Do they experience better general wellbeing and health? Do they experience higher satisfaction levels? Can some of these outcomes also translate into less sick leave and are employees more productive when they work in green buildings?

Copyright ©2015 Pearson Australia (a division of Pearson Australia Group Pty Ltd)–9781486006335/Robbins/Management/7th edition

Many PowerPoint slides, including both original text art and newly created images, have been developed and are available for you to coordinate with Chapter 2 presentation materials.

LEARNING OUTCOMES

In this chapter, we are going to take a trip back in time to see how the field of study called management has evolved. History is important because it can put current activities in perspective. What you are going to find out is that today's managers still use many elements of the historical approaches to management. We will also look at some of the current trends and issues that are influencing management in today's organisations. The chapter focuses on the following learning outcomes:

- 2.1 Provide some examples of early management practice.
- 2.2 Discuss the important contributions of scientific management within the classical approach.
- Explain the influences of general administrative theorists within the classical approach. 2.3
- 2.4 Describe the quantitative approach.
- Discuss the development and uses of the organisational behaviour approach. 2.5
- Explain the systems and contingency theories in the contemporary approach. 2.6
- Provide examples of current trends and issues that are influencing management today. 2.7

ANNOTATED OUTLINE

1. CHAPTER OVERVIEW.

Many current management concepts and practices can be traced to early management theories. The practice of management has always reflected the times and social conditions. The purpose of this chapter is to demonstrate that knowledge of management history can help understand today's management theory and practice.

NOTES Educational Materials to Use

2. HISTORICAL BACKGROUND OF MANAGEMENT.

Management has been practised a long time. Organised endeavours directed by people responsible for planning, organising, leading and controlling activities have existed for thousands of years. For example:

- The Egyptian pyramids and the Great Wall of China are good examples of projects of A. tremendous scope and magnitude that employed tens of thousands of people. It took more than 100 000 workers some 20 years to construct a single pyramid. Who told each worker what to do? Who ensured that there would be enough stones at the site to keep workers busy? The answer is *managers*. Someone had to plan what was to be done, organise people and materials, make sure those workers got the work done and impose some controls to ensure that everything was done as planned.
- Another example of early management can be found in the city of Venice, which was B. a major economic and trade centre in the 1400s. The Venetians developed an early form of business enterprise and engaged in many activities common to today's organisations. For instance, at the arsenal of Venice warships were floated along the canals and, at each stop, materials and riggings were added to the ship. Sounds a lot like a car 'floating' along an assembly line, doesn't it? In addition, the Venetians

used warehouse and inventory systems to keep track of materials, human resource management functions to manage the labour force (including wine breaks), and an accounting system to keep track of revenues and costs.

C. In 1776, Adam Smith published *The Wealth of Nations*, in which he argued the economic advantages that organisations and society would gain from the **division of labour or job specialisation** (the breakdown of jobs into narrow, repetitive tasks). Using the pin industry as an example, Smith claimed that ten individuals, each doing a specialised task, could produce about 48 000 pins a day among them. However, if each person worked alone, performing each task separately, it would be quite an accomplishment to produce even ten pins a day! Smith concluded that division of labour increased productivity by increasing each worker's skill and dexterity, saving time lost in changing tasks, and creating labour-saving inventions and machinery. Job specialisation continues to be popular. For example, think of the specialised tasks performed by members of a hospital surgery team, meal preparation tasks done by workers in restaurant kitchens, or positions played by players on a football team.

NOTES Educational Materials to Use

D. Starting in the late 18th century when machine power was substituted for human power, a point in history known as the **Industrial Revolution**, it became more economical to manufacture goods in factories rather than at home. These large efficient factories needed someone to forecast demand, ensure that enough material was on hand to make products, assign tasks to people, direct daily activities and so forth. That 'someone' was a manager and these managers would need formal theories to guide them in running these large organisations. It wasn't until the early 1900s, however, that the first steps towards developing such theories were taken.

NOTES Educational Materials to Use

E. The development of management theories has been characterised by differing beliefs about what managers do and how they should do it. Figure 2.1 shows a visual representation of the development of four main approaches to management: classical, quantitative, behavioural and contemporary. Keep in mind that each approach is concerned with trying to explain management from the perspective of what was important at that time in history and the backgrounds and interests of the researchers. Each of the four approaches contributes to our overall understanding of management, but each is also a limited view of what management is and how to best practise it.

3. CLASSICAL APPROACH.

These first studies of management, often called the **classical approach**, emphasised rationality and making organisations and workers as efficient as possible. Two major theories comprise the classical approach: scientific management and general administrative theory.

- A. **Scientific management** is defined as the use of the scientific method to define the 'one best way' for a job to be done.
 - 1. Frederick W. Taylor is known as the 'father' of scientific management. Taylor's work at the Midvale and Bethlehem Steel companies motivated his interest in improving efficiency.
 - a. Taylor sought to create a mental revolution among both workers and managers by defining clear guidelines for improving production efficiency. He defined four principles of management. (See Table 2.1)
 - b. His 'pig iron' experiment is probably the most widely cited example of scientific management.
 - c. Using his principles of scientific management, Taylor was able to define the one best way for doing each job.
 - d. Overall, Taylor achieved consistent improvements in productivity in the range of 200 per cent. He affirmed the role of managers to plan and control and of workers to perform as they were instructed.

NOTES Educational Materials to Use

- 2. Frank and Lillian Gilbreth were inspired by Taylor's work and went on to study and develop their own methods of scientific management.
 - a. Frank Gilbreth is probably best known for his experiments in reducing the number of motions in bricklaying.
 - b. The Gilbreths were among the first to use motion picture films to study hand and body motions in order to eliminate the wasteful ones.
 - c. They also devised a classification scheme to label 17 basic hand motions called **therbligs**.

NOTES Educational Materials to Use

3. How do today's managers use scientific management? The guidelines that Taylor and others devised from improving production efficiency are still used in organisations today. Current management practice is not restricted to scientific management, however. Some elements still used include:

- a. The use of time-and-motion studies.
- b. Best qualified workers.
- c. Design incentive systems based on output.

