

**Brink's Modern  
Internal Auditing**

**Sixth Edition**

**Robert R. Moeller**

**WILEY**

John Wiley & Sons, Inc.

# Contents

|  |            |
|--|------------|
| <b>Preface</b>   | <b>xix</b> |
| <b>PART ONE FOUNDATIONS OF INTERNAL AUDITING</b>   | <b>1</b>   |
| <b>Chapter One Foundations of Internal Auditing</b>  | <b>3</b>   |
| 1.1 What is Internal Auditing?   | 3          |
| 1.2 Internal Auditing History and Background   | 4          |
| 1.3 Relationships of Operational, Financial, and Information Systems Auditing              | 7          |
| <b>Chapter Two Management Needs: Internal Audit's Operational Approach</b>                 | <b>9</b>   |
| 2.1 Internal Audit's Management Focus  | 9          |
| 2.2 Operational Auditing Concepts  | 10         |
| 2.3 Understanding and Working with Managers and Management                                 | 11         |
| 2.4 Attributes of Management   | 14         |
| 2.5 Management and the Internal Auditor  | 17         |
| <b>Chapter Three Internal Audit in the Twenty-First Century: Sarbanes-Oxley and Beyond</b> | <b>21</b>  |
| 3.1 Background: Changes in Financial Auditing Standards                                    | 21         |
| 3.2 "Where Were the Auditors?" Standards Failure   | 25         |
| 3.3 Sarbanes-Oxley Overview: Key Internal Audit Concerns                                   | 27         |
| (a) ija>OA Title I: Public Company Accounting Oversight Board                              | 29         |
| (b) doA Title II: Auditor Independence   | 39         |
| (c) SOA Title III: Corporate Responsibility  | 45         |
| (d) SOA Title IV: Enhanced Financial Disclosures   | 53         |
| (e) SOA Title V: Analyst Conflicts of Interest   | 60         |
| (f) SOA Titles VI and VII: Commission Authority, Studies, and Reports                      | 61         |

Because of the rapidly changing nature of information in this field, this product may be updated with annual supplements or with future editions. **Please call 1-877-762-2974 or email us at [subscriber@wiley.com](mailto:subscriber@wiley.com) to receive any current update at no additional charge.** We will send on approval any future supplements or new editions when they become available. If you purchased this product directly from John Wiley & Sons, Inc., we have already recorded your subscription for this update service.

## CONTENTS

|   |            |
|---|------------|
| (g) SOA Titles VIII, IX, and X: Fraud Accountability<br>and White-Collar Crime            | 62         |
| (h) SOA Title XI: Corporate Fraud Accountability  | 64         |
| 3.4 Impact of the Sarbanes-Oxley Act on the Modern<br>Internal Auditor                    | 65         |
| <b>PART TWO IMPORTANCE OF INTERNAL CONTROLS</b>   | <b>67</b>  |
| <b>Chapter Four Internal Controls Fundamentals: COSO Framework</b>                        | <b>69</b>  |
| 4.1 Importance of Effective Internal Controls   | 69         |
| 4.2 Fundamentals of Internal Controls   | 70         |
| (a) Detective, Protective, and Corrective Control Techniques                              | 72         |
| 4.3 Internal Controls Standards: Background Developments                                  | 74         |
| (a) Early Definitions of Internal Control Systems   | 74         |
| (b) Foreign Corrupt Practices Act of 1977   | 76         |
| (c) FCPA Aftermath: What Happened?  | 77         |
| 4.4 Efforts Leading to the Treadway Commission  | 78         |
| (a) AICPA and CICA Commissions on Auditor Responsibilities                                | 79         |
| (b) SEC 1979 Internal Control Reporting Proposal  | 80         |
| (c) Minahan Committee and Financial Executives<br>Research Foundation                     | 80         |
| (d) Earlier AICPA Standards: SAS No. 55   | 81         |
| (e) Treadway Committee Report   | 82         |
| 4.5 COSO Internal Control Framework   | 83         |
| (a) COSO Framework Model  | 84         |
| 4.6 Understanding, Using, and Documenting COSO Internal Controls                          | 105        |
| <b>Chapter Five Understanding and Assessing Risks:<br/>    Enterprise Risk Management</b> | <b>107</b> |
| 5.1 Auditing and Understanding Risks  | 107        |
| 5.2 Understanding Risks: COSO Enterprise Risk<br>Management Integrated Framework          | 108        |
| 5.3 Enterprise Risk Management Framework  | 112        |
| (a) ERM Framework Internal Environment  | 113        |
| (b) Other ERM Framework Levels  | 116        |
| 5.4 ERM and COSO: What's the Difference?  | 117        |
| 5.5 Risk Ranking and Risk Assessments   | 118        |
| (a) Define Organization Processes   | 118        |
| (b) Rank and Score Processes Based on Relative Risk                                       | 119        |
| (c) Assess and Identify Higher-Risk Processes   | 119        |
| (d) Initiate Actions and Install Controls<br>for Higher-Risk Processes                    | 122        |
| 5.6 Understanding Risks for More Effective Auditing                                       | 122        |

