

WILLIAMS

MGMT¹²

PRINCIPLES OF MANAGEMENT

NOW WITH  MINDTAP
From Cengage



MGMT¹²

PRINCIPLES OF MANAGEMENT

CHUCK WILLIAMS

Butler University



Australia • Brazil • Canada • Mexico • Singapore • United Kingdom • United States

Copyright 2022 Cengage Learning. All Rights Reserved. May not be copied, scanned, or duplicated, in whole or in part. WCN 02-200-322

Copyright 2022 Cengage Learning. All Rights Reserved. May not be copied, scanned, or duplicated, in whole or in part. Due to electronic rights, some third party content may be suppressed from the eBook and/or eChapter(s). Editorial review has deemed that any suppressed content does not materially affect the overall learning experience. Cengage Learning reserves the right to remove additional content at any time if subsequent rights restrictions require it.

This is an electronic version of the print textbook. Due to electronic rights restrictions, some third party content may be suppressed. Editorial review has deemed that any suppressed content does not materially affect the overall learning experience. The publisher reserves the right to remove content from this title at any time if subsequent rights restrictions require it. For valuable information on pricing, previous editions, changes to current editions, and alternate formats, please visit www.cengage.com/highered to search by ISBN#, author, title, or keyword for materials in your areas of interest.

Important Notice: Media content referenced within the product description or the product text may not be available in the eBook version.

MGMT 12e
Chuck Williams

Senior Vice President, Higher Education & Skills
Product: Erin Joyner

Product Director: Joe Sabatino

Product Manager: Heather Mooney

Content Manager: Amanda White

Product Assistant: Nick Perez

Marketing Manager: Audrey Wyrick

Marketing Coordinator: Alexis Cortez

Intellectual Property Analyst: Diane Garrity

Intellectual Property Project Manager: Carly
Belcher

Production Service: MPS Limited

Senior Art Director: Bethany Bourgeois

Text Designer: Tippy McIntosh

Cover Designer: Lisa Kuhn, Curio Press, LLC/
Bethany Bourgeois

Cover Image: iStock.com/andresr

© 2022, 2019 Cengage Learning, Inc.

Unless otherwise noted, all content is © Cengage.

ALL RIGHTS RESERVED. No part of this work covered by the copyright herein may be reproduced or distributed in any form or by any means, except as permitted by U.S. copyright law, without the prior written permission of the copyright owner.

For product information and technology assistance, contact us at
Cengage Customer & Sales Support, 1-800-354-9706 or
support.cengage.com.

For permission to use material from this text or product, submit all
requests online at **www.cengage.com/permissions.**

Library of Congress Control Number: 2020914123

ISBN: 978-0-357-13772-7

Cengage
200 Pier 4 Boulevard
Boston, MA 02210
USA

Cengage is a leading provider of customized learning solutions with employees residing in nearly 40 different countries and sales in more than 125 countries around the world. Find your local representative at **www.cengage.com.**

To learn more about Cengage platforms and services, register or access your online learning solution, or purchase materials for your course, visit **www.cengage.com.**

CHUCK WILLIAMS

MGMT¹²

BRIEF CONTENTS



PART 1 INTRODUCTION TO MANAGEMENT

- 1** Management 2
- 2** The History of Management 22
- 3** Organizational Environments and Cultures 44
- 4** Ethics and Social Responsibility 68

PART 2 PLANNING

- 5** Planning and Decision-Making 92
- 6** Organizational Strategy 114
- 7** Innovation and Change 138
- 8** Global Management 160

PART 3 ORGANIZING

- 9** Designing Adaptive Organizations 186
- 10** Managing Teams 210
- 11** Managing Human Resource Systems 232
- 12** Managing Individuals and a Diverse Workforce 264

PART 4 LEADING

- 13** Motivation 288
- 14** Leadership 312
- 15** Managing Communication 336

PART 5 CONTROLLING

- 16** Control 360
- 17** Managing Information 380
- 18** Managing Service and Manufacturing Operations 404

Endnotes 427

Index 473

iStock.com/andresr

Contents

Part 1 Introduction to Management



1 Management 2

- 1-1 Management Is . . . 2
- 1-2 Management Functions 4
- 1-3 Kinds of Managers 7
- 1-4 Managerial Roles 10
- 1-5 What Companies Look for in Managers 14
- 1-6 Mistakes Managers Make 16
- 1-7 The Transition to Management: The First Year 17
- 1-8 Competitive Advantage through People 19

2 The History of Management 22

- 2-1 The Origins of Management 22
- 2-2 Scientific Management 25
- 2-3 Bureaucratic and Administrative Management 30
- 2-4 Human Relations Management 35
- 2-5 Operations, Information, Systems, and Contingency Management 38

3 Organizational Environments and Cultures 44

- 3-1 Changing Environments 44
- 3-2 General Environment 49
- 3-3 Specific Environment 53
- 3-4 Making Sense of Changing Environments 59
- 3-5 Organizational Cultures: Creation, Success, and Change 61

4 Ethics and Social Responsibility 68

- 4-1 Workplace Deviance 68
- 4-2 US Sentencing Commission *Guidelines Manual* for Organizations 72
- 4-3 Influences on Ethical Decision-Making 75
- 4-4 Practical Steps to Ethical Decision-Making 80
- 4-5 To Whom Are Organizations Socially Responsible? 85
- 4-6 For What Are Organizations Socially Responsible? 87
- 4-7 Responses to Demands for Social Responsibility 89
- 4-8 Social Responsibility and Economic Performance 91

Part 2 Planning



5 Planning and Decision-Making 92

- 5-1 Benefits and Pitfalls of Planning 92
- 5-2 How to Make a Plan That Works 95
- 5-3 Planning from Top to Bottom 99
- 5-4 Steps and Limits to Rational Decision-Making 104
- 5-5 Using Groups to Improve Decision-Making 108

6 Organizational Strategy 114

- 6-1 Sustainable Competitive Advantage 114
- 6-2 Strategy-Making Process 117
- 6-3 Corporate-Level Strategies 123
- 6-4 Industry-Level Strategies 129
- 6-5 Firm-Level Strategies 133

7 Innovation and Change 138

- 7-1 Why Innovation Matters 138
- 7-2 Managing Innovation 145
- 7-3 Organizational Decline: The Risk of Not Changing 151
- 7-4 Managing Change 153

8 Global Management 160

- 8-1 Global Business, Trade Rules, and Trade Agreements 160
- 8-2 Consistency or Adaptation? 169
- 8-3 Forms for Global Business 170
- 8-4 Finding the Best Business Climate 174
- 8-5 Becoming Aware of Cultural Differences 180
- 8-6 Preparing for an International Assignment 182

Part 3 Organizing



9 Designing Adaptive Organizations 186

- 9-1 Departmentalization 186
- 9-2 Organizational Authority 195
- 9-3 Job Design 199
- 9-4 Intraorganizational Processes 202
- 9-5 Interorganizational Processes 206

10 Managing Teams 210

- 10-1 The Good and Bad of Using Teams 210
- 10-2 Kinds of Teams 215
- 10-3 Work Team Characteristics 220
- 10-4 Enhancing Work Team Effectiveness 225

11 Managing Human Resource Systems 232

- 11-1 Employment Legislation 232
- 11-2 Recruiting 238
- 11-3 Selection 242

- 11-4 Training 250
- 11-5 Performance Appraisal 253
- 11-6 Compensation and Employee Separation 257

12 Managing Individuals and a Diverse Workforce 264

- 12-1 Diversity: Differences That Matter 264
- 12-2 Surface-Level Diversity 269
- 12-3 Deep-Level Diversity 278
- 12-4 Managing Diversity 281

Part 4 Leading



13 Motivation 288

- 13-1 Basics of Motivation 288
- 13-2 Equity Theory 295
- 13-3 Expectancy Theory 299
- 13-4 Reinforcement Theory 302
- 13-5 Goal-Setting Theory 308
- 13-6 Motivating with the Integrated Model 310

14 Leadership 312

- 14-1 Leaders versus Managers 312
- 14-2 Who Leaders Are and What Leaders Do 314
- 14-3 Putting Leaders in the Right Situation: Fiedler's Contingency Theory 319

- 14-4 Adapting Leader Behavior: Hersey and Blanchard's Situational Leadership® Theory 323
- 14-5 Adapting Leader Behavior: Path–Goal Theory 325
- 14-6 Adapting Leader Behavior: Normative Decision Theory 329
- 14-7 Visionary Leadership 331

15 Managing Communication 336

- 15-1 Perception and Communication Problems 336
- 15-2 Kinds of Communication 341
- 15-3 Managing One-on-One Communication 348
- 15-4 Managing Organizationwide Communication 354

Part 5 Controlling



16 Control 360

- 16-1 The Control Process 360
- 16-2 Control Methods 366
- 16-3 What to Control? 370

17 Managing Information 380

- 17-1 Strategic Importance of Information 380
- 17-2 Characteristics and Costs of Useful Information 385
- 17-3 Capturing, Processing, and Protecting Information 389
- 17-4 Accessing and Sharing Information and Knowledge 398

18 Managing Service and Manufacturing Operations 404

18-1 Productivity 404

18-2 Quality 409

18-3 Service Operations 415

18-4 Manufacturing Operations 417

18-5 Inventory 420

Endnotes 427

Index 473

1 | Management

LEARNING OUTCOMES

- 1-1 Describe what management is.
- 1-2 Explain the four functions of management.
- 1-3 Describe different kinds of managers.
- 1-4 Explain the major roles and subroles that managers perform in their jobs.
- 1-5 Assess managerial potential, based on what companies look for in managers.
- 1-6 Recognize the top mistakes that managers make in their jobs.
- 1-7 Describe the transition that employees go through when they are promoted to management.
- 1-8 Explain how and why companies can create competitive advantage through people.

1-1 MANAGEMENT IS . . .

Management issues are fundamental to any organization: How do we plan to get things done, organize the company to be efficient and effective, lead and motivate employees, and put controls in place to make sure plans are followed and goals are met? Good management is basic to starting a business, growing a business, and maintaining a business after it has achieved some measure of success.

To understand how important *good* management is, think about this. **Sears** dominated US retailing for a century.¹ Before Amazon, the Sears catalog sold everything from Christmas toys to 447 kinds of assemble-it-yourself houses!² And, before Walmart Supercenters, there was a Sears store within 30 minutes of every American, where consumers picked up catalog orders and bought everything from clothes to furniture to Kenmore appliances.³ But since 2010, despite raising \$10.6 billion by selling its best brands (Lands End, Craftsman tools, and Diehard batteries) and

its 337 strongest stores, Sears has shrunk from 3,500 to 695 stores, laid off 250,000+ employees, lost \$12 billion, and filed for bankruptcy in 2018.⁴ With additional closings, just 182 Sears stores will remain in early 2020.⁵

Ah, bad managers and bad management. Is it any wonder that companies pay management consultants nearly \$230 billion a year for advice on basic management issues such as how to outperform competitors to earn customers' business, lead people effectively, organize the company efficiently, and manage large-scale projects and



processes?⁶ This textbook will help you understand some of the basic issues that management consultants help companies resolve. (And it won't cost you billions of dollars.)

Many of today's managers got their start welding on the factory floor, clearing dishes off tables, helping customers fit a suit, or wiping up a spill in aisle 3. Similarly, lots of you will start at the bottom and work your way up. There's no better way to get to know your competition, your customers, and your business. But whether you begin your career at the entry level or as a supervisor, your job as a manager is not to do the work but to help others do theirs.

Management is getting work done through others.

Vineet Nayar, former CEO of IT services company HCL Technologies, doesn't see himself as the guy who has to do everything or have all the answers. Instead, he sees himself as "the guy who is obsessed with enabling employees to create value." Rather than coming up with solutions himself, Nayar creates opportunities for collaboration, for peer review, and for employees to give feedback on ideas and work processes. Says Nayar, "My job is to make sure everybody is enabled to do what they do well."⁷

Nayar's description of managerial responsibilities suggests that managers must also be concerned with



Ken Wolter/Shutterstock.com

Sears is so cash strapped that it has sold off its best brands, shut down hundreds of stores, and filed for bankruptcy.

efficiency and effectiveness in the work process.

Efficiency is getting work done with a minimum of effort, expense, or waste. At **Maersk**, the world's largest container

Management getting work done through others

Efficiency getting work done with a minimum of effort, expense, or waste

shipping company, Chief Operating Officer Soren Toft says, “Cutting idle time at ports is a big priority and challenge. It’s like a Formula One pit stop. The faster we come in and out, the more time and money we save.”⁸ So Maersk digitally tracks each container (a 40-foot steel box loaded onto a railroad car or behind a semi-truck) and all the loading/unloading steps for its “Triple E” ships, which hold nearly 21,000 containers. Maersk’s “Pit Stop” system ties into mobile phone apps so ships can easily share data with shore crews who position 2000-ton stacking cranes, shuttle carriers, and “truck-on” loaders to efficiently move the right container boxes on and off at each stop.⁹ For example, the Madrid Maersk unloaded and reloaded 6,500 containers in just 59 hours in Antwerp, Belgium.¹⁰

Efficiency alone, however, is not enough to ensure success. Managers must also strive for **effectiveness**, which is accomplishing tasks that help fulfill organizational objectives, such as customer service and satisfaction. Hotel apps let customers pick rooms, ask for extra towels, and check in and out, but they don’t help with hotel shuttles. Like most travelers, software executive Ken Montgomery says, “The last thing I want to do when getting off a flight is wait for a shuttle bus....”¹¹ Ray Bennett, Marriott’s chief operations officer, says the shuttle “is probably the No. 1 or No. 2 pain point for customers.”¹² After Marriott added GPS trackers to shuttles and tracking capabilities to its mobile app, phone calls to the front desk of the Dulles Airport Marriott dropped by 30 percent. Marriott general manager Keith McNeil says they’re no longer apologizing “that the shuttle’s not there. Just look at your phone and you see where it is.”¹³ The Marriott app also displays an accurate estimated time until pickup.

1-2 MANAGEMENT FUNCTIONS

Henri Fayol, who was a managing director (CEO) of a large steel company in the early 1900s, was one of the founders of the field of management. You’ll learn more about Fayol and management’s other key contributors

when you read about the history of management in Chapter 2. Based on his 20 years of experience as a CEO, Fayol argued that “the success of an enterprise generally depends much more on the

Effectiveness accomplishing tasks that help fulfill organizational objectives

Planning determining organizational goals and a means for achieving them

administrative ability of its leaders than on their technical ability.”¹⁴ A century later, Fayol’s arguments still hold true. During a two-year study code-named Project Oxygen, Google analyzed performance reviews and feedback surveys to identify the traits of its best managers. According to Laszlo Bock, Google’s former vice president for people operations, “We’d always believed that to be a manager, particularly on the engineering side, you need to be as deep or deeper a technical expert than the people who work for you. It turns out that that’s absolutely the least important thing.” What was most important? “Be a good coach.” “Empower; Don’t micromanage.” “Be product and results-oriented.” “Be a good communicator and listen to your team.” “Be interested in [your] direct reports’ success and well-being.” In short, Google found what Fayol observed: administrative ability, or management, is key to an organization’s success.¹⁵

According to Fayol, managers need to perform five managerial functions in order to be successful: planning, organizing, coordinating, commanding, and controlling.¹⁶ Most management textbooks today have updated this list by dropping the coordinating function and referring to Fayol’s commanding function as “leading.” Fayol’s management functions are thus known today in this updated form as planning, organizing, leading, and controlling. Studies indicate that managers who perform these management functions well are more successful, gaining promotions for themselves and profits for their companies. For example, the more time CEOs spend planning, the more profitable their companies are.¹⁷ A 25-year study at AT&T found that employees with better planning and decision-making skills were more likely to be promoted into management jobs, to be successful as managers, and to be promoted into upper levels of management.¹⁸

The evidence is clear. Managers serve their companies well when they plan, organize, lead, and control. So we’ve organized this textbook based on these functions of management, as shown in Exhibit 1.1.

Now let’s take a closer look at each of the management functions: 1-2a planning, 1-2b organizing, 1-2c leading, and 1-2d controlling.

1-2a Planning

Planning involves determining organizational goals and a means for achieving them. As you’ll learn in Chapter 5, planning is one of the best ways to improve performance. It encourages people to work harder, to work for extended periods, to engage in behaviors directly related to goal accomplishment, and to think of better ways to do their jobs. But most importantly, companies that plan

Exhibit 1.1

The Four Functions of Management



have larger profits and faster growth than companies that don't plan.

For example, the question "What business are we in?" is at the heart of strategic planning. You'll learn about this in Chapter 6. If you can answer the question "What business are you in?" in two sentences or less, chances are you have a very clear plan for your business. But getting a clear plan is not so easy. General Motors, Toyota, and Mercedes-Benz are in the business of making *combustion*-engine automobiles for individual consumers. But, for how much longer? The automotive industry is scrambling to catch up with Tesla, which sold 367,000 *electric* vehicles (EVs) in 2019, with new factories in China and Germany potentially raising production to a million *electric* cars a year.¹⁹ Because of ride-hailing services like Uber and Lyft, just 80 percent of 20- to 24-year-olds had a driver's license in 2017 compared to 92 percent in 1983.²⁰ And for those who drive, car-sharing services are often less expensive, especially in major cities. Yandex Drive rents 7,000 cars in Moscow, Russia, for just 8 cents a minute. After calculating the cost of his car payment, insurance, fuel, repairs and parking, Muscovite Evgeny Barkov sold his car. He says, "Now, I'm just paying for usage."²¹ Finally, with an estimated 23 million self-driving cars in the United States by 2035, even fewer people will need to



own cars.²² Toyota CEO Akio Toyoda says that adapting to these threats is "A matter of surviving or dying."²³

You'll learn more about planning in Chapter 5 on planning and decision making, Chapter 6 on organizational strategy, Chapter 7 on innovation and change, and Chapter 8 on global management.

1-2b Organizing

Organizing is deciding where decisions will be made, who will do what jobs and tasks, and who will work for whom in the company. In other words, organizing is about determining how things get done. Online orders in which customers pick up their groceries in the store parking lot without setting foot in the store are just 3.5 percent of total grocery spending. But surging customer demand is forcing grocers to reorganize how things get done.²⁴ The first challenge, according to industry analyst Sucharita Kodali, is that unlike in warehouses, "Inventory is never where it's supposed to be (in the store). People (shoppers) move it around, and fast-moving items are never there."²⁵ The second is that store workers only collect 80 items an hour from grocery store aisles.²⁶ With online orders having doubled in the last year, **Walmart** couldn't keep up. So, it turned to **Alert Innovation**.

Its Alphabot Automated Storage and Retrieval System (ASRS) reorganizes who does what. Installed in the 20,000-square-foot storerooms at the back of Walmart Supercenters, Alert Innovation's 24-foot-high system automatically moves items vertically and horizontally in automated carts from their stored locations to workstations where employees check and bag the items for pickup. According to Walmart senior manager Brian Roth, "Ultimately, this will lower dispense times, increase accuracy, and improve the entirety of online grocery (shopping)." Indeed, the Alphabot system allows Walmart associates to handle 800 items an hour, a 10-fold increase from aisle picking.²⁷ Roth concludes that the reorganization "will help free associates to focus on service and selling, while the technology handles the more mundane, repeatable tasks."²⁸

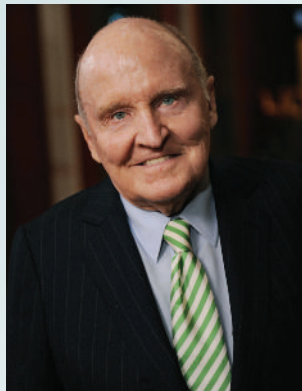
You'll learn more about organizing in Chapter 9 on designing adaptive organizations, Chapter 10 on managing teams, Chapter 11 on managing human resources, and Chapter 12 on managing individuals and a diverse workforce.