Managing from a Global Perspective

McDonald's scientific management approach

This Managing from a Global Perspective box has been included to get students to reflect on what aspects of the various management approaches McDonald's has used as it has developed and grown as an organisation. Scientific management practices are evident in the standardised way that it makes its fast-food products and in the methods it uses to select and train its employees. There are aspects of Fayol's 14 principles of management and Weber's bureaucracy, as well as the quantitative approach. Finally, there is also evidence of an awareness of an organisational behaviour approach in how the organisation deals with its staff.

Looking at management history can help us to better understand today's management theory and practice. It can help managers to see what worked and what did not work. It is also clear that, like McDonald's, organisations have to be prepared to face up to some of the new challenges and trends we outline at the end of the chapter, such as customer service, innovation and sustainability.

We have used McDonald's as an example here because most students will have some experience with the company as a customer or even as an employee. Ask students to identify what evidence they see of the various theories we have introduced in this chapter, such as scientific management, general administrative, quantitative and organisational behaviour as well as the current trends and issues affecting organisations today.

B. General administrative theory.

Another group of writers looked at the subject of management but focused on the entire organisation. These researchers developed more general theories of what managers do and what constituted good management practice, which formed the basis for a new perspective on management called **general administrative theory**.

- 1. Henri Fayol wrote during the same time period as Frederick Taylor. Fayol was the managing director of a large French coal-mining firm.
 - a. His attention was aimed at the activities of all managers.
 - b. He described the practice of management as distinct from other typical business functions.
 - c. He stated 14 **principles of management** (fundamental or universal truths of management that can be taught in schools). (See Table 2.2)

^{2.} Max Weber was a German sociologist who wrote in the early part of the 20th century.

- a. He developed a theory of authority structures and described organisational activity based on authority relations.
- b. He described the ideal form of organisation—the **bureaucracy**, defined as a form of organisation marked by division of labour, a clearly defined hierarchy, formal selection, detailed rules and regulations, impersonal relationships and proper managers. (See Figure 2.2)

- 3. How do today's managers use general administrative theories? Some of our current management concepts and theories can be traced to the work of the general administrative theorists.
 - a. The functional view of a manager's job can be traced to Henri Fayol.
 - b. Weber's bureaucratic characteristics are still evident in many of today's large organisations—even in highly flexible organisations of talented professionals where some bureaucratic mechanisms are necessary to ensure that resources are used efficiently and effectively.

NOTES Educational Materials to Use

4. QUANTITATIVE APPROACH.

The **quantitative approach** to management involves the use of quantitative techniques to improve decision making. This approach has been called *operations research* or *management science*. It includes applications of statistics, optimisation models, information models and computer simulations.

- A. The quantitative approach evolved out of the development of mathematical and statistical solutions to military problems during the Second World War.
 - 1. As often happens after wartime, methods that were developed during the Second World War to conduct military affairs were applied to private industry following the war. For instance, a group of military officers—the Whiz Kids—used quantitative methods to improve decision making in decision and manufacturing at the Ford Motor Company.
 - 2. **Total quality management (TQM)** is a philosophy of management that is driven by customer needs and expectations and focuses on continual improvement in work processes. (See Table 2.3)
 - a. TQM was inspired by a small group of quality experts, of whom W. Edwards Deming was one of the chief proponents.
 - b. TQM represents a counterpoint to earlier management theorists who believed that low costs were the only road to increased productivity.
 - c. The objective of TQM is to create an organisation committed to continuous improvement.

- 3. How do today's managers use the quantitative approach?
 - a. This approach has contributed most directly to managerial decision making, particularly in planning and controlling.
 - b. The availability of sophisticated computer software programs made the use of quantitative techniques somewhat less intimidating for managers.
 - c. Manufacturers in many industries have now realised the importance of quality management and implemented many of its basic components.

NOTES Educational Materials to Use

5. ORGANISATIONAL BEHAVIOUR APPROACH.

The field of study concerned with the actions (behaviours) of people at work is called **organisational behaviour (OB)**. Organisational behaviour research has contributed much of what we know about human resources management, motivation, leadership, trust, teamwork and conflict management.

A. Early advocates.

Four people stand out as early advocates of the OB approach. They include Robert Owen, Hugo Munsterberg, Mary Parker Follett and Chester Barnard. Their ideas provide the foundation for practices such as employee selection procedures, motivation programs, work teams and organisation-environment management techniques. (See Figure 2.3 for a summary of the most important ideas of these early advocates.)

- 1. Robert Owen, a successful Scottish businessman, proposed a utopian workplace.
- 2. Hugo Munsterberg created the field of industrial psychology—the scientific study of individuals at work to maximise their productivity and adjustment.
- 3. Mary Parker Follett was a social philosopher who thought the manager's job was to harmonise and coordinate group efforts.
- 4. Chester Barnard, president of the New Jersey Bell Telephone Company, saw organisations as social systems that required human cooperation.
 - a. He believed that managers' major roles were to communicate and stimulate subordinates to high levels of effort.
 - b. He also introduced the idea that managers have to examine the environment and then adjust the organisation to maintain a state of equilibrium.

B. The Hawthorne Studies.

The **Hawthorne Studies** were, without question, *the* most important contribution to the developing OB field.

- 1. These were a series of experiments conducted from 1924 to the early 1930s at Western Electric Company's Hawthorne Works in Cicero, Illinois, joined by Harvard professor Elton Mayo and his associates.
- 2. The studies were initially devised as a scientific management experiment to assess the impact of changes in various physical environment variables on employee productivity.
- 3. Other experiments looked at redesigning jobs, making changes in workday and workweek lengths, introducing rest periods and introducing individual versus group wage plans.
- 4. The researchers concluded that social norms or group standards were the key determinants of individual work behaviour.
- 5. Although not without critics (of procedures, analyses of findings and the conclusions), the Hawthorne Studies did stimulate an interest in human behaviour in organisations.

NOTES Educational Materials to Use

C. The human relations movement and behavioural science theorists.

The **human relations movement** members had an unwavering belief that satisfied workers would be productive. Their views were shaped more by their personal philosophies than by substantive research evidence.

- 1. Abraham Maslow, a humanistic psychologist, proposed a theoretical hierarchy of five human needs.
- 2. Douglas McGregor is best known for his description of two sets of assumptions about human behaviour—Theory X and Theory Y.

