

# CONTENTS

## PREFACE ix

## ACKNOWLEDGMENT xi

## FOREWORD xiii

|   |      |
|---|------|
| WHY THIS STORY MAKES SENSE                    | xiv  |
| THROUGH THE LOOKING GLASS AT A CHAOTIC FUTURE | xiv  |
| IS IT HALF EMPTY OR HALF FULL OR JUST PLAIN   |      |
| COMPLICATED?                                  | xvi  |
| SO WHAT DOES ALL THIS MEAN TO YOU?            | xvii |

## CHAPTER 1

### PROJECT MANAGEMENT 2.0 1

|   |    |
|---|----|
| 1.0 INTRODUCTION: CHANGING TIMES                                | 1  |
| 1.1 CHARACTERISTICS OF PM 1.0                                   | 1  |
| 1.2 OTHER CRITICAL ISSUES WITH PM 1.0                           | 2  |
| 1.3 PROJECT MANAGEMENT 2.0                                      | 4  |
| 1.4 CRITICISM OF PM 2.0   | 7  |
| 1.5 PROJECT MANAGEMENT 2.0: TECHNOLOGICAL BLESSING<br>OR CURSE? | 7  |
| 1.6 POLICING PM 2.0   | 12 |
| 1.7 WORKING WITH STAKEHOLDERS IN PM 2.0                         | 13 |
| Today's View of Stakeholder Relations Management                | 14 |
| Need for Meaningful Information                                 | 15 |
| All That Glitters Is Not Gold                                   | 15 |
| 1.8 FINDING THE INFORMATION                                     | 16 |
| 1.9 PERCENT COMPLETE DILEMMA                                    | 17 |
| 1.10 INFORMATION OVERLOAD                                       | 18 |
| 1.11 CUSTOMER SATISFACTION HEADACHES                            | 18 |
| 1.12 DETERMINING PROJECT HEALTH                                 | 19 |
| 1.13 DASHBOARD RULES FOR DISPLAYING DATA                        | 20 |
| 1.14 REDUCTION IN COST OF PAPERWORK                             | 21 |
| 1.15 REDUCTION IN EXECUTIVE MEDDLING                            | 22 |
| 1.16 PROJECT MANAGEMENT SKILLS                                  | 23 |
| 1.17 CONTINGENCY PLANNING                                       | 23 |

### DISCUSSION QUESTIONS 24

## CHAPTER 2

### A PEEK INTO THE FUTURE OF PROJECT MANAGEMENT 25

|  |    |
|--|----|
| 2.0 CHANGING TIMES                         | 25 |
| 2.1 IMPACT OF RECESSIONS                   | 25 |
| 2.2 EXECUTIVE VIEW OF PROJECT MANAGEMENT   | 26 |
| 2.3 ENGAGEMENT PROJECT MANAGEMENT          | 28 |
| 2.4 GROWTH OF MORE COMPLEX PROJECTS        | 30 |
| 2.5 NEED FOR ADDITIONAL METRICS            | 31 |
| 2.6 NEW DEVELOPMENTS IN PROJECT MANAGEMENT | 32 |

|                                     |    |
|-------------------------------------|----|
| 2.7 PROJECT MANAGER'S TOOL BOX      | 33 |
| 2.8 NEED FOR CONTINUOUS IMPROVEMENT | 34 |
| 2.9 CONCLUSIONS                     | 34 |
| DISCUSSION QUESTIONS                | 34 |

## CHAPTER 3 UNDERSTANDING SUCCESS AND FAILURE 37

|   |    |
|---|----|
| 3.0 INTRODUCTION                                    | 37 |
| 3.1 PROJECT MANAGEMENT—EARLY YEARS: 1945–1960       | 38 |
| 3.2 PROJECT MANAGEMENT BEGINS TO GROW:<br>1970–1985 | 39 |
| 3.3 GROWTH IN COMPETING CONSTRAINTS                 | 40 |
| 3.4 RULE OF INVERSION                               | 42 |
| 3.5 GROWTH IN MEASUREMENT TECHNIQUES                | 43 |
| 3.6 TRADE-OFFS                                      | 44 |
| 3.7 PUTTING TOGETHER COMPONENTS OF SUCCESS          | 45 |
| 3.8 NEW DEFINITION OF SUCCESS                       | 46 |
| 3.9 UNDERSTANDING PROJECT FAILURE                   | 47 |
| 3.10 CAUSES OF PROJECT FAILURE                      | 50 |

### DISCUSSION QUESTIONS 52

## CHAPTER 4 VALUE-DRIVEN PROJECT MANAGEMENT 53

|  |    |
|--|----|
| 4.0 INTRODUCTION                               | 53 |
| 4.1 UNDERSTANDING TODAY'S VIEW OF VALUE        | 54 |
| 4.2 VALUE MODELING                             | 56 |
| 4.3 VALUE AND LEADERSHIP CHANGES FOR PM 2.0    | 58 |
| 4.4 VALUE-BASED TRADE-OFFS                     | 62 |
| 4.5 NEED FOR VALUE METRICS                     | 64 |
| 4.6 CREATING A VALUE METRIC                    | 64 |
| 4.7 DISPLAYING VALUE METRICS IN A DASHBOARD    | 71 |
| 4.8 SELECTING VALUE ATTRIBUTES                 | 72 |
| 4.9 ADDITIONAL COMPLEXITIES WITH VALUE METRICS | 73 |