Organizing deciding where decisions will be made, who will do what jobs and tasks, and who will work for whom

What Happens When A Great CEO Leaves?

Does good management matter? If so, how much? One way to answer this question (also see section 1-8 about creating competitive advantage through people) is to ask, “What happens when a great CEO leaves?” After the death of co-founder and CEO Steve Jobs in 2011, Apple continues to thrive under CEO Tim Cook, having become the most profitable and valuable private company in the world.²⁹ The opposite happened when Jeffrey Immelt succeeded legendary General Electric (GE) CEO Jack Welch in 2001, under whom GE had become the most profitable and admired companies of its time. After Immelt’s 17 years as CEO, GE’s stock was worth less than when he started and dropped another 40 percent after his departure as two subsequent CEOs downsized, froze pensions, and sold off roughly a third of GE’s businesses to raise cash to stabilize the company.

So, what happens when CEOs leave? In a 15-year study across 284 firms, financial performance was on average 4 points lower. And that matters! Over



Bloomberg/Getty Images

Successor CEOs, who follow great CEOs, like GE’s Jack Welch shown here, have much shorter tenure and are twice as likely to be fired.

10 years, a company starting with \$100 million in annual revenues would grow to \$179 million with 6 percent growth and just \$122 million with 2 percent growth. Not surprisingly, successor CEOs have much shorter tenure and are twice as likely to be fired. So, yes, good management matters. And maintaining top company performance is just as difficult as achieving it in the first place.

Sources: P. Karlsson, M. Turner, and P. Gassmann, “Succeeding the Long-Serving Legend in the Corner Office,” *Leadership*, May 15, 2019, accessed January 24, 2020, <https://www.strategy-business.com/article/Succeeding-the-long-serving-legend-in-the-corner-office?gko=90171>; M. Kolakowski, “The World’s 10 Most Profitable Companies,” *Investopedia*, July 25, 2019, accessed January 24, 2020, <https://www.investopedia.com/the-world-s-10-most-profitable-companies-4694526/>; T. Gryta, J. Lublin and D. Beoit, “How Jeffrey Immelt’s ‘Success Theater’ Masked the Rot at GE,” *Wall Street Journal*, February 21, 2019, accessed January 24, 2020, <https://www.wsj.com/articles/how-jeffrey-immelts-success-theater-masked-the-rot-at-ge-1519231067>; T. Kilgore, “GE Freezing Pensions for 20,000 Employees,” *MarketWatch*, October 8, 2019, accessed January 24, 2020, <https://www.marketwatch.com/story/ge-freezing-pensions-for-20000-employees-2019-10-07>; J. Snell, “Fun with Charts: Apple’s Turnaround Decade,” *Six Colors*, January 24, 2020, accessed January 25, 2020, <https://sixcolors.com/post/2020/01/fun-with-charts-apples-turnaround-decade/>.

1-2c Leading

Our third management function, **leading**, involves inspiring and motivating workers to work hard to achieve organizational goals. Inspiring people in large companies to take risks is a difficult leadership task. Amazon’s founder and CEO Jeff Bezos now faces this challenge. He says, “Amazon will be experimenting at the right scale for a company of our size if we occasionally have multibillion-dollar failures... We will work hard to make them good bets, but not all good bets will ultimately pay out. This kind of large-scale risk taking is part of the service we as a large company can provide to our customers and to society. The good news for shareowners is that a single big winning bet can more than cover the cost of many losers.”³⁰

You’ll learn more about leading in Chapter 13 on motivation, Chapter 14 on leadership, and Chapter 15 on managing communication.

Leading inspiring and motivating workers to work hard to achieve organizational goals

Controlling monitoring progress toward goal achievement and taking corrective action when needed

1-2d Controlling

The last function of management, **controlling**, is monitoring progress toward goal achievement

and taking corrective action when progress isn’t being made. The basic control process involves setting standards to achieve goals, comparing actual performance to those standards, and then making changes to return performance to those standards. Inspecting, maintaining, and repairing equipment is a control process. For example, AT&T has 65,000 mobile phone towers that require regular inspections. However, even with advanced safety practices and equipment, workers who climb towers are twice as likely to die at work as most employees.³¹ And with the tallest mobile phone towers nearly 1,000 feet high, climbing towers for regular inspections is dangerous. AT&T now uses a fleet of drones to inspect mobile phone towers. Using drones with powerful cameras that take high-resolution pictures with details fine enough to count bolt threads, it takes only a few minutes to inspect a cell tower. Pat Dempsey, who is in charge of maintenance at PSEG Power, says, “The fact you don’t have to make a person climb that tower, from a safety standpoint, it’s a game changer.”³² AT&T’s Art Pregler, who runs the drone program, says the company has avoided 5,000 tower climbs in the last 18 months.³³

You’ll learn more about the control function in Chapter 16 on control, Chapter 17 on managing information, and Chapter 18 on managing service and manufacturing operations.

1-3 KINDS OF MANAGERS

Not all managerial jobs are the same. The demands and requirements placed on the CEO of Facebook are significantly different from those placed on the manager of your local Chipotle restaurant.

As shown in Exhibit 1.2, there are four kinds of managers, each with different jobs and responsibilities: 1-3a top managers, 1-3b middle managers, 1-3c first-line managers, and 1-3d team leaders.

1-3a Top Managers

Top managers hold positions such as chief executive officer (CEO), chief operating officer (COO), chief financial officer (CFO), and chief information officer (CIO) and are responsible for the overall direction of the organization. Top managers have three major responsibilities.³⁴

First, they are responsible for creating a context for change. **Kroger**, the Cincinnati-based grocery chain with 2,800 stores, was slow to embrace online ordering and parking-lot pickup for its customers. Kroger CEO Rodney McMullen said, “We’ve got to get our butts in gear. There was no doubt we were behind.”³⁵ To catch up, Kroger is investing \$4 billion for robot-based warehouses and digital shelves. Compared to paper price tags, which must be changed by hand, Wi-Fi-and Bluetooth-enabled digital shelves with high-definition screens (below each item) can instantly change prices and advertise sales specials storewide. They also generate revenue by displaying ads purchased by product manufacturers and make restocking easier by marking low-inventory items.³⁶ CEO McMullen said, “You have to start somewhere, and you have to learn.”³⁷

Indeed, in both Europe and the United States, 35 percent of all CEOs are eventually fired because of their inability to successfully change their companies.³⁸ Creating a context for change includes forming a long-range vision or mission for the company. When Satya Nadella became CEO of **Microsoft**, the company had blown opportunities in mobile phones, search engines and web advertising, and social media. It was entrenched, unable to move beyond its dominant product, Microsoft Windows.³⁹ Nadella’s vision refocused Microsoft around cloud-based services. A former Microsoft executive said Satya “just started omitting ‘Windows’

from sentences... Suddenly, everything from Satya was ‘cloud, cloud, cloud!’” Five years later, Azure, Microsoft’s cloud platform, has grown from \$3 billion to \$34 billion in annual revenues. Microsoft Office, formerly a “buy once, upgrade often” software package, became a \$99-a-year cloud-based service with 214 million subscribers.⁴⁰ Netflix CEO Reed Hastings commented, “I don’t know of any other software company in the history of technology that fell onto hard times and has recovered so well.”⁴¹

After that vision or mission is set, the second responsibility of top managers is to develop employees’ commitment to and ownership of the company’s performance. That is, top managers are responsible for creating employee buy-in. Amy Hood became Microsoft’s CFO at a challenging time, just six months before Satya Nadella was appointed CEO. Goldman Sachs analyst Heather Bellini says, “Satya has done an excellent job, but people think of them as a package together.”⁴² One of Hood’s regular responsibilities is speaking to new Microsoft employees. She tells them that while she’s responsible for company finances, she sees her main responsibility as making them happy that they chose to work for Microsoft – in other words, employee buy-in. Says Hood, “My kids will tell you I practice counting, but my job is really a little different than that. I may have thought about it that way when I took the job almost five years ago. But now it’s about creating an environment in which you all remember that you still want to pick up every day. That’s my job as a CFO.”⁴³

Third, top managers must create a positive organizational culture through language and action, actively managing internal communication. Top managers impart company values, strategies, and lessons through what they do and say to others both inside and outside the company. Indeed, no matter what they communicate, it’s critical for them to send and reinforce clear, consistent messages.⁴⁴

Finally, top managers are responsible for monitoring their business environments. This means that top managers must closely monitor customer needs, competitors’ moves, and long-term business, economic, and social trends. We’ll review this in detail in section 1-4b, Informational Roles.

1-3b Middle Managers

Middle managers hold positions such as plant manager, regional manager, or divisional

Top managers executives responsible for the overall direction of the organization

Middle managers responsible for setting objectives consistent with top management’s goals and for planning and implementing subunit strategies for achieving these objectives

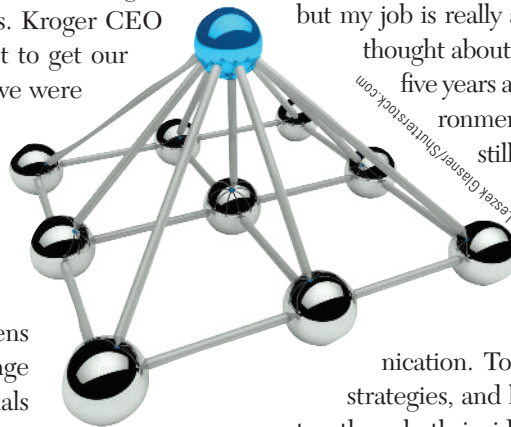


Exhibit 1.2

What the Four Kinds of Managers Do

Jobs		Responsibilities
Top Managers		
CEO COO CFO	CIO Vice president Corporate heads	Change Commitment Culture Environment
Middle Managers		
General manager Plant manager Regional manager Divisional manager		Resources Objectives Coordination Subunit performance Strategy implementation
First-Line Managers		
Office manager Shift supervisor Department manager		Nonmanagerial worker supervision Teaching and training Scheduling Facilitation
Team Leaders		
Team leader Team contact Group facilitator		Facilitation External relationships Internal relationships

michaeljung/Shutterstock.com; PETER CLOSE/Shutterstock.com; MangoNic/Shutterstock.com; racorn/Shutterstock.com

manager. They are responsible for setting objectives consistent with top management's goals and for planning and implementing subunit strategies for achieving those objectives.⁴⁵ Or as one middle manager put it, a middle manager is "the implementer of the company's strategy" who figures out the "how" to do the "what."⁴⁶ Ryan Carson founded online learning company Treehouse Island without managers because he believed that his 100 employees could make decisions better and faster by themselves. However, that decision was severely tested when rapid growth resulted in 100,000 students enrolled in Treehouse Island's online courses. Employees, unsure of their responsibilities, became increasingly frustrated as endless meetings never seemed to result in meaningful action or decisions. Tasks and projects that were necessary to keep up with demand started to fall

behind schedule. Carson fixed the situation by creating roles for middle managers. "That [managerless] experiment broke," said Carson. "I just had to admit it."⁴⁷

One specific middle management responsibility is to plan and allocate resources to meet objectives. A second major responsibility is to coordinate and link groups, departments, and divisions within a company. One middle manager described his job as "a man who can discuss strategy with [the] CXO at breakfast and [then] eat lunch with workers."⁴⁸

A third responsibility of middle management is to monitor and manage the performance of the subunits and individual managers who report to them. Finally, middle managers are also responsible for implementing the changes or strategies generated by top managers. Why? Because they're closer to the managers and employees who work daily with suppliers to effectively

and efficiently deliver the company's product or service. In short, they're closer to the people who can best solve problems and implement solutions.

How important are middle managers to company performance? A study of nearly 400 video-game companies conducted at the University of Pennsylvania's Wharton School of Business found that middle managers' effectiveness accounted for 22 percent of the differences in performance across companies. In fact, middle managers were three times as important as the video-game designers who develop game characters and storylines. Professor Ethan Mollick, who conducted the study, said that middle managers are the key to "making sure the people at the bottom and the top [of the organization] are getting what they need."⁴⁹ As for Treehouse Island, revenue is up, the number of instructional videos has increased, and response times to student questions have been cut in half. According to instructor Craig Dennis, things are "light years better" with middle managers in place.⁵⁰

1-3c First-Line Managers

First-line managers hold positions such as office manager, shift supervisor, or department manager. The primary responsibility of first-line managers is to manage the performance of entry-level employees who are directly responsible for producing a company's goods and services. Thus, first-line managers are the only managers who don't supervise other managers. The responsibilities of first-line managers include monitoring, teaching, and short-term planning.

First-line managers encourage, monitor, and reward the performance of their workers. First-line managers are also responsible for teaching entry-level employees how to do their jobs. They also make detailed schedules and operating plans based on middle management's intermediate-range plans. In contrast to the long-term plans of top managers (three to five years out) and the intermediate plans of middle managers (6 to 18 months out), first-line managers engage in plans and actions that typically produce results within two weeks.⁵¹ Consider the typical convenience store manager (e.g., 7-Eleven) who starts the day by driving past competitors' stores to inspect their gasoline prices and then checks the outside of his or her store for anything that might need maintenance, such as burned-out lights or signs, or restocking, such as windshield washer fluid and paper towels. Then comes an inside check, where the manager determines what needs to be done for that day. (Are there enough donuts and coffee for breakfast or enough sandwiches for lunch?) After the day is planned, the manager turns to weekend orders. After accounting for the weather (hot



wirojsid/123RF

or cold) and the sales trends at the same time last year, the manager makes sure the store will have enough beer, soft drinks, and snack foods on hand. Finally, the manager looks 7 to 10 days ahead for hiring needs. Because of strict hiring procedures (basic math tests, drug tests, and background checks), it can take that long to hire new employees. Said one convenience store manager, "I have to continually interview, even if I am fully staffed."⁵²

1-3d Team Leaders

The fourth kind of manager is a team leader. This relatively new kind of management job developed as companies shifted to self-managing teams, which, by definition, have no formal supervisor. In traditional management hierarchies, first-line managers are responsible for the performance of nonmanagerial employees and have the authority to hire and fire workers, make job assignments, and control resources. In this new structure, the teams themselves perform nearly all the functions performed by first-line managers under traditional hierarchies.⁵³

Team leaders are primarily responsible for facilitating team activities toward accomplishing a goal. This doesn't mean team leaders are responsible for team performance.

First-line managers

responsible for training and supervising the performance of nonmanagerial employees who are directly responsible for producing the company's products or services

Team leaders

managers responsible for facilitating team activities toward goal accomplishment

They aren't. The team is. Team leaders help their team members plan and schedule work, learn to solve problems, and work effectively with each other. A Walmart Supercenter has a store manager, assistant store managers, and department managers. Walmart, however, is changing that structure to focus on teams. Store managers will now manage six "business leads" responsible for store finances and hiring (who will be paid 10 percent more than assistant managers). Business leads will manage 8 to 10 "team leads" (starting pay, \$18 an hour), who will manage sales associates.⁵⁴ The first reason behind the change is to improve associates' job satisfaction. Drew Holler, senior vice president of associate experience, says, "Associates like smaller teams, and they like having a connection with a leader. They want something they can own and to know if they are winning or losing every day. And today that does not always happen."⁵⁵ The second is to increase associate's decision-making authority. Holler says, "That is probably the game changer in this, we are pushing decisions down," including helping customers with returns, authorizing prices changes without management approval, and communicating with teams on other shifts.⁵⁶ CEO Doug McMillon says, "We will compete with technology but win with people."⁵⁷

Relationships among team members and between different teams are crucial to good team performance and must be well managed by team leaders, who are responsible for fostering good relationships and addressing problematic ones within their teams. Getting along with others is much more important in team structures because team members can't get work done without the help of teammates. In other words, team leaders need to foster *civil behavior* based on politeness, respect, and positive regard. For two decades, Professor Christine Porath has studied the effects of workplace incivility. She stresses that leaders set the tone for their teams: "A study of cross-functional product teams revealed that when leaders treated members of their team well and fairly, the team members were more productive individually and as a team. They were also more likely to go above and beyond their job requirements. It all starts at the top. When leaders are civil, it increases performance and creativity, allows for early mistake detection and the initiative to take actions, and reduces emotional exhaustion."⁵⁸

Team leaders are also responsible for managing external relationships. Team leaders act as the bridge or liaison between their teams and other teams, departments, and divisions in a company. For example, if a member of Team A complains about the quality of Team B's work, Team A's leader is responsible for solving the problem by initiating a meeting with Team B's leader. Together, these team leaders are responsible for getting

members of both teams to work together to solve the problem. If it's done right, the problem is solved without involving company management or blaming members of the other team.⁵⁹

In summary, because of these critical differences, team leaders who don't understand how their roles are different from those of traditional managers often struggle in their jobs.

You will learn more about teams in Chapter 10.

1-4 MANAGERIAL ROLES

Although all four types of managers engage in planning, organizing, leading, and controlling, if you were to follow them around during a typical day on the job, you would probably not use these terms to describe what they actually do. Rather, what you'd see are the various roles managers play. Professor Henry Mintzberg followed five American CEOs, shadowing each for a week and analyzing their mail, their conversations, and their actions. He concluded that managers fulfill three major roles while performing their jobs – interpersonal, informational, and decisional.⁶⁰

In other words, managers talk to people, gather and give information, and make decisions. Furthermore, as shown in Exhibit 1.3, these three major roles can be subdivided into 10 subroles.

Let's examine each major role – 1-4a interpersonal roles, 1-4b informational roles, and 1-4c decisional roles – and their 10 subroles.

1-4a Interpersonal Roles

More than anything else, management jobs are people intensive. Estimates vary with the level of management, but most managers spend between two-thirds and four-fifths of their time in face-to-face communication with others.⁶¹ Indeed, a 2018 *Harvard Business Review* study that tracked the time of 27 CEOs in 15-minute increments for three months (12 times longer than Mintzberg) concluded, "The top job in a company involves primarily face-to-face interactions, which took up 61 percent of the work time of the CEOs we studied."⁶² If you're a loner, or if you consider dealing with people a pain, then you may not be cut out for management work. In fulfilling the interpersonal role of management, managers perform three subroles: figurehead, leader, and liaison.

Exhibit 1.3

Mintzberg's Managerial Roles



Interpersonal Roles

- Figurehead
- Leader
- Liaison



Informational Roles

- Monitor
- Disseminator
- Spokesperson



Decisional Roles

- Entrepreneur
- Disturbance Handler
- Resource Allocator
- Negotiator

Source: Adapted from "The Manager's Job: Folklore and Fact," by Mintzberg, H. *Harvard Business Review*, July–August 1975.

In the **figurehead role**, managers perform ceremonial duties such as greeting company visitors, speaking at the opening of a new facility, or representing the company at a community luncheon to support local charities. When Louis Vuitton Moët Hennessy (LVMH), the world's premiere maker of luxury goods, opened a new factory in Keene, Texas, CEO Bernard Arnault flew in from Paris to commemorate the event.⁶³

In the **leader role**, managers spend 43 percent of their time motivating and encouraging workers to accomplish organizational objectives.⁶⁴ In competitive labor markets, motivating can mean eliminating what people dislike about their jobs. Each Dunkin' Donuts employee handwrites dozens of expiration labels every day, indicating the precise time, for instance, when coffee or pastries are no longer fresh. Workers hate this, so Dunkin' installed database-linked printers to automate the task. Morning shift leader Alexandra Guajardo said now, "I don't have to constantly be worried about other smaller tasks that were tedious. I can focus on other things that need my attention in the restaurant."⁶⁵

In the **liaison role**, managers deal with people outside their units. Studies consistently indicate that managers spend as much time with outsiders as they do with their own subordinates and their own bosses. When Tom Watjen became CEO of **Unum**, a provider of benefits

insurance, his 30 top managers generally worked within their functions and regions, but not with others across the company. Watjen said, "You can't just send out a memo that says, 'Hey, you guys have to talk to one another,'" so he began promoting managers across units and functions.⁶⁶ And, he reminded them of the importance of their liaison roles, for instance, telling finance executives, "Your job is to help your business colleagues (in other areas) get the information to understand what's happening in their business."⁶⁷

1-4b Informational Roles

Not only do managers spend most of their time in face-to-face contact with others, they spend much of it obtaining and sharing information. Mintzberg found that the managers in his study spent 40 percent of their time giving and getting information from others. In this regard, management can be viewed as gathering information by scanning the business environment and listening to others in face-to-face conversations, processing that information, and then sharing it with people both inside and outside the company. Mintzberg described three informational subroles: monitor, disseminator, and spokesperson.