NOTES Educational Materials to Use

3. The final category within the organisational behaviour approach includes the **behavioural science theorists**. These individuals, including Fiedler, Vroom, Herzberg, Locke, McClelland and Hackman, relied on the scientific method to study organisational behaviour. The contributions of each of these behavioural science theorists will be covered in more detail in later chapters.

- D. How do today's managers use the behavioural approach?
 - 1. The behavioural approach aids managers in designing motivating jobs, working with employee teams and opening up communication channels.

- 2. The behavioural approach has provided the foundation for current theories of motivation, leadership, group behaviour and development, and other behavioural topics.
- 3. Both the scientific and administrative approaches viewed organisations as machines, with managers as the engineers. Contributors to the organisational behaviour approach forced a reassessment of the simplistic machine-model view.

6. CONTEMPORARY APPROACHES.

Many elements of the earlier approaches to management theory continue to influence how managers manage. Most of these earlier approaches focused on managers' concerns inside the organisation. Starting in the 1960s, management researchers began to look at what was happening in the external environment outside the boundaries of the organisation.

A. Systems theory.

During the 1960s researchers began to analyse organisations from a systems perspective based on the physical sciences.

- 1. A **system** is a set of interrelated and interdependent parts arranged in a manner that produces a unified whole.
 - a. The two basic types of systems are closed and open. A **closed system** is one that is not influenced by and does not interact with its environment. An **open system** is one that dynamically interacts with its environment.
 - b. Organisations are, by their very nature, open systems. (See Figure 2.4)

- 2. The manager's job is to ensure that all parts of the system are coordinated internally so that the organisation's goals can be reached.
 - a. An organisation is made up of 'interdependent factors', including individuals, groups, attitudes, motives, formal structure, interactions, goals, status and authority.
 - b. The systems perspective adds to our understanding of what managers do because managers are to ensure that all the interdependent parts of the organisation are working together so that the organisation's goals can be achieved.
 - c. Regardless of the level the manager is on, he or she must ensure that the work activities in the part of the organisational system he or she is responsible for are coordinated and integrated.
 - d. The systems view reflects the fact that decisions and actions taken in one organisational area will affect others and vice versa.
 - e. Organisations are not self-contained. They rely on their environment. An important part of a manager's job is recognising and understanding the impact of the various external factors.

Managers Who Made a Difference

Alan Mulally, CEO Ford

This Managers Who Made a Difference box describes what Ford is doing to meet some of the challenges of the global car manufacturing industry. This box demonstrates the relevance of the systems and contingency approaches to today's managers. By creating a new set of priorities and giving the company a new focus (no pun intended), the CEO of Ford, Alan Mulally, told shareholders in 2008 that the company wanted to break from the traditional company structure and begin with a new vision. 'We operate in a fiercely competitive global industry. To achieve profitable growth we have to make the best use of our human resources and take advantage of every potential economy of scale and best practice we can find. That means operating as one team around the world, with one plan and one goal ... One Ford ... profitable growth for all.'

As the environment in which Ford is operating is changing, Ford has realised it needs to change. The approach Ford has decided to use is based on becoming a more flexible company, with the team concept being used as a new important management approach. Ford needs such a new approach and structure as it attempts to break down geographic barriers and produce cars that have world, rather than geographic, appeal.

B. Contingency theory.

The **contingency theory** involves recognising and responding to situational variables as they arise. It has been used in recent years to replace simplistic principles of management and to integrate much of management theory.

- 1. The contingency perspective, sometimes called the situational approach, is a view that the organisation recognises and responds to situational variables as they arise.
- 2. Using this perspective, we recognise that managers must 'read' and attempt to interpret the situational contingencies facing them before deciding the best way to work with and through others as they coordinate work activities.

- 3. A contingency approach is intuitively logical. However, it is one thing to say that the way to manage 'depends on the situation' and another to say what it depends on.
 - a. Some popular contingency variables are organisation size, routineness of task technology, environmental uncertainty and individual differences. (See Table 2.4)
 - b. The primary value of the contingency approach is that it stresses that there are no simplistic or universal rules for managers to follow doing their jobs.

\succ	NOTES	Educational Materials to Use
---------	-------	------------------------------

7. CURRENT TRENDS AND ISSUES.

Now that you have a good understanding of the evolution and past history of management theories and practices, what current concepts and practices are shaping today's management history and changing the way that managers do their jobs?

A. Globalisation.

Organisational operations no longer stop at geographic borders. Managers in all types and sizes of organisations are faced with the opportunities and challenges of globalisation.

- 1. Working with people from different cultures.
- 2. Coping with anti-capitalist backlash.
- 3. Movements of jobs to countries with low-cost labour.

NOTES Educational Materials to Use

B. Ethics.

There have been numerous examples in recent years of unethical behaviour, corporate lying, bribery, misrepresentation and financial manipulation. While most managers continue to behave in a highly ethical manner, the abuses suggest a need to 'upgrade' ethical standards. This is being addressed at two levels.

- 1. Ethics education is being widely emphasised in university curricula.
- 2. Organisations are taking a more active role in creating and using codes of ethics and ethics training programs and hiring ethics officers.
- NOTES Educational Materials to Use

C. Workforce diversity.
 Workforce diversity refers to employees in organisations who are heterogeneous in terms of gender, race, ethnicity or other characteristics. The challenge for managers is to make their organisations more accommodating to diverse groups of people by addressing different lifestyles, family needs and work styles.

Managing in the **Asia-Pacific Region**

Samsung's 'New Management' initiative

This Managing in the Asia-Pacific Region box about Samsung's 'New Management' initiative is a good example of how some of the current trends and issues in management are influencing companies to adapt and change. Globalisation of its operations, in combination with a more diverse workforce, has influenced the development of new management approaches at Samsung. There is also obviously a drive within Samsung to better utilise its employees' knowledge and skills, to help the organisation to become more innovative.

Samsung's novel approach to people management has paid off for the company, with Korean college and university students ranking Samsung as their first choice of employment, citing reasons directly related to the human resource policies. It is this legacy which Samsung has now so successfully been able to build on in attracting the brightest minds in South Korea (and also from the rest of the world as Samsung continues its global expansion) to work for the company, with Samsung Electronics being highly regarded as one of the world's leading electronics companies through the development of many innovative and high-quality products.