## CONTENTS

|                      |   |            |
|----------------------|---|------------|
| <b>Chapter Six</b>   | <b>Evaluating Internal Controls: Section 404 Assessments</b>                  | <b>123</b> |
| 6.1                  | Assessments of Internal Controls after the Sarbanes-Oxley Act                 | 123        |
| 6.2                  | SOA Section 404   | 124        |
|                      | (a) Launching the Section 404 Compliance Review:<br>Identifying Key Processes | 125        |
|                      | (b) Launching the Section 404 Compliance Review:<br>Internal Audit's Role     | 126        |
|                      | (c) Launching the Section 404 Compliance Review:<br>Organizing the Project    | 127        |
| 6.3                  | Internal Control Review Process:<br>Importance of Financial Assertions        | 138        |
| 6.4                  | Control Objectives and Risks under Section 404                                | 139        |
|                      | (a) Developing an Internal Controls Matrix                                    | 139        |
|                      | (b) Testing Section 404 Internal Controls                                     | 142        |
| 6.5                  | Disclosure Committee and Keeping Section 404 Current                          | 142        |
| <b>Chapter Seven</b> | <b>Internal Controls Frameworks Worldwide:<br/>CobiT and Others</b>           | <b>145</b> |
| 7.1                  | Beyond COSO: Other Approaches to Understanding<br>Internal Controls           | 145        |
| 7.2                  | CobiT Model: IT Governance  | 146        |
|                      | (a) CobiT Framework   | 147        |
|                      | (b) Navigating CobiT: Understanding the Framework                             | 150        |
|                      | (c) Control Objectives under CobiT  | 153        |
|                      | (d) CobiT Audit Guidelines  | 155        |
|                      | (e) Management and Implementation Guidelines                                  | 156        |
| 7.3                  | Using CobiT for SOA Section 404 Assessments                                   | 157        |
| 7.4                  | Canada's COCO Framework   | 161        |
| 7.5                  | Turnbull Report   | 163        |
| 7.6                  | Internal Control Frameworks Worldwide   | 164        |
| <b>PART THREE</b>    | <b>INTERNAL AUDIT AND CORPORATE<br/>GOVERNANCE</b>                            | <b>169</b> |
| <b>Chapter Eight</b> | <b>Internal Audit and the Board Audit Committee</b>                           | <b>171</b> |
| 8.1                  | Role of the Audit Committee   | 171        |
| 8.2                  | Audit Committee Organization and Charters                                     | 173        |
| 8.3                  | Audit Committee's Financial Expert and Internal Audit                         | 178        |
| 8.4                  | Audit Committee Responsibilities for Internal Audit                           | 180        |
|                      | (a) Appointment of the Chief Audit Executive                                  | 181        |
|                      | (b) Approval of Internal Audit Charter  | 182        |
|                      | (c) Approval of Internal Audit Plans and Budgets                              | 183        |
|                      | (d) Review and Action on Significant Audit Findings                           | 184        |