In the **monitor role**, managers scan their environment for information, actively contact others for information, and, because of their personal contacts, receive a great deal of unsolicited information. Besides receiving firsthand information, managers monitor their environment by reading local newspapers and the *Wall Street Journal* to keep track of customers, competitors, and technological changes that may affect their businesses. Today's managers can subscribe to electronic monitoring and distribution services that track the news wires (Associated Press, Reuters, and so on) for stories and social media posts related to their businesses. These services deliver customized news that only includes topics the managers specify. Business Wire (www.businesswire.com) monitors and distributes daily news headlines from major industries (for example, automotive, banking and financial, health, high tech).⁶⁸ Glean (www.glean.info) does real-time monitoring of Twitter, Facebook, LinkedIn, and Instagram feeds, as well as 60,000 global news outlets in 250 languages in

Figurehead role the interpersonal role managers play when they perform ceremonial duties

Leader role the interpersonal role managers play when they motivate and encourage workers to accomplish organizational objectives

Liaison role the interpersonal role managers play when they deal with people outside their units

Monitor role the informational role managers play when they scan their environment for information

COMPANIES MUST IMPROVE AT SPOTTING MANAGEMENT TALENT

If you work in a large organization, getting anointed as a HIPO (high potential) is a mark of early success, as it indicates a strong belief in your management potential. Typically, HIPOs are thought to be in top 5 percent of those with management potential. However, follow-up research of 1,964 HIPOs from three organizations indicated that 12 percent were in the bottom quarter and that 42 percent overall were below average in management potential! Likewise, a study of 50,000 HIPO sales representatives found that stars who sold twice as much as their sales goals were more likely to be promoted to management. But, the total sales of sales teams they managed dropped by 7.5 percent! What went wrong?

While these non-HIPOs had technical and professional expertise, took initiative and produced results, honored their commitments, and fit their organizations' cultures, they weren't strategic and had difficulty motivating others. Were they bad employees? No, they were great individual contributors. But they weren't well suited for management. And putting them in managerial roles not only hurt them, but it also hurt employees and the company.



Illia Uriadnikov/123RF

Sources: J. Zenger & J. Folkman, "Companies Are Bad at Identifying High-Potential Employees," *Harvard Business Review*, February 20, 2017, accessed March 9, 2017, <https://hbr.org/2017/02/companies-are-bad-at-identifying-high-potential-employees>; S. Walker, "Why Superstars Make Lousy Bosses," *Wsj Street Journal*, October 20, 2018, accessed January 24, 2020, https://www.wsj.com/articles/the-curse-of-the-superstar-boss-1540008001?mod=article_inline.

191 countries.⁶⁹ It also monitors posts to 190 million blogs, 64,000 message boards, 75,000 UseNet groups, and over 200 different video sharing sites.⁷⁰ Another site, Federal News Service (fednews.com), provides subscribers with precision alerts and monitoring of federal hearings (via complete transcripts), bills, and policy proposals that may affect their company or industry.⁷¹

Because of their numerous personal contacts and their access to subordinates, managers are often hubs for the distribution of critical information. In the **disseminator role**, managers share the information they have collected with their subordinates and others in the company. **Front** is a software company that facilitates effective teamwork by providing shared emails, in-

Disseminator role the informational role managers play when they share information with others in their departments or companies

Spokesperson role the informational role managers play when they share information with people outside their departments or companies

boxes and assignments, all within a powerful email/calendar platform. CEO and cofounder Mathilde Collin makes sure everyone is clear on Front's goals and plans. She says:

At the beginning of every week, I also send an email

*to direct reports, I share what my goals of the week are. What I'm working on is also what they're working on. The way that our goal-setting works is that once the company OKRs (objectives and key results) are done, then every executive will work on their OKRs and those are shared [with their teams].*⁷²

Collin doesn't share goals that are personal or confidential (out of privacy concern for others) that "would raise more questions."⁷³ She says, "The way I think about transparency is: Good transparency will help solve problems, and bad transparency will create more questions and problems."⁷⁴

In contrast to the disseminator role, in which managers distribute information to employees inside the company, managers in the **spokesperson role** share information with people outside their departments or companies. One of the most common ways that CEOs act as spokespeople for their companies is speaking at annual meetings and on conference calls with shareholders or boards of directors. CEOs also serve as spokespeople to the media when their companies are involved in major news stories. A **Southwest Airlines** passenger was killed when a jet engine exploded on route from



Stewart F. House/Getty Images News/Getty Images

When a Southwest Airlines passenger was killed after a jet engine exploded, CEO Gary Kelly served as the company spokesperson and apologized to the deceased passenger's family.

New York to Dallas. Minutes after the pilot reported problems, Southwest's senior leadership team began executing its emergency response plan. Within hours, a full plane containing accident response team members flew from Dallas, Southwest's headquarters, to Philadelphia where the plane made its emergency stop. While some assisted local workers or accident investigators, most cared for passengers, providing counseling, alternative travel arrangements and overnight hotel stays. CEO Gary Kelly, serving as company spokesperson, announced the incident and apologized to the deceased passenger's family. Said Kelly, "On behalf of the Southwest family, I want to extend my deepest sympathies for the family and the loved ones of our deceased customer. They are our immediate and primary concern, and we will do all that we can to support them during this difficult time."⁷⁵

1-4c Decisional Roles

Mintzberg found that obtaining and sharing information is not an end in itself. Obtaining and sharing information with people inside and outside the company is useful to managers because it helps them make good decisions. According to Mintzberg, managers engage in four decisional subroles: entrepreneur, disturbance handler, resource allocator, and negotiator.

In the **entrepreneur role**, managers adapt themselves, their subordinates, and their units to change. **General Motors** paid \$1 billion in 2016 for Cruise Automation, a 40-person startup firm developing self-driving car technology.⁷⁶ GM has since raised \$7 billion from outside investors and grown Cruise to 1,700 people.⁷⁷ GM says it will be cheaper to subscribe to Cruise's fleet of robot cars instead of purchasing cars or using ride hailing (like Lyft or Uber) or car sharing (like Zipcar).⁷⁸ CEO Dan Ammann said, "Our goal is to deliver something that can beat all of them."⁷⁹ Furthermore, he believes that, "The status quo of transportation is broken, and ... our need to find better solutions grows more urgent every day."⁸⁰ The Cruise Origin, an electric, self-driving car, without steering wheels or brake/acceleration pedals, was revealed in January 2020 in preparation for road testing and production.⁸¹

In the **disturbance handler role**, managers respond to pressures and problems so severe that they demand immediate attention and action. When hurricanes threaten Waffle House restaurants, the Waffle House Index indicates if a restaurant is open and serving a full menu (green), open, serving water and a reduced menu, but without power (yellow), or not open (red). Vice president Pat Warner says, "Our goal is always to be the last to close, first to open."⁸² Jump teams from headquarters are sent ahead of the storms with emergency supplies and generators. Warner said, "A lot of times, especially after a big storm, we're the only ones still open because we've got generators. Right after storms, business is brisk. We have a lot of people come in and are only able to get their first hot meal at a Waffle House."⁸³

In the **resource allocator role**, managers decide who will get what resources and how many resources they will get. After Apple, **Alphabet** (formerly Google) is the second most profitable company in the world. For years, it grew so fast, with revenues greatly exceeding costs, that budgets, much less budget discipline, didn't matter (if ever used at all). When founders Larry Page and Sergey Brin hired CFO Ruth Porat, they did so to get Alphabet's businesses to make and stick to their budgets. Former Alphabet Chairman Eric Schmidt admits, "Before

Entrepreneur role the decisional role managers play when they adapt themselves, their subordinates, and their units to change

Disturbance handler role the decisional role managers play when they respond to severe pressures and problems that demand immediate action

Resource allocator role the decisional role managers play when they decide who gets what resources and in what amounts

she was there, we had lost discipline.”⁸⁴ Alphabet makes 95 percent of its revenue from online ads, meaning Google search, YouTube, and mobile ads (mostly on Android phones). But in the rest of Alphabet (Nest thermostats, Google Ventures, Google Fiber), expenses far exceed revenues. So Porat instilled discipline by cutting budgets, by approving video conferences rather than business travel, by charging the business units for using Alphabet’s functions (legal, human resources, and public relations). Former Chairman Schmidt said, “The cost cutting is real, and it’s the right thing to be done, and it’s driven by [Porat].”⁸⁵

In the **negotiator role**, managers negotiate schedules, projects, goals, outcomes, resources, and employee raises. Fifty of the largest US companies, including American Express, IBM, Marriott, Shell Oil, and Verizon Communications, have formed the **Health Transformation Alliance (HTA)** to negotiate lower drug and medical costs.⁸⁶ Kevin Cox, chief human resource office at American Express, says, “Even the most successful companies won’t be able to afford the rising costs of health care in the not too distant future.”⁸⁷ At a time when health care spending is increasing 6 to 8 percent per year, the HTA expects to lower drug costs by 15 percent for their 7 million employees. Kyu Rhee, IBM’s chief health officer says, “This is the group that’s paying the bill. We’re not waiting for the public sector to come up with the solution – we have the skills and expertise to do this ourselves.”⁸⁸

1-5 WHAT COMPANIES LOOK FOR IN MANAGERS

I didn’t have the slightest idea what my job was. I walked in giggling and laughing because I had been promoted and had no idea what principles or style to be guided by. After the first day, I felt like I had run into a brick wall. (Sales Representative #1)

Negotiator role the decisional role managers play when they negotiate schedules, projects, goals, outcomes, resources, and employee raises

Technical skills the specialized procedures, techniques, and knowledge required to get the job done

Suddenly, I found myself saying, boy, I can’t be responsible for getting all that revenue. I don’t have the time. Suddenly you’ve got to go from [taking care of]

*yourself and say now I’m the manager, and what does a manager do? It takes awhile thinking about it for it to really hit you . . . a manager gets things done through other people. That’s a very, very hard transition to make. (Sales Representative #2)*⁸⁹

The preceding statements were made by two star sales representatives who, based on their superior performance, were promoted to the position of sales manager. At first, they lacked confidence in their ability to do their jobs as managers. Like most new managers, these sales managers suddenly realized that the knowledge, skills, and abilities that led to success early in their careers (and were probably responsible for their promotion into the ranks of management) would not necessarily help them succeed as managers. As sales representatives, they were responsible only for managing their own performance. But as sales managers, they were now directly responsible for supervising all the sales representatives in their sales territories. Furthermore, they were now directly accountable for whether those sales representatives achieved their sales goals. If performance in nonmanagerial jobs doesn’t necessarily prepare you for a managerial job, then what does it take to be a manager?

When companies look for employees who could be good managers, they look for individuals who have technical skills, human skills, conceptual skills, and the motivation to manage.⁹⁰ Exhibit 1.4 shows the relative importance of these four skills to the jobs of team leaders, first-line managers, middle managers, and top managers.

Technical skills are the specialized procedures, techniques, and knowledge required to get the job done. For the sales managers described previously, technical skills involve the ability to find new sales prospects, develop accurate sales pitches based on customer needs, and close sales. For a nurse supervisor, technical skills include being able to insert an IV or operate a crash cart if a patient goes into cardiac arrest.

Technical skills are most important for team leaders and lower-level managers because they supervise the workers who produce products or serve customers. Team leaders and first-line managers need technical knowledge and skills to train new employees and help employees solve problems.



Viorel Sima/Shutterstock.com

Love The Job? Your Boss Has Technical Skills

When companies look for employees who could be good managers, they look for technical, human and conceptual skills, and the motivation to manage. Technical skills are the specialized procedures, techniques, and knowledge required to get the job done. Technical skills are most important for team leaders and lower-level managers, and for training new employees and helping them solve problems. Generally, technical skills become less important as managers rise through the managerial ranks, but they are still important. The question is, why?

It turns out, employees are much happier if they work for a boss with technical skills. A study of 35,000 randomly selected

employees in the United States and the United Kingdom found that, “having a highly competent boss is easily the largest positive influence on a typical worker’s level of job satisfaction.” Highly competent was defined as being able to do the employees job, working one’s way up inside the company, and whether the employee felt the boss possessed technical competence.

So, yes, technical skills become less important the higher you go. But they always matter to those you manage.

Source: B. Artz, A. Goodall & A. Oswald, “If Your Boss Could Do Your Job, You’re More Likely to Be Happy at Work,” *Harvard Business Review*, December 29, 2016, accessed March 9, 2017, <https://hbr.org/2016/12/if-your-boss-could-do-your-job-youre-more-likely-to-be-happy-at-work>.

Technical knowledge and skills are also needed to troubleshoot problems that employees can’t handle. Technical skills become less important as managers rise through the managerial ranks, but they are still important.

Human skills can be summarized as the ability to work well with others. Managers with human skills work effectively within groups, encourage others to express their thoughts and feelings, are sensitive to others’ needs and viewpoints, and are good listeners and communicators. Human skills are equally important at all levels of management, from team leaders to CEOs.

However, because lower-level managers spend much of their time solving technical problems, upper-level managers may actually spend more time dealing directly with people. On average, first-line managers spend 57 percent of their time with people, but that percentage increases to 63 percent for middle managers and 78 percent for top managers.⁹¹

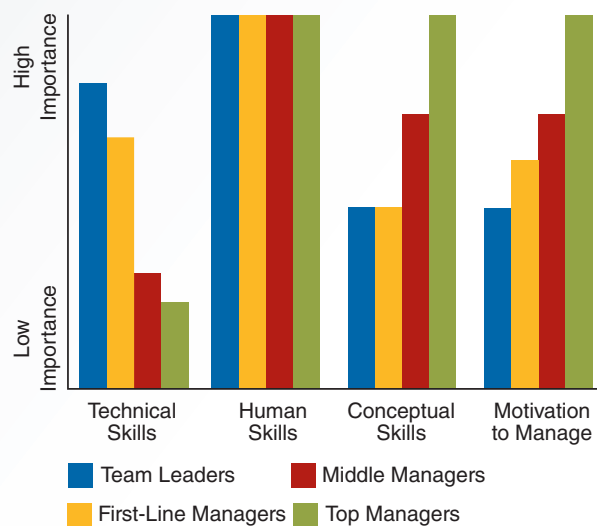
Conceptual skills are the ability to see the organization as a whole, to understand how the different parts of the company affect each other, and to recognize how the company fits into or is affected by its external environment such as the local community, social and economic forces, customers, and the competition. Good managers have to be able to recognize, understand, and reconcile multiple complex problems and perspectives. In other words, managers have to be smart! In fact, intelligence makes so much difference for managerial performance that managers with above-average intelligence typically outperform managers of average intelligence by approximately 48 percent.⁹² Clearly, companies need to be careful to promote smart workers into management. Conceptual skills increase in importance as managers rise through the management hierarchy.

Good management involves much more than intelligence, however. For example, making the department genius a manager can be disastrous if that genius lacks technical skills, human skills, or

Human skills the ability to work well with others

Conceptual skills the ability to see the organization as a whole, understand how the different parts affect each other, and recognize how the company fits into or is affected by its environment

Exhibit 1.4
Management Skills



one other factor known as the motivation to manage. **Motivation to manage** is an assessment of how motivated employees are to interact with superiors, participate in competitive situations, behave assertively toward others, tell others what to do, reward good behavior and punish poor behavior, perform actions that are highly visible to others, and handle and organize administrative tasks. Managers typically have a stronger motivation to manage than their subordinates, and managers at higher levels usually have a stronger motivation to manage than managers at lower levels. Furthermore, managers with a stronger motivation to manage are promoted faster, are rated as better managers by their employees, and earn more money than managers with a weak motivation to manage.⁹³

1-6 MISTAKES MANAGERS MAKE

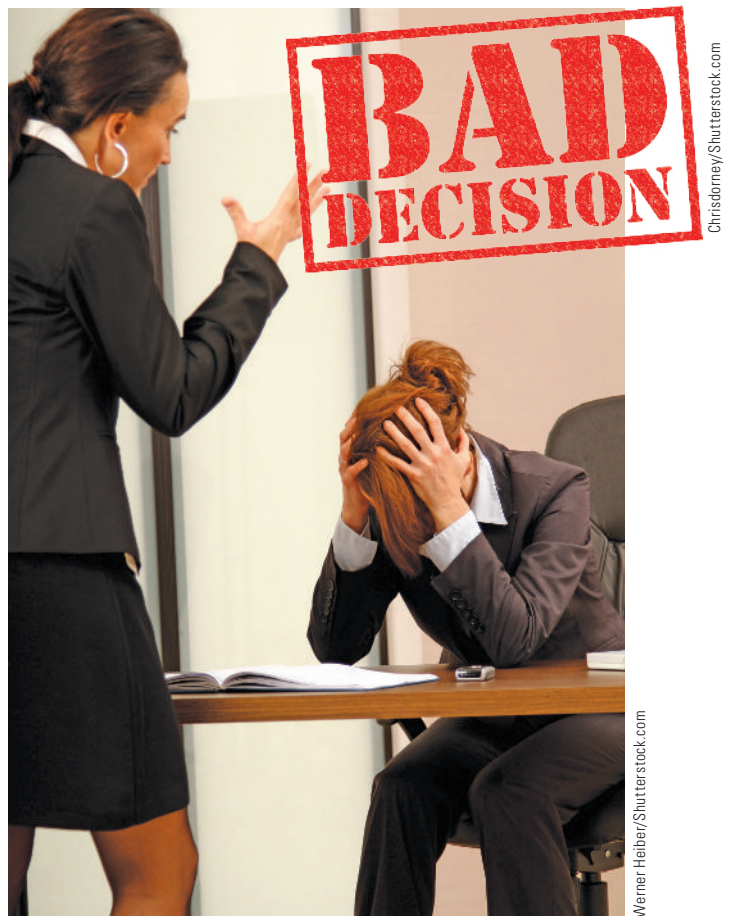
Another way to understand what it takes to be a manager is to look at the mistakes managers make. In other words, we can learn just as much from what managers shouldn't do as from what they should do. Exhibit 1.5 lists the top 10 mistakes managers make.

Several studies of US and British managers have compared *arrivers*, or managers who made it all the way to the top of their companies, with *derailers*, or managers who were successful early in their careers but were knocked off the fast track by the time they reached the middle to upper levels of management.⁹⁴ The researchers found that there were only a few differences between arrivers and derailers. For the most part, both groups were talented, and both groups had weaknesses. But what distinguished derailers from arrivers was that derailers possessed two or more fatal flaws with respect to the way they managed people. Although arrivers were by no means perfect, they usually had no more than one fatal flaw or had found ways to minimize the effects of their flaws on the people with whom they worked.

The top mistake made by derailers was that they were insensitive to others by virtue of their abrasive, intimidating, and bullying management style. The authors of one study described a manager who walked into his subordinate's office and interrupted a meeting by saying, "I need to see you."