D. Entrepreneurship.

Entrepreneurship refers to the process whereby an individual or a group of individuals uses organised efforts and means to pursue opportunities to create value and grow by fulfilling wants and needs through innovation and uniqueness. 1.

- Three important themes stand out in this definition.
 - The pursuit of opportunities a.
 - b. Innovation
 - Growth C.
- 2. Entrepreneurship will continue to be important to societies around the world.

> NOTES Educational Materials to Use

> E. Learning organisations and knowledge management.

> > Change is occurring at an unprecedented rate. Managers now must deal with an environment that is continually changing. The successful organisations of the 21st century will be flexible, able to learn and respond quickly, and be led by managers who can effectively challenge conventional wisdom, manage the organisation's knowledge base and make needed changes.

- A learning organisation is one that has developed the capacity to 1. continuously adapt and change. (See Table 2.5 for the difference between traditional and learning organisations.)
- 2. Knowledge management involves cultivating a learning culture where organisational members systematically gather knowledge and share it with others to achieve better performance.

Thinking Critically about Ethics

Global population trends

Some significant worldwide population trends are likely to affect global workforces. The United Nations forecasts that the world is in the midst of an epochal demographic shift that will reshape societies, economies and markets over the next century. Two of these trends are rapid growth in the world's population and an ageing population.

The implications of these two trends for societies and businesses are profound—from changing family structures, to shifting patterns of work and retirement, to emerging economic challenges based on increasing demands on social entitlement programs, dwindling labour supply and declining total global savings rates. Such demographic shifts will reshape the global workforce and organisational workplaces. It is critical, therefore, that managers and organisations consider how such changes are likely to affect future workplace policies and practices, and start planning how to deal with these issues.

Encourage your students to consider whether the rapid growth in the world's population and the ageing population trends will create ethical issues that organisations will have to consider. What do they think? What ethical issues do they see emerging from these trends?

F. Sustainability.

In the 1987 Brundtland Report of the World Commission on Environment and Development entitled *Our Common Future*, sustainability was defined as 'the ability of humanity to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs'.

- 1. **Sustainable management** can therefore be said to be the responsibility of all organisations to ensure that their operations use all forms of capital—human, natural and financial—in such a way that all stakeholders receive value and that the capital required by future generations is maintained.
- 2. Today, organisations have started to use energy, water and materials more efficiently and to take other actions that reduce emissions and save money.
- 3. Tomorrow's successful organisations will be those that are prepared to use innovative technologies and radically re-engineered business models in which sustainability is not seen just as a sideline ethical consideration but as a path to profits. The leading edge of sustainable management is now moving beyond *saving* money to *making* money.
- 4. The business sector is about to enter a 'New Industrial Revolution' not unlike the one it underwent in the late 18th century. The 'New Industrial Revolution' will be led by organisations that apply sustainable management practices in order to gain a competitive advantage from fundamental changes in both production design and technology that better satisfy their customers' needs, increase profits, and help to solve environmental and social problems all at the same time.
- 5. The threat of global warming and climate change is a problem that calls for new thinking and more innovative management approaches. It will require real change, because business-as-usual is no longer an option that the world can pursue as it tries to deal with this enormous challenge of the 21st century.

Managing for Sustainability

Yvon Chouinard, CEO, Patagonia, and an environmentalist

Recent business events have sometimes cast a bad light on the ethical behaviour of today's CEOs. A contrast to this view is Yvon Chouinard, founder and CEO of Patagonia. Chouinard realised early that everything his company did had a negative effect on the environment. In response, he redefined his company's mission to be proactive in terms of the environment. Since 1985, Patagonia has donated 1 per cent of its annual sales to grassroots environmental groups and more than 1200 companies have followed its lead as part of its '1% for the Planet' group. The company's effort to develop a recycling program is also a testament to its environmental activism.

An encouraging sign that sustainability is starting to be taken seriously in some organisations is the fact that some corporations in the world are becoming deeply worried about global climate change and are making announcements, to be followed up by action, on how their organisations are adopting sustainable management practices. Throughout the rest of the book, we have therefore included many other Managing for Sustainability boxes that illustrate to students the actions of business organisations of all sizes who have taken up the challenge of sustainability.

Answers to REVIEW QUESTIONS

1. Explain why studying management history is important.

Studying and understanding the development of management history can help us to understand today's management theory and practice. It can help us see what worked and what did not work. This chapter introduces the origins of many contemporary management concepts and shows how they have evolved to reflect the changing needs of organisations and society as a whole. For example, it can be seen how division of labour increased productivity by increasing each worker's skill and dexterity, saved time that was commonly lost in changing tasks, and created labour-saving inventions and machinery. During the Industrial Revolution, business owners were creating large businesses that required formalised management practice. These changes generated new management ideas and practices. Even today, management is still evolving and many of the important trends and issues that managers currently face are generating new management ideas and practices. (LO: 2.1, Provide some examples of early management practice.)

2. Describe some early examples of management practice.

Some early examples of management practice are the Egyptian pyramids, the Great Wall of China, and the status of Venice as a major economic trade centre in the 1400s. In order to run these operations management was needed. Regardless of what managers were called at the time, someone had to plan what was to be done, organise people and material, lead and direct the workers and impose controls to ensure that things were done as planned. (LO: 2.1, Provide some examples of early management practice.)

3. Describe the important contributions made by Frederick W. Taylor and Frank and Lillian Gilbreth.

Frederick Taylor defined four principles of management—develop a science for each element of an individual's work; scientifically select, train, teach and develop each worker; cooperate with workers to ensure that all work is done in accordance with the principles of science; and divide work and responsibility almost equally between management and workers. Taylor suggested that by applying these four principles managers were going to be able to achieve productivity improvements. Frank and Lillian Gilbreth studied work arrangements to eliminate wasteful hand and body motions. They also experimented with the design and use of proper tools and equipment for optimising work performance. Again, productivity improvements from these studies were important contributions. (LO: 2.2, Discuss the important contributions of scientific management within the classical approach.)

