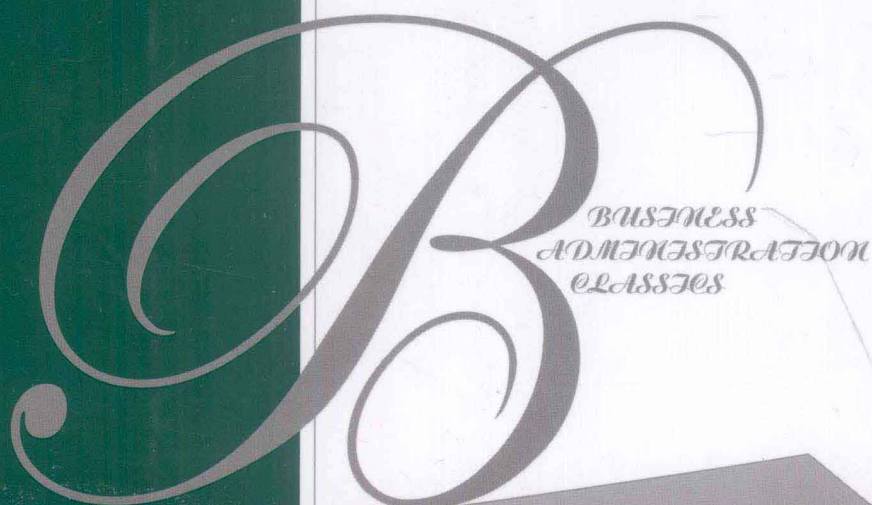


教育部高校工商管理类教学指导委员会 双语教学推荐教材

Mc
Graw
Hill Education



Business

工商管理经典教材·运营管理系列

Administration Classics

项目管理

Project

(英文版·第5版)

Management

(Fifth Edition)

戴维·I·克莱兰 (David I. Cleland) 著
刘易斯·R·爱尔兰 (Lewis R. Ireland)

中国人民大学出版社

Mc
Graw
Hill

教育部高校工商管理类教学指导委员会双语教学推荐教材



工商管理经典教材·运营管理系列

Administration Classics

项目管理

Project

(英文版·第5版)

Management

(Fifth Edition)

戴维·I·克莱兰 (David I. Cleland)

著

刘易斯·R·爱尔兰 (Lewis R. Ireland)

中国人民大学出版社

· 北京 ·

图书在版编目 (CIP) 数据

项目管理：第 5 版：英文/克莱兰，爱尔兰著．—北京：中国人民大学出版社，2011.3
教育部高校工商管理类教学指导委员会双语教学推荐教材
工商管理经典教材．运营管理系列
ISBN 978-7-300-13338-6

I. ①项… II. ①克…②爱… III. ①项目管理-高等学校-教材-英文 IV. ①F224.5

中国版本图书馆 CIP 数据核字 (2011) 第 020363 号

教育部高校工商管理类教学指导委员会双语教学推荐教材
工商管理经典教材·运营管理系列
项目管理 (英文版·第 5 版)

戴维·I·克莱兰 著
刘易斯·R·爱尔兰

出版发行	中国人民大学出版社		
社 址	北京中关村大街 31 号	邮政编码	100080
电 话	010-62511242 (总编室)		010-62511398 (质管部)
	010-82501766 (邮购部)		010-62514148 (门市部)
	010-62515195 (发行公司)		010-62515275 (盗版举报)
网 址	http://www.crup.com.cn http://www.ttrnet.com (人大教研网)		
经 销	新华书店		
印 刷	北京东君印刷有限公司		
规 格	215 mm×275 mm 16 开本	版 次	2011 年 6 月第 1 版
印 张	29 插页 1	印 次	2011 年 6 月第 1 次印刷
字 数	646 000	定 价	55.00 元

总 序

· 1 ·

随着我国加入 WTO,越来越多的国内企业参与到国际竞争中来,用国际上通用的语言思考、工作、交流的能力也越来越受到重视。这样一种能力也成为我国各类人才参与竞争的一种有效工具。国家教育机构、各类院校以及一些主要的教材出版单位一直在思考,如何顺应这一发展潮流,推动各层次人员通过学习来获取这种能力。双语教学就是这种背景下的一种尝试。