When the subordinate tried to explain that he was not available because he was in the middle of a

Motivation to manage an assessment of how enthusiastic employees are about managing the work of others



The top mistake made by derailers is having an abrasive, intimidating, and bullying management style.

Exhibit 1.5 Top 10 Mistakes Managers Make

1. Insensitive to others; abrasive, intimidating, bullying style
2. Cold, aloof, arrogant
3. Betrays trust
4. Overly ambitious: thinking of next job, playing politics
5. Specific performance problems with the business
6. Overmanaging: unable to delegate or build a team
7. Unable to staff effectively
8. Unable to think strategically
9. Unable to adapt to boss with different style
10. Overdependent on advocate or mentor

Source: M. W. McCall, Jr., and M. M. Lombardo, "What Makes a Top Executive?" *Psychology Today*, February 1983, 26–31.

meeting, the manager barked, “I don’t give a damn. I said I wanted to see you now.”⁹⁵ Not surprisingly, only 25 percent of derailers were rated by others as being good with people, compared to 75 percent of arrivers.

The second mistake was that derailers were often cold, aloof, or arrogant. Although this sounds like insensitivity to others, it has more to do with derailed managers being so smart, so expert in their areas of knowledge, that they treated others with contempt because they weren’t experts, too.⁹⁶ For example, AT&T called in an industrial psychologist to counsel its vice president of human resources because she had been blamed for “ruffling too many feathers” at the company.⁹⁷ Interviews with the vice president’s coworkers and subordinates revealed that they thought she was brilliant, was “smarter and faster than other people,” “generates a lot of ideas,” and “loves to deal with complex issues.” Unfortunately, these smarts were accompanied by a cold, aloof, and arrogant management style. The people she worked with complained that she does “too much too fast,” treats coworkers with “disdain,” “impairs teamwork,” “doesn’t always show her warm side,” and has “burned too many bridges.”⁹⁸

The third mistake made by derailers involved betraying a trust. Betraying a trust doesn’t mean being dishonest. Instead, it means making others look bad by not doing what you said you would do when you said you would do it. That mistake, in itself, is not fatal because managers and their workers aren’t machines. Tasks go undone in every company every day. There’s always too much to do and not enough time, people, money, or resources to do it. The fatal betrayal of trust is failing to inform others when things will not be done right or on time. This failure to admit mistakes, failure to quickly inform others of the mistakes, failure to take responsibility for the mistakes, and failure to fix the mistakes without blaming others clearly distinguished the behavior of derailers from arrivers.

The fourth mistake was being overly political and ambitious. Managers who always have their eye on their next job rarely establish more than superficial relationships with peers and coworkers. In their haste to gain credit for successes that would be noticed by upper management, they make the fatal mistake of treating people as though they don’t matter. An employee with an overly ambitious boss described him this way: “He treats employees coldly, even cruelly. He assigns blame without regard to responsibility and takes all the credit for himself. I once had such a boss, and he gave me a new definition of shared risk: If something I did was successful, he took the credit. If it wasn’t, I got the blame.”⁹⁹

The fatal mistakes of being unable to delegate, build a team, and staff effectively indicate that many derailed managers were unable to make the most basic transition to managerial work: to quit being hands-on doers and get work done through others. In fact, according to an article in *Harvard Business Review*, up to 50 percent of new managers fail because they cannot make the transition from producing to managing.¹⁰⁰ Two things go wrong when managers make these mistakes. First, when managers meddle in decisions that their subordinates should be making – when they can’t stop being doers – they alienate the people who work for them. Rich Dowd, founder of Dowd Associates, an executive search firm, admits to constantly monitoring and interrupting employees because they weren’t doing the job “in the way I saw fit, even when their work was outstanding.” According to Richard Kilburg of Johns Hopkins University, when managers interfere with workers’ decisions, “You . . . have a tendency to lose your most creative people. They’re able to say, ‘Screw this. I’m not staying here.’”¹⁰¹ Indeed, one employee told Dowd that if he was going to do her job for her, she would quit. Second, because they are trying to do their subordinates’ jobs in addition to their own, managers who fail to delegate will not have enough time to do much of anything well. An office assistant to a Washington politician came in to work every day to find a long to-do list waiting on her desk, detailing everything she was expected to get done that day, along with how to do it, who to call, and when to give her boss updates on her progress. She said, “Sometimes, this list was three or four pages long. It must have taken him at least an hour to create.”¹⁰²

1-7 THE TRANSITION TO MANAGEMENT: THE FIRST YEAR

In her book *Becoming a Manager: Mastery of a New Identity*, Harvard Business School professor Linda Hill followed the development of 19 people in their first year as managers. Her study found that becoming a manager produced a profound psychological transition that changed the way these managers viewed themselves and others. As shown in Exhibit 1.6, the evolution of the managers’ thoughts, expectations, and realities over the course of their first year in

Exhibit 1.6

Stages in the Transition to Management

MANAGERS' INITIAL EXPECTATIONS			AFTER SIX MONTHS AS A MANAGER			AFTER A YEAR AS A MANAGER					
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
<ul style="list-style-type: none"> Be the boss Formal authority Manage tasks Job is not managing people 			<ul style="list-style-type: none"> Initial expectations were wrong Fast pace Heavy workload Job is to be problem solver and troubleshooter for subordinates 			<ul style="list-style-type: none"> No longer a doer Communication, listening, and positive reinforcement Learning to adapt to and control stress Job is people development 					

Source: L.A. Hill, *Becoming a Manager: Mastery of a New Identity* (Boston: Harvard Business School Press, 1992).

management reveals the magnitude of the changes they experienced.

Initially, the managers in Hill's study believed that their job was to exercise formal authority and to manage tasks – basically being the boss, telling others what to do, making decisions, and getting things done. One of the managers Hill interviewed said, "Being the manager means running my own office, using my ideas and thoughts." Another said, "[The office is] my baby. It's my job to make sure it works."¹⁰³ In fact, most of the new managers were attracted to management positions because they wanted to be in charge. Surprisingly, the new managers did not believe that their job was to manage people. The only aspects of people management mentioned by the new managers were hiring and firing.

After six months, most of the new managers had concluded that their initial expectations about managerial work were wrong. Management wasn't just about being the boss, making decisions, and telling others what to do. The first surprise was the fast pace and heavy workload involved. Said one of Hill's managers, "This job is much harder than you think. It is 40 to 50 percent more work than being a producer!

Who would have ever guessed?" The pace of managerial work was startling, too. Another manager said, "You have eight or nine people looking for your time . . . coming into and out of your office all day long." A somewhat frustrated manager declared that management was "a job that never ended . . . a job you couldn't get your hands around."¹⁰⁴

Informal descriptions like these are consistent with studies indicating that the average first-line manager spends no more than two minutes on a task before being interrupted by a request from a subordinate, a phone call, or an email. The pace is somewhat less hurried for top managers, who spend an average of approximately nine minutes on a task before having to switch to another. In practice, this means that supervisors may perform 30 tasks per hour, while top managers perform seven tasks per hour, with each task typically different from the one that preceded it. A manager described this frenetic level of activity by saying, "The only time you are in control is when you shut your door, and then I feel I am not doing the job I'm supposed to be doing, which is being with the people."¹⁰⁵

The other major surprise after six months on the job was that the



managers' expectations about what they should do as managers were very different from their subordinates' expectations. Initially, the managers defined their jobs as helping their subordinates perform their jobs well. For the managers, who still defined themselves as doers rather than managers, assisting their subordinates meant going out on sales calls or handling customer complaints. One manager said, "I like going out with the rep, who may need me to lend him my credibility as manager. I like the challenge, the joy in closing. I go out with the reps and we make the call and talk about the customer; it's fun."¹⁰⁶ But when new managers "assisted" in this way, their subordinates were resentful and viewed their help as interference. The subordinates wanted their managers to help them by solving problems that they couldn't solve themselves. After the managers realized this distinction, they embraced their role as problem solver and troubleshooter. Thus, they could help without interfering with their subordinates' jobs.

After a year on the job, most of the managers thought of themselves as managers and no longer as doers. In making the transition, they finally realized that people management was the most important part of their job. One of Hill's interviewees summarized the lesson that had taken him a year to learn by saying, "As many demands as managers have on their time, I think their primary responsibility is people development. Not production, but people development."¹⁰⁷ Another indication of how much their views had changed was that most of the managers now regretted the rather heavy-handed approach they had used in their early attempts to manage their subordinates. "I wasn't good at managing . . . , so I was bossy like a first-grade teacher." "Now I see that I started out as a drill sergeant. I was inflexible, just a lot of how-tos." By the end of the year, most of the managers had abandoned their authoritarian approach for one based on communication, listening, and positive reinforcement.

Finally, after beginning their year as managers in frustration, the managers came to feel comfortable with their subordinates, with the demands of their jobs, and with their emerging managerial styles. While being managers had made them acutely aware of their limitations and their need to develop as people, it also provided them with an unexpected reward of coaching and developing the people who worked for them. One manager said, "It gives me the best feeling to see somebody do something well after I have helped them. I get excited." Another stated, "I realize now that when I accepted the position of branch manager that it is truly an exciting vocation. It is truly awesome, even at this level; it can be terribly challenging and terribly exciting."¹⁰⁸

1-8 COMPETITIVE ADVANTAGE THROUGH PEOPLE

If you look at the list of bestselling business books on Amazon, you'll find hundreds that explain precisely what companies need to do to be successful. Unfortunately, the best-selling business books tend to be faddish, changing dramatically every few years. One thing that hasn't changed, though, is the importance of good people and good management: companies can't succeed for long without them. Apple CEO Tim Cook agrees, saying, "I think about my day and weeks and months and years – I put them in three buckets: people, strategy, and execution. I sort of move between those on a daily basis as to where I put my time. I always think the most important one of those is people. If you don't get that one right, it doesn't matter what kind of energy you have in the other two – it's not enough."¹⁰⁹

In his books *Competitive Advantage through People: Unleashing the Power of the Work Force* and *The Human Equation: Building Profits by Putting People First*, Stanford University business professor Jeffrey Pfeffer contends that what separates top-performing companies from their competitors is the way they treat their workforces – in other words, their management style.¹¹⁰

Pfeffer found that managers in top-performing companies used ideas such as employment security, selective hiring, self-managed teams and decentralization, high pay contingent on company performance, extensive training, reduced status distinctions (between managers and employees), and extensive sharing of financial information to achieve financial performance that, on average, was 40 percent higher than that of other companies. These ideas, which are explained in detail in Exhibit 1.7, help organizations develop workforces that are smarter, better trained, more motivated, and more committed than their competitors' workforces. And – as indicated by the phenomenal growth and return on investment earned by these companies – smarter, better trained, more motivated, and more committed workforces provide superior products and service to customers. Such customers keep buying and, by telling others about their positive experiences, bring in new customers.

According to Pfeffer, companies that invest in their people will create long-lasting competitive advantages that are difficult for other companies to duplicate. Other studies also clearly demonstrate that sound management practices can produce substantial advantages in

Exhibit 1.7

Competitive Advantage Through People: Management Practices

1. **Employment Security** – Employment security is the ultimate form of commitment companies can make to their workers. Employees can innovate and increase company productivity without fearing the loss of their jobs.
2. **Selective Hiring** – If employees are the basis for a company's competitive advantage, and those employees have employment security, then the company needs to aggressively recruit and selectively screen applicants in order to hire the most talented employees available.
3. **Self-Managed Teams and Decentralization** – Self-managed teams are responsible for their own hiring, purchasing, job assignments, and production. Self-managed teams can often produce enormous increases in productivity through increased employee commitment and creativity. Decentralization allows employees who are closest to (and most knowledgeable about) problems, production, and customers to make timely decisions. Decentralization increases employee satisfaction and commitment.
4. **High Wages Contingent on Organizational Performance** – High wages are needed to attract and retain talented workers and to indicate that the organization values its workers. Employees, like company founders, shareholders, and managers, need to share in the financial rewards when the company is successful. Why? Because employees who have a financial stake in their companies are more likely to take a long-run view of the business and think like business owners.
5. **Training and Skill Development** – Like a high-tech company that spends millions of dollars to upgrade computers or research and development labs, a company whose competitive advantage is based on its people must invest in the training and skill development of its people.
6. **Reduction of Status Differences** – A company should treat everyone, no matter what the job, as equal. There are no reserved parking spaces. Everyone eats in the same cafeteria and has similar benefits. The result is improved communication as employees focus on problems and solutions rather than on how they are less valued than managers.
7. **Sharing Information** – If employees are to make decisions that are good for the long-term health and success of the company, they need to be given information about costs, finances, productivity, development times, and strategies that was previously known only by company managers.

Source: J. Pfeffer, *The Human Equation: Building Profits by Putting People First* (Boston: Harvard Business School Press, 1996).

four critical areas of organizational performance: sales revenues, profits, stock market returns, and customer satisfaction.

In terms of sales revenues and profits, a study of nearly 1,000 US firms found that companies that use *just some* of the ideas shown in Exhibit 1.7 had \$27,044 more sales per employee and \$3,814 more profit per employee than companies that didn't. For a 100-person company, these differences amount to \$2.7 million more in sales and nearly \$400,000 more in annual profit! For a 1,000-person company, the difference grows to \$27 million more in sales and \$4 million more in annual profit!¹¹¹

Another study that considers the effect of investing in people on company sales found that poorly performing companies were able to improve their average return on investment from 5.1 to 19.7 percent and increase sales by \$94,000 per employee. They did this by adopting management techniques as simple as setting performance expectations (establishing goals, results, and schedules), coaching (informal, ongoing discussions between managers and subordinates about what is being done well and what could be done better), reviewing employee performance (annual, formal discussion about results), and rewarding employee performance (adjusting salaries and bonuses based on employee performance and results).¹¹² Two decades of research across

92 companies indicates that the average increase in company performance from using these management practices is typically around 20 percent.¹¹³ That fits with another study of 2,000 firms showing that an average improvement in management practices can produce a 10 to 20 percent increase in the total value of a company.¹¹⁴ In addition to significantly improving the profitability of healthy companies, sound management practices can also turn around failing companies.

To determine how investing in people affects stock market performance, researchers matched companies on *Fortune* magazine's list of "100 Best Companies to Work for in America" with companies that were similar in industry, size, and – this is key – operating performance. Both sets of companies were equally good performers; the key difference was how well they treated their employees. For both sets of companies, the researchers found that employee attitudes such as job satisfaction changed little from year to year. The people who worked for the "100 Best" companies were consistently much more satisfied with their jobs and employers year after year than were employees in the matched companies. More importantly, those stable differences in employee attitudes were strongly related to differences in stock market performance. Over a three-year period, an investment in the "100 Best" would have resulted in an 82 percent

THE WORLD MANAGEMENT SURVEY: GOOD MANAGEMENT MATTERS EVERYWHERE

The World Management Survey (WMS) measures whether 12,000 companies in 34 countries “use (or don’t use)” 18 specific management practices across four areas of management: operations management (creating maximum value for customers as efficiently as possible), performance monitoring (process documentation, key performance measures/reviews and consequences for missing targets), target setting (clear, appropriate goals connected to strategy at all levels), and talent management (stretch goals, coaching to improve poor performance, and investing to develop and keep talent).

What can we learn from the WMS? First, while management seems simple, practicing good management is difficult. Just 6 percent of companies averaged a 4 or better on a 5-point scale. Second, companies that practiced good management performed better. Moving from the worst 10 percent to the top 10 percent results in “a \$15 million increase in profits, 25 percent faster annual growth, and 75 percent higher productivity.” Third, most managers were in denial, wildly overestimating how well managed their firms were. Fourth, the adoption of good management practices doesn’t happen without top management’s time and personal



commitment. There are no shortcuts. Good management is hard. It happens only when leaders recognize, practice, and support the adoption of management ideas. But the great news is this: Good management produces results – everywhere.

Source: R. Sadun, N. Bloom & J. Van Reenen, “Why Do We Undervalue Competent Management?” *Harvard Business Review*, September–October 2017, accessed January 25, 2020, hbr.org/2017/09/why-do-we-undervalue-competent-management.

cumulative stock return compared with just 37 percent for the matched companies.¹¹⁵ This difference is remarkable, given that both sets of companies were equally good performers at the beginning of the period.

Finally, research also indicates that managers have an important effect on customer satisfaction. Many people find this surprising. They don’t understand how managers, who are largely responsible for what goes on inside the company, can affect what goes on outside the company. They wonder how managers, who often interact with customers under negative conditions (when customers are angry or dissatisfied), can actually improve customer satisfaction. It turns out that managers influence customer satisfaction through employee satisfaction. When employees are satisfied with their jobs, their bosses, and the companies they work for, they provide

much better service to customers.¹¹⁶ In turn, customers are more satisfied, too. In fact, customers of companies on *Fortune*’s list of “100 Best,” where employees are much more satisfied with their jobs and their companies, have much higher customer satisfaction scores than do customers of comparable companies that are not on *Fortune*’s list. Over an eight-year period, that difference in customer satisfaction also resulted in a 14 percent annual stock market return for the “100 Best” companies compared to a 6 percent return for the overall stock market.¹¹⁷

You will learn more about the service-profit chain in Chapter 18 on managing service and manufacturing operations.

2 | The History of Management

LEARNING OUTCOMES

- 2-1 Explain the origins of management.
- 2-2 Explain the history of scientific management.
- 2-3 Discuss the history of bureaucratic and administrative management.
- 2-4 Explain the history of human relations management.
- 2-5 Discuss the history of operations, information, systems, and contingency management.

Print Collector/Hulton Archive/Getty Images

2-1 THE ORIGINS OF MANAGEMENT

Each day, managers are asked to solve challenging problems with limited time, people, and resources. Yet it's still their responsibility to get things done on schedule and within budget. Tell today's managers to "reward workers for improved production or performance," "set specific goals to increase motivation," or "innovate to create and sustain a competitive advantage," and they'll respond, "Duh! Who doesn't know that?" A mere 130 years ago, however, business ideas and practices were so different that today's widely accepted management ideas would have been as self-evident as space travel, smart phones, and flying drones. In fact, management jobs and careers didn't exist 130 years ago, so management was not yet a field of study. Now, of course, managers and management are such an important part of the business world that it's hard to imagine organizations without them.



So, if there were no managers 130 years ago, but you can't walk down the hall today without bumping into one, where did management come from?

Although we can find the seeds of many of today's management ideas throughout history, not until the past few centuries did systematic changes in the nature of work and organizations create a compelling need for managers.

2-1a Management Ideas and Practices throughout History

Examples of management thought and practice can be found throughout history.¹ For example, the earliest recorded instance of information management dates to ancient Sumer (modern Iraq), *circa* 8000–3000 BCE. Sumerian businesses used small clay tokens to calculate quantities of grain and livestock—and later, value-added goods such as perfume or pottery—that they owned and traded in temples and at city gates. Different shapes and sizes represented different types and quantities of goods. The tokens

were also used to store data. They were kept in small clay envelopes, and the token shapes were impressed on the outside of the envelope to indicate what was inside. Eventually, someone figured out that it was easier to just write these symbols with a stylus on a tablet instead of using the tokens.

Here's what was written on one clay tablet from this era: "From Durhunit until Kaneš I incurred expenses of 5 minas of refined (copper), I spent 3 minas of copper until Wahšušana, I acquired and spent small wares for a value of 4 shekels of silver."² In the end, the new technology of *writing* led to more efficient management of the business of Sumerian temples.³ Indeed, archaeologists have determined that most clay tablets of this time were "business letters, shipment documents, accounting records, seals and contracts."⁴

A task as enormous as building the great pyramids in Egypt was bound to present practical problems that would lead to the development of management ideas.