4. Discuss how today's managers use scientific management.

Scientific management is the use of scientific methods to define the 'one best way' for a job to be done. Its relevance to current management practice is that managers still use many of the techniques developed by Taylor, the Gilbreths and other practitioners. Managers still analyse the basic work tasks that must be performed to find the most efficient and effective way to complete a job. Many organisations are also performing time-and-motion studies to eliminate wasted motions—you only need to observe the layout of a McDonald's restaurant to see how the layout has been designed to make the operation as efficient as possible. Other examples are the incentive systems that are used in organisations and how they go about hiring the best qualified applicants for a job. All these ideas were originally developed by the advocates of the scientific management school of management thinking. (LO: 2.2, Discuss the important contributions of scientific management within the classical approach.)

5. Discuss Henri Fayol's 14 management principles.

Henri Fayol's 14 principles of management were division of work, authority, discipline, unity of command, unity of direction, subordination of individual interests, remuneration, centralisation, scalar chain, order, equity, stability of tenure of personnel, initiative and esprit de corps. In contrast to Taylor's principles, Fayol's focused on the entire organisation and not just the individual worker. Fayol suggested that these 14 principles could be taught in schools and applied in all organisational situations. (LO: 2.3, Explain the influences of general administrative theorists within the classical approach.)

6. Describe Max Weber's contributions to the general administrative theory of management.

Max Weber described an ideal type of organisation called a bureaucracy, characterised by division of labour, a clearly defined hierarchy, detailed rules and regulations, and impersonal relationships. Rules and controls were to be applied uniformly, avoiding involvement with individual personalities and preferences of employees. (LO: 2.3, Explain the influences of general administrative theorists within the classical approach.)

7. Discuss how today's managers use general administrative theories of management.

Many of our current management ideas and practices can be traced to Fayol's 14 principles of management. For example, principle 14 'esprit de corps', or promoting team spirit, is as important and relevant in today's organisations as it was nearly a hundred years ago. The functional view— that managers plan, organise, lead and control—can also be traced to Henri Fayol. The same applies to Weber's bureaucracy ideas. Although his model may not be as popular today as it was in the 20th century, some of these bureaucratic mechanisms are still necessary in large organisations in order to ensure that resources are used efficiently and effectively. (LO: 2.3, Explain the influences of general administrative theorists within the classical approach.)

8. Explain what the quantitative approach has contributed to the field of management.

The quantitative approach, also called operations research or management science, is the use of quantitative techniques to improve decision making. It evolved out of the development of mathematical and statistical solutions to military problems during the Second World War. After the war, many quantitative techniques that had been used for military problems were applied to the business sector. The quantitative approach has added another dimension to the evolution of management practice and thinking and has contributed most directly to

management decision making in planning and control. (LO: 2.4, Describe the quantitative approach.)

9. Discuss how today's managers use the quantitative approach.

When managers make budgeting, scheduling, quality control and similar decisions, they typically rely on quantitative techniques that were developed through the quantitative approach. Although the development of computer software programs to aid in developing models, equations and formulas has made the quantitative techniques less intimidating for managers, there is still scope to further apply the techniques. (LO: 2.4, Describe the quantitative approach.)

10. Describe the contributions of the early advocates of organisational behaviour.

Early advocates of the OB approach were Robert Owen, who proposed an idealised workplace where work hours would be regulated, child labour outlawed, public education and meals provided, and business involved in community projects; Hugo Munsterberg, who created the field of industrial psychology, that is, the study of individuals at work with intent to maximise their productivity and adjustment; Mary Parker Follett, who thought that organisations should be based on a group ethic rather than on individualism in order to release individual potential; and Chester Barnard, who saw organisations as social systems that required human cooperation. (LO: 2.5, Discuss the development and uses of the organisational behaviour approach.)

11. Explain the contributions of the Hawthorne Studies to the field of management.

The Hawthorne Studies, conducted at the Western Electric Company Works in Cicero, Illinois, from 1924 through to the early 1930s, exposed an experimental group of workers to various lighting intensities while providing a control group with constant intensity. As the level of light was increased in the experimental group, the output of both groups increased. The series of studies led to a new emphasis on the human behaviour factor and helped change the dominant theme of the time which held that employees were no different to any other machines the organisation used. (LO: 2.5, Discuss the development and uses of the organisational behaviour approach.)

12. Identify how the human relations and behavioural science theorists differ.

The human relations theorists were individuals whose views were shaped more by their personal philosophies than by substantive research evidence. The behavioural science theorists' group encompasses psychologists and sociologists who relied on the scientific method for their study of organisational behaviour. This group engaged in objective research of human behaviour in organisations and carefully attempted to keep their personal beliefs out of their work. (LO: 2.5, Discuss the development and uses of the organisational behaviour approach.)

13. Discuss how today's managers use the behavioural approach.

The behavioural approach has largely shaped today's contemporary organisations. We can identify elements of the behavioural approach in the ways that managers design motivating jobs, and the ways they work with employee teams, and the ways they open up communication channels. Much of what the early OB advocates proposed, as well as the conclusions from the Hawthorne Studies, provided the foundations for our current theories of motivation, leadership, group behaviour and development, and numerous other behavioural topics which are addressed in later chapters of this book. (LO: 2.5, Discuss the development and uses of the organisational behaviour approach.)

14. Describe an organisation using the systems approach.

An organisation takes in inputs (resources) from the environment and transforms or processes these resources into outputs that are distributed into the environment. The organisation is 'open' to its environment and interacts with that environment. (LO: 2.6, Explain the systems and contingency theories in the contemporary approach.)

15. Discuss how the systems approach is appropriate for understanding management.

The systems approach recognises the interdependency of internal activities in the organisation and between the organisation and its external environment. For example, the systems approach would recognise that, no matter how efficient the production department might be, if the marketing department does not anticipate changes in customer tastes and work with the product development department in creating the products customers want, the organisation's overall performance will suffer. This then implies that management's job is to coordinate the work activities of the various parts of the organisation and ensure that all the interdependent parts of the organisation (or the 'system') are working together so that the organisation's goals can be achieved. (LO: 2.6, Explain the systems and contingency theories in the contemporary approach.)

16. Explain how the contingency approach differs from the early theories of management.

The contingency approach recognises that organisations are different, face different situations (contingencies) and require different ways of managing. This is quite different from the early theories of management that were assumed to be universally applicable. The contingency approach has helped managers to understand that different and changing situations require managers to use different approaches and techniques. The contingency approach allows the manager to adapt his or her action to the situation and, in so doing, increases the probability that the action will improve organisational effectiveness. (LO: 2.6, Explain the systems and contingency theories in the contemporary approach.)

