高等院校双语教学适用教材・会计

哈佛商学院案例教程

Advanced Management Accounting

(Third Edition)

Robert S. Kaplan Anthony A. Atkinson

高级管理会计

(第3版)

(美) 罗伯特·S. 卡普兰 安东尼·A. 阿特金森 著

丁友刚 译注







高等院校双语教学适用教材·会计 哈佛商学院案例教程

Advanced Management Accounting

(Third Edition)

Robert S. Kaplan Anthony A. Atkinson

高级管理会计

(第3版)

(美) 罗伯特·S. 卡普兰

安东尼・A)阿特金森・著

丁友刚 译注





⑥ 东北财经大学出版社 2011

图书在版编目 (CIP) 数据

高级管理会计 (第3版)/(美)卡普兰(Kaplan, R. S.),(美)阿特金森(Atkinson, A. A.)著; 丁友刚译注.—大连:东北财经大学出版社,2011.4

(高等院校双语教学适用教材・会计)

书名原文: Advanced Management Accounting

ISBN 978-7-5654-0222-7

I. 高··· II. ①卡···②阿···③丁··· III. 管理会计—双语教学—高等学校—教材 IV. F234.3

中国版本图书馆 CIP 数据核字 (2011) 第 050344 号

辽宁省版权局著作权合同登记号:图字06-2010-453号

Robert S. Kaplan, Anthony A. Atkinson: Advanced Management Accounting (Third Edition). Copyright © 1998 Pearson Education, Inc.

DUFEP is authorized by Pearson Education to publish and distribute exclusively this bilingual edition. This edition is authorized for sale in the People's Republic of China only (excluding Hong Kong, Macao SAR and Taiwan). Unauthorized export of this edition is a violation of the Copyright Act. No part of this publication may be reproduced or distributed by any means, or stored in a database of retrieval system, without the prior written permission of the publisher.

All rights reserved.

本书双语版由培生教育出版集团授权东北财经大学出版社独家出版发行。此版本仅限在中华人民共和国境内(不包括中国香港、澳门特别行政区及中国台湾)销售。未经授权的本书出口将被视为违反版权法的行为。未经出版者预先书面许可,不得以任何方式复制或发行本书的任何部分。

版权所有, 侵权必究。

本书封面贴有 Pearson Education 培生教育出版集团防伪标签,无标签者不得销售。

东北财经大学出版社出版

(大连市黑石礁尖山街 217号 邮政编码 116025)

教学支持: (0411) 84710309

营销部: (0411) 84710711

总编室: (0411) 84710523

网 址: http://www.dufep.cn

读者信箱: dufep @ dufe. edu. cn

大连图腾彩色印刷有限公司印刷

东北财经大学出版社发行

幅面尺寸: 200mm×270mm 字数: 1800 千字 印张: 51 1/4 插页: 1 2011 年 4 月第 1 版 2011 年 4 月第 1 次印刷

责任编辑:李季

封面设计: 冀贵收

Preface 前 言

Advanced Management Accounting, third edition, is a major revision from the second edition that was published in 1989. In the preface for the second edition, we were already describing the enormous changes underway for both manufacturing and service operations, and highlighting the rapid evolution in the technology for information processing. These advances created a challenging new environment for management accounting systems. If anything, rapid changes in the theory and practice of management accounting during the past ten years have accelerated, and to keep pace we have introduced significant new coverage and deleted some older material as we wrote the third edition.

The role for management accounting continues to undergo major changes. Management accountants are no longer only scorekeepers of past performance. They have become value-adding members of management teams, creating information vital for enhancing operational excellence, and for formulating and implementing new strategies. A significant development in this new role is a great increase in the importance and use of nonfinancial measures of performance. This book provides extensive coverage of the new management accounting practices being adopted by innovative companies around the world, including activity-based costing, kaizen and target costing, and the Balanced Scorecard.

A research project sponsored by the Institute of Management Accountants and the Financial Executives Institute¹ surveyed U.S. corporate accounting and financial executives about the relative importance of various accounting knowledge and skill areas (AKSAs), and about the extent to which entry-level accountants bring these AKSAs to their initial job. The four AKSAs rated as most important for management accountants were budgeting, product and service costing, control and performance evaluation, and strategic cost management, including activity-based costing. These four AKSAs, how-

¹What Corporate America Wants in Entry-Level Accountants (Institute of Mangement Accountants: Montvale, NJ; 1994).

ever, also showed the largest gap between corporate expectations and actual preparation of entry-level accountants. In this third edition, we provide comprehensive treatments of these four highly rated AKSAs.