## CONTENTS

|   |   |            |
|---|---|------------|
| 8.5   | Audit Committee and External Auditors                             | 186        |
| 8.6   | Whistleblower Programs and Codes of Conduct                       | 187        |
| 8.7   | Other Audit Committee Roles                                       | 188        |
| <b>Chapter Nine Whistleblower Programs and Codes of Conduct</b> |   | <b>191</b> |
| 9.1   | Organizational Ethics, Compliance, and Governance                 | 191        |
| 9.2   | Launching an Organizational Ethics Program                        | 192        |
|   | (a) First Steps: Developing a Mission Statement                   | 193        |
|   | (b) Understanding the Risk Environment                            | 195        |
|   | (c) Summarizing Ethics Survey Results: Do We Have a Problem?      | 198        |
| 9.3   | Codes of Conduct  | 199        |
|   | (a) The Contents: What Should the Code's Message Be?              | 199        |
|   | (b) Communications to Stakeholders and Assuring Compliance        | 202        |
|   | (c) Code Violations and Corrective Actions                        | 203        |
|   | (d) Keeping the Code Current                                      | 204        |
| 9.4   | Whistleblower and Hotline Functions                               | 205        |
|   | (a) Federal Whistleblower Rules                                   | 207        |
|   | (b) SOA Whistleblower Rules and Internal Audit                    | 208        |
|   | (c) Launching the Organizational Help or Hotline Function         | 210        |
| 9.5   | Auditing the Organization's Ethics Functions                      | 211        |
| 9.6   | Improving Corporate Governance Practices                          | 213        |
| <b>Chapter Ten Working with External Auditors</b>               |   | <b>217</b> |
| 10.1  | Importance of External Audit Coordination                         | 217        |
| 10.2  | Professional Standards Supporting Audit Coordination              | 218        |
|   | (a) AICPA Support for Audit Coordination                          | 219        |
|   | (b) Internal Audit Support for Audit Coordination                 | 223        |
| 10.3  | Internal Audit and SOA Section 404 Reviews                        | 224        |
| 10.4  | Effective Internal and External Audit Coordination                | 225        |
|   | (a) Problems Limiting Audit Coordination                          | 227        |
| 10.5  | Motivations for and Constraints over Effective Audit Coordination | 229        |
| 10.6  | Steps to Achieve Effective Audit Coordination                     | 233        |
|   | (a) Exchange of Audit Documentation                               | 233        |
|   | (b) Face-to-Face Sharing of Information                           | 234        |
|   | (c) Use of a Common Methodology                                   | 235        |
|   | (d) Collaborative Work Assistance                                 | 235        |
|   | (e) Cooperation and Collaboration in Auditor Training             | 236        |
|   | (f) Supportive Follow-Up of Audit Findings                        | 236        |
|   | (g) Joint Audit Project Planning                                  | 237        |
| 10.7  | Coordination in Perspective                                       | 238        |
| <b>Chapter Eleven Fraud Detection and Prevention</b>            |   | <b>241</b> |
| 11.1  | Growing Concerns about Management Fraud                           | 241        |
| 11.2  | Red Flags: Fraud Detection for Auditors                           | 242        |