双语教学在我国主要指汉语和国际通用的英语教学。事实上,双语教学在我国教育界已经不是一个陌生的词汇了,以双语教学为主的科研课题也已列入国家“十五”规划的重点课题。但从另一方面来看,双语教学从其诞生的那天起就被包围在人们的赞成与反对声中。如今,依然是有人赞成有人反对,但不论是赞成居多还是反对占上,双语教学的规模 and 影响都在原有的基础上不断扩大,且呈大发展之势。一些率先进行双语教学的院校在实践中积累了经验,不断加以改进;一些待进入者也在模仿中学习,并静待时机成熟时加入这一行列。由于我国长期缺乏讲第二语言(包括英语)的环境,开展双语教学面临特殊的困难,因此,选用合适的教材就成为双语教学成功与否的一个重要问题。我们认为,双语教学从一开始就应该使用原版的各类学科的教材,而不是由本土教师自编的教材,从而可以避免中国式英语问题,保证语言的原汁原味。各院校除应执行国家颁布的教学大纲和课程标准外,还应根据双语教学的特点和需要,适当调整教学课时的设置,合理选择优秀的、合适的双语教材。

顺应这样一种大的教育发展趋势,中国人民大学出版社同众多国际知名的大出版公司,如麦格劳-希尔出版公司、培生教育出版公司等合作,面向大学本科生层次,遴选了一批国外最优秀的管理类原版教材,涉及专业基础课,人力资源管理、市场营销及国际化管理等专业方向课,并广泛听取有着丰富的双语一线教学经验的教师的建议和意见,对原版教材进行了适当的改编,删减了一些不适合我国国情和不适合教学的内容;另一方面,根据教育部对双语教学教材篇幅合理、定价低的要求,我们更是努力区别于目前市场上形形色色的各类英文版、英文影印版的大部头,将目标受众锁定在大学本科生层次。本套教材尤其突出了以下一些特点:

- 保持英文原版教材的特色。本套双语教材根据国内教学实际需要,对原书进行了一定的改编,主要是删减了一些不适合教学以及不符合我国国情的内容,但在体系结构和内容特色方面都保持了原版教材的风貌。专家们的认真改编和审定,使本套教材既保持了学术上的完整性,又贴近中国实际;既方便教师教学,又方便学生理解和掌握。

- 突出管理类专业教材的实用性。本套教材既强调学术的基础性,又兼顾应用的广泛性;既侧重让学生掌握基本的理论知识、专业术语和专业表达方式,又考虑到教材和管理实践的紧密结合,有助于学生形成专业的思维能力,培养实际的管理技能。

- 体系经过精心组织。本套教材在体系架构上充分考虑到当前我国在本科教育阶段推广双语教学的进度安排,首先针对那些课程内容国际化程度较高的学科进行双语教材开发,在其专业模块内精心选择各专业教材。这种安排既有利于我国教师摸索双语教学

的经验，使得双语教学贴近现实教学的需要；也有利于我们收集关于双语教学教材的建议，更好地推出后续的双语教材及教辅材料。

- 篇幅合理，价格相对较低。为适应国内双语教学内容和课时上的实际需要，本套教材进行了一定的删减和改编，使总体篇幅更为合理；而采取低定价，则充分考虑到了学生实际的购买能力，从而使本套教材得以真正走近广大读者。

- 提供强大的教学支持。依托国际大出版公司的力量，本套教材为教师提供了配套的教辅材料，如教师手册、PowerPoint 讲义、试题库等，并配有内容极为丰富的网络资源，从而使教学更为便利。

本套教材是在双语教学教材出版方面的一种尝试。我们在选书、改编及出版的过程中得到了国内许多高校的专家、教师的支持和指导，在此深表谢意。同时，为使我们的教材更适于教学，我们也真诚地期待广大读者提出宝贵的意见和建议。需要说明的是，尽管我们在改编的过程中已加以注意，但由于各教材的作者所处的政治、经济和文化背景不同，书中内容仍可能有不妥之处，望读者在阅读时注意比较和甄别。

徐二明

中国人民大学商学院

PREFACE

In today's environment, certainty of change is without precedent. Although the practice of project management has been with us for centuries, only in the past few decades an expression in the literature of philosophy and process of managing projects has taken place. An early form of project management was used in antiquity to manage societal changes. In recent years, there has been a growing interest in the use of projects as building blocks in the strategic management of the enterprise. This book's fifth edition continues to hold the commanding lead, taken by previous editions, in showing how to use projects for the management of product, service, and organizational process change to prepare the organization for its competitive future.

Today, project management has reached a maturity level in which it is applied to many uses. It is the principal means by which operational and strategic changes are managed in contemporary organizations, in both for-profit and not-for-profit enterprises. This growing maturity of project management has fostered the use of "nontraditional" project teams in the management of organizational change. Benchmarking teams, concurrent engineering teams, reengineering teams, and self-managed production teams are a few of these nontraditional teams that are gaining popularity in strategies used by today's managers.