The book's introduction, surveys the rich historical role for management accounting in the development of large industrial and service enterprises. Chapter 1 provides a comprehensive summary of cost definitions and cost classifications. It uses a comprehensive example to illustrate how traditional notions of fixed and variable costs can be imbedded in a much richer framework of committed and flexible costs. The chapter treats committed costs as arising from managerial decisions to supply capacity to perform anticipated work. It introduces the vital distinction between the costs of resources supplied versus the costs of resources used. It also examines the importance of identifying sustaining costs, at various hierarchical levels and decision points, where managers have the opportunity to make long-term decisions about whether to introduce or continue to support products, lines of business, customers, channels, and market segments. Chapter 2 builds on this framework to address short-term budgeting and decision making with the existing supply of resources. This chapter provides a comprehensive model for short-term budgeting and for optimizing the use of short-term committed resources.

Chapter 3 draws heavily on the treatment of service department costs from the first and second editions, but imbeds this subject in the context of a general treatment of cost system design. Thus, we view the assignment of service and support department costs as the initial assignment stage, from resources to production cost centers, when designing cost systems for operational control and for product and service costing. Chapter 4 extends this framework and introduces activity-based costing, allowing resource costs to flow, not just to production cost centers, but to activities. The chapter builds on this activity framework, to provide a comprehensive introduction to activity-based costing (ABC). It shows how to use a range of different types of activity cost drivers to assign resource costs more accurately to cost objects: products, services and customers. The chapter concludes by summarizing the principal benefits and design trade-offs associated with introducing an activity-based cost system.

Chapter 5, Activity-Based Management (ABM), incorporates material from the pricing chapter in the second edition, and extends this material by describing a full range of strategic and operational decisions that are better informed by the more accurate information drawn from an ABC system. ABM actions include, in addition to re-pricing, decisions about product and customer mix, product design, process improvements, operations strategy, and technology investments. Chapter 6 addresses operational ABM for process improvements and discusses the roles of kaizen costing in continuous improvement, and target costing for influencing future product costs at the design stage.

In summary, we use the conceptual framework of activity-based costing to provide an integrated treatment for these first six chapters. Chapters 1, 4, 5, and 6 are virtually completely new material for *Advanced Management Accounting*, third edition, and Chapters 2 and 3 have been re-written, from the second edition, to fit within this integrated framework.

To accommodate all this new material, we eliminated the two chapters on regression analysis, which were a central feature of the first two editions. The deletion decision was strongly influenced by the theoretical advance that statistical analyses can measure only the results of management decisions (how much capacity to provide, and how

quickly managers adjust resource capacity to changes in the demands for resources). Of more relevance for managers is not estimates of the cost of supplying resources, but the cost of the actual demands (the costs of resources used) that activities make on most organizational resources. This role is now accomplished through ABC systems, not statistical analysis. We have also deleted the chapter on joint costs, recognizing that this issue is more a cost accounting topic (for inventory valuation) rather than one that facilitates managerial decision-making and control. And the linear programming section from the second edition has been replaced by Excel's Solver algorithm used to solve the short-term resource allocation example in Chapter 2.

Chapter 7, Decentralization, introduces the second half of the book. Rewritten slightly from the second edition to reflect the impact of ABC and the Balance Scorecard, this chapter remains highly relevant for communicating the challenges of motivating, controlling, and evaluating decentralized organizational units. Chapter 8, the Balanced Scorecard, provides a new comprehensive framework for strategic and operational control. The chapter summarizes the advances in the 1990s of translating strategy into an integrated set of financial and non-financial performance measures tied to customers, innovation and operational processes, and enhanced employee and system capabilities.