## CONTENTS

|  |  |            |
|--|--|------------|
| 11.3   | Public Accounting's New Role in Fraud Detection                                  | 247        |
| 11.4   | IIA Standards for Detecting and Investigating Fraud                              | 250        |
| 11.5   | Fraud Investigations for Internal Auditors                                       | 252        |
| 11.6   | Information Systems Fraud Prevention Processes                                   | 253        |
| 11.7   | Fraud Detection and the Auditor  | 255        |
| <b>PART FOUR ADMINISTERING INTERNAL AUDIT ACTIVITIES</b>         |  | <b>257</b> |
| <b>Chapter Twelve Internal Audit Professional Standards</b>      |  | <b>259</b> |
| 12.1   | Importance of Professional Standards   | 259        |
| 12.2   | Codes of Ethics: The IIA and ISACA   | 260        |
| 12.3   | Internal Auditing's Professional Practice Standards                              | 263        |
|  | (a) Background of the IIA Standards  | 263        |
|  | (b) IIA's Current Standards: What has Changed                                    | 264        |
|  | (c) Authority of the Internal Auditing Standards                                 | 265        |
| 12.4   | Content of the IIA Standards   | 266        |
|  | (a) Internal Audit Attribute Standards   | 266        |
|  | (b) Internal Audit Performance Standards   | 269        |
|  | (c) Revisions to the IIA Standards   | 274        |
| 12.5   | Importance and Relevance of the IIA Standards                                    | 274        |
| <b>Chapter Thirteen Internal Audit Organization and Planning</b> |  | <b>277</b> |
| 13.1   | Organizing and Planning for the Internal Audit Function                          | 277        |
| 13.2   | Organizing the Internal Audit Effort   | 278        |
|  | (a) Centralized versus Decentralized Internal Audit<br>Organizational Structures | 278        |
|  | (b) Alternative Internal Audit Organization Structures                           | 281        |
| 13.3   | Internal Audit Organization Planning   | 286        |
|  | (a) Establishing Internal Audit Plan Goals and Objectives                        | 287        |
| <b>Chapter Fourteen Directing and Performing Internal Audits</b> |  | <b>299</b> |
| 14.1   | Organizing and Performing Internal Audits  | 299        |
| 14.2   | Audit Planning Preparatory Activities  | 300        |
|  | (a) Determining Audit Objectives   | 301        |
|  | (b) Audit Scheduling and Time Estimates  | 301        |
|  | (c) Preliminary Surveys  | 303        |
| 14.3   | Starting the Internal Audit  | 305        |
|  | (a) Internal Audit Field Survey  | 307        |
|  | (b) Documenting the Internal Audit Field Survey                                  | 309        |
|  | (c) Field Survey Auditor Conclusions   | 315        |
| 14.4   | Using Audit Programs to Perform Internal Audits                                  | 316        |
|  | (a) Audit Program Formats and Their Preparation                                  | 318        |
|  | (b) Types of Audit Evidence  | 322        |

## CONTENTS

|  |  |            |
|--|--|------------|
| 14.5   | Performing the Internal Audit                          | 323        |
|  | (a) Internal Audit Fieldwork Procedures                | 324        |
|  | (b) Audit Fieldwork Technical Assistance               | 326        |
|  | (c) Audit Management Fieldwork Monitoring              | 326        |
|  | (d) Potential Audit Findings                           | 327        |
|  | (e) Audit Program and Schedule Modifications           | 328        |
|  | (f) Reporting Preliminary Audit Findings to Management | 329        |
| 14.6   | Planning and Controlling Internal Audit Fieldwork      | 330        |
| <b>Chapter Fifteen Workpapers: Documenting Internal Audit Activities</b> |  | <b>333</b> |
| 15.1   | Importance of Workpapers                               | 333        |
| 15.2   | Functions of Workpapers                                | 334        |
|  | (a) Workpaper Standards                                | 336        |
|  | (b) Workpaper Formats                                  | 337        |
| 15.3   | Workpaper Content and Organization                     | 339        |
|  | (a) Workpaper Document Organization                    | 339        |
|  | (b) Computer-Assisted Audit Techniques Workpapers      | 345        |
| 15.4   | Workpaper Preparation Techniques                       | 346        |
|  | (a) Workpaper Indexing and Cross-Referencing           | 346        |
|  | (b) Tick Marks   | 347        |
|  | (c) References to External Audit Sources               | 348        |
|  | (d) Workpaper Rough Notes                              | 348        |
| 15.5   | Workpaper Review Process                               | 349        |
| 15.6   | Workpaper Ownership, Custody, and Retention            | 350        |
| <b>Chapter Sixteen Gathering Evidence through Audit Sampling</b>         |  | <b>353</b> |
| 16.1   | Audit Sampling to Improve Results and Efficiency       | 353        |
| 16.2   | Audit Sampling Decision                                | 354        |
| 16.3   | Internal Audit Judgmental Sampling                     | 357        |
|  | (a) Judgmental Sampling Example                        | 358        |
| 16.4   | Statistical Sampling: An Introduction                  | 362        |
|  | (a) Statistical Sampling Concepts                      | 363        |
|  | (b) Developing a Statistical Sampling Plan             | 369        |
|  | (c) Selecting the Items to Be Sampled                  | 371        |
| 16.5   | Audit Sampling Approaches                              | 374        |
|  | (a) Attribute-Sampling Procedures                      | 375        |
|  | (b) Attribute-Sampling Audit Example                   | 382        |
|  | (c) Attribute-Sampling Advantages and Limitations      | 387        |
| 16.6   | Monetary Unit Sampling                                 | 388        |
|  | (a) Selecting the Monetary Unit Sample: An Example     | 388        |
|  | (b) Performing the Monetary Unit Sampling Test         | 390        |