Formal project management emerged in an unobtrusive manner in the late 1950s and began taking on the characteristics of a distinct discipline. No one can claim to have invented project management. Its beginnings can be found in the creation and construction of many different historical architectural artifacts, such as in cathedrals, canals, highways, and in voyages of discovery and military campaigns, to name a few. In more recent times, project management has gained special attention in the military weapons and systems development businesses. The modern-day origins of project management concepts and techniques can be found in such large-scale ad hoc endeavors as the Manhattan Project and the Polaris submarine program, in large construction initiatives, and in the use of naval task forces.

The emergence of professional societies has helped stimulate the development and dissemination of project management knowledge and skills. There are many such professional societies in existence—with a commanding lead being taken by the Project Management Institute (PMI®). The growth of PMI in recent years in many ways reflects the increasing interest in the use of project management. PMI now has more than 230,000 members drawn from a wide variety of different industries and organizations.

Globally, other professional project management associations are emerging under the auspices of the International Project Management Association (IPMA), which has more than 40 member associations representing their respective national interests. The American Society for the Advancement of Project Management (*asapm*) was recently formed to represent member interests in the United States. Associations under IPMA in India and China—both countries with populations exceeding more than one billion people—are growing rapidly and offering certifications in project management competence. Independent associations in Australia and Japan add to the growing list of involvement in the further development of project management as a distinct discipline with a documented body of knowledge in project management.

Many books and articles that have been published about project management treat the subject as if it were a nearly separate entity in the management of organizations. Little is found in this literature that puts project management in its proper place in the strategic management of organizations. This book tries to do just that. Our study of how contemporary organizations deal with change reinforced our belief that, in spite of an abundance of books and periodical literature, there was a serious lack of theoretical and practical literature that placed project management in the context of the design and execution of organizational strategies.

We found that too many leaders and managers, particularly at the upper and senior levels, were inclined to view project management as a special case of management—a minor departure from the proper or expected ways of managing the organization. Too often, these managers failed to appreciate the strategic role that projects can play in the management of their organizations. Up until the last few years, many managers tended to tolerate rather than fully accept project management as the way

to enhance organizational effectiveness. This caused project managers, functional managers, and project professionals to see themselves in ambiguous roles in supporting project initiatives. However, once upper and senior managers recognized project management for what it is—a philosophy and process for managing change—they embraced the use of project management in the enterprise.

In this fifth edition of *Project Management: Strategic Design and Implementation*, special care has been taken to update the material in each chapter. New material has been added that has emerged as part of the growing literature supporting project management, such as the evolution of project management, project portfolio management, earned value, project management maturity, nontraditional teams, project partnering, and the outsourcing of project management, to name a few. The growing literature in project management is adequately described in the text. In some cases, an area is only mentioned with guidance on where the reader can find expert references on the subjects. Giving a detailed description of all the emerging areas of thought that relate to project management would greatly lengthen the book to an unwieldy size.

Updated examples of the use of project management in many different contexts have been added. End-of-chapter material has been strengthened through the use of detailed chapter summaries, additional sources of information, discussion questions, user checklists, project management principles, a project management situation, and a student/reader assignment for further investigation of project management areas. Sufficient end-of-chapter material exists to support the use of the text in undergraduate and graduate programs as well as in short training courses. The book is valuable as well to the professional practitioners, who want to increase their knowledge and skills in the practice of project management. Upper-level and senior managers will find an abundance of information that can be used to enhance their use of project initiatives in the management of the enterprise.

David I. Cleland, Ph.D.

Lewis R. Ireland, Ph.D.

INTRODUCTION

This fifth edition of *Project Management: Strategic Design and Implementation* has been put together with the objective of further contributing to the project management knowledge of professionals at all levels of responsibility and to the student aspiring to be a knowledgeable professional in this discipline.

Managers and professionals engaged in project management, who desire to be more effective contributors in their organization's success, will find this book useful. The format of the book is adaptable to many different uses. Readers may read sections and topics in whatever order best suits their interests. The 7 parts and 23 chapters provide an easy division of information for readers. In Fig. 1.1, these parts and chapters of the fifth edition are portrayed in the context of strategic management and project management and are briefly described in the following text.

Part 1, Introduction, consists of 3 chapters that introduce project management and its evolution and describe the management processes that are involved in the practice of this discipline.