Egyptians recognized the need for planning, organizing, and controlling; for submitting written requests; and for consulting staff for advice before making decisions. The enormity of the task they faced is evident in the pyramid of King Khufu, which contains 2.3 million blocks of stone. Each block had to be quarried, cut to precise size and shape, cured (hardened in the sun), transported by boat for two to three days, moved to the construction site, numbered to identify where it would be placed, and then shaped and smoothed so that it would fit perfectly into place. It took 20,000 workers 23 years to complete this pyramid; more than 8,000 were needed just to quarry and transport the stones. A typical quarry expedition might include 100 army officers, 50 government and religious officials, and 200 members of the king's court to lead; 130 stonemasons to cut the stones; and 5,000 soldiers, 800 barbarians, and 2,000 bond servants to load and unload the stones from the ships.⁵

Exhibit 2.1 shows how other management ideas and practices throughout history relate to the management functions we discuss in this textbook.

2-1b Why We Need Managers Today

Working from 8:00 a.m. to 5:00 p.m., coffee breaks, lunch hours, crushing rush hour traffic, and endless emails and nonstop meetings are things we associate with today's working world. Work hasn't always been this way, however. In fact, the design of jobs and organizations has changed dramatically over the past 500 years. For most of humankind's history, for example, people didn't commute to work.⁶ Work usually occurred in homes or on farms. In 1720, almost 80 percent of the 5.5 million people in England lived and worked in the country. And as recently as 1870, two-thirds of Americans earned their living from agriculture. Even most of those who didn't earn their living from agriculture didn't commute to work. Blacksmiths, furniture makers, leather goods makers, and other skilled tradespeople or craftspeople who formed trade guilds (the historical predecessors of labor unions) in England as early as 1093 typically worked out of shops in or next to their homes.⁷ Likewise, cottage workers worked with each other out of small homes that were often built in a semicircle. A family in each cottage would complete a

Exhibit 2.1

Management Ideas and Practices throughout History

Time	Individual or Group	Planning	Organizing	Leading	Controlling	Contributions to Management Thought and Practice
5000 BCE	Sumerians				✓	Written record keeping
4000 BCE to 2000 BCE	Egyptians	✓	✓		✓	Planning, organizing, and controlling to build the pyramids; submitting requests in writing; making decisions after consulting staff for advice
1800 BCE	Hammurabi				✓	Controls and using witnesses in legal cases
600 BCE	Nebuchadnezzar		✓	✓		Wage incentives and production control
500 BCE	Sun Tzu	✓		✓		Strategy and identifying and attacking opponents' weaknesses
400 BCE	Xenophon	✓	✓	✓	✓	Management as separate art
400 BCE	Cyrus		✓	✓	✓	Human relations and motion study
175	Cato		✓			Job descriptions
284	Diocletian		✓			Delegation of authority
900	al-Farabi			✓		Leadership traits
1100	Ghazali			✓		Managerial traits
1418	Barbarigo		✓			Different organizational forms/structures
1436	Venetians				✓	Numbering, standardization, and interchangeability of parts
1500	Sir Thomas More			✓		Critique of poor management and leadership
1525	Machiavelli		✓	✓		Cohesiveness, power, and leadership in organizations

Source: C. S. George Jr., *The History of Management Thought* (Englewood Cliffs, NJ: Prentice Hall, 1972).

different production step, and work passed from one cottage to the next until production was complete. With small, self-organized work groups, no commute, no bosses, and no common building, there wasn't a strong need for management.

During the Industrial Revolution (1750–1900), however, jobs and organizations changed dramatically.⁸ First, unskilled laborers running machines began to replace high-paid, skilled artisans. This change was made possible by the availability of power (steam engines and, later, electricity) as well as numerous related inventions, including Darby's coke-smelting process and Cort's puddling and rolling process (both for making iron), as well as Hargreaves's spinning jenny and Arkwright's water frame (both for spinning cotton). Although artisans made entire goods by themselves by hand, this new production system was based on a division of labor: each worker, interacting with machines, performed separate, highly specialized tasks that were but a small part of all the steps required to make manufactured goods. Mass production was born as rope- and chain-driven assembly lines moved work to stationary workers who concentrated on performing one small task over and over again. While workers focused on their singular tasks, managers were needed to coordinate the different parts of the production system and optimize its overall performance. Productivity skyrocketed at companies that understood this. At **Ford Motor Company**, where the assembly line was developed, the time required to assemble a car dropped from 12.5 work hours to just 93 minutes after switching to mass production.⁹

Second, instead of being performed in fields, homes, or small shops, jobs occurred in large, formal organizations where hundreds, if not thousands, of people worked under one roof.¹⁰ In 1849, for example, **Chicago Harvester** (the predecessor of International Harvester) ran the largest factory in the United States with just 123 workers. Yet by 1913, Henry Ford employed 12,000 employees in his Highland Park, Michigan, factory alone. Because the number of people working in manufacturing quintupled from 1860 to 1890, and individual factories employed so many workers under one roof, companies now had a strong need for disciplinary rules to impose order and structure. For the first time, they needed managers who knew how to organize large groups, work with employees, and make good decisions.

2-2

SCIENTIFIC MANAGEMENT

Before 1880, business educators taught only basic book-keeping and secretarial skills, and no one published books or articles about management.¹¹ Today if you have a question

about management, you can turn to dozens of academic journals (such as the Academy of Management's *Journal* or *Review*, *Administrative Science Quarterly*, the *Strategic Management Journal*, and the *Journal of Applied Psychology*), hundreds of business school and practitioner journals (such as *Harvard Business Review*, *MIT Sloan Management Review*, and the *Academy of Management Perspectives*), and thousands of other books and articles. In the next four sections, you will learn about some important contributors to the field of management and how their ideas shaped our current understanding of management theory and practice.

Bosses, who were hired by the company owner or founder, used to make decisions by the seat of their pants—haphazardly, without any systematic study, thought, or collection of information. If the bosses decided that workers should work twice as fast, little or no thought was given to worker motivation. If workers resisted, the bosses often resorted to physical beatings to get workers to work faster, harder, or longer. With no incentives for bosses and workers to cooperate with one another, both groups played the system by trying to take advantage of each other. Moreover, each worker did the same job in his or her own way with different methods and different tools. In short, there were no procedures to standardize operations, no standards by which to judge whether performance was good or bad, and no follow-up to determine whether productivity or quality actually improved when changes were made.¹²

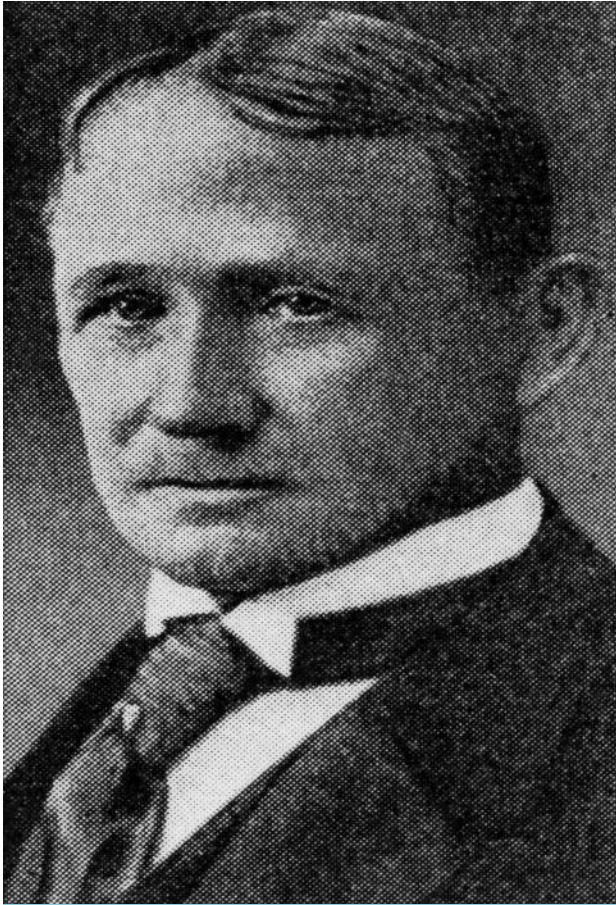
This all changed, however, with the advent of **scientific management**, which involved thorough study and testing of different work methods to identify the best, most efficient ways to complete a job.

Let's find out more about scientific management by learning about 2-2a Frederick W. Taylor, the father of scientific management; 2-2b Frank and Lillian Gilbreth and motion studies; and 2-2c Henry Gantt and his Gantt charts.

2-2a Father of Scientific Management: Frederick W. Taylor

Frederick W. Taylor (1856–1915), the father of scientific management, began his career as a worker at **Midvale Steel Company**. He was promoted to patternmaker, supervisor, and then chief engineer. At Midvale, Taylor was deeply affected by his three-year struggle to get the men who worked for him to do, as he called it,

Scientific management thoroughly studying and testing different work methods to identify the best, most efficient way to complete a job



ullstein bild/Getty Images

Frederick W. Taylor was affected by his three-year struggle to get the men who worked for him to do, as he called it, “a fair day’s work.”

“a fair day’s work.” Taylor, who had worked alongside the men as a coworker before becoming their boss, said, “We who were the workmen of that shop had the quantity output carefully agreed upon for everything that was turned out in the shop. We limited the output to about, I should think, one third of what we could very well have done.” Taylor explained that, as soon as he became the boss, “the men who were working under me . . . knew that I was onto the whole game of **soldiering**, or deliberately restricting output.”¹³ When Taylor told his workers, “I have accepted a job under the management of this company and I am on the other side of the fence . . . I am going to try to get a

bigger output,” the workers responded, “We warn you, Fred, if you try to bust any of these rates [a **rate buster** was someone who worked faster than the group] we will have you over the fence in six weeks.”¹⁴

Soldiering when workers deliberately slow their pace or restrict their work output

Rate buster a group member whose work pace is significantly faster than the normal pace in his or her group

Over the next three years, Taylor tried everything he could think of to improve output. By doing the job himself, he showed workers that it was possible to produce more output. He hired new workers and trained them himself, hoping they would produce more. But “very heavy social pressure” from the other workers kept them from doing so. Pushed by Taylor, the workers began breaking their machines so that they couldn’t produce. Taylor responded by fining them every time they broke a machine and for any violation of the rules, no matter how small, such as being late to work. Tensions became so severe that some of the workers threatened to shoot Taylor. Looking back at the situation, Taylor reflected, “It is a horrid life for any man to live, not to be able to look any workman in the face all day long without seeing hostility there and feeling that every man around one is his virtual enemy.” He said, “I made up my mind either to get out of the business entirely and go into some other line of work or to find some remedy for this unbearable condition.”¹⁵

The remedy that Taylor eventually developed was scientific management. Taylor, who once described scientific management as “seventy-five percent science and twenty-five percent common sense,” emphasized that the goal of scientific management was to use systematic study to find the “one best way” of doing each task. To do that, managers had to follow the four principles shown in Exhibit 2.2. The first principle was to “develop a science” for each element of work. Study it. Analyze it. Determine the “one best way” to do the work. For example, one of Taylor’s controversial proposals at the time was to give rest breaks to factory workers doing physical labor. We take morning, lunch, and afternoon breaks for granted, but in Taylor’s day, factory workers were expected to work without stopping.¹⁶ When Taylor said that breaks would increase worker productivity, no one believed him. Nonetheless, through systematic experiments, he showed that workers receiving frequent rest breaks were able to greatly increase their daily output.

Second, managers had to scientifically select, train, teach, and develop workers to help them reach their full potential. Before Taylor, supervisors often hired on the basis of favoritism and nepotism. Who you knew was often more important than what you could do. By contrast, Taylor instructed supervisors to hire “first-class” workers on the basis of their aptitude to do a job well. In one of the first applications of this principle, physical reaction times were used to select bicycle ball-bearing inspectors, who had to be able to examine ball bearings as fast as they were produced on a production line. For similar reasons, Taylor also recommended that companies train and develop their workers—a rare practice at the time.

Exhibit 2.2

Taylor's Four Principles of Scientific Management

First:	Develop a science for each element of a man's work, which replaces the old rule of thumb method.
Second:	Scientifically select and then train, teach, and develop the workman, whereas in the past, he chose his own work and trained himself as best he could.
Third:	Heartily cooperate with the men so as to ensure all of the work being done is in accordance with the principles of the science that has been developed.
Fourth:	There is an almost equal division of the work and the responsibility between the management and the workmen. The management take over all the work for which they are better fitted than the workmen, while in the past, almost all of the work and the greater part of the responsibility were thrown upon the men.

Source: F. W. Taylor, *The Principles of Scientific Management* (New York: Harper, 1911).

The third principle instructed managers to cooperate with employees to ensure that the scientific principles were actually implemented. Labor unrest was widespread at the time; the number of labor strikes against companies doubled between 1893 and 1904. As Taylor knew from personal experience, workers and management more often than not viewed each other as enemies. Taylor's advice ran contrary to the common wisdom of the day. He said, "The majority of these men believe that the fundamental

interests of employees and employers are necessarily antagonistic. Scientific management, on the contrary, has for its very foundation the firm conviction that the true interests of the two are one and the same; that prosperity for the employer cannot exist through a long term of years unless it is accompanied by prosperity for the employee and vice versa; and that it is possible to give the workman what he most wants—high wages—and the employer what he wants—a low labor cost for his manufactures."¹⁷

Taylor's Rest Break Now Includes Napping and Sabbaticals

While rest breaks traditionally involve sitting or taking a brief walk, some employers now see a rest break as an opportunity for a quick snooze or a long sabbatical. Lampooned in movies and television, napping at work is nonetheless a proven way to increase focus, memory, and alertness on the job. A University of Michigan study found that a one-hour nap during the workday produced all those benefits—and more. But obtaining those benefits is not easy. Not only is it difficult to make time during hectic workdays, but finding a *place* to sleep can be challenging as well. Only 6 percent of companies have dedicated napping spaces, and many employees work in loud, crowded spaces with uncomfortable chairs.

But, if you can find a spot, when and how long should you nap? First, figure out the midpoint of your previous night's rest and add 12 hours. Second, sleep either for 20 or 90 minutes. Anything in between or longer will leave you groggy and ineffective, counteracting the point of the nap in the first place.

While naps are good for short-term focus and recharging, numerous studies show that taking extended sabbaticals, meaning three months or longer, produces lasting benefits of reduced stress and increased confidence, creativity, and psychological health. They're also an opportunity to develop the skills of interim managers who step in for those on extended leave. Human resource professor Maurice Mazerolle says, "The strategic use of sabbaticals can greatly enhance an organization's competitiveness." So, whether it's short naps or long sabbaticals, Frederick W. Taylor's observation that breaks are good for workers and managers is still relevant in the twenty-first century.

Sources: D. Burkus, "Research Shows That Organizations Benefit When Employees Take Sabbaticals," *Harvard Business Review*, August 10, 2017, accessed January 30, 2020, <https://hbr.org/2017/08/research-shows-that-organizations-benefit-when-employees-take-sabbaticals>; J. Dunne, "Need a Longer Holiday? In a Tight Labour Market Some Companies Offer Sabbaticals," *CBC News*, July 13, 2019, accessed January 30, 2020, <https://www.cbc.ca/news/business/sabbaticals-human-resources-1.5208559>; R. Greenfield, "Napping at Work Can Be So Exhausting," *Bloomberg Businessweek*, August 20, 2015, <http://www.bloomberg.com/news/articles/2015-08-20/napping-at-work-can-be-so-exhausting>, accessed March 26, 2016.

The fourth principle of scientific management was to divide the work and the responsibility equally between management and workers. Prior to Taylor, workers alone were held responsible for productivity and performance. But, said Taylor, “Almost every act of the workman should be preceded by one or more preparatory acts of the management, which enable him to do his work better and quicker than he otherwise could. And each man should daily be taught by and receive the most friendly help from those who are over him, instead of being, at the one extreme, driven or coerced by his bosses, and at the other left, to his own unaided devices.”¹⁸

Above all, Taylor believed these principles could be used to determine a “fair day’s work,” that is, what an average worker could produce at a reasonable pace, day in and day out. After that was determined, it was management’s responsibility to pay workers fairly for that fair day’s work. In essence, Taylor was trying to align management and employees so that what was good for employees was also good for management. In this way, he believed, workers and managers could avoid the conflicts he had experienced at Midvale Steel.

Although Taylor remains a controversial figure among some academics who believe that his ideas were bad for workers, his key ideas have stood the test of time.¹⁹ These include using systematic analysis to identify the best methods; scientifically selecting, training, and developing workers; promoting cooperation between management and labor; developing standardized approaches and tools; setting specific tasks or goals and then rewarding workers with financial incentives; and giving workers shorter work hours and frequent breaks. In fact, his ideas are so well accepted and widely used that we take most of them for granted. As eminent management scholar Edwin Locke said, “The point is not, as is often claimed, that he was ‘right in the context of his time,’ but is now outdated, but that *most of his insights are still valid today*.”²⁰

2-2b Motion Studies: Frank and Lillian Gilbreth

The husband and wife team of Frank and Lillian Gilbreth are best known for their use of motion studies to simplify work, but they also made significant contributions to the employment of disabled workers and to the field of industrial psychology. Like Taylor, their early experiences significantly shaped their interests and contributions to management.

Though admitted to MIT, Frank Gilbreth (1868–1924) began his career as an



George Fihnart/Corbis Historical/Getty Images

Frank and Lillian Gilbreth are best known for their use of motion studies to simplify work.

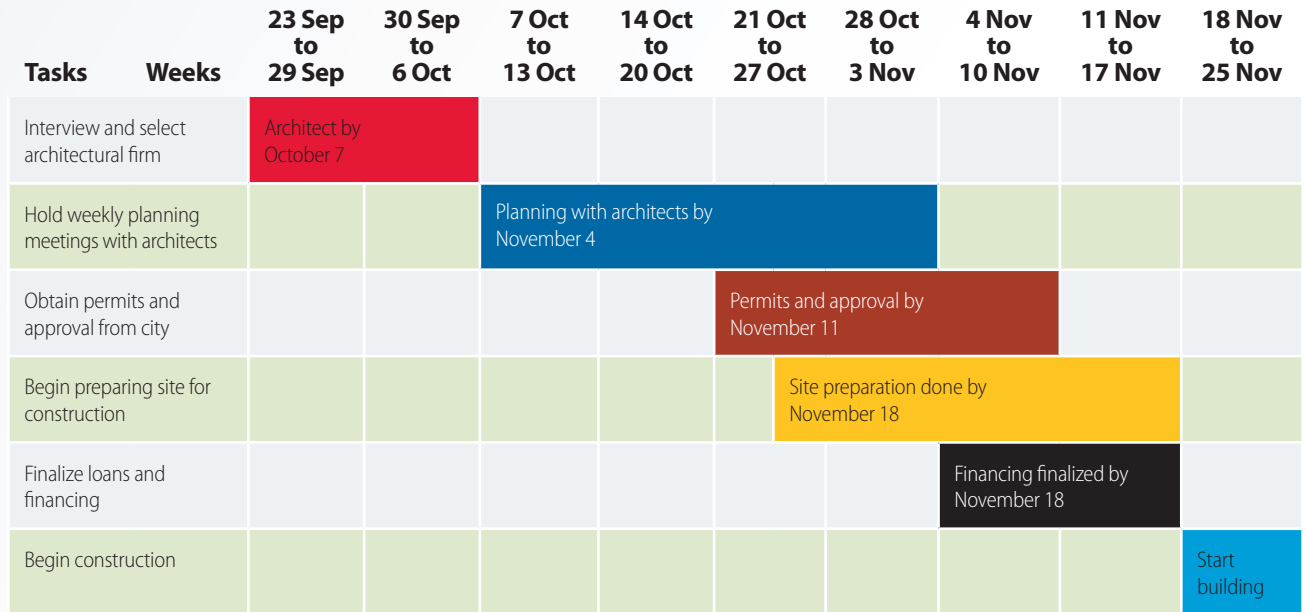
apprentice bricklayer. While learning the trade, he noticed the bricklayers using three different sets of motions—one to teach others how to lay bricks, a second to work at a slow pace, and a third to work at a fast pace.²¹ Wondering which was best, he studied the various approaches and began eliminating unnecessary motions. For example, by designing a stand that could be raised to waist height, he eliminated the need to bend over to pick up each brick. Turning to grab a brick was faster and easier than bending down. By having lower-paid workers place all the bricks with their most attractive side up, bricklayers didn’t waste time turning a brick over to find it. By mixing a more consistent mortar, bricklayers no longer had to tap each brick numerous times to put it in the right position. Together, Gilbreth’s improvements raised productivity from 120 to 350 bricks per hour and from 1,000 bricks to 2,700 bricks per day.