## CONTENTS

|   |            |
|---|------------|
| (c) Evaluating Monetary Unit Sample Results   | 391        |
| (d) Monetary Unit Sampling Advantages and Limitations   | 392        |
| 16.7 Variables and Stratified Variables Sampling  | 393        |
| 16.8 Other Audit Sampling Techniques  | 395        |
| (a) Multistage Sampling   | 395        |
| (b) Replicated Sampling   | 396        |
| (c) Bayesian Sampling   | 396        |
| 16.9 Making Efficient and Effective Use of Audit Sampling   | 397        |
| 16.10 Human Resources Internal Controls Attributes Test   | 399        |
| <b>Chapter Seventeen    Audit Reports and Internal<br/>                          Audit Communications</b>   | <b>403</b> |
| 17.1 Audit Reports for Effective Internal Audit Communications  | 403        |
| 17.2 Purposes and Types of Audit Reports  | 404        |
| (a) For Whom Is the Audit Report Prepared?  | 405        |
| 17.3 Published Audit Report   | 406        |
| (a) Approaches to Published Audit Reports   | 406        |
| (b) Elements of an Audit Report Finding   | 411        |
| (c) Balanced Audit Report Presentation Guidelines   | 415        |
| (d) Alternative Audit Report Formats  | 418        |
| 17.4 Audit Reporting Cycle  | 420        |
| (a) Draft Audit Reports   | 422        |
| (b) Audit Reports: Follow-Up and Summarization  | 424        |
| (c) Audit Report and Workpaper Retention  | 426        |
| 17.5 Effective Audit Communications Opportunities   | 427        |
| (a) Maximizing Internal Audit Job Satisfaction  | 427        |
| (b) Effective Internal Audit Communications   | 428        |
| (c) Conflict and Organizational Change  | 430        |
| (d) Understanding the People in Internal Auditing   | 432        |
| <b>PART FIVE    IMPACT OF INFORMATION SYSTEMS<br/>                  ON INTERNAL AUDITING</b>                | <b>433</b> |
| <b>Chapter Eighteen    Business Continuity Planning<br/>                          and Disaster Recovery</b> | <b>435</b> |
| 18.1 Importance of Information Systems Continuity Planning  | 435        |
| 18.2 Business Continuity Planning Today   | 437        |
| (a) Emergency Response Planning   | 438        |
| (b) Business Continuity Planning  | 439        |
| 18.3 Continuity Planning and Service Level Agreements   | 441        |
| 18.4 New Business Continuity Plan Technologies:<br>Data-Mirroring Techniques                                | 442        |
| 18.5 Establishing Effective Contingency Policies:<br>What Are We Protecting?                                | 445        |