17. Discuss how the systems approach is appropriate for studying management.

Because organisations differ in size, objectives, tasks to be performed, and environmental uncertainty, a general theory of management applicable to all situations would be impossible. The managers must instead 'read' and attempt to interpret the situational contingencies facing them before deciding the best way to work with and through others as they coordinate work activities. Some popular contingency variables are organisation size, routineness of task technology, environmental uncertainty and individual differences. Hence, the primary value of the contingency approach is that it stresses to managers that there are no simplistic or universal rules for managers to follow when doing their jobs. (LO: 2.6, Explain the systems and contingency theories in the contemporary approach.)

18. Explain why we need to look at the current trends and issues facing managers.

As you have seen in the previous discussion in this chapter, there have been a number of issues and trends that have influenced the theory and practice of management in the past. Management is also an evolving field and, as current trends and issues continue to challenge managers in new ways, we will see new management theory and practice develop. (LO: 2.7, Provide examples of current trends and issues that are influencing management today.)

19. Describe the current trends and issues facing managers.

Globalisation is one of the current trends and issues facing managers. Organisational operations no longer stop at geographic borders. Managers in all types and sizes of organisations are faced with the opportunities and challenges of globalisation.

Ethics is another current issue because of the widespread cases of corporate lying, misrepresentation and financial manipulation that have taken place during the last 5–10 years.

While most managers continue to behave in a highly ethical manner, the abuses suggest a need to 'upgrade' ethical standards in some organisations.

Workforce diversity exists when workers are more heterogeneous in terms of gender, race, ethnicity, age and other characteristics that reflect their differences. It is an important issue because as more women, minorities, elderly and immigrants enter the job market in the first part of the 21st century, monumental changes are predicted in the workplace.

Entrepreneurship is another current issue because of the need to pursue opportunities, innovation and growth in businesses. It is an issue that is important to societies around the world.

Organisations of the 21st century must be able to learn and respond quickly. A *learning organisation* is one that has developed the capacity to continuously learn, adapt and change. *Knowledge management* involves cultivating a learning culture where organisational members systematically gather knowledge and share it with others in the organisation in order to achieve better performance.

A final current issue covered in this chapter is *sustainability*. The threat of global warming and climate change is a problem that calls for new thinking and more innovative management approaches. It will require real change, because business-as-usual is no longer an option the world can pursue as it tries to deal with this enormous 21st-century challenge. (LO: 2.7, Provide examples of current trends and issues that are influencing management today.)

Answers to THINKING CRITICALLY ABOUT MANAGEMENT ISSUES

1. Explain why studying management history is important.

Studying history is important because it helps us see the origins of today's management practices and helps us see what has and has not worked. We can see early examples of management practice in the construction of the Egyptian pyramids and in the arsenal of Venice. One important historical event was the publication of Adam Smith's *Wealth of Nations*, in which he argued the benefits of the division of labour (job specialisation). Another was the Industrial Revolution where it became more economical to manufacture in factories than at home. Managers were needed to manage these factories and these managers needed formal management theories to guide them. (LO: 2.1, Provide some examples of early management practice; AACSB: Reflective thinking skills.)

2. What kind of workplace would Henri Fayol create? Mary Parker Follett? Frederick W. Taylor?

Fayol would probably create a workplace in which managers could perform the managerial functions of planning, organising, coordinating, commanding and controlling. In addition, he would have a workplace in which his 14 management principles would be followed. (LO: 2.3, Explain the influences of general administrative theorists within the classical approach; AACSB: Analytic skills.)

Follett would undoubtedly create a workplace in which managers and workers viewed themselves as partners, as part of a common group. In such a workplace, managers would rely more on their expertise and knowledge to lead subordinates, rather than the formal authority of their position. Empowerment and teamwork would be hallmarks of a Follett-style workplace. (LO: 2.5, Discuss the development and uses of the organisational behaviour approach; AACSB: Analytic skills.)

Taylor would envision a workplace in which managers and workers scientifically analysed and determined the 'one best way' to accomplish each job. He would put the right person on the

job with the correct tools and equipment, would have the worker follow instructions exactly, and would motivate the worker with an economic incentive of a significantly higher daily wage. Consistent productivity improvements would be his goal in the workplace. (LO: 2.2, Discuss the important contributions of scientific management within the classical approach; AACSB: Analytic skills.)

3. Why were the Hawthorne Studies so critical to management history?

The Hawthorne Studies dramatically impacted management beliefs about the role of people in organisations, leading to a new emphasis on the human behaviour factor in managing. The behavioural approach has largely shaped how today's organisations are managed. Many current theories of motivation, leadership, group behaviour and development and other behavioural issues can be traced to the early OB advocates and the conclusions from the Hawthorne Studies. (LO: 2.5, Discuss the development and uses of the organisational behaviour approach; AACSB: Analytic skills.)

4. Can a mathematical (quantitative) technique help a manager solve a 'people' problem, such as how to motivate employees or how to distribute work equitably? Explain.

Although we need to recognise that some 'people' problems can't be expressed quantitatively, mathematical techniques could help a manager solve some of these problems. For example, statistical methods, information models, computer simulations and other quantitative techniques are designed to help managers make better decisions. As such, they could help a manager address people problems being encountered in the workplace. (LO: 2.4, Describe the quantitative approach; AACSB: Reflective thinking skills.)

5. Continual improvement is a cornerstone of TQM. Is continual improvement possible? What challenges do organisations face in searching for ways to continually improve? How can managers deal with those challenges?

In discussing this issue with students, it is useful to think about a specific job such as a salesperson in a retail setting. One of the obvious ways for this employee to improve would be in the number of sales made per month. Ask students to consider the impact of improving sales by 5 per cent from the previous month. Next, ask students to consider the ramifications of asking an employee to do this over the course of 12 months. The increase in sales would be beyond what an employee could accomplish. The challenge for managers is to think of different goals, not just continuous improvement in the same area. (LO: 2.4, Describe the quantitative approach; AACSB: Analytic skills.)