As a result of his experience with bricklaying, Gilbreth and his wife, Lillian, developed a long-term interest in using motion study to simplify work, improve productivity, and reduce the level of effort required to safely perform a job. Indeed, Frank Gilbreth said, “The greatest waste in the world comes from needless, ill-directed, and ineffective motions.”²² **Motion study** broke each task or job into separate motions and then eliminated those that were unnecessary or repetitive. Because many motions were completed very quickly, the

Motion study breaking each task or job into its separate motions and then eliminating those that are unnecessary or repetitive

Exhibit 2.3

Gantt Chart for Starting Construction on a New Headquarters



Gilbreths used motion-picture films, then a relatively new technology, to analyze jobs. Most film cameras at that time were hand cranked and thus variable in their film speed, so Frank invented the microchronometer, a large clock that could record time to 1/2,000th of a second. By placing the microchronometer next to the worker in the camera's field of vision and attaching a flashing strobe light to the worker's hands to better identify the direction and sequence of key movements, the Gilbreths could use film to detect and precisely time even the slightest, fastest movements. Motion study typically yielded production increases from 25 to 300 percent.²³

Taylor also strove to simplify work, but he did so by managing time rather than motion as the Gilbreths did.²⁴ Taylor developed time study to put an end to soldiering and to determine what could be considered a fair day's work. **Time study** worked by timing how long it took a "first-class man" to complete each part of his job. A standard time was established after allowing for rest periods, and a worker's pay would increase or decrease depending on whether the worker exceeded or fell below that standard.

Lillian Gilbreth (1878–1972) was an important contributor to management in her own right. She was the first woman to receive a PhD in industrial psychology, as well as the first woman to become a member of the Society of Industrial Engineers and the American Society of Mechanical Engineers. When Frank died in 1924,

she continued the work of their management consulting company (which they had shared for over a dozen years). Lillian, who was concerned with the human side of work, was one of the first contributors to industrial psychology, originating ways to improve office communication, incentive programs, job satisfaction, and management training. Her work also convinced the government to enact laws regarding workplace safety, ergonomics, and child labor.

2-2c Charts: Henry Gantt

Henry Gantt (1861–1919) was first a protégé and then an associate of Frederick W. Taylor. Gantt is best known for the Gantt chart, but he also made significant contributions to management with respect to pay-for-performance plans and the training and development of workers. As shown in Exhibit 2.3, a **Gantt chart** visually indicates what tasks must be completed at which times in order to complete a project. It accomplishes this by showing time in various units on the *x*-axis and tasks on the *y*-axis. For example, Exhibit 2.3 shows that the following tasks must be completed by the following dates: in order to start construction on a new company

Time study timing how long it takes good workers to complete each part of their jobs

Gantt chart a graphical chart that shows which tasks must be completed at which times in order to complete a project or task

headquarters by the week of November 18, the architectural firm must be selected by October 7, architectural planning done by November 4, permits obtained from the city by November 11, site preparation finished by November 18, and loans and financing finalized by November 18.

Though simple and straightforward, Gantt charts were revolutionary in the era of seat-of-the-pants management because of the detailed planning information they provided. As Gantt wrote, “By using the graphical forms, [the Gantt chart’s] value is very much increased, for the general appearance of the sheet is sufficient to tell how closely the schedule is being lived up to; in other words, whether the plant is being run efficiently or not.”²⁵ Gantt said, “Such sheets show at a glance where the delays occur, and indicate what must have our attention in order to keep up the proper output.” The use of Gantt charts is so widespread today that nearly all project management software and computer spreadsheets have the capability to create charts that track and visually display the progress being made on a project.

Finally, Gantt, along with Taylor, was one of the first to strongly recommend that companies train and develop their workers.²⁶ In his work with companies, he found that workers achieved their best performance levels if they were trained first. At the time, however, supervisors were reluctant to teach workers what they knew for fear that they could lose their jobs to more knowledgeable workers. Gantt overcame the

supervisors’ resistance by rewarding them with bonuses for properly training all of their workers. Said Gantt, “This is the first recorded attempt to make it in the financial interest of the foreman to teach the individual worker, and the importance of it cannot be overestimated, for it changes the foreman from a driver of men to their friend and helper.”²⁷

Gantt’s approach to training was straightforward: “(1) A scientific investigation in detail of each piece of work, and the determination of the best method and the shortest time in which the work can be done. (2) A teacher capable of teaching the best method and the shortest time. (3) Reward for both teacher and pupil when the latter is successful.”²⁸

2-3

BUREAUCRATIC AND ADMINISTRATIVE MANAGEMENT

The field of scientific management developed quickly in the United States between 1895 and 1920 and focused on improving the efficiency of manufacturing facilities and their workers. At about the same time, equally important ideas about bureaucratic and administrative management were developing in Europe. German sociologist Max Weber (1864–1920)

Bureaucracy’s “Iron Cage” Costs Companies Trillions

While Max Weber’s ideas (fairness, efficiency, rules, and procedures) advanced business management, he correctly predicted bureaucracy’s downside, saying, “Once fully established, bureaucracy is among those social structures which are the hardest to destroy.”

So how much does bureaucracy’s inefficiency, red tape, and incompetence cost companies? According to management professors Gary Hamel and Michele Zanini, in the United States alone its cost is \$3 trillion a year, or 17 percent of GDP! A study of 7,000 *Harvard Business Review* (HBR) readers found that, on average, managers and employees wasted more than one day a week on “bureaucratic chores such as preparing reports, attending meetings, complying with internal requests, securing sign-offs and interacting with staff functions.” Even worse, nearly two-thirds of those HBR readers said their companies had become *more* bureaucratic in the last few years.

If management ideas were supposed to improve business functioning and productivity, how is this so? Too many managers!

Twenty-four million US managers results in 1 manager for every 4.7 workers. Hamel and Zanini estimate that companies could easily double that to 1 manager for every 10 workers. With more people manufacturing products, providing services, or directly dealing with customers, and millions fewer managers pushing red tape rather than company goals, productivity could jump by 15 percent!



Christian Delbert/Shutterstock.com

Sources: G. Hamel & M. Zanini, “Excess Management Is Costing the US \$3 Trillion Per Year,” *Harvard Business Review Digital Articles*, September 5, 2016, accessed March 4, 2017, <https://hbr.org/2016/09/excess-management-is-costing-the-us-3-trillion-per-year>; G. Hamel & M. Zanini, “What We Learned about Bureaucracy from 7,000 HBR Readers,” *Harvard Business Review*, August 10, 2017, accessed January 31, 2020, <https://hbr.org/2017/08/what-we-learned-about-bureaucracy-from-7000-hbr-readers>; M. Weber, *The Protestant Ethic and the Spirit of Capitalism* (New York: Scribner’s, 1958).

presented a new way to run entire organizations (bureaucratic management) in *The Theory of Social and Economic Organization*, published in 1922. Henri Fayol, an experienced French CEO, published his ideas about how and what managers should do in their jobs (administrative management) in *General and Industrial Management* in 1916.

Let's find out more about the contributions Weber and Fayol made to management by learning about 2-3a bureaucratic management and 2-3b administrative management.

2-3a Bureaucratic Management: Max Weber

Today, when we hear the term *bureaucracy*, we think of inefficiency and red tape, incompetence and ineffectiveness, and rigid administrators blindly enforcing nonsensical rules. When Weber first proposed the idea of bureaucratic organizations, however, these problems were associated with monarchies and patriarchies rather than bureaucracies. In monarchies, where kings, queens, sultans, and emperors ruled, and patriarchies, where a council of elders, wise men, or male heads of extended families ruled, the top leaders typically achieved their positions by virtue of birthright. For example, when the queen died, her oldest son became king, regardless of his intelligence, experience, education, or desire. Likewise, promotion to prominent positions of authority in monarchies and patriarchies was based on who you knew (politics), who you were (heredity), or ancient rules and traditions.

It was against this historical background of monarchical and patriarchal rule that Weber proposed the then-new idea of bureaucracy. *Bureaucracy* comes from the French word *bureaucratie*. Because *bureau* means desk or office and *cratie* or *cracy* means to rule, *bureaucracy* literally means to rule from a desk or office. According to Weber, **bureaucracy** is “the exercise of control on the basis of knowledge.”²⁹ Rather than ruling by virtue of favoritism or personal or family connections, people in a bureaucracy would lead by virtue of their rational-legal authority—in other words, their knowledge, expertise, or experience. Furthermore, the aim of bureaucracy is not to protect authority but to achieve an organization’s goals in the most efficient way possible.

Exhibit 2.4 shows the seven elements that, according to Weber, characterize bureaucracies. First, instead of hiring people because of their family or political connections or personal loyalty, they should be hired because their technical training or education qualifies them to do the job well. Second, along the same lines, promotion within the company should no longer be based on who

you know (politics) or who you are (heredity) but on your experience or achievements. And to further limit the influence of personal connections in the promotion process, *managers* rather than organizational owners should decide who gets promoted. Third, each position or job is part of a chain of command that clarifies who reports to whom throughout the organization. Those higher in the chain of command have the right, if they so choose, to give commands, act, and make decisions concerning activities occurring anywhere below them in the chain. Unlike in many monarchies or patriarchies, however, those lower in the chain of command are protected by a grievance procedure that gives them the right to appeal the decisions of those in higher positions. Fourth, to increase efficiency and effectiveness, tasks and responsibilities should be separated and assigned to those best qualified to complete them. Authority is vested in these task-defined positions rather than in people, and the authority of each position is clearly defined in order to reduce confusion and conflict. If you move to a different job in a bureaucracy, your authority increases or decreases commensurate with the responsibilities of that job. Fifth, because of his strong distaste for favoritism, Weber believed that an organization’s rules and procedures should apply to all the members regardless of their position or status. Sixth, to ensure consistency and fairness over time and across different leaders and supervisors, all rules, procedures, and decisions should be recorded in writing. Finally, to reduce favoritism, “professional” managers rather than company owners should manage or supervise the organization.

When viewed in historical context, Weber’s ideas about bureaucracy represent a tremendous improvement in how organizations should be run. Fairness supplanted favoritism, the goal of efficiency replaced the goal of personal gain, and logical rules and procedures took the place of traditions or arbitrary decision-making.

Today, however, after more than a century of experience, we recognize that bureaucracy has limitations as well. Weber called bureaucracy the “iron cage” and said, “Once fully established, bureaucracy is among those social structures which are the hardest to destroy.”³⁰ In bureaucracies, managers are supposed to influence employee behavior by fairly rewarding or punishing employees for compliance or noncompliance with organizational policies, rules, and procedures. In reality, however, most employees would argue that bureaucratic managers emphasize punishment for noncompliance much more than rewards for compliance. Ironically, bureaucratic management was created to prevent just this type of managerial behavior.

Bureaucracy the exercise of control on the basis of knowledge, expertise, or experience

Exhibit 2.4

Elements of Bureaucratic Organizations

Qualification-based hiring:	Employees are hired on the basis of their technical training or educational background.
Merit-based promotion:	Promotion is based on experience or achievement. Managers, not organizational owners, decide who is promoted.
Chain of command:	Each job occurs within a hierarchy, the chain of command, in which each position reports and is accountable to a higher position. A grievance procedure and a right to appeal protect people in lower positions.
Division of labor:	Tasks, responsibilities, and authority are clearly divided and defined.
Impartial application of rules and procedures:	Rules and procedures apply to all members of the organization and will be applied in an impartial manner, regardless of one's position or status.
Recorded in writing:	All administrative decisions, acts, rules, and procedures will be recorded in writing.
Managers separate from owners:	The owners of an organization should not manage or supervise the organization



Source: M. Weber, *The Theory of Social and Economic Organization*, trans. A. Henderson and T. Parsons (New York: The Free Press, 1947), 329–334.

2-3b Administrative Management: Henri Fayol

Though his work was not translated and widely recognized in the United States until 1949, Frenchman Henri Fayol (1841–1925) was as important a contributor to the field of management as Taylor. Like Taylor and the Gilbreths, Fayol's work experience significantly shaped his thoughts and ideas about management. But, whereas Taylor's ideas changed companies from the shop floor up, Fayol's ideas were shaped by his experience as a managing director (CEO) and generally changed companies from the board of directors down.³¹ Fayol is best known for developing five functions of managers and 14 principles of management, as well as for his belief that management can and should be taught to others.

The most formative events in Fayol's business career came during his 20+ years as the managing director of Compagnie de Commentry-Fourchambault et Décazeville, commonly known as **Comambault**, a vertically integrated steel company that owned several coal and iron ore mines and employed 10,000 to 13,000 workers. Fayol was initially hired by the board of directors to shut down the “hopeless” steel company. The company was facing increased competition from English and German steel companies, which had lower costs, and from new steel mills in northern and eastern France, which were closer to major markets and thus could avoid the high shipping costs incurred by Fayol's company, located in central France.³² In the five years before Fayol became CEO, production had dropped more than 60 percent, from 38,000 to 15,000 annual metric tons. Comambault had exhausted a key supply of coal needed for steel production, had already shut down one steel mill,

and was losing money at another.³³ The company had quit paying dividends to shareholders and had no cash to invest in new technology, such as blast furnaces, that could lower its costs and increase productivity.

So the board hired Fayol as CEO to quickly dissolve and liquidate the business. But, after “four months of reflection and study,” he presented the board with a plan, backed by detailed facts and figures, to save the company.³⁴ With little to lose, the board agreed. Fayol then began the process of turning the company around by obtaining supplies of key resources such as coal and iron ore; using research to develop new steel-alloy products; carefully selecting key subordinates in research, purchasing, manufacturing, and sales and then delegating responsibility to them; and cutting costs by moving the company to a better location closer to key markets.³⁵

Looking back 10 years later, Fayol attributed his and the company’s success to changes in management practices. He wrote, “When I assumed the responsibility for the restoration of Décazeville, I did not rely on

my technical superiority. . . . I relied on my ability as an organizer [and my] skill in handling men.”³⁶

Based on his experience as a CEO, Fayol argued that “the success of an enterprise generally depends much more on the administrative ability of its leaders than on their technical ability.”³⁷ And, as you learned in Chapter 1, Fayol argued that managers need to perform five managerial functions if they are to be successful: planning, organizing, coordinating, commanding, and controlling.³⁸ Because most management textbooks have dropped the coordinating function and now refer to Fayol’s commanding function as “leading,” these functions are widely known as planning (determining organizational goals and a means for achieving them), organizing (deciding where decisions will be made, who will do what jobs and tasks, and who will work for whom), leading (inspiring and motivating workers to work hard to achieve organizational goals), and controlling (monitoring progress toward goal achievement and taking corrective action when needed). In addition, according to Fayol, effective management is based on the 14 principles shown in Exhibit 2.5.

Exhibit 2.5

Fayol’s 14 Principles of Management

1. Division of work

Increase production by dividing work so that each worker completes smaller tasks or job elements.

2. Authority and responsibility

A manager’s authority, which is the “right to give orders,” should be commensurate with the manager’s responsibility. However, organizations should enact controls to prevent managers from abusing their authority.

3. Discipline

Clearly defined rules and procedures are needed at all organizational levels to ensure order and proper behavior.

4. Unity of command

To avoid confusion and conflict, each employee should report to and receive orders from just one boss.

5. Unity of direction

One person and one plan should be used in deciding the activities to be carried out to accomplish each organizational objective.

6. Subordination of individual interests to the general interests

Employees must put the organization’s interests and goals before their own.

7. Remuneration

Compensation should be fair and satisfactory to both the employees and the organization; that is, don’t overpay or underpay employees.

8. Centralization

Avoid too much centralization or decentralization. Strike a balance, depending on the circumstances and employees involved.

9. Scalar chain

From the top to the bottom of an organization, each position is part of a vertical chain of authority in which each worker reports to just one boss. For the sake of simplicity, communication outside normal work groups or departments should follow the vertical chain of authority.

10. Order

To avoid confusion and conflict, order can be obtained by having a place for everyone and having everyone in his or her place; in other words, there should be no overlapping responsibilities.

11. Equity

Kind, fair, and just treatment for all will develop devotion and loyalty. This does not exclude discipline, if warranted, and consideration of the broader general interests of the organization.

12. Stability of tenure of personnel

Low turnover, meaning a stable workforce with high tenure, benefits an organization by improving performance, lowering costs, and giving employees, especially managers, time to learn their jobs.

13. Initiative

Because it is a “great source of strength for business,” managers should encourage the development of initiative, or the ability to develop and implement a plan, in others.

14. Esprit de corps

Develop a strong sense of morale and unity among workers that encourages coordination of efforts.

Sources: H. Fayol, *General and Industrial Management* (London: Pittman & Sons, 1949); M. Fells, “Fayol Stands the Test of Time,” *Journal of Management History* 6 (2000): 345–360; C. Rodrigues, “Fayol’s 14 Principles of Management Then and Now: A Framework for Managing Today’s Organizations Effectively,” *Management Decision* 39 (2001): 880–889.

DOING THE RIGHT THING



C.C. Spaulding: “Mr. Cooperation,” African American CEO, and Early Contributor to Management

Thanks to new archival research by Professors Leon Prieto and Simone Phipps, Charles Clinton (C.C.) Spaulding is now recognized as a significant early contributor to the field of management. Spaulding, a successful African American business executive, was born 10 years (1874) after the end of the US Civil War and died 12 years (1952) before passage of the 1964 Civil Rights Act outlawing discrimination.

Like Henry Fayol and Chester Barnard, Spaulding’s experience as president of the North Carolina Mutual Life Insurance Company—then the largest African American insurance company in the United States—shaped his views about management. However, Spaulding wrote his eight fundamental necessities of business administration in a 1927 article titled “The Administration of Big Business” before Barnard’s (1938) and Fayol’s (1949) ideas were first published in the United States. His ideas on conflict and cooperation are consistent with those of Mary Parker Follett, which were also published during the 1920s. Spaulding’s eight fundamental necessities of management are, in the author’s own words:

- » Necessity 1: Cooperation and Teamwork. “Not only should executives confer daily with each other, disclosing all the facts and circumstances attendant upon their operations, but they ought to keep constant check upon the activities and liabilities of their associates . . .”
- » Necessity 2: Authority and Responsibility. “There must always be some responsible executive who must pass upon every issue that is fundamental; he must be the final authority from whom there is no appeal except to the entire group in conference.”
- » Necessity 3: Division of Labor. “Departmental divisions function separately under the direction of experts who may or may not be executive officers.”



C.C. Spaulding is shown at left in this undated photo with Jessie Matthews Vann, editor and publisher of *The Pittsburgh Courier*.