Chapters 9 and 10, on profit centers and investment centers, are drawn from the second edition, but repositioned in the third edition to portray the measures for the financial perspective of the Balanced Scorecard. In a major semantic change, the residual income approach, described in the first two editions, has been updated to reflect the surge in interest and application of economic value added. Chapter 11, an enhanced version of the quality and just-in-time chapters in the second edition, summarizes the expanded measurement possibilities from the other three Balanced Scorecard perspectives. It includes quality and cycle time operational measures, but it adds the vitally important measures relating to customer outcomes, the value propositions required to succeed with targeted customers, product and service development, and measures of employee and system capabilities.

Chapter 12, Investments in New Technologies, expands on the second edition's coverage of investment possibilities to include enhanced organizational capabilities. Thus, what had previously been a stand-alone chapter on advanced capital budgeting has now become integrated in the management control framework. Investment decisions are made to achieve outstanding performance in the critical, strategic measures in the four Balanced Scorecard perspectives. Financial payoffs remain important, but investment payoffs also include enhanced performance for customers, for critical internal processes, and for enhancing organizational capabilities.

Chapters 13 and 14, on incentive compensation plans and on formal models for budgeting and incentives, draw from the comparable chapters in the second edition. They have been updated to incorporate new insights from recent research and experience. They also develop the frictions that arise in conventional contract theory research in a more detailed and intuitive manner.

Each chapter, with the possible exception of Chapter 14, contains material that is immediately applicable to contemporary organizations and that has been, in fact, already successfully put to work in practice. Our extensive use of case material reinforces this emphasis on practice in actual organizations. Moreover, we have selected assignment material to illustrate how the concepts in each chapter have been or can be applied not just in somewhat mechanical and idealized situations, but in the context of actual business

situations. There may be no simple answers to some of the cases we present, but we believe they will help students come to understand and be able to apply the relevant concepts in the actual organizations they will encounter after leaving the academic setting.

ACKNOWLEDGMENTS

We have benefited from the contributions of many of our colleagues. We appreciate the helpful reviews and comments about how to improve the Second Edition that were provided by Professors Germain Boer, Vanderbilt University; William D. J. Cotton, SUNY— Geneseo; Michael W. Maher, University of California—Davis; Dale C. Morse, University of Oregon; Vaughan S. Radcliffe, Case Western Reserve University; and Raafat R. Roubi. Brock University. Professor Bill Cotton of SUNY—Geneseo contributed several new cases for the Third Edition. New cases were also provided by Professors Kavasseri V. Ramanathan of University of Washington, Chris Ittner of Wharton, University of Pennsylvania, and Paul Dierkes of Wake Forest University. We appreciate the permission of the Institute of Management Accountants for allowing us to use several cases from various volumes in their Cases in Management Accounting Practice, IMA/AAA Management Accounting Symposium series, and the American Institute of Certified Public Accountants for cases from their AICPA Case Development Program (which included cases written by Professor Paul Foote of California State University at Fullerton and Professor Lawrence Carr). And we wish to thank current and former Harvard Business School Professors Bob Anthony, George Baker, Bill Bruns, Robin Cooper, John Dearden, Bill Fruhan, David Hawkins, Ken Merchant, Jim Reece, Bill Sahlman, Bob Simons, and David Upton for use of their HBS cases.

At Prentice Hall, our editor, PJ Boardman, provided us with continual encouragement and support to complete this revision before the decade ended. Jane Avery and Katherine Evancie facilitated the editing and production process. Susan Rifkin was excellent in overseeing production of the book under tight deadlines. We are grateful for their efforts.

Finally, as always, we appreciate the patience and forbearance of our wives, Ellen and Anne, who gave use the space (both physical and time) for this project.

Robert S. Kaplan Anthony A. Atkinson

目 录

刖り		
引	吉	• 1
	成本管理系统的起源	· 2
	科学管理运动	• 3
	多元化经营组织的管理控制	· 6
	从成本管理到成本会计	
	制造业和服务业的最新发展	
	当代管理会计的发展	
	小结	
第一		
	管理会计的作用 ····································	
	理解成本性态	13
	成本结构举例	
	间接(共同)成本的处理	
	未使用生产能力成本的计算	23
	本一量—利分析	
	小结	
	问题	
第二		
	示例	
	短期计划与预算	
	作业、资源使用与成本	
	短期资源使用的最优规划	
	机会成本、生产能力成本和约束理论	
	多种资源情况下的问题	
	成本信息在短期资源配置中的作用	40
	经营预算	43
	小结 ····································	46
	问题	47
	案例	55
第三	E章 将资源成本分配到生产成本中心 ····································	60
	为什么要分配服务部门成本?	61
	计量服务使用部门的成本	63
	成本控制应避免估计和分摊	64

