

# Contents

<b>Preface</b> .....	<b>xv</b>
<b>Acknowledgements</b> .....	<b>xix</b>

## **PART ONE**

<b>Foundations of Management Accounting</b> .....	<b>1</b>
---	----------

### **Chapter One**

<b>Why Management Accounting Matters</b> .....	<b>3</b>
1. What is Management Accounting? .....	3
1.1. Defining Management Accounting .....	3
1.2. Comparing Management Accounting and Financial Accounting .....	5
2. Why Study Management Accounting? .....	7
3. Management Accounting Practice Today .....	8
3.1. The Business and Societal Context of Management Accounting .....	8
3.2. The Principles of Management Accounting .....	16
Summary .....	17
Appendix 1A: A Brief History of Management Accounting .....	18
Appendix 1B: Management Accounting and the Professional Qualifications .....	20
Appendix 1C: Management Accounting in Today's Organizations .....	24
Appendix 1D: Institute of Management Accountants (IMA) Statement of Ethical Professional Practice .....	25

### **Chapter Two**

<b>Cost Concepts and Classifications</b> .....	<b>27</b>
1. Costs versus Expenses .....	27
2. Cost Concepts .....	28
2.1. Cost Pool and Cost Object .....	28
2.2. Cost Accumulation and Cost Assignment .....	29
3. Cost Classification for Cost Assignment .....	29
3.1. Direct Costs and Indirect Costs .....	30
3.2. Relativity of Direct/Indirect Cost Classifications .....	30
4. Cost Classifications by Business Functions .....	30
4.1. Manufacturing Costs and Nonmanufacturing Costs .....	31
4.2. Prime Costs and Conversion Costs .....	32
5. Cost Classification for Inventory Valuation and Profit Measurement .....	32
5.1. Product Costs and Period Costs .....	33
5.2. Product Cost Flows and Period Cost Flows in Manufacturing Settings .....	33
5.3. Product Cost Flows and Period Cost Flows in Nonmanufacturing Settings .....	38
5.4. Integrated Summary of Product Costs and Period Costs .....	38
6. Cost Classification for Planning .....	40
6.1. Variable Costs .....	41
6.2. Fixed Costs .....	43
6.3. Mixed Costs .....	44
6.4. The Problem with Unit Costs .....	45
6.5. Relationships Between Cost Classifications .....	47

7.	Cost Classification for Decision Making .....	48
7.1.	Relevant Costs .....	48
7.2.	Sunk Costs .....	48
7.3.	Opportunity Costs .....	48
8.	Cost Classification for Management Control .....	49
8.1.	Controllable Costs .....	49
8.2.	Noncontrollable Costs .....	50
9.	Accounting for Costs: Three Key Purposes .....	50
10.	Ethical Issues in Cost Classification .....	51
	Summary .....	52
	Appendix 2A: Variable Costs and Fixed Costs in Practice .....	53

### **Chapter Three**

	<b>Cost Estimation and Regression Analysis .....</b>	<b>57</b>
1.	Cost Behavior Patterns and Cost Estimation .....	57
2.	The Cost Driver Concept .....	58
3.	General Assumptions in Cost Estimation .....	59
4.	Non-Statistical Cost Estimation Methods .....	59
4.1.	Engineering Method .....	60
4.2.	Account Analysis Method .....	60
4.3.	Scattergraph Method .....	60
4.4.	High-Low Method .....	63
5.	Statistical Regression Analysis in Cost Estimation .....	66
5.1.	Simple Linear Regression (Least-Squares Technique) .....	66
5.2.	Coefficient of Determination and Coefficient of Correlation .....	69
5.3.	Standard Error of the Estimate and Confidence Intervals .....	73
5.4.	Multiple Regression .....	75
5.5.	Practical Issues in Performing Regression Analyses .....	76
6.	Integrated Summary of Cost Estimation Methods .....	77
7.	Ethical Issues in Cost Estimation .....	78
	Summary .....	79
	Appendix 3A: Regression Analysis Using Microsoft Excel .....	80
	Appendix 3B: Big Data Analytics .....	82