National Archives

- » Necessity 4: Adequate Manpower. “First and foremost success in business depends upon adequate manpower. Our schools are turning out only partially trained young people with no business experience whatsoever, and while many of them are good technicians they are for the most part helpless in their new jobs because there is little correlation between the classroom and the business office.”
- » Necessity 5: Adequate Capital. “Initial capital must not only be sufficient to commence operations, but must be sustaining over a given period . . . Even large scale corporations frequently dissipate their surplus earnings in hurried dividends instead of re-investing the surplus for the extension of the business.”
- » Necessity 6: Feasibility Analysis. “Frequently it happens that as soon as one person or group appears successful in a given line [of business] another person or group organizes a new enterprise in the same line without ascertaining the advisability of such a move, as reflected in the needs and resources of the community.”
- » Necessity 7: Advertising Budget. “[. . .] when it comes to advertising, a large number of our organizations are depriving themselves of the most effective means of propagation . . . Very few of these have an annual appropriation for advertisement.”
- » Necessity 8: Conflict Resolution. “Personal contact and business contact, if not properly directed and if not based on mutual goodwill and intelligence derived from a common sense education, will develop personal conflict and business conflict instead of personal cooperation and business cooperation.”

Sources: L.C. Prieto & S.T.A. Phipps, “Re-discovering Charles Clinton Spaulding’s ‘The Administration of Big Business,’” *Insight Into Early 20th Century African-American Management Thought*, *Journal of Management History* 22 (1) (2016): 73–90; A. Rutledge, “They call him ‘Co-operation,’” *The Saturday Evening Post*, March 27, 1943, p. 15; C.C. Spaulding, “The Administration of Big Business,” *The Pittsburgh Courier*, August, 13, 1927, 4; C.C. Spaulding, “The Administration of Big Business,” *The Pittsburgh Courier*, August, 20, 1927, 8; H. Fayol, *General and Industrial Management* (London: Pittman & Sons, 1949); P. Graham, ed., *Mary Parker Follett—Prophet of Management: A Celebration of Writings from the 1920s* (Boston: Harvard Business School Press, 1995); C. I. Barnard, *The Functions of the Executive* (Cambridge, MA: Harvard University Press, 1938).

HUMAN RELATIONS MANAGEMENT

As we have seen, scientific management focuses on improving efficiency; bureaucratic management focuses on using knowledge, fairness, and logical rules and procedures; and administrative management focuses on how and what managers should do in their jobs. The human relations approach to management focuses on *people*, particularly the psychological and social aspects of work. This approach to management sees people not as just extensions of machines but as valuable organizational resources in their own right. Human relations management holds that people's needs are important and that their efforts, motivation, and performance are affected by the work they do and their relationships with their bosses, coworkers, and work groups. In other words, efficiency alone is not enough. Organizational success also depends on treating workers well.

Let's find out more about human relations management by learning about 2-4a Mary Parker Follett's theories of constructive conflict and coordination, 2-4b Elton Mayo's Hawthorne Studies, and 2-4c Chester Barnard's theories of cooperation and acceptance of authority.

2-4a Constructive Conflict and Coordination: Mary Parker Follett

Mary Parker Follett (1868–1933) was a social worker with a degree in political science who, in her 50s, after 25 years of working with schools and nonprofit organizations, began lecturing and writing about management and working extensively as a consultant for business and government leaders in the United States and Europe. Although her contributions were overlooked for decades, perhaps because she was a woman or perhaps because they were so different, many of today's “new” management ideas can clearly be traced to her work.

Follett believed that the best way to deal with conflict was not **domination**, where one side wins and the other loses, or **compromise**, where each side gives up some of what it wants, but integration. Said Follett, “There is a way beginning now to be recognized at least, and even occasionally followed: when two desires are *integrated*, that means that a solution has been found in which both desires have found a place that neither side has had to sacrifice anything.”³⁹ So, rather than one side dominating the other or both sides compromising, the point of **integrative conflict resolution** is to have



Iconic Bestiary/Shutterstock.com

both parties indicate their preferences and then work together to find an alternative that meets the needs of both. According to Follett, “Integration involves invention, and the clever thing is to recognize this, and not to let one’s thinking stay within the boundaries of two alternatives which are mutually exclusive.” Indeed, Follett’s ideas about the positive use of conflict and an integrative approach to conflict resolution predate accepted thinking in the negotiation and conflict resolution literature by six decades (see the best-selling book *Getting to Yes: Negotiating Agreement without Giving In* by Roger Fisher, William Ury, and Bruce Patton).

Exhibit 2.6 summarizes Follett’s contributions to management in her own words. She casts power as “with” rather than “over” others. Giving orders involves discussing instructions and dealing with resentment. Authority flows from job knowledge and experience rather than position. Leadership involves setting the tone for the team rather than being aggressive and dominating, which may be harmful. Coordination and control should be based on facts and information. In the end, Follett’s contributions added significantly to our understanding of the human, social, and psychological sides of management. Peter Parker, the former chairman of the London School of Economics, said about Follett: “People often puzzle about who is the father of management. I don’t know who the father was, but I have no doubt about who was the mother.”⁴⁰

Domination an approach to dealing with conflict in which one party satisfies its desires and objectives at the expense of the other party’s desires and objectives

Compromise an approach to dealing with conflict in which both parties give up some of what they want in order to reach an agreement on a plan to reduce or settle the conflict

Integrative conflict resolution an approach to dealing with conflict in which both parties indicate their preferences and then work together to find an alternative that meets the needs of both

2-4b Hawthorne Studies: Elton Mayo

Australian-born Elton Mayo (1880–1948) is best known for his role in the famous Hawthorne Studies at the **Western Electric Company**. The Hawthorne Studies were

Exhibit 2.6



Mary Parker
Follett says . . .

On constructive conflict . . .

"As conflict—difference—is here in this world, as we cannot avoid it, we should, I think, use it to work for us. Instead of condemning it, we should set it to work for us."

On power . . .

"It seems to me that whereas power usually means power-over, the power of some person or group over some other person or group, it is possible to develop the conception of power-with, a jointly developed power, a co-active, not a coercive power."

On the giving of orders . . .

"An advantage of not exacting blind obedience, of discussing your instructions with your subordinates, is that if there is any resentment, any come-back, you get it out into the open, and when it is in the open, you can deal with it."

On authority . . .

"Authority should go with knowledge and experience, that is where obedience is due, no matter whether it is up the line or down."

On leadership . . .

"Of the greatest importance is the ability to grasp a total situation. . . . Out of a welter of facts, experience, desires, aims, the leader must find the unifying thread. He must see a whole, not a mere kaleidoscope of pieces. . . . The higher up you go, the more ability you have to have of this kind."

On coordination . . .

"The most important thing to remember about unity is—that there is no such thing. There is only unifying. You cannot get unity and expect it to last a day—or five minutes. Every man in a business should be taking part in a certain process and that process is unifying."

On control . . .

"Central control is coming more and more to mean the co-relation of many controls rather than a superimposed control."

Source: M. Parker Follett, *Mary Parker Follett—Prophet of Management: A Celebration of Writings from the 1920s*, ed. P. Graham (Boston: Harvard Business School Press, 1995).

conducted in several stages between 1924 and 1932 at a Western Electric plant in Chicago. Although Mayo didn't join the studies until 1928, he played a significant role thereafter, writing about the results in his book *The Human Problems of an Industrial Civilization*.⁴¹ The first stage of the Hawthorne Studies investigated

the effects of lighting levels and incentives on employee productivity in the Relay Test Assembly Room, where workers took approximately a minute to put "together a coil, armature, contact springs, and insulators in a fixture and secure the parts by means of four machine screws."⁴²

Two groups of six experienced female workers, five to do the work and one to supply needed parts, were separated from the main part of the factory by a 10-foot partition and placed at a standard work bench with the necessary parts and tools. Over the next five years, the experimenters introduced various levels and combinations of lighting, financial incentives, and rest pauses (work breaks) to study the effect on productivity. Curiously, however, production levels increased whether the experimenters increased or decreased the lighting, paid workers based on individual production or group production, or increased or decreased the number and length of rest pauses. In fact, Mayo and his fellow researchers were surprised that production steadily increased from 2,400 relays per day at the beginning of the study to 3,000 relays per day five years later. The question was: Why?

Mayo and his colleagues eventually concluded that two things accounted for the results. First, substantially more attention was paid to these workers than to workers in the rest of the plant. Mayo wrote, “Before every change of program [in the study], the group is consulted. Their comments are listened to and discussed; sometimes their objections are allowed to negate a suggestion. The group unquestionably develops a sense of participation in the critical determinations and becomes something of a social unit.”⁴³

For years, the “Hawthorne effect” has been *incorrectly* defined as increasing productivity by paying more attention to workers.⁴⁴ But it is not simply about attention from management. The Hawthorne effect cannot be understood without giving equal importance to the social units, which became intensely cohesive groups. Mayo said, “What actually happened was that six individuals became a team and the team gave itself wholeheartedly and spontaneously to cooperation in the experiment. The consequence was that they felt themselves to be participating freely and without afterthought, and they were happy in the knowledge that they were working without coercion from above or limits from below.”⁴⁵

For the first time, human factors related to work were found to be more important than the physical conditions or design of the work. Together, the increased attention from management and the development of a cohesive work group led to significantly higher levels of job satisfaction and productivity. In short, the Hawthorne Studies found that workers’ feelings and attitudes affected their work.

The next stage of the Hawthorne Studies was conducted in the Bank Wiring Room, where “the group consisted of nine wiremen, three solderers, and two inspectors. Each of these groups performed a specific



istock.com/PeopleImages

The Hawthorne effect showed that when management paid more attention to workers, productivity increased. But equal importance should be given to the social units, or teams, that were created, which demonstrated that human factors were more important than physical conditions or the work itself.

task and collaborated with the other two in completion of each unit of equipment. The task consisted of setting up the banks of terminals side-by-side on frames, wiring the corresponding terminals from bank to bank, soldering the connections, and inspecting with a test set for short circuits or breaks in the wire. One solderman serviced the work of the three wiremen.”⁴⁶ While productivity increased in the Relay Test Assembly Room no matter what the researchers did, productivity dropped in the Bank Wiring Room. Again, the question was: Why?

Mayo and his colleagues found that the differences in performance were due to group dynamics. The workers in the Bank Wiring Room had been an existing work group for some time and had already developed strong negative norms that governed their behavior. For instance, despite a group financial incentive for production, the group members decided that they would wire only 6,000–6,600 connections a day (depending on the kind of equipment they were wiring), well below the production goal of 7,300 connections that management had set for them. Individual workers who worked at a faster pace were socially ostracized from the group or “binged” (hit on the arm) until they slowed their work pace. Thus, the group’s behavior was reminiscent of the soldiering that Taylor had observed. Mayo concluded, “Work [was] done in accord with the group’s conception of a day’s work; this was exceeded by only one individual who was cordially disliked.”⁴⁷

In the end, the Hawthorne Studies demonstrated that the workplace was more complex than previously thought, that workers were not just extensions of machines, and that financial incentives weren't necessarily the most important motivator for workers. By highlighting the crucial role, positive or negative, that groups, group norms, and group behavior play at work, Mayo strengthened Follett's point about coordination—make just one change in an organization and others, some expected and some unexpected, will occur. Thanks to Mayo and his colleagues and their work on the Hawthorne Studies, managers better understood the effect that group social interactions, employee satisfaction, and attitudes had on individual and group performance.

2-4c Cooperation and Acceptance of Authority: Chester Barnard

Like Fayol, Chester Barnard (1886–1961) had experiences as a top executive that shaped his views of management. Barnard began his career in 1909 as an engineer and translator for **AT&T**, becoming a general manager at Pennsylvania Bell Telephone in 1922 and then president of New Jersey Bell Telephone in 1927.⁴⁸ Barnard's ideas, published in his classic book, *The Functions of the Executive*, influenced companies from the board of directors down. He is best known for his ideas about cooperation and the acceptance of authority.

Barnard proposed a comprehensive theory of cooperation in formal organizations. In fact, he defines an **organization** as a “system of consciously coordinated activities or forces of two or more persons.”⁴⁹ In other words, organization occurs whenever two people work together for some purpose, whether it be classmates working together to complete a class project, Habitat for Humanity volunteers donating their time to build a house, or managers working with subordinates to reduce costs, improve quality, or increase sales. Barnard placed so much emphasis on cooperation because cooperation is *not* the normal state of affairs: “Failure to cooperate, failure of cooperation, failure of organization, disorganization, disintegration, destruction of organization—and reorganization—are characteristic facts of human history.”⁵⁰

According to Barnard, the extent to which people willingly cooperate in an organization depends on how workers perceive executive authority and whether they're

willing to accept it. Many managerial requests or directives fall within a *zone of indifference* in which acceptance of managerial authority is

automatic. For example, if your supervisor asks you for a copy of the monthly inventory report, and compiling and writing that report is part of your job, you think nothing of the request and automatically send it. In general, people will be indifferent to managerial directives or orders if they (1) are understood, (2) are consistent with the purpose of the organization, (3) are compatible with the people's personal interests, and (4) can actually be carried out by those people. Acceptance of managerial authority (i.e., cooperation) is not automatic, however. Ask people to do things contrary to the organization's purpose or to their own benefit and they'll put up a fight. While many people assume that managers have the authority to do whatever they want, Barnard, referring to the “fiction of superior authority,” believed that workers ultimately grant managers their authority.

2-5 OPERATIONS, INFORMATION, SYSTEMS, AND CONTINGENCY MANAGEMENT

In this last section, we review four other significant historical approaches to management that have influenced how today's managers produce goods and services on a daily basis, gather and manage the information they need to understand their businesses and make good decisions, understand how the different parts of the company work together as a whole, and recognize when and where particular management practices are likely to work.

To better understand these ideas, let's learn about 2-5a operations management, 2-5b information management, 2-5c systems management, and 2-5d contingency management.

2-5a Operations Management

In Chapter 18, you will learn about *operations management*, which involves managing the daily production of goods and services. In general, operations management uses a quantitative or mathematical approach to find ways to increase productivity, improve quality, and manage or reduce costly inventories. The most commonly used operations management tools and methods are quality control, forecasting techniques, capacity planning, productivity measurement and improvement, linear programming, scheduling systems, inventory systems, work measurement

Organization a system of consciously coordinated activities or forces created by two or more people

techniques (similar to the Gilbreths' motion studies), project management (similar to Gantt's charts), and cost-benefit analysis.⁵¹

Since the sixteenth century, skilled craftspeople made the lock, stock, and barrel of a gun by hand. After each part was made, a skilled gun finisher assembled the parts into a complete gun. But the gun finisher did not simply screw the different parts of a gun together, as is done today. Instead, each handmade part required extensive finishing and adjusting so that it would fit together with the other handmade gun parts. Hand-fitting was necessary because, even when made by the same skilled craftspeople, no two parts were alike. In fact, gun finishers played a role similar to that of fine watchmakers who meticulously assembled expensive watches—without them, the product simply wouldn't work. Today, we would say that these parts were low quality because they varied so much from one part to another.

All this changed in 1791 when the US government, worried about a possible war with France, ordered 40,000 muskets from private gun contractors. All but one contractor built handmade muskets assembled by skilled gun finishers who made sure that all the parts fit together. Thus, each musket was unique. If a part broke, a replacement part had to be handcrafted. But one contractor, Eli Whitney of New Haven, Connecticut (who is better known for his invention of the cotton gin), determined that if gun parts were made accurately enough, guns could be made with standardized, interchangeable parts. So he designed machine tools that allowed unskilled workers to make each gun part the same as the next. Said Whitney, "The tools which I contemplate to make are similar to an engraving on copper plate from which may be taken a great number of impressions perceptibly alike."⁵² Years passed before Whitney delivered his 10,000 muskets to the US government. But he demonstrated the superiority of interchangeable parts to President-elect Thomas Jefferson in 1801 by quickly and easily assembling complete muskets from randomly picked piles of musket parts. Today, because of Whitney's ideas, most products, from cars to toasters to space shuttles, are manufactured using standardized, interchangeable parts.

But even with this advance, manufacturers still could not produce a part unless they had seen or examined it firsthand. Thanks to Gaspard Monge, a Frenchman of



modest beginnings, this soon changed. Monge's greatest achievement was his book *Descriptive Geometry*.⁵³ In it, he explained techniques for drawing three-dimensional objects on paper. For the first time, precise drawings permitted manufacturers to make standardized, interchangeable parts without first examining a prototype. Today, thanks to Monge, manufacturers rely on CAD

(computer-aided design) and CAM (computer-aided manufacturing) to take three-dimensional designs straight from the computer to the factory floor.

Once standardized, interchangeable parts became the norm, and after parts could be made from design drawings alone, manufacturers ran into a costly problem that they had never faced before: too much inventory. *Inventory* is the amount and number of raw materials, parts, and finished products that a company has in its possession. In fact, large factories were accumulating parts inventories sufficient for two to three months, much more than they needed on a daily basis to run their manufacturing operations. A solution to this problem was found in 1905 when the Oldsmobile Motor Works in Detroit burned down.⁵⁴ Management rented a new production facility to get production up and running as quickly as possible after the fire. But because the new facility was much smaller, there was no room to store large stockpiles of inventory (which the company couldn't afford anyway as it was short on funds). Therefore, the company made do with what it called "hand-to-mouth inventories," in which each production station had only enough parts on hand to do a short production run. Because all of its parts suppliers were close by, Oldsmobile could place orders in the morning and receive them in the afternoon (even without telephones), just as with today's computerized just-in-time inventory systems. So, contrary to common belief, just-in-time inventory systems were not invented by Japanese manufacturers. Instead, they were invented out of necessity more than a century ago because of a fire.

2-5b Information Management

For most of recorded history, information has been costly, difficult to obtain, and slow to spread. Because of the immense labor and time it took to hand copy information, books, manuscripts, and written documents of any kind

FROM INDEX CARDS TO THE INTERNET AND GOOGLE

From 1735 to 1770, naturalist Carl Linnaeus, the founder of modern taxonomy, categorized 12,000 minerals, plants, and animals across 13 editions of his book, *Systema Naturae*. Rather than use notebooks to record his observations and data, he invented and used separate notecards. In a quickly changing field exploding with new information (sound familiar?), notecards provided flexibility to easily recategorize, add, or update information without having to change his other 12,000 observations.

The advantages of managing information by index cards were so great they gave birth in 1910 to Google's nondigital ancestor, Belgium's Mundaneum, which used 18 million index cards in 15,000 drawers for the purpose—like Google—of categorizing “all the information in the world.”

In 1935, Paul Otlet, co-founder of the Mundaneum, clearly envisioned how notecards could lead to today's internet, writing, “From a distance, everyone will be able to read text, enlarged and limited to the desired subject, projected on an individual screen. In this way, everyone from his



armchair will be able to contemplate the whole of creation, in whole or in certain parts.”

Sources: “History | Archives Centre,” Mundaneum,” accessed March 4, 2017, <http://archives.mundaneum.org/en/history>; “Google and Mundaneum Are Proud to Announce Their Collaboration,” Mundaneum, accessed March 4, 2017, <http://expositions.mundaneum.org/en/google-and-mundaneum-are-proud-announce-their-collaboration>; British Society for the History of Science, “Carl Linnaeus Invented The Index Card,” *ScienceDaily*, June 16, 2009, accessed March 4, 2017, <https://www.sciencedaily.com/releases/2009/06/090616080137.htm>; J. Schiffman, “How the Humble Index Card Foresaw the Internet,” *Popular Mechanics*, February 11, 2016, accessed March 4, 2017, <http://www.popularmechanics.com/culture/a19379/a-short-history-of-the-index-card/>.

were rare and extremely expensive. Word of Joan of Arc's death in 1431 took 18 months to travel from France across Europe to Constantinople (now Istanbul, Turkey).