6. How does the systems theory help managers to understand what they need to focus on when they manage an organisation?

The systems approach says that an organisation takes in inputs (resources) from the environment and transforms or processes these resources into outputs that are distributed into the environment. It helps managers to understand that they must ensure that all the interdependent units are working together in order to achieve the organisation's goals, that decisions and actions taken in one organisational area will affect others, and that organisations are not self-contained, but instead rely on their environment for essential inputs and as outlets to absorb their outputs. (LO: 2.6, Explain the systems and contingency theories in the contemporary approach; AACSB: Analytic skills.)

7. How can an approach in which we say 'it depends on the situation' be useful to managers? Discuss.

The answer to this question goes to the heart of theory and practice. While the theory discussed in this chapter (and future chapters) is useful in explaining and predicting behaviour, it is also too simple to be used in most organisations because of all the other variables at play in any situation. While theory is intended to be simplistic and static, people and organisations are complex and dynamic. But this should not be an excuse for managers who attempt to use accepted theory and practices. Managers should embrace the differences in people and organisations and do their best to apply theory to the context of their organisation. (LO: 2.6, Explain the systems and contingency theories in the contemporary approach; AACSB: Reflective thinking skills.)

8. How do societal trends influence the practice of management? What are the implications for someone studying management?

Societal trends greatly influence the practice of management. For example, the change in society's emphasis on the value of diversity has profound implications for management. Australian society has progressed from an emphasis on assimilation ('melting pot') of differences in the 1980s to a celebration and recognition of differences today. Therefore, the way that organisations are structured, their motivation programs and other work-related processes must be aligned with the needs of a diverse and pluralistic workforce. This is a global issue and other countries such as Japan, Canada, Europe, South Africa and the US are experiencing similar diversity trends. (LO: 2.7, Provide examples of current trends and issues that are influencing management today; AACSB: Reflective thinking skills.)

BECOMING A MANAGER—Some steps to encourage your students to engage in the course material and their studies

At the end of the chapter we provide some suggestions on how students can prepare themselves for becoming a manager. Some simple but effective action steps that you may want to encourage your students to follow as they study your course would be to:

- Explore the cross-disciplinary nature of management.
- Explore the application of scientific management principles in many jobs and organisations.
- Do some research about an organisation to see how it has changed over the years and how this may relate to the six approaches to management, as well as the current trends and issues identified in this chapter.
- Describe three things they have learned in this chapter about being a good manager.

From our own experiences as lecturers we have found that the more we can encourage our students to see the relevance of what they are studying, the more they will be engaged and inspired when working through their study material.

WORKING TOGETHER: TEAM-BASED EXERCISE

Creating a knowledge base for your university

The task for students to accomplish with this activity is to do some preliminary work on creating a knowledge base for your particular institution, such that different organisational members could utilise the information to increase efficiency and effectiveness. Form groups of three to four students for discussion.

One suggestion would be for each group to develop a knowledge 'list' for different campus offices or functions. For instance, have one group concentrate on the Registrar's Office, another on the Student Union, the Alumni Office, etc. The groups should identify what tasks the office performs for students and other institutional offices, what common activities the office performs that other offices might also be performing, and what unique tasks the office performs. After discussing these issues, compile an outline of major areas of important knowledge possessed by the entire organisation as a result of the efforts of each office or department.

A couple of hints that might help get the activity started are: (1) using technology to enhance teaching and learning in the classroom, and (2) using technology to keep in touch with former students and/or alumni. (LO: 2.7, Provide examples of current trends and issues that are influencing management today; AACSB: Communication skills, Use of information technology.)

ETHICAL DILEMMA

Ethics and corporate governance

In this second ethical dilemma exercise, students are asked to look at the ethical dilemmas associated with having to communicate information that is not flattering to the organisation, particularly in regard to how it informs its shareholders and the market. You might want to have students look at this by themselves initially, and then pair off with another person to discuss their conclusions.

You might also try discussing this topic with the entire class of students once they have had a chance to assess it personally and in pairs. What types of guidelines did students develop? You might also want to discuss whether these guidelines would apply internationally or not. (LO: 2.7, Provide examples of current trends and issues that are influencing management today; AACSB: Ethical understanding and reasoning abilities.)

Answers to CASE APPLICATION Questions

The rise and fall of Ford Australia

1. How has Ford used the principles of scientific management in its operations?

Aspects of scientific management—the use of the scientific method to define the 'one best way' for a job to be done—have always been used to streamline production processes at Ford to increase the efficiencies on its assembly lines. As managers at Ford analysed the work tasks that must be performed, hired the most qualified workers and established incentive systems based on output, they were engaging in scientific management to improve production efficiency. (LO: 2.2, Discuss the important contributions of scientific management within the classical approach; AACSB: Reflective thinking skills.)

2. How has the quantitative approach been used in improving the operations at Ford Australia?

Quantitative techniques have been used at Ford Australia to help managers make decisions such as scheduling and budgeting. Quantitative techniques, such as statistical measures and TQM were used by production managers as they addressed quality control in their efforts to eliminate variances in the quality of the company's products. (LO: 2.4, Describe the quantitative approach; AACSB: Reflective thinking skills.)

3. How has the organisational behaviour approach been useful to improving Ford Australia's operations?

For example, as identified in the case, Ford Australia introduced a more participative management approach, which helped it to generate greater involvement of its Australian employees in the design and control of their own work. Since front-line managers directly supervise workers, these managers must have had knowledge and skills in a variety of aspects of organisational behaviour, including organisational communication and an understanding of a variety of personalities and perceptions. The CEO and other top managers must have had knowledge and skills related to organisational behaviour in order to communicate the company's vision and to influence managers on every level to lead employees in following the mission of the organisation. (LO: 2.5, Discuss the development and uses of the organisational behaviour approach; AACSB: Analytic skills.)

4. Using Figure 2.4 (page 55), how would you describe Ford as an open system? What were the factors in this systems model that made Ford decide to close its manufacturing operations in Australia?