## **PART TWO**

	<b>Costing .....</b>	<b>84</b>
--	----------------------	-----------

### **Chapter Four**

	<b>Traditional Product-Costing Methods: Job-Order Costing .....</b>	<b>87</b>
1.	Introduction to Product Costing: Three Key Questions .....	87
2.	Fundamentals of Job-Order Costing .....	90
3.	The Overhead Rate Concept .....	94
4.	General Approach to Job-Order Costing Using Predetermined Costs .....	96
4.1.	Job-Order Costing Illustrated .....	96
4.2.	Overapplied and Underapplied Overhead .....	102
4.3.	Methods of Disposing Overapplied or Underapplied Overhead .....	102
5.	Job-Order Costing in Multiple Departments .....	104

6.	Job-Order Costing in Nonmanufacturing Settings.....	107
7.	Spoilage and Rework in Job-Order Costing.....	108
8.	Ethical Issues in Job-Order Costing.....	109
	Summary.....	110
	Appendix 4A: Journal Entries in Job-Order Costing.....	111
	Appendix 4B: Job-Order Costing Using Actual Costs.....	113
<b>Chapter Five</b>		
	<b>Traditional Product-Costing Methods: Process Costing.....</b>	<b>117</b>
1.	Fundamentals of Process Costing.....	117
2.	The Equivalent Unit Concept.....	119
3.	General Approach to Process Costing Using Actual Costs.....	121
4.	Process Costing in the Initial Department.....	121
	4.1. Weighted-Average Method.....	122
	4.2. First-In, First-Out (FIFO) Method.....	126
	4.3. Comparing the Weighted-Average and FIFO Methods.....	131
5.	Process Costing in a Subsequent Department.....	132
	5.1. Weighted-Average Method and Transferred-In Costs.....	133
	5.2. FIFO Method and Transferred-In Costs.....	135
6.	Spoilage in Process Costing.....	138
	6.1. Weighted-Average Method and Spoilage.....	138
	6.2. FIFO Method and Spoilage.....	141
7.	Hybrid-Costing Systems.....	142
8.	Ethical Issues in Process Costing.....	143
	Summary.....	145
	Appendix 5A: Journal Entries in Process Costing.....	147
	Appendix 5B: Process Costing Using Predetermined Costs.....	149
	Appendix 5C: Operation Costing.....	152
<b>Chapter Six</b>		
	<b>Activity-Based Costing.....</b>	<b>159</b>
1.	Problems With the Traditional Costing Methods.....	159
2.	Fundamentals of Activity-Based Costing (ABC).....	160
3.	ABC-Related Concepts.....	163
	3.1. Activity.....	163
	3.2. Activity Cost Pool.....	163
	3.3. Activity Cost Driver (or Cost-Allocation Base).....	163
	3.4. Cost Hierarchy.....	164
4.	General Approach to Activity-Based Costing.....	165
5.	Comparison of Traditional and Activity-Based Costing Systems.....	173
6.	Advantages and Disadvantages of ABC Systems.....	176
7.	Application of ABC Systems.....	177
8.	Ethical Issues in Activity-Based Costing.....	178
	Summary.....	179
	Appendix 6A: Journal Entries in Activity-Based Costing.....	181
	Appendix 6B: Time-Driven Activity-Based Costing.....	182