Consequently, throughout history, organizations have pushed for and quickly adopted new information technologies that reduce the cost or increase the speed with which they can acquire, store, retrieve, or communicate information. The first technologies to truly revolutionize the business use of information were paper and the printing press. In the fourteenth century, water-powered machines were created to pulverize rags into pulp to make paper. Paper prices, which were already lower than those of animal-skin parchments, dropped dramatically. Less than a half-century later, Johannes Gutenberg invented the printing press, which greatly reduced the cost and time needed to copy written information. In fifteenth-century Florence, Italy, a scribe would charge one florin (an Italian unit of money) to hand copy one document page. By contrast, a printer would set up and print 1,025 copies of the same document for just three florins. Within 50 years of its invention, Gutenberg's printing press cut the cost of information by 99.8 percent!

What Gutenberg's printing press did for publishing, the manual typewriter did for daily communication.

Before 1850, most business correspondence was written by hand and copied using the letterpress. With the ink still wet, the letter would be placed into a tissue-paper book. A hand press would then be used to squeeze the book and copy the still-wet ink onto the tissue paper. By the 1870s, manual typewriters made it cheaper, easier, and faster to produce and copy business correspondence. Of course, in the 1980s, slightly more than a century later, typewriters were replaced by personal computers and word processing software with the same results.

Finally, businesses have always looked for information technologies that would speed access to timely information. The Medici family, which opened banks throughout Europe in the early 1400s, used post messengers to keep in contact with their more than 40 branch managers. The post messengers, who predated the US Postal Service Pony Express by 400 years, could travel 90 miles per day, twice what average riders could cover, because the Medicis were willing to pay for the expense of providing them with fresh horses. This need for timely information also led companies to quickly adopt the telegraph in the 1860s, the telephone in the 1880s, and, of course, internet technologies in the past three decades.

THE HISTORY OF THE BAR CODE

In 1947, a Philadelphia grocery store owner was losing business due to slow checkout lines because prices were entered into cash registers one digit at a time. Inventor Joe Woodland heard about this problem from Bernard Silver (who had overheard the grocer's complaint). Inspired by Morse code, the idea for a bar code came to Woodland on a Florida beach: "I remember I was thinking about dots and dashes when I poked my four fingers into the sand and, for whatever reason—I didn't know—I pulled my hand toward me and I had four lines. I said 'Golly! Now I have four lines and they could be wide lines and narrow lines, instead of dots and dashes...' Then, only seconds later, I took my four fingers—they were still in the sand and I swept them round into a circle." Woodland and Silver filed a patent in 1949 but stopped developing their circular bar code in 1952 due to unreliable technology.

In 1966, Kroger publicized a similar complaint, "Just dreaming a little... could an optical scanner read the price and total the sale... Faster service, more productive service is

needed desperately. We solicit your help." In the early 1970s, seven companies formed the Ad Hoc Committee of the Universal Product Identification Code to encourage development. Building on Woodland and Silver's patent, RCA created a round bull's-eye bar code, but printers struggled with the circular design. At IBM, George Lauer simultaneously developed the rectangular bar code (which avoided those problems) that we use today. The first real-world use of Lauer's design, now called the Universal Product Code, or UPC symbol, was on a 10-pack of Wrigley's Juicy Fruit chewing gum at a Marsh's Supermarket in Troy, Ohio, in 1974. Within a decade, scanners and bar codes were widely used.

Sources: T. Harford, "How the Barcode Changed Retailing and Manufacturing," *BBC News*, January 23, 2017, accessed January 31, 2020, <https://www.bbc.com/news/business-38498700>; C. Stokel-Walker, "Beep Beep: The History of George Lauer and the Barcode," *OneZero*, December 10, 2019, accessed January 31, 2020, <https://onezero.medium.com/beep-beep-the-history-of-george-lauer-and-the-barcode-3522a15405ea>; G. Weightman, "The History of the Bar Code," *Smithsonian Magazine*, September 23, 2015, accessed January 31, 2020, <https://www.smithsonianmag.com/innovation/history-bar-code-180956704/>.

2-5c Systems Management

Today's companies are much more complex than they used to be. They are larger and employ more people. They most likely manufacture, service, *and* finance what they sell, not only in their home markets but in foreign markets throughout the world, too. They also operate in complex, fast-changing, competitive, global environments that can quickly turn competitive advantages into competitive disadvantages. How, then, can managers make sense of this complexity, both within and outside of their organizations?

One way to deal with organizational and environmental complexity is to take a systems view of organizations. The systems approach is derived from theoretical models in biology and social psychology developed in the 1950s and 1960s.⁵⁵ A **system** is a set of interrelated elements or parts that function as a whole. Rather than viewing one part of an organization as separate from the other parts, a systems approach encourages managers to complicate their thinking by looking for connections between the different parts of the organization. Indeed, one of the more important ideas in the systems approach to management is that organizational systems are composed of parts or **subsystems**, which are simply smaller systems within

larger systems. Subsystems and their connections matter in systems theory because of the possibility for managers to create synergy. **Synergy** occurs when two or more subsystems working together can produce more than they can working apart. In other words, synergy occurs when $1 + 1 = 3$.

Systems can be open or closed. **Closed systems** can function without interacting with their environments. But nearly all organizations should be viewed as **open systems** that interact with their environments and depend on them for survival. Therefore, rather than viewing what goes on within the organization as separate from what goes on outside it, the systems approach encourages managers to look for connections between the different parts of the organization

System a set of interrelated elements or parts that function as a whole

Subsystems smaller systems that operate within the context of a larger system

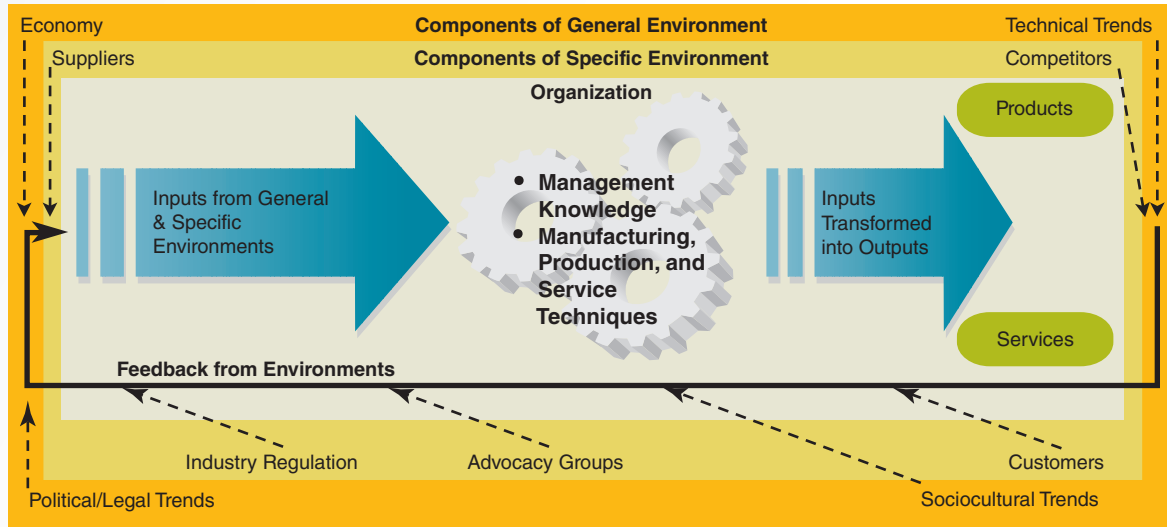
Synergy when two or more subsystems working together can produce more than they can working apart

Closed systems systems that can sustain themselves without interacting with their environments

Open systems systems that can sustain themselves only by interacting with their environments, on which they depend for their survival

Exhibit 2.7

Systems View of Organizations



and the different parts of its environment. Exhibit 2.7 illustrates how the elements of systems management work together.

A systems view of organizations offers several advantages. First, it forces managers to view their organizations as part of and subject to the competitive, economic, social, technological, and legal/regulatory forces in their environments.⁵⁶ Second, it forces managers to be aware of how the environment affects specific parts of the organization. Third, because of the complexity and difficulty of trying to achieve synergies among different parts of the organization, the systems view encourages managers to focus on better communication and cooperation within the organization. Finally, it makes managers acutely aware that good internal management of the organization may not be enough to ensure survival. Survival also depends on

making sure that the organization continues to satisfy critical environmental stakeholders such as shareholders, employees, customers, suppliers, governments, and local communities.

Contingency approach

holds that there are no universal management theories and that the most effective management theory or idea depends on the kinds of problems or situations that managers are facing at a particular time and place

2-5d Contingency Management

Earlier, you learned that the goal of scientific management was to use systematic study to find the one best way of doing each task and then use that one best way everywhere. The problem, as you may have gathered from reading about the various approaches to management, is that no one in management seems to agree on what that one best



Wavebreakmedia/Shutterstock.com

way is. Furthermore, more than 130 years of management research has shown that there are clear boundaries or limitations to most management theories and practices. No management ideas or practices are universal. Although any theory or practice may work much of the time, none works all the time. How, then, is a manager to decide what theory to use? Well, it depends on the situation. The **contingency approach** to management clearly states that there are no universal management theories and that the most effective management theory or idea depends on the kinds of problems or situations that managers or organizations are facing at a particular time and place.⁵⁷ In short, the best way depends on the situation.

One of the practical implications of the contingency approach to management is that management is much harder than it looks. In fact, because of the clarity and obviousness of management theories (OK, most of

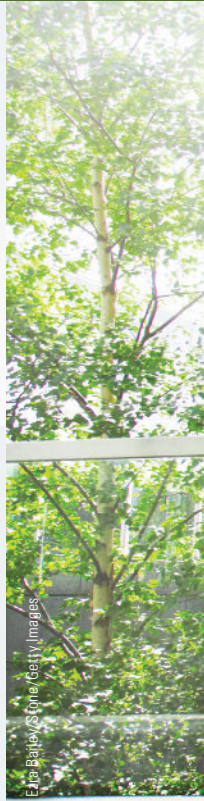
them), students and workers often wrongly assume that a company's problems would be quickly and easily solved if management would take just a few simple steps. If this were true, few companies would have problems.

A second implication of the contingency approach is that managers need to look for key contingencies that differentiate today's situation or problems from yesterday's situation or problems. Moreover, it means that managers need to spend more time analyzing problems, situations, and employees before taking action to fix them. Finally, it means that as you read this text and learn about management ideas and practices, you need to pay particular attention to qualifying phrases such as "usually," "in these situations," "for this to work," and "under these circumstances." Doing so will help you identify the key contingencies that will help you become a better manager.

3 | Organizational Environments and Cultures

LEARNING OUTCOMES

- 3-1 Discuss how changing environments affect organizations.
- 3-2 Describe the four components of the general environment.
- 3-3 Explain the five components of the specific environment.
- 3-4 Apply the process that companies use to make sense of their changing environments.
- 3-5 Explain how organizational cultures are created and how they can help companies be successful.



3-1 CHANGING ENVIRONMENTS

This chapter examines the internal and external forces that affect business. We begin by explaining how the changes in external organizational environments affect the decisions and performance of a company. Next, we examine the two types of external organizational environments: the general environment that affects all organizations and the specific environment unique to each company. Then, we learn how managers make sense of their changing general and specific environments. The chapter finishes with a discussion of internal organizational environments by focusing on organizational culture. But first, let's see how the changes in external organizational environments can affect a company's decisions and performance.



External environments are the forces and events outside a company that have the potential to influence or affect it. Movie ticket sales have always fallen or risen with the quality of films in theaters. But sales maxed out at 1.6 billion tickets in 2002, falling steadily to 1.25 billion tickets in 2019.¹ With the popularity of streaming services like Netflix, Amazon Prime, and Hulu, along with a revamped HBO Max streaming app and new services like Disney+ and Apple TV+, many expect further declines. Movie theater chains, however, are trying two strategies to turn around sales. First, they are spending billions installing luxury seating in theaters. AMC, for example, committed \$600 million to install wide, plush recliners into 1,800 theaters.² Rolando Rodriguez, CEO of Marcus Theatres (the fourth-largest US movie chain), which is doing the same, says, “If you’re building a product for the next 20 years, you need to either renovate it or you build new.”³ Indeed, the Studio

Movie Grill, with 30 theaters in 9 states, buys empty Sports Authority big-box stores, turning them into new theaters.⁴ The second strategy is selling movie passes. For \$20 a month, AMC’s “Stub A-List” pass gives customers three movies a week, free online reservations with no processing fee and 10 percent off drinks and snacks. In just a year, AMC has signed up 750,000 subscribers who see more movies at a much lower cost.⁵ However, AMC benefits as passholders buy more food and bring friends who buy full-price tickets.⁶

*Let’s examine the three basic characteristics of changing external environments: **3-1a environmental change; 3-1b environmental complexity; 3-1c resource scarcity; and 3-1d the uncertainty that environmental change, complexity, and resource scarcity can create for organizational managers.***

External environments all events outside a company that have the potential to influence or affect it

3-1a Environmental Change

Environmental change is the rate at which a company's general and specific environments change. In **stable environments**, the rate of environmental change is slow. The funeral business changes little from year to year. Families arrange for services for their loved ones with a funeral home, which then obtains a casket from one of three US manufacturers, cares for the remains, hosts a visitation or memorial service, and organizes the burial or cremation, by perhaps connecting the family with the cemetery or columbarium for purchase of a final resting place – all for an average price of \$7,360 for viewing and burial and \$6,260 for viewing and cremation. Although there have been some changes – such as cremation increasing from 4 percent in 1960 to 56 percent today, advances in embalming that are healthier (for the embalmer and the environment), and a small percentage of imported caskets (less than 10 percent) – the basic business of preparing bodies for burial, interment, or cremation hasn't changed significantly in over a century.⁷

Although the funeral industry has a stable environment, lumberyards compete in an surprisingly dynamic external environment. In **dynamic environments**, the rate of environmental change is fast. Tariffs on Canadian wood, widespread wildfires, wood-boring beetles and a chronic shortage of truck drivers all combined to drive lumber prices to an all-time high of \$639 for 1,000 feet of wood. But, six

months later, thanks to a slowdown in home construction arising from higher housing prices, rising interest rates, and widespread hurricanes, which prevented home construction throughout much of the southern United States, prices had dropped by nearly half to \$329 per 1,000 feet. Stinson Dean, managing partner at Deacon Lumber Co., said, "We've got a lot of lumber we have to chew through



laughingmango/Stock/Getty Images

Tariffs on Canadian wood, widespread wildfires, wood-boring beetles and a shortage of truck drivers combined to drive lumber prices to an all-time high of \$639 per 1,000 feet of wood. But six months later, thanks to rising interest rates and higher housing prices, lumber prices had fallen to \$329 per 1,000 feet. Change is fast in this surprisingly dynamic environment.

before we can think about higher prices... Sawmills have to cut production."⁸

Although you might think that a company's external environment would be either stable or dynamic, research suggests that companies often experience both. According to **punctuated equilibrium theory**, companies go through long periods of stability (equilibrium) during which incremental changes occur; followed by short, complex periods of dynamic, fundamental change (revolutionary periods); and finishing with a return to stability (new equilibrium).⁹

The US airline industry is a classic example of punctuated equilibrium, as four times in the past 40 years it has experienced revolutionary periods followed by a temporary return to stability. The first, from mid-1979 to mid-1982, occurred immediately after airline deregulation in 1978. Prior to deregulation, the federal government controlled where airlines could fly, how much they could charge, when they could fly, and the number of flights they could have on a particular route. After deregulation, these choices were left to the airlines. The large financial losses during this period clearly indicate that the airlines had trouble adjusting to the intense competition from new airlines that occurred after deregulation. By mid-1982, however, profits returned to the industry and held steady until mid-1989.

Then, after experiencing record growth and profits, US airlines lost billions of dollars between 1989 and 1993 as the industry went through dramatic changes. Key expenses, including jet fuel and employee salaries, which

Environmental change the rate at which a company's general and specific environments change

Stable environment an environment in which the rate of change is slow

Dynamic environment an environment in which the rate of change is fast

Punctuated equilibrium theory the theory that companies go through long periods of stability (equilibrium), followed by short periods of dynamic, fundamental change (revolutionary periods), and then a new equilibrium

had held steady for years, suddenly increased. Furthermore, revenues, which had grown steadily year after year, suddenly dropped because of dramatic changes in the airlines' customer base. Business travelers, who had typically paid full-price fares, made up more than half of all passengers during the 1980s. However, by the late 1980s, the largest customer base had changed to leisure travelers, who wanted the cheapest flights they could get.¹⁰ With expenses suddenly up, and revenues suddenly down, the airlines responded to these changes in their business environment by laying off 5 to 10 percent of their workers, canceling orders for new planes, and eliminating unprofitable routes. Starting in 1993 and lasting until 1998, these changes helped the airline industry achieve profits far in excess of their historical levels. The industry began to stabilize, if not flourish, just as punctuated equilibrium theory predicts.¹¹

The third revolutionary period for the US airline industry began with the terrorist attacks of September 11, 2001, in which planes were used as missiles to bring down the World Trade Center towers and damage the Pentagon. The immediate effect was a 20 percent drop in scheduled flights, a 40 percent drop in passengers, and losses so large that the US government approved a \$15 billion bailout to keep the airlines in business. Heightened airport security also affected airports, the airlines themselves, and airline customers. Five years after the 9/11 attacks, United Airlines, US Airways, Delta, and American Airlines had reduced staffing by 169,000 full-time jobs to cut costs after losing a combined \$42 billion.¹² Due to their financially weaker position, the airlines restructured operations to take advantage of the combined effect of increased passenger travel, a sharply reduced cost structure, and a 23 percent reduction in the fleet to return their businesses to profitability.¹³ But, just as the airlines were heading toward a more stable period of equilibrium in 2006 and 2007, the price of oil jumped dramatically, doubling, if not tripling, the price of jet fuel, which prompted the airlines to charge for luggage (to increase revenues and discourage heavy baggage) and cut flights using older, fuel-inefficient jets.

In 2013, however, stability largely returned. Compared to 2007, the airlines cut total seat capacity 14 percent; filled 83 percent of seats, up from

80 percent; and with stronger demand and fewer flights, saw round-trip fares rise by 4 percent, even after adjusting for inflation. In 2008 and 2009, US airlines collectively lost \$26.3 billion, but by the beginning of 2020, they had logged their tenth consecutive year of profits.¹⁴

Multiple airline mergers – Delta and Northwest, United and Continental, Southwest and AirTran, and US

Airways and American Airlines – reduced competition. As a result, the number of domestic flights dropped 6.8 percent from 2012 to 2015, while the number of available seats increased by 2.2 percent.¹⁵

The fourth and most severe revolutionary period began February 2020 as the coronavirus spread worldwide. Travel restrictions to and from specific countries quickly morphed into outright travel bans and strict shelter-in-place orders lasting two to three months. Global air traffic fell by 80 to 90 percent. Airlines grounded unused planes, retired older fuel inefficient jets, and pulled seats out

of passenger jets to ship cargo instead. Without short-term government financial support, most airlines would have gone out of business with financial losses likely to exceed \$84 billion in 2020 alone.¹⁶ Will coronavirus vaccines under development arrive in time to safeguard travelers and restore demand for business and leisure travel, returning some semblance of industry stability? If not, the airline industry will likely shrink again to a much smaller footprint.



The US airline industry is a classic example of punctuated equilibrium, as four times in the past 40 years it has experienced revolutionary periods followed by a temporary return to stability.

3-1b Environmental Complexity

Environmental complexity refers to the number and the intensity of external factors in the environment that affect organizations. **Simple environments** have few environmental factors, whereas **complex environments** have many environmental factors. The recreational boating industry is an excellent example of a relatively simple

Environmental complexity the number and the intensity of external factors in the environment that affect organizations

Simple environment an environment with few environmental factors

Complex environment an environment with many environmental factors