Part 2, The Strategic Context of Projects, shows how projects are used in both the strategic and operational management of the enterprise. The theme emphasized in this section is how projects are building blocks in preparing the enterprise for its uncertain future. When to use project management, the strategic context of projects, the role of boards of directors, project stakeholders, and project strategic issues are examined in this part.

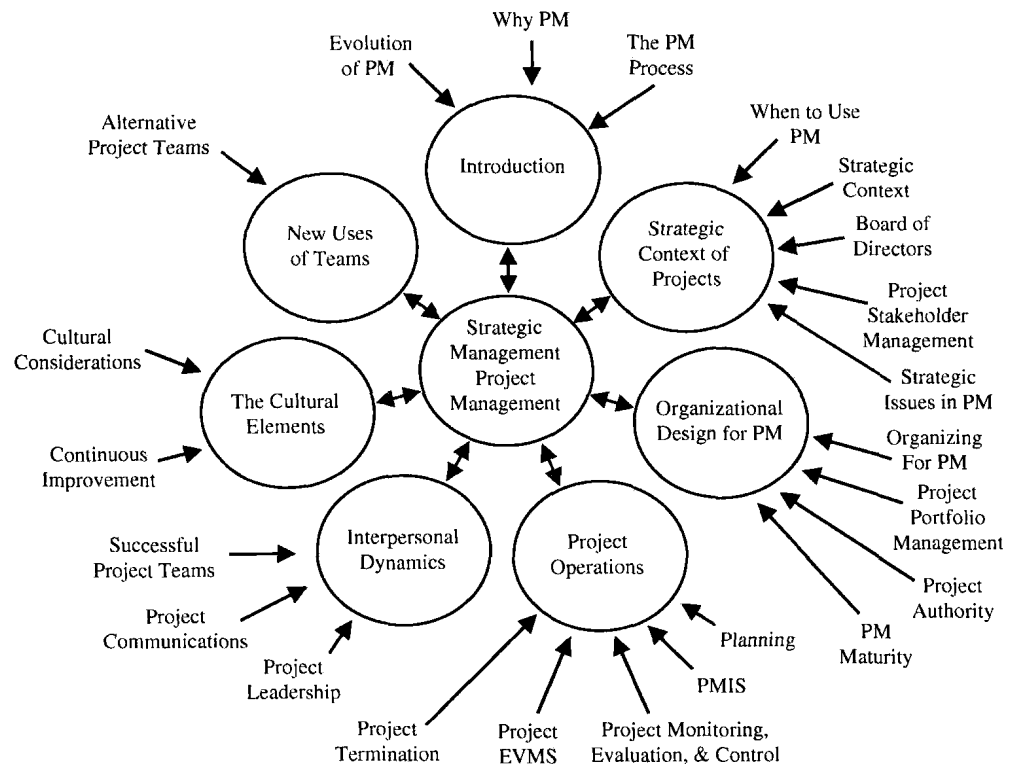


FIGURE 1.1

Part 3, Organizational Design for Project Management, looks at how to organize human resources, project authority, project portfolio management, and project management maturity.

Part 4, Project Operations, reviews project planning, information systems, project control, earned value systems, and project termination strategies.

Part 5, Interpersonal Dynamics in the Management of Projects, presents information on project leadership, communications, and successful project teams.

Part 6, The Cultural Elements, reviews a strategy of continuous improvement through projects, and cultural considerations in project management. A new awareness is raised in project management that cultural aspects are perhaps as important as the “traditional” cost, schedule, and technical performance issues.

Part 7, New Prospects, considers the alternative uses to which project teams can be put.

The reader can do further reading about project management from the additional sources of information given at the end of each chapter. Then, too, each reference cited in the text of the book can be a valuable source of additional information.

We wish readers much success in their project management work!

Received 22 May 2006; accepted 12 July 2006; first published online 12 September 2006

第1章	项目管理的演变	(3)
第2章	为何开展项目管理	(21)
第3章	项目管理过程	(43)

第4章	何时运用项目管理	(61)
第5章	项目的战略内容	(87)
第6章	董事会与大项目	(101)
第7章	项目利益相关者管理	(119)
第8章	项目管理中的战略问题	(141)

第 9 章	项目管理的组织	(157)
第 10 章	项目组合管理	(179)
第 11 章	项目授权	(189)
第 12 章	项目管理成熟度	(207)

第 13 章	项目规划	(225)
第 14 章	项目管理信息系统	(253)
第 15 章	项目监督、评估和控制	(273)
第 16 章	项目挣值管理系统	(297)
第 17 章	项目终止	(313)

第 18 章	项目领导	(327)
第 19 章	项目沟通	(343)
第 20 章	成功的项目团队	(361)