Ford Australia was an open system, sensitive to its external environment (for example, the needs and wants of its customers, higher petrol prices and international competition, just to mention a few). This was evident when Ford Australia, spotting the trend away from large sedans towards sport utility vehicles, developed the Ford Territory, which was initially a great success. However, continually increasing petrol prices and a shift in customer preferences for smaller, more fuel-economical four-cylinder cars placed Ford Australia in an increasingly difficult position, as it only produced large six- or eight-cylinder cars. An increasingly globalised car manufacturing industry made it progressively more difficult for Ford to continue manufacturing cars in Australia. It was unable to viably compete due to its high costs and the losses caused by the falling demand for its main product, the Ford Falcon. Contributing to this was the decision by the Australian government that it was not going to continue to financially support car manufacturers in Australia, as had been the case over a long period. (LO: 2.6, Explain the systems and contingency theories in the contemporary approach; AACSB: Analytic skills.)

5. Does the contingency theory also offer some insights into what factors may have influenced various management decisions at Ford Australia? If so, how and why?

From the case material it is clear that management decisions at Ford have not followed any simplistic principles that can be applied in all situations. It is clear that different and changing situations have required managers at Ford to use different approaches and techniques over time as Ford Australia has evolved and developed and as the external environment has changed. Ford's managers and top executives alike must view the company as a complete system, realising that the successful management and operation of each part of the company affects the well-being of the entire corporation. Some of the popular contingency variables that we have listed in Table 2.4 such as organisation size, routineness of task technology, environmental uncertainty and individual differences have all influenced decisions that have been made at Ford Australia and in the global operations of Ford itself. (LO: 2.6, Explain the systems and contingency theories in the contemporary approach; AACSB: Analytic skills.)

6. Have any of the current trends or issues influenced decision making and management at Ford Australia? If so, what are they?

The current trends and issues we have identified at the end of this chapter, such as globalisation, ethics, workforce diversity, entrepreneurship, knowledge management and learning organisations, and managing for sustainability, can all be discussed in relation to Ford Australia and how the company has operated over time until the final decision to close its manufacturing operations in Australia. For example, you could allocate each of these seven issues to two to four students for them to do some research and then present their findings. (LO: 2.7, Provide examples of current trends and issues that are influencing management today; AACSB: Use of information technology, Teamwork.)

7. You may also want to do some further research on the current status of Holden Australia and Toyota Australia. Are they still manufacturing cars in Australia? Why or why not? Again, this question would be useful to encourage students to do some research utilising various sources to follow up what is currently happening in Australia in relation to Holden Australia and Toyota Australia, both of which have also made the decision to close down their

Australia and Toyota Australia, both of which have also made the decision to close down their car manufacturing in Australia in 2017. You may also want to get students to follow up with what is happening to car component manufacturers in Australia as they try to move into new products and markets. (LO: 2.7, Provide examples of current trends and issues that are influencing management today, AACSB: Use of information technology.)

ADDITIONAL CHAPTER INFORMATION

Here is a class discussion generator that you might want to use. However, be prepared to defend why it is still important to look at how management thought has evolved!

A book, *Real Time: Preparing for the Age of the Never Satisfied Customer* by Regis McKenna, argues that companies will have to reorganise to conduct their business in real time because 'the competitive environment will no longer tolerate slow responses or delayed decision making'. The assumptions of decades of scientific management theories and of control freaks such as Frederick W. Taylor have deluded managers into believing that the future can be predicted and controlled. It's time that managers realised that 'continuous discontinuous change' will be necessary for success and that planning much beyond the next quarter will be futile.

Studying the major theories and theorists can prove cumbersome to some students. One approach to learning this material that has been previously used in a classroom was playing a trivia game for points. The faculty member developed questions in the Jeopardy-format about management history, early theories and early theorists. The class was divided into teams to compete. During its turn, a team selects a category and the faculty reads the appropriate question. If the team successfully answers the question, the team is awarded 10 points; if the team answers incorrectly, 10 points are deducted from its score, and the next team in rotation is given the opportunity to answer the question. If this team successfully answers the question, it receives the 10 points. Teams select and attempt to answer questions in a rotating manner, with all teams having the same number of 'turns'. At the end of the class period, the team with the most points is declared the winner and awarded a bonus of 10 points. Then, the earned team points are added to each team member's grade as an in-class activity for that day. Negative team scores are simply recorded as a 10-point participation grade. This game method of studying the history, theories and theorists has proven to be quite fun and the students even learned!

Internet-based information

Listed below are websites that provide information about early theorists.

Frederick W. Taylor

- Management Leaders <www.skymark.com/resources/leaders/taylor.asp>
- Business Biography <www.stfrancis.edu/content/ba/ghkickul/stuwebs/bbios/biograph/fwtaylor.htm>

Gilbreths

- Accel-Team: Scientifics Managers < www.accel-team.com/scientific/scientific_03.html>
- Encyclopedia Britannica <www.britannica.com/EBchecked/topic/233585/Frank-Bunker-Gilbreth>
- Purdue School of Industrial Engineering: The Gilbreth Library <ie.www.ecn.purdue.edu/IE/gilbreth/>

Hawthorne Studies

- Hawthorne Effect <www.nwlink.com/~donclark/hrd/history/hawthorne.html>
- Informal Organisational Structure: The Hawthorne Studies </br/>
 </www.analytictech.com/mb021/Hawthorne.html>

Listed below are websites that provide information about some current management issues.

Workforce diversity

- Diversity Council Australia <www.dca.org.au>
- Workplace Gender Equality Agency <www.wgea.gov.au>
- US Department of the Interior: Workforce Diversity <www.doi.gov/diversity/>

Learning organisations

- Learning Organization <www.learning-org.com/>
- SLOW: Stanford Learning Organization Web <www.stanford.edu/group/SLOW/>
- The Society for Organizational Learning <www.solonline.org/>

Knowledge management

- Knowledge Management <www.aiai.ed.ac.uk/~alm/kamlnks.html>
- Knowledge Management—Emerging Perspectives <www.systems-thinking.org/kmgmt/kmgmt.htm>
- Knowledge Management Forum <www.km-forum.org/>

Sustainability

- Garnaut Climate Change Review <www.garnautreview.org.au>
- Sustainable Development—The UK Government Approach <www.defra.gov.uk>
- The International Corporate Sustainability Reporting Site <www.enviroreporting.com>

Cover illustration © mcherevan / Shutterstock.com.

Copyright ©2015 Pearson Australia (a division of Pearson Australia Group Pty Ltd)–9781486006335/Robbins/Management/7th edition