## CONTENTS

|   |  |            |
|---|--|------------|
| 18.6  | Building the Disaster Recovery Business Continuity Plan                      | 447        |
|   | (a) Risks, Business Impact Analysis, and the Impact of Potential Emergencies | 448        |
|   | (b) Preparing for Possible Contingencies                                     | 449        |
|   | (c) Disaster Recovery: Handling the Emergency                                | 453        |
|   | (d) Business Continuity Plan Organization Training                           | 453        |
| 18.7  | Testing, Maintaining, and Auditing the Business Continuity Plan              | 454        |
|   | (a) Business Continuity Plan Testing   | 456        |
|   | (b) Auditing for the Effectiveness of the Business Continuation Plan         | 457        |
| 18.8  | Continuity Planning Going Forward  | 459        |
| <b>Chapter Nineteen General Controls in an E-Business and Networked Environment</b>               |  | <b>461</b> |
| 19.1  | Importance of Information Systems General Controls                           | 461        |
| 19.2  | Mainframe, Legacy System Components, and Controls                            | 463        |
|   | (a) Characteristics of Large Information Systems                             | 464        |
|   | (b) Mainframe System General Controls Reviews                                | 472        |
| 19.3  | Client/Server and Small Information Systems                                  | 480        |
|   | (a) General Controls for Small Business Systems                              | 481        |
|   | (b) Small Systems Operations Internal Controls                               | 488        |
|   | (c) Small System Operations Internal Audit Activities                        | 490        |
|   | (d) Small Systems Operations Controls  | 494        |
| <b>Chapter Twenty Software Engineering, the Capability Maturity Model, and Project Management</b> |  | <b>495</b> |
| 20.1  | Capability Maturity Model and Project Management                             | 495        |
| 20.2  | The CMM Model  | 496        |
|   | (a) CMM Level 1: Unpredictable and Poorly Controlled Processes               | 497        |
|   | (b) CMM Level 2: Repeatable and Consistent Processes                         | 499        |
|   | (c) CMM Level 3: Defined and Predictable Processes                           | 503        |
|   | (d) CMM Level 4: Managed, Measured, and Controlled Processes                 | 505        |
|   | (e) CMM Level 5: Optimizing Processes  | 506        |
| 20.3  | Audit, Internal Control, and CMM   | 507        |
| 20.4  | Information Systems Project Management                                       | 507        |
|   | (a) Project Management Integration Management                                | 509        |
| 20.5  | Project Management and the Internal Auditor                                  | 510        |
| <b>Chapter Twenty-One Reviewing and Assessing Application Controls</b>                            |  | <b>513</b> |
| 21.1  | Importance of Information Systems Application Internal Controls              | 514        |
| 21.2  | Components of an Information Systems Application                             | 515        |
|   | (a) Application Input Components   | 516        |
|   | (b) Application Programs   | 519        |
|   | (c) Information Systems Output Components                                    | 523        |

## CONTENTS

|      |   |     |
|------|---|-----|
| 21.3 | Selecting Applications for Internal Audit Review                      | 523 |
| 21.4 | Performing the Applications Control Review: Preliminary Steps         | 525 |
|      | (a) Documenting Key Application Components                            | 526 |
|      | (b) Conducting an Application Walkthrough                             | 527 |
|      | (c) Developing Application Control Objectives                         | 530 |
| 21.5 | Completing the Information Application Control Audit                  | 533 |
|      | (a) Understanding and Documenting Information<br>Systems Applications | 534 |
|      | (b) Clarifying and Testing Audit Control Objectives                   | 534 |
|      | (c) Completing the Application Control Review                         | 538 |
| 21.6 | Review Example: Mainframe Accounting Application                      | 539 |
|      | (a) Reviewing Automated Purchasing System Documentation               | 541 |
|      | (b) Identifying Automated Purchasing Internal Controls                | 542 |
|      | (c) Testing and Evaluating Automated Purchasing System Controls       | 542 |
| 21.7 | Application-Review Example: Client/Server Budgeting                   | 543 |
|      | (a) Reviewing Capital Budgeting System Documentation                  | 544 |
|      | (b) Describing the Capital Budgeting Client System                    | 544 |
|      | (c) Identifying Capital Budgeting Application Key Controls            | 544 |
|      | (d) Perform Application Tests of Compliance                           | 545 |
| 21.8 | Auditing Systems Under Development                                    | 546 |
|      | (a) Objectives of Preimplementation Auditing and the Obstacles        | 547 |
|      | (b) Preimplementation Review Procedures                               | 550 |
|      | (c) Preimplementation Audit Reports                                   | 554 |
| 21.9 | Importance of Reviewing Application Controls                          | 555 |

### **Chapter Twenty-Two Infrastructure Service- and Support-Delivery Controls 557**

|      |  |     |
|------|--|-----|
| 22.1 | Importance of Information Systems Infrastructure | 557 |
| 22.2 | ITIL Best Practices Model                        | 558 |
|      | (a) ITIL Service-Support Processes               | 559 |
|      | (b) Service-Delivery Best Practices              | 570 |
| 22.3 | ITIL Processes in Perspective                    | 578 |
| 22.4 | Infrastructure it Staff Support                  | 579 |