	基本的成本会计等式	65
	分配服务部门成本	
	不直接支持生产部门的服务部门	
	主要和次要作业	
	交互服务的性质与问题	
	主观分摊的特殊情形	
	小结	79
	附录 3.1:交互分配法的计算过程	
	问题	. 82
	案例	. 90
第四	3章 作业成本法 ····································	. 97
	将服务部门成本分配到作业	98
	分配服务部门成本:固定成本和变动成本	103
	作业成本动因	104
	设计最优的成本计算系统	110
	小结	
	案例	113
第五	〔章 作业成本管理 ····································	149
	产品盈利能力的鲸鱼曲线	150
	定价	151
	运用作业成本法分析顾客盈利能力	158
	产品替代	160
	重新设计产品	
	改进流程和经营战略	161
	技术投资	163
	削减产品	163
	小结	163
	问题	164
	案例	168
第六	章 以成本为基础进行决策	222
	目标成本法	223
	改善成本法	229
	目标成本法:综合性的示例	230
	生命周期成本法	236
	其他成本计算工具	
	环境成本、残值成本和处置成本	
	小结	
	问题	
	案例	

第一	比章 分权经营 ····································		
	为什么要分权经营?		
	分权单位的组织		
	为分权经营单位建立业绩指标	29	98
	小结	30	03
	问题	30	04
	案例	30	06
第丿	【章 平衡计分卡:计量业务单位全面业绩 ····································	30	67
	平衡计分卡	30	68
	将多元的计分卡指标与单一战略相联系	37	76
	诊断指标与战略指标的比较		
	四个维度是否足够?		
	小结		
	案例		-
第ナ	九章 业绩的财务指标		
21-2	财务控制的性质 ····································		
	运用财务指标进行总体控制		
	运用非财务指标进行具体控制 ········		
	运用差异分析进行经营控制和例外管理		
	运用利润指标进行组织控制		
	生产率指标		-
	小结		
	问题 ····································		
	案例		
<u>44-</u> ⊥			-
邾丁	一章 业绩的财务指标:投资报酬率与经济附加值 ····································		
	将利润与占用资源联系起来		_
	历史回顾 ····································		
	松下公司的内部资本系统		
	投资报酬率控制的危险		
	投资报酬率指标的技术缺陷		
	经济附加值(剩余收益)		
	费用化与资本化		
	按物价水平进行调整		
	折旧方法		
	对投资报酬率和经济附加值计算进行技术性调整的总结		
	作业成本法与经济附加值的联系:分配资产		
	小结	52	23
	问题		
	案例	53	12

第十	├一章 计量顾客、内部业务流程及员工的业绩 ····································	• 551
	顾客维度	-
	内部经营维度:经营和创新流程	557
	雇员能力	567
	小结	569
	问题	570
	案例	578
第十	├二章 投资开发未来生产能力技术	593
	需要一个新理论吗?	594
	计量来自新流程的全部收益 ······	603
	组织能力的投资	
	小结	608
	问题	611
	案例	613
第十	-三章 激励与薪酬系统	673
	行为的期望理论	
	内在回报和外在回报 ······	
	将报酬与业绩相联系	675
	薪酬系统的重要属性	
	组织中其他成员的报酬	
	小结	
	问题	
	案例	
第十	-四章 预算与激励合同的形式模型	
	形式激励模型中的问题与术语	
	标准和预算的信息获取问题	
	代理模型	
	引导私人信念的诚实披露	
	保险的作用	
	小结	
	问题	
	索引	793

Contents

Preface

INTRODUCTION 1

Origins of Cost Management Systems 2
The Scientific Management Movement 3
Management Control for Diversified Organizations 6
From Cost Management to Cost Accounting 7
Recent Developments in Manufacturing and Service Companies 8
Contemporary Management Accounting Developments 9
Summary 10