第 21 章 通过项目持续改进 (381)

第 22 章 项目管理中的文化因素 (397)

第 23 章 可选择的项目团队 (419)

CONTENTS

Preface	i
Introduction	iii

Part 1 Introduction

Chapter 1. The Evolution of Project Management

3

1.1. Introduction	/ 3
1.2. Types of Evidence for Historical Projects	/ 4
1.3. Project Charter	/ 5
1.4. Early Literature on Projects	/ 6
1.5. Government Literature	/ 7
1.6. Leading Projects of Antiquity	/ 7
1.7. Military Campaigns	/ 10
1.8. Projects That Changed the World	/ 11
1.9. The Modern Projects	/ 12
1.10. The Results of Historical Projects	/ 14
1.11. The Past, the Present, and the Future for Projects	/ 15
1.12. To Summarize	/ 17
1.13. Additional Sources of Information	/ 18
1.14. Discussion Questions	/ 18
1.15. User Checklist	/ 19
1.16. Principles of Project Management	/ 19
1.17. Project Management Situation—Projects of Antiquity	/ 20
1.18. Student/Reader Assignment	/ 20

Chapter 2. Why Project Management?

21

2.1. Introduction	/ 21
2.2. The Role of Strategic Planning	/ 22
2.3. The Spirit of Strategic Planning	/ 22
2.4. Some Limitations of Formal Strategic Planning	/ 23
2.5. Strategic Management—the Project Linkages	/ 23
2.6. Projects	/ 27
2.7. Other Examples	/ 29
2.8. Early Literature	/ 30
2.9. Organizational Liaison Devices	/ 31
2.10. Teams	/ 33
2.11. The Project Management Professional Societies	/ 36
2.12. A Philosophy	/ 37
2.13. Breaking Down Hierarchies	/ 37
2.14. To Summarize	/ 39
2.15. Additional Sources of Information	/ 40
2.16. Discussion Questions	/ 40
2.17. User Checklist	/ 41
2.18. Principles of Project Management	/ 41
2.19. Project Management Situation—External and Internal Projects	/ 41
2.20. Student/Reader Assignment	/ 42

Chapter 3. The Project Management Process

43

3.1. Introduction	/ 43
-------------------	------

3.2. The General Management Process /	43
3.3. The Project Management Process /	45
3.4. The Project Life Cycle /	47
3.5. Managing the Life Cycle /	50
3.6. Project Life Cycles and Uncertainty /	52
3.7. To Summarize /	53
3.8. Additional Sources of Information /	54
3.9. Discussion Questions /	54
3.10. User Checklist /	55
3.11. Principles of Project Management /	55
3.12. Project Management Situation—Strategic Monitoring and Control /	55
3.13. Student/Reader Assignment /	57

Part 2 The Strategic Context of Projects

Chapter 4. When to Use Project Management

61

4.1. Introduction /	61
4.2. Business Process Changes /	61
4.3. Specific Uses /	62
4.4. Projects and Strategic Planning /	63
4.5. When Is a Project Needed? /	64
4.6. Promoting Participative Management /	71
4.7. Senior Management Responsibility /	72
4.8. Selling Project Management to Senior Managers /	73
4.9. External Project Management Selling /	76
4.10. What It Takes to Sell Project Management /	76
4.11. Two Views of Selling Project Management /	77
4.12. Types of Projects /	78
4.13. The Management of Small Projects /	80
4.14. To Summarize /	82
4.15. Additional Sources of Information /	83
4.16. Discussion Questions /	84
4.17. User Checklist /	84
4.18. Principles of Project Management /	85
4.19. Project Management Situation—When to Use Project Management /	85
4.20. Student/Reader Assignment /	86

Chapter 5. The Strategic Context of Projects

87

5.1. Introduction /	87
5.2. Strategic Transitions /	87
5.3. Implications of Technology /	88
5.4. A Stream of Projects /	90
5.5. Strategic Relationship of Projects /	91
5.6. Determining Strategic Fit /	91
5.7. The Vision /	92
5.8. Projects and Organizational Management /	92
5.9. Project Planning /	94
5.10. Project Management System /	94
5.11. To Summarize /	96
5.12. Additional Sources of Information /	96
5.13. Discussion Questions /	97
5.14. User Checklist /	97
5.15. Principles of Project Management /	98
5.16. Project Management Situation—Improvement of Project Management /	98
5.17. Student/Reader Assignment /	99