### **Chapter Twenty-Three Computer-Assisted Audit Techniques 581**

|      |   |     |
|------|---|-----|
| 23.1 | Definition of a Computer-Assisted Audit Technique           | 581 |
| 23.2 | Determining the Need for Computer-Assisted Audit Techniques | 584 |
| 23.3 | Types of Computer Audit Software                            | 588 |
|      | (a) Generalized Audit Software                              | 588 |
|      | (b) Report Generators Languages                             | 590 |
|      | (c) Desktop Computer Audit Software Tools                   | 592 |
|      | (d) Test Data or "Test Deck" Approaches                     | 593 |

## CONTENTS

|   |            |
|---|------------|
| (e) Specialized Audit Test and Analysis Software                                      | 597        |
| (f) Embedded Audit Procedures   | 598        |
| 23.4 Steps to Building Effective CAATS  | 604        |
| 23.5 Importance of CAATS for Audit Evidence Gathering                                 | 606        |
| <b>PART SIX INTERNAL AUDITOR TOOLS AND TRENDS</b>                                     | <b>609</b> |
| <b>Chapter Twenty-Four HIPAA and Growing Concerns<br/>Regarding Privacy</b>           | <b>611</b> |
| 24.1 Beyond Sarbanes-Oxley: Growing Privacy Concerns                                  | 611        |
| 24.2 Gramm-Leach-Bliley Act   | 612        |
| (a) GLBA Financial Privacy Rules  | 613        |
| (b) GLBA Safeguards Rule  | 615        |
| (c) GLBA Pretexting Provisions  | 616        |
| 24.3 Auditing for GLBA Compliance   | 617        |
| 24.4 HIPAA: Health-Care and Much More   | 618        |
| (a) HIPAA Patient Record Privacy Rules  | 619        |
| (b) Cryptography, PKI, and HIPAA Security Requirements                                | 624        |
| (c) HIPAA Security Administrative Procedures  | 624        |
| (d) Technical Security Services and Mechanisms  | 626        |
| (e) Going Forward: HIPAA and E-Commerce   | 627        |
| 24.5 Other Legislative Initiatives: Growing Concerns for Privacy                      | 627        |
| <b>Chapter Twenty-Five Continuous Assurance Auditing,<br/>XBRL, and OLAP</b>          | <b>629</b> |
| 25.1 What is Continuous Assurance Auditing?   | 629        |
| 25.2 Implementing Continuous Assurance Auditing                                       | 630        |
| (a) What is a Continuous Assurance Auditing System?                                   | 631        |
| (b) Resources for Implementing CAA  | 634        |
| 25.3 Internet-Based Extensible Marking Languages: XBRL                                | 637        |
| (a) XBRL Defined  | 637        |
| (b) Implementing XBRL   | 638        |
| 25.4 Data Warehouses, Data Mining, and OLAP   | 640        |
| (a) Importance of Storage Tools   | 641        |
| (b) Data Warehouses and Data Mining   | 642        |
| (c) Online Analytical Processing  | 644        |
| 25.5 Newer Technologies, the Continuous Close, and SOA                                | 645        |
| <b>Chapter Twenty-Six Internal Audit Quality-Assurance<br/>and ASQ Quality Audits</b> | <b>647</b> |
| 26.1 ASQ Audit Standards: A Different Approach  | 647        |
| 26.2 Quality Auditor Standards and Practices  | 648        |
| 26.3 Role of the Quality Auditor  | 650        |
| 26.4 Quality Auditors and the IIA Internal Auditor                                    | 652        |