UNDERSTANDING COST BEHAVIOR 12

The Role of Management Accounting 12
Understanding Cost Behavior 13
An Example of Cost Structure 14

Deriving the Total Cost Function 16

Determining the Cost per Unit of Service Provided 17
Handling Indirect (Common) Costs 22
Computing the Cost of Unused Capacity 23
Cost-Volume-Profit Analysis 24
Summary 27 • Problems 28

2 SHORT-TERM BUDGETING, RESOURCE ALLOCATIONS, AND CAPACITY COST 33

The Example 33

Short-Term Planning and Budgeting 34

Activities, Resource Use, and Costs 35

Optimizing the Use of Short-Term Resources 35

Equal Sales Objective 35

Total Sales Objective 36

Short-Run Profit Objective 37

Opportunity Costs, Capacity Costs, and the Theory of Constraints 37

The Issue of Multiple Resources 38

Effects of Reengineering and Continuous Improvement on

Profitability 40

The Role of Cost Information in Allocating Short-Term Resources 40

Budgeting Operations 43

Production and Resource Use 43

Cash Flows 43

Summary 46 • Problems 47 • Cases: Choosing a Product Mix 55 •

California Products Corporation: Analyze Product Profitability with

Machine Constraints and Committed and Flexible Costs 56

3 ASSIGNING RESOURCE COSTS TO PRODUCTION COST CENTERS 60

Why Assign Service Department Costs? 61

Measuring Costs of Using Service Departments 63

Avoid Estimates and Allocations for Cost Control 64

A Fundamental Cost Accounting Equation 65

Assigning Service Department Costs 66

Service Departments Not Directly Supporting Production Output 72

Primary and Secondary Activities 72

The Nature and Problems of Reciprocal Services 73

Fall River Company: A Numerical Example 74

The Economic Insights of the Reciprocal Method 76

The Treatment of Committed Costs 77

Make-or-Buy Decisions and Cost Assignments 77

Special Case for Arbitrary Allocations 78

Summary 79 • Appendix 3.1: The Reciprocal Cost Procedure 80 •

Problems 82 • Case: Seligram, Inc.: Electronic Testing Operations 90

4 ACTIVITY-BASED COST SYSTEMS 97

Assigning Service Department Costs to Activities 98

Identifying Activities and Mapping Resource Costs to Activities 101

Estimates or Allocations? 102

Assigning Service Department Costs: Some Fixed and Some Variable 103

Activity Cost Drivers 104

Selecting Activity Cost Drivers 108

Designing the Optimal System 110

Summary 112 • Cases: The Classic Pen Company 113 • Western Dialysis

Clinic 116 • Paisley Insurance Company: Activity-Based Costing in a

Service Industry 119 • Bedford Mining 123 • The Rossford Plant 125 •

The Portables Group 131 • John Deere Component Works (A) 135

5 ACTIVITY-BASED MANAGEMENT 149

The Product Profitability Whale Curve 150

Pricing 151

Demand Curve Estimation 152

Short-Term Pricing 153

ABC Costing For a New Order 154

Determining Profit Margins 156

Using ABC for Analyzing Customer Profitability 158

Product Substitution 160

Redesign Products 161

Improve Processes and Operations Strategy 161

Technology Investment 163

Eliminate Products 163

Summary 163 • Problems 164 • Cases: Price Leadership in an

Oligopoly 168 • Siemens Electric Motor Works (A) 174 • Kanthal

(A) 179 • Indianapolis: Activity-Based Costing of City Services

(A) 187 • The Co-operative Bank 197 • John Deere Component Works

(B) 213

6 COST-BASED DECISION MAKING 222

Target Costing 223

Customer Orientation 224

The Target Costing Process 225

Target Costing in Action: Toyota Motors 227