Appendix 6C: Activity-Based Management .....	187
<b>Chapter Seven</b>	
<b>Inventory-Valuation Approaches: Absorption Costing and Variable Costing .....</b>	<b>189</b>
1. Introduction to Absorption and Variable Costing .....	189
2. Two Conceptual Formats of Income Statement .....	190
2.1. The Function-Of-Expense Format Income Statement (Absorption Costing Presentation) .....	191
2.2. The Contribution-Margin Format Income Statement (Variable Costing Presentation) .....	192
3. General Approach to Absorption and Variable Costing Using Actual Costs .....	193
3.1. Absorption Costing .....	194
3.2. Variable Costing .....	196
3.3. Comparing Absorption and Variable Costing .....	198
4. General Approach to Absorption and Variable Costing Using Predetermined Costs .....	200
4.1. Absorption Costing and Production-Volume Variance .....	201
4.2. Variable Costing .....	207
4.3. Comparing Absorption and Variable Costing .....	207
5. Advantages and Disadvantages of Absorption and Variable Costing .....	207
6. Application of Absorption and Variable Costing .....	209
7. Ethical Issues in Absorption and Variable Costing .....	210
Summary .....	211
Appendix 7A: Throughput Costing .....	212
Appendix 7B: Allocating Actual Fixed Manufacturing Overheads for External-Reporting Purposes: The Requirements of IAS 2 <i>Inventories</i> .....	216
Appendix 7C: Allocating Budgeted Fixed Manufacturing Overheads for Internal-Reporting Purposes: Predetermined Rates and Capacity Concepts .....	219
<b>PART THREE</b>	
<b>Decision Making .....</b>	<b>222</b>
<b>Chapter Eight</b>	
<b>Cost-Volume-Profit Analysis .....</b>	<b>225</b>
1. Fundamentals of Cost-Volume-Profit Analysis .....	225
2. The Contribution Margin Concept .....	226
3. CVP Analysis and Break-Even Point .....	227
3.1. Analytical Method .....	228
3.2. Graph Method .....	231
4. CVP Analysis and Target Operating Income .....	232
5. CVP Analysis and Operating Risk .....	234
5.1. Margin of Safety .....	234
5.2. Operating Leverage .....	235
5.3. Sensitivity Analysis .....	239
5.4. Scenario Analysis .....	240
6. Multi-Product CVP Analysis .....	242
6.1. Analytical Method .....	242
6.2. Graph Method .....	244
6.3. Target Operating Income for Multiple Products .....	245
6.4. Margin of Safety for Multiple Products .....	247
7. Assumptions in CVP Analysis .....	248

8. Ethical Issues in CVP Analysis .....	248
Summary .....	250
Appendix 8A: Operating Leverage, Financial Leverage, and Total Leverage .....	251

## **Chapter Nine**

<b>Relevant-Cost and Relevant-Revenue Analysis for Short-Term Decision Making .....</b>	<b>257</b>
1. Fundamentals of Short-Term Decision Making .....	257
2. Two Conceptual Approaches in Short-Term Decision Making .....	258
2.1. The Relevant-Information Approach .....	258
2.2. The Contribution-Margin Approach .....	260
3. General Model of Short-Term Decision Making .....	260
4. Adding/Dropping Operating Segments .....	263
4.1. Essence and Application .....	263
4.2. Relevant Costs and Revenues. Capacity Considerations .....	264
4.3. Further Considerations .....	268
5. Make-or-Buy Decisions .....	269
5.1. Essence and Application .....	269
5.2. Relevant Costs and Capacity Considerations .....	270
5.3. Further Considerations .....	274
6. Pricing One-Time-Only Special Orders .....	274
6.1. Essence and Application .....	274
6.2. Relevant Costs and Revenues. Capacity Considerations .....	275
6.3. Further Considerations .....	278
7. Ethical Issues in Short-Term Decision Making .....	279
Summary .....	280
Appendix 9A: The Relevant Costs of Direct Materials and Direct Labor .....	281
Appendix 9B: Pricing Decisions in the Long Run .....	284

## **PART FOUR**

<b>Performance Management .....</b>	<b>286</b>
-------------------------------------	------------

### **Chapter Ten**

<b>Performance Management: A Theoretical Framework .....</b>	<b>289</b>
1. Fundamentals of Performance Management .....	289
1.1. Performance Management Hierarchy .....	289
1.2. Feedback and Feed-Forward Controls .....	291
1.3. Elements of Performance Management Systems .....	291
2. Element One: Formal Planning Process .....	291
2.1. Strategic Planning and Budgeting within the Performance Management Cycle .....	292
2.2. Functions of Budgeting. Advantages and Disadvantages .....	294
2.3. Administration of Budgeting .....	296
2.4. Approaches to Budgeting .....	299
3. Element Two: Decentralization and Responsibility Accounting .....	301
3.1. Decentralization – Advantages and Disadvantages .....	301
3.2. Responsibility Centers .....	303
3.3. Responsibility Accounting .....	304