## CONTENTS

|  |  |            |
|--|--|------------|
| 26.5   | Quality-Assurance Reviews of an Internal Audit Function                    | 652        |
|  | (a) Benefits of an Internal Audit Quality-Assurance Review                 | 653        |
|  | (b) Elements of an Internal Audit Quality-Assurance Review                 | 655        |
| 26.6   | Launching the Internal Audit Quality-Assurance Review                      | 659        |
|  | (a) Quality-Assurance Review Approaches                                    | 660        |
|  | (b) Example of a QA Review of an Internal Audit Function                   | 661        |
|  | (c) Reporting the Results of an Internal Audit<br>Quality-Assurance Review | 671        |
| 26.7   | Future Direction for Quality-Assurance Auditing                            | 672        |
| <b>Chapter Twenty-Seven Control Self-Assessments</b>                             |  | <b>675</b> |
| 27.1   | Importance of Control Self-Assessments                                     | 675        |
| 27.2   | CSA Model  | 676        |
| 27.3   | Launching the CSA Process  | 677        |
|  | (a) Performing the Facilitated CSA Review                                  | 678        |
|  | (b) Performing the Questionnaire-Based CSA Review                          | 680        |
|  | (c) Performing the Management-Produced Analysis CSA Review                 | 682        |
| 27.4   | Evaluating CSA Results   | 682        |
| <b>PART SEVEN THE PROFESSIONAL INTERNAL AUDITOR</b>                              |  | <b>685</b> |
| <b>Chapter Twenty-Eight Professional Certifications:<br/>CIA, CISA, and More</b> |  | <b>687</b> |
| 28.1   | Why Seek Professional Certification?                                       | 687        |
| 28.2   | Certified Internal Auditor Examination                                     | 688        |
|  | (a) The CIA Examination  | 689        |
|  | (b) Maintaining CIA Certification  | 699        |
| 28.3   | Other IIA-Sponsored Certifications   | 700        |
|  | (a) CCSA Requirements  | 700        |
|  | (b) CGAP® Requirements   | 701        |
|  | (c) CFSA Requirements  | 703        |
| 28.4   | Certified Information Systems Auditor Examination                          | 705        |
| 28.5   | Another ISACA Certification  | 709        |
| 28.6   | Certified Fraud Examiner Certification                                     | 709        |
| 28.7   | CISSP and Information Systems Security Certification                       | 710        |
| 28.8   | ASQ Internal Audit Certifications  | 710        |
| 28.9   | Other Certification Certifications for Internal Auditors                   | 711        |
| 28.10  | Why Get Certified for Anything?  | 712        |
| <b>Chapter Twenty-Nine ISO and Internal Audit Worldwide Standards</b>            |  | <b>713</b> |
| 29.1   | It is Not Just a United States Issue                                       | 713        |
| 29.2   | SOA International Requirements   | 714        |

## CONTENTS

|   |   |            |
|---|---|------------|
| 29.3  | International Accounting and Auditing Standards                 | 715        |
| 29.4  | COSO Worldwide: International Internal Control Frameworks       | 722        |
|   | (a) CoCo: Canada's Equivalent of COSO                           | 723        |
|   | (b) Internal Control Standards in the United Kingdom            | 724        |
|   | (c) Internal Control Frameworks Worldwide                       | 725        |
| 29.5  | ISO and the Standards Registration Process                      | 726        |
|   | (a) ISO 9000 Quality Standards Overview                         | 727        |
|   | (b) Quality Audits and Registration                             | 728        |
| 29.6  | ISO 9001:2000 Internal Audits                                   | 730        |
| 29.7  | Another Standard: ISO 14000 Environmental Management            | 732        |
| <b>Chapter Thirty Future of the Modern Internal Auditor</b> |   | <b>735</b> |
| 30.1  | Internal Auditing Profession Today                              | 735        |
| 30.2  | Evolving Issues and Trends                                      | 736        |
|   | (a) Importance and Significance of SOA 404 Reviews              | 737        |
|   | (b) Other SOA Issues: Whistleblower Programs and Internal Audit | 737        |
|   | (c) PCAOB, External Audit Firms, and Internal Audit             | 738        |
|   | (d) Continuous Close and Information Systems Changes            | 739        |
|   | (e) Evolving Worldwide Standards                                | 739        |
|   | (f) Ongoing Security and Privacy Concerns                       | 739        |
| 30.3  | Modern Internal Auditing  | 740        |
| <b>Index</b>  |   | <b>741</b> |