Tear-Down Analysis 227 Quality Function Deployment 228 Value Engineering 228 Reengineering 229 Kaizen Costing 229 Target Costing: A Comprehensive Example 230 Value Engineering 233 Functional Analysis 234 Reengineering 235 Life Cycle Costing 236 Other Costing Tools 237 Quality Cost 237 Taguchi Cost 237 Environmental, Salvage, and Disposal Costs 238 Conclusion 238 • Problems 241 • Cases: Piedmont Express Forms: Process Analysis for Strategic Decision Making 246 • Activity-based Management at Stream International 254 • MosCo, Inc. 268 **DECENTRALIZATION** 288 Why Decentralize? 290 The Environment of the Firm 290 Information Specialization 291 Timeliness of Response 291 Conservation of Central Management Time 292 Computational Complexity 292 Training for Local Managers 293 Motivation for Local Managers 293 Summary 293 Organization of Decentralized Units 293 Standard Cost Centers 294 Revenue Centers 295 Discretionary Expense Centers 295 Profit Centers 297 Investment Centers 297 Developing a Performance Measure for Decentralized Operating Units 298 Problems of Goal Congruence 300 Problems of Externalities 301 Overconsumption of Perquisites 302

Summary 303 • Problems 304 • Cases: Pinnacle Mutual Life Insurance

Company 306 • Wattie Frozen Foods Ltd.: A New Zealand Case Study in Management Accounting and Extreme Decentralization 321 • Industrial Chemicals Company 337 • BP America: Cost Centers and Profit Centers 342 • Empire Glass Company (A) 346

8 THE BALANCED SCORECARD: MEASURING TOTAL BUSINESS UNIT PERFORMANCE 367

The Balanced Scorecard 368

Financial Perspective 368

Customer Perspective 368

Internal Business Process Perspective 371

Learning and Growth Perspective 374

Summary of Balanced Scorecard Perspective 375

Linking Multiple Scorecard Measures to a Single Strategy 376

Cause-and-Effect Relationships 376

Performance Drivers 377

Diagnostic Versus Strategic Measures 377

Four Perspectives: Are They Sufficient? 378

Summary 379 • Cases: Chadwick, Inc.: The Balanced Scorecard 380 •

Chemical Bank: Implementing the Balanced Scorecard 383 • United Way

of Southeastern New England (UWSENE) 397 • Mobil USM&R (A1)

409 • Mobil USM&R (A2) 417 • Mobil USM&R (B): New England Sales

and Distribution 422 • Mobil USM&R (C): Lubricants Business Unit

428 • Mobil USM&R (D): Gasoline Marketing 435

9 FINANCIAL MEASURES OF PERFORMANCE 442

The Nature of Financial Control 442

Control in the Aggregate Using Financial Measures 442

Control in the Small Using Nonfinancial Measures 443

Operations Control and Management By Exception Using Variance Analysis 443

An Example: Jersey River Book Publishing Company 444

The Role of Variance Analysis 445

The Planning Variance 445

The Flexible Budget Variance 445

Flexible Budget Variances for Unit-Related Costs-Price and

Quantity Effects 447

Flexible Budget Variances for Batch-Related Costs—Batch Size and

Batch Cost Effects 448

Flexible Budget Variances for Product-Related Costs 448 Facility-Sustaining Costs 448 Summary 449 Organization Control Using Profit Measures 449 Using Profits to Assess Organization Unit Performance 449 Choosing a Profit Index 450 Short-Run Operating Margin Controllable Contribution 451 Divisional Segment Margin 451 Divisional Profit before Taxes 452 Common Revenues 452 Transfer Pricing 453 Market Prices 454 Using Marginal-Cost Transfer Prices 456 Using Activity-Based Costs for Transfer Pricing 457 Full Costs 458

Dual-Rate Transfer Prices 460

Negotiated Market-Based Price 460

Transfer Pricing—A Summary of Practice 461

Domestic versus International Transfer Pricing 463

Other Measures of Performance 464

Productivity Measures 465

Return on Investment 466

Material Yield 466

Labor Yield 466

Equipment Yield 467

Summary 467 • Problems 469 • Cases: Transfer Pricing in an Automobile Dealership—Shuman Automobiles, Inc. 479 • Transfer Pricing Among Related Businesses—Kirkpatrick Associates, Incorporated 484 • Transfer Pricing in a Multinational Corporation—Del Norte Paper Company (A) 486 • Managing Profit Center Performance—Wilkinson Transport (B) 490 • Internal Transfer Pricing With an Outside Market—The New Brunswick Company 496

10 financial measures of performance: return on investment (roi) and economic value added (eva®) 499

Relating Profits to Assets Employed 499
A Historical Perspective 500
The Matsushita Internal Capital System 502