Chapter 6. The Board of Directors and Major Projects

101

6.1. Introduction /	101
6.2. The Need for Boards of Directors /	101
6.3. Surveillance /	102
6.4. Some Board Inadequacies /	102
6.5. Exemplary Board Behavior /	105

6.6. The Board's Responsibilities /	106
6.7. The Role of Managers /	106
6.8. The Role of Projects /	108
6.9. Project Reviews /	109
6.10. Information for the Board /	111
6.11. The Performance Audit /	112
6.12. Selection of Directors /	113
6.13. To Summarize /	113
6.14. Additional Sources of Information /	114
6.15. Discussion Questions /	114
6.16. User Checklist /	115
6.17. Principles of Project Management /	115
6.18. Project Management Situation—Boards of Directors' Inadequacies /	116
6.19. Student/Reader Assignment /	117

Chapter 7. Project Stakeholder Management

119

7.1. Introduction /	119
7.2. Why Manage Stakeholders? /	119
7.3. Organizational Stakeholders /	120
7.4. Project Stakeholders /	122
7.5. Some Examples of Stakeholder Influence /	125
7.6. Some Examples of Successful Stakeholder Management /	127
7.7. Project Stakeholder Management Process /	127
7.8. Planning Stakeholder Management /	128
7.9. A Model of the PSM Process /	128
7.10. Identification of Stakeholders /	129
7.11. Primary Stakeholders /	131
7.12. Secondary Stakeholders /	131
7.13. Gathering Stakeholder Information /	132
7.14. Identification of Stakeholder Mission /	133
7.15. Determining Stakeholder Strengths and Weaknesses /	133
7.16. Identification of Stakeholder Strategy /	134
7.17. Prediction of Stakeholder Behavior /	134
7.18. Project Audit /	136
7.19. Implementing Stakeholder Management Strategy /	137
7.20. To Summarize /	137
7.21. Additional Sources of Information /	138
7.22. Discussion Questions /	138
7.23. User Checklist /	138
7.24. Principles of Project Management /	139
7.25. Project Management Situation—Stakeholder Initiatives /	139
7.26. Student/Reader Assignment /	140

Chapter 8. Strategic Issues in Project Management

141

8.1. Introduction /	141
8.2. What Are Strategic Issues? /	141
8.3. Some Examples /	142
8.4. An Application of the Concept of Strategic Issues: Nuclear Construction Industry /	144
8.5. Managing Project Strategic Issues /	147
8.6. Issue Identification /	147
8.7. Assessment of an Issue /	149
8.8. Analysis of Action /	149
8.9. Implementation /	150
8.10. Strategic Issues of Project Success and Failure /	150
8.11. To Summarize /	151
8.12. Additional Sources of Information /	151
8.13. Discussion Questions /	152
8.14. User Checklist /	152
8.15. Principles of Project Management /	153
8.16. Project Management Situation—Some Strategic Issues /	153
8.17. Student/Reader Assignment /	154

Part 3 Organizational Design for Project Management

Chapter 9. Organizing for Project Management

157

- 9.1. Introduction / 157
- 9.2. Project-Driven Organization / 157
- 9.3. Organizational Deficiencies / 158
- 9.4. Self-Management in Organizations / 159
- 9.5. The Project Organization / 159
- 9.6. Various Forms of the Project Organization / 161
- 9.7. The Matrix Organization / 162
- 9.8. Functional Area Knowledge / 164
- 9.9. Focus of the Matrix Design / 165
- 9.10. Importance of Work Packages / 166
- 9.11. The Project-Functional Interface / 167
- 9.12. A Controversial Design / 168
- 9.13. No One Best Organizational Design / 169
- 9.14. Global Project Organizations / 169
- 9.15. Project-Customer Relationships / 170
- 9.16. Organizational Networking / 170
- 9.17. The Project Management Office / 171
- 9.18. Procurement and Contract Negotiations/Administration / 173
- 9.19. To Summarize / 174
- 9.20. Additional Sources of Information / 175
- 9.21. Discussion Questions / 176
- 9.22. User Checklist / 176
- 9.23. Principles of Project Management / 177
- 9.24. Project Management Situation—Understanding the Matrix Organization / 177
- 9.25. Student/Reader Assignment / 177

Chapter 10. Project Portfolio Management

179

- 10.1. Introduction / 179
- 10.2. Decision to Use Portfolios / 179
- 10.3. Project Portfolio / 180
- 10.4. Project Selection Criteria / 180
- 10.5. Reviewing Project Portfolio Management / 183
- 10.6. Project Portfolio Management Transition and Implementation / 184
- 10.7. To Summarize / 184
- 10.8. Additional Sources of Information / 185
- 10.9. Discussion Questions / 185
- 10.10. User Checklist / 186
- 10.11. Principles of Project Management / 186
- 10.12. Project Management Situation—Portfolio Project Management / 186
- 10.13. Student/Reader Assignment / 187