4.	Element Three: Performance Measurement and Performance Evaluation .....	305
4.1.	Performance Measurement .....	305
4.2.	Performance Evaluation .....	308
5.	Element Four: Reward Program .....	311
6.	Element Five: Informal Control Process .....	312
7.	Balancing the Elements: The Contingency Theory Approach .....	314
8.	Human Challenges and Ethical Issues in Performance Management .....	314
	Summary .....	319
	Appendix 10A: Accounting Information and Performance Management .....	321
	Appendix 10B: Contemporary Approaches to Budgeting .....	324

## Chapter Eleven

	<b>Master Budgeting: Basic Quantitative Issues .....</b>	<b>329</b>
1.	The Master Budget Concept .....	329
2.	Two Bases of Accounting in Developing the Master Budget .....	332
2.1.	Accrual Accounting .....	332
2.2.	Cash-Basis Accounting .....	332
3.	Developing the Master Budget .....	332
3.1.	The Sales Budget .....	334
3.2.	The Production Budget .....	335
3.3.	The Direct Materials Purchases Budget and Direct Materials Usage Budget .....	336
3.4.	The Direct Labor Budget .....	339
3.5.	The Manufacturing Overhead Budget .....	340
3.6.	The Cost of Goods Manufactured and Sold Budget .....	342
3.7.	The Selling and Administrative Expenses Budget .....	344
3.8.	The Budgeted Income Statement .....	346
3.9.	The Cash Budget .....	346
3.10.	The Budgeted Balance Sheet .....	352
4.	Alternative Structures of the Master Budget .....	354
5.	Budgeting in Nonmanufacturing Settings .....	354
6.	Budgeting under Uncertainty .....	355
5.1.	Rolling Budgets .....	355
5.2.	Sensitivity Analysis .....	355
5.3.	Scenario Analysis .....	356
7.	Ethical Issues in Master Budgeting .....	357
	Summary .....	359
	Appendix 11A: Budgeting Using Microsoft Excel .....	360
	Appendix 11B: Methods of Sales Forecasting .....	362
	Appendix 11C: Learning Curves .....	363

## Chapter Twelve

	<b>Performance Measurement and Budget Variances .....</b>	<b>371</b>
1.	Introduction to Variance Analysis .....	371
2.	The Flexible Budget Concept .....	372
3.	The Standard Costs Concept .....	376
4.	General Approach to Cost Variance Analysis .....	378

5.	Direct Materials Variances .....	381
5.1.	Materials Usage Variance.....	382
5.2.	Materials Price Variance.....	382
6.	Direct Labor Variances .....	383
6.1.	Labor Efficiency Variance .....	383
6.2.	Labor Rate Variance.....	384
7.	Variable Manufacturing Overhead Variances .....	384
7.1.	Variable Overhead Efficiency Variance .....	384
7.2.	Variable Overhead Rate Variance .....	385
8.	Fixed Manufacturing Overhead Variances.....	386
8.1.	Fixed Overhead Spending Variance.....	386
8.2.	Production-Volume Variance.....	387
9.	Integrated Analysis of Cost Variances .....	389
9.1.	Summary of Cost Variance Analysis .....	390
9.2.	Interdependencies Between Variances .....	391
10.	Completing the Variance Analysis Cycle .....	391
10.1.	Reporting Variances .....	391
10.2.	Investigating Variances .....	393
10.3.	Taking Corrective Actions or Revising the Plans .....	395
10.4.	Insufficiency of Variance Analysis .....	395
11.	Ethical Issues in Variance Analysis.....	395
	Summary.....	396
	Appendix 12A: Types of Standards .....	397
	Appendix 12B: Direct Materials Variances: Further Aspects .....	398
	Appendix 12C: Direct Labor Variances: Further Aspects .....	400
	Appendix 12D: Production-Volume Variance: Further Aspects .....	401
	<b>APPENDIX A: Partial Table of the t Distribution.....</b>	<b>403</b>
	<b>References and Further Reading .....</b>	<b>404</b>
	<b>Frequently Used Symbols .....</b>	<b>409</b>