Chapter 11. Project Authority

189

- 11.1. Introduction / 189
- 11.2. Authority, Responsibility, and Accountability / 189
- 11.3. Defining Authority / 190
- 11.4. Power / 192
- 11.5. Matrix Implications / 193
- 11.6. The Power to Reward / 195
- 11.7. Reverse Delegation / 195
- 11.8. Documenting Project Manager's Authority / 196
- 11.9. What is Responsibility? / 197
- 11.10. What is Accountability? / 198
- 11.11. Project Organization Charting / 199
- 11.12. Traditional Organizational Chart / 199
- 11.13. Linear Responsibility Chart / 200
- 11.14. Work Packages / 201
- 11.15. Work Package—Organizational Position Interfaces / 201
- 11.16. A Project Management LRC / 201
- 11.17. Developing the LRC / 202
- 11.18. To Summarize / 203
- 11.19. Additional Sources of Information / 203
- 11.20. Discussion Questions / 204

- 11.21. User Checklist / 204
- 11.22. Principles of Project Management / 205
- 11.23. Project Management Situation—Prescribing Project Management Authority / 205
- 11.24. Student/Reader Assignment / 206

Chapter 12. Project Management Maturity

207

- 12.1. Introduction / 207
- 12.2. Organizational Productivity Improvements / 207
- 12.3. Project Management Maturity Models / 209
- 12.4. Total Organizational Capability Maturity Model / 211
- 12.5. Assessing Project Management Maturity / 216
- 12.6. Building a Mature Capability / 216
- 12.7. Benchmarking / 217
- 12.8. Competitive Intelligence / 219
- 12.9. To Summarize / 220
- 12.10. Additional Sources of Information / 220
- 12.11. Discussion Questions / 221
- 12.12. User Checklist / 221
- 12.13. Principles of Project Management / 222
- 12.14. Project Management Situation—Gaining Project Management Maturity / 222
- 12.15. Student/Reader Assignment / 222

Part 4 Project Operations

Chapter 13. Project Planning

225

- 13.1. Introduction / 225
- 13.2. The Importance of Planning / 225
- 13.3. Planning Realities / 226
- 13.4. A Conceptual Model of Planning / 227
- 13.5. Project Planning Model / 227
- 13.6. Project Planning Process / 228
- 13.7. Project Planning Considerations / 230
- 13.8. Work Breakdown Structure / 231
- 13.9. Project Schedules / 234
- 13.10. Scheduling Techniques / 234
- 13.11. Project Life-Cycle Planning / 237
- 13.12. Project Planning Elements / 238
- 13.13. Plan Format / 239
- 13.14. Project Management Manual / 239
- 13.15. Project Planning Work Packages / 240
- 13.16. Management Realities / 241
- 13.17. Project Partnering / 242
- 13.18. Types of Project Partnering Arrangements / 242
- 13.19. Examples of Project Partnering Arrangements / 243
- 13.20. Managing Partnered Projects / 243
- 13.21. Technical Aspects of Partnered Projects / 244
- 13.22. Partnering Challenges and Benefits / 245
- 13.23. Outsourcing Project Management / 245
- 13.24. Project Management as an Outsourced Service / 245
- 13.25. Outsourcing Trends / 246
- 13.26. Selecting an Outsource Provider / 246
- 13.27. Outsourcing Project Management Services and Products / 247
- 13.28. Project Management Outsourcing Guidelines / 248
- 13.29. Outsourcing Potential / 248
- 13.30. To Summarize / 249
- 13.31. Additional Sources of Information / 249
- 13.32. Discussion Questions / 250
- 13.33. User Checklist / 250
- 13.34. Principles of Project Management / 251
- 13.35. Project Management Situation—Developing a Project Plan / 251
- 13.36. Student/Reader Assignment / 251

Chapter 14. Project Management Information System

253

- 14.1. Introduction / 253

14.2. The Project Management Information System /	253
14.3. Information Failures /	255
14.4. Value of the PMIS /	256
14.5. Describing a PMIS /	257
14.6. Uses of the PMIS /	259
14.7. Information Characteristics and Attributes /	259
14.8. Sharing Information /	260
14.9. Information Value /	261
14.10. Technology and the PMIS /	262
14.11. Challenges to an Effective PMIS /	263
14.12. PMIS Hardware and Software /	265
14.13. Planning for the PMIS /	266
14.14. Essential Elements of a PMIS /	267
14.15. To Summarize /	268
14.16. Additional Sources of Information /	269
14.17. Discussion Questions /	269
14.18. User Checklist /	270
14.19. Principles of Project Management /	270
14.20. Project Management Situation—Prescribing a PMIS /	270
14.21. Student/Reader Assignment /	271

Chapter 15. Project Monitoring, Evaluation, and Control

273

15.1. Introduction /	273
15.2. Project Control Cycle /	273
15.3. Steps in the Control Cycle /	274
15.4. Monitoring and Evaluation /	276
15.5. Management Functions Evaluation /	277
15.6. When to Monitor and Evaluate /	279
15.7. Planning for Monitoring and Evaluation /	279
15.8. Who Monitors and Evaluates? /	280
15.9. Post-Project Reviews /	280
15.10. Configuration Management and Control /	281
15.11. Planning and Control Implications for Project Success or Failure /	283
15.12. Results of Projects—Success or Failure /	284
15.13. Examples of Project Success/Failure /	285
15.14. The Causes of Success or Failure /	286
15.15. Project Audits /	288
15.16. Project Evaluation /	289
15.17. To Summarize /	292
15.18. Additional Sources of Information /	293
15.19. Discussion Questions /	293
15.20. User Checklist /	294
15.21. Principles of Project Management /	294
15.22. Project Management Situation—Establishing a Project Control System /	294
15.23. Student/Reader Assignment /	295

Chapter 16. The Project Earned Value Management System

297

16.1. Introduction /	297
16.2. Background /	297
16.3. EVM Capability /	297
16.4. EVM Implementation Considerations /	299
16.5. Planning for EVMS /	300
16.6. Measuring Progress /	303
16.7. Performance Achievement /	304
16.8. EVMS Considerations /	306
16.9. To Summarize /	309
16.10. Additional Sources of Information /	309
16.11. Discussion Questions /	310
16.12. User Checklist /	310
16.13. Principles of Project Management /	311
16.14. Project Management Situation—Implementing Earned Value /	311
16.15. Student/Reader Assignment /	311

Chapter 17. Project Termination

313

17.1. Introduction /	313
----------------------	-----

17.2. Why Terminate? /	313
17.3. Types of Project Termination /	314
17.4. Strategic Implications /	316
17.5. Continuing the “LOSERS” /	317
17.6. Projects in Trouble /	318
17.7. Termination Strategies /	318
17.8. Evaluation of Termination Possibilities /	319
17.9. Posttermination Activities /	320
17.10. To Summarize /	320
17.11. Additional Sources of Information /	321
17.12. Discussion Questions /	322
17.13. User Checklist /	322
17.14. Principles of Project Management /	323
17.15. Project Management Situation—Shutting Down a Project /	323
17.16. Student/Reader Assignment /	324

Part 5 Interpersonal Dynamics in the Management of Projects

Chapter 18. Project Leadership **327**

18.1. Introduction /	327
18.2. Concept of Leadership /	327
18.3. What Is Leadership? /	327
18.4. Studies of Leadership /	328
18.5. Leadership Style /	329
18.6. Management vis-à-vis Leadership /	331
18.7. Project Leadership /	335
18.8. Team Leadership /	336
18.9. Leadership Competencies /	336
18.10. To Summarize /	339
18.11. Additional Sources of Information /	339
18.12. Discussion Questions /	340
18.13. User Checklist /	340
18.14. Principles of Project Management /	342
18.15. Project Management Situation—Being a Project Leader /	342
18.16. Student/Reader Assignment /	342

Chapter 19. Project Communications **343**

19.1. Introduction /	343
19.2. Importance of Communication /	343
19.3. Communication Problems /	344
19.4. The Process of Communication /	344
19.5. Informal Communication /	346
19.6. Listening /	347
19.7. Nonverbal Communication /	350
19.8. Written Communications /	350
19.9. Project Meetings /	351
19.10. The Role of Technology /	354
19.11. Communication Links /	355
19.12. To Summarize /	356
19.13. Additional Sources of Information /	357
19.14. Discussion Questions /	358
19.15. User Checklist /	358
19.16. Principles of Project Management /	359
19.17. Project Management Situation—How to Communicate /	359
19.18. Student/Reader Assignment /	360

Chapter 20. Successful Project Teams **361**

20.1. Introduction /	361
20.2. The Need for Effective Teamwork in Today’s Global World of Business /	361
20.3. Making the Transition from Work Group to Team /	363