### DISCUSSION QUESTIONS 76

## CHAPTER 5 GROWING IMPORTANCE OF METRICS WITH PM 2.0 77

|  |    |
|--|----|
| 5.0 INTRODUCTION   | 77 |
| 5.1 ENTERPRISE RESOURCE PLANNING                         | 77 |
| 5.2 NEED FOR BETTER PROJECT METRICS                      | 78 |
| 5.3 CAUSES FOR LACK OF SUPPORT FOR METRICS<br>MANAGEMENT | 80 |

|             |   |     |
|-------------|---|-----|
| <b>5.4</b>  | CHARACTERISTICS OF A METRIC             | 81  |
| <b>5.5</b>  | METRICS SELECTION                       | 82  |
| <b>5.6</b>  | KEY PERFORMANCE INDICATORS              | 83  |
|             | Need for KPIs                           | 84  |
|             | Using KPIs                              | 86  |
|             | Anatomy of a KPI                        | 86  |
|             | KPI Characteristics                     | 88  |
|             | KPI Failures                            | 89  |
| <b>5.7</b>  | DASHBOARDS AND SCORECARDS               | 90  |
| <b>5.8</b>  | BUSINESS INTELLIGENCE                   | 93  |
| <b>5.9</b>  | GROWTH IN DASHBOARD INFORMATION SYSTEMS | 93  |
| <b>5.10</b> | SELECTING AN INFOGRAPHICS DESIGNER      | 94  |
| <b>5.11</b> | PROJECT HEALTH CHECK METRICS            | 95  |
| <b>5.12</b> | MAINTAINING PROJECT'S DIRECTION         | 99  |
| <b>5.13</b> | METRICS AND VIRTUAL TEAMS               | 99  |
| <b>5.14</b> | METRIC MANIA                            | 100 |
| <b>5.15</b> | METRIC TRAINING SESSIONS                | 101 |
| <b>5.16</b> | METRIC OWNERS                           | 102 |
| <b>5.17</b> | ANSWERING METRIC QUESTIONS              | 103 |
|             | <b>DISCUSSION QUESTIONS</b>             | 103 |

## CHAPTER 6 PROJECT MANAGEMENT METHODOLOGIES: 1.0 VERSUS 2.0 105

|             |  |     |
|-------------|--|-----|
| <b>6.0</b>  | INTRODUCTION                                       | 105 |
| <b>6.1</b>  | PM 2.0 DEFINITION OF PROJECT MANAGEMENT EXCELLENCE | 105 |
| <b>6.2</b>  | NEED FOR A METHODOLOGY                             | 106 |
| <b>6.3</b>  | NEED FOR AN ENTERPRISEWIDE METHODOLOGY             | 108 |
|             | Light Methodologies                                | 109 |
|             | Heavy Methodologies                                | 110 |
| <b>6.4</b>  | BENEFITS OF A STANDARDIZED METHODOLOGY             | 112 |
| <b>6.5</b>  | CRITICAL COMPONENTS                                | 114 |
| <b>6.6</b>  | FROM METHODOLOGIES TO FRAMEWORKS                   | 116 |
| <b>6.7</b>  | LIFE-CYCLE PHASES                                  | 116 |
| <b>6.8</b>  | DRIVERS FOR PM 2.0 CLIENT-CENTERED FLEXIBILITY     | 117 |
| <b>6.9</b>  | UNDERSTANDING MOVING TARGETS                       | 118 |
| <b>6.10</b> | NEED FOR CLIENT-SPECIFIC METRICS                   | 119 |
| <b>6.11</b> | BUSINESS CASE DEVELOPMENT                          | 119 |
| <b>6.12</b> | VALIDATING ASSUMPTIONS                             | 120 |
|             | Types of Assumptions                               | 121 |
|             | Documenting Assumptions                            | 122 |
| <b>6.13</b> | DESIGN FREEZES                                     | 123 |
| <b>6.14</b> | CUSTOMER APPROVALS                                 | 124 |
| <b>6.15</b> | AGILE PROJECT MANAGEMENT METHODOLOGY               | 125 |
| <b>6.16</b> | IMPLEMENTING METHODOLOGY                           | 127 |
| <b>6.17</b> | IMPLEMENTATION BLUNDERS                            | 128 |
| <b>6.18</b> | OVERCOMING DEVELOPMENT AND IMPLEMENTATION BARRIERS | 128 |
| <b>6.19</b> | USING CRISIS DASHBOARDS WITH METHODOLOGIES         | 129 |
|             | Understanding Targets                              | 130 |

|             |                             |     |
|-------------|-----------------------------|-----|
|             | Defining a Crisis           | 131 |
|             | Crisis Dashboard Images     | 134 |
|             | Conclusions                 | 138 |
| <b>6.20</b> | SHUTTING DOWN THE PROJECT   | 138 |
|             | <b>DISCUSSION QUESTIONS</b> | 139 |

## CHAPTER 7 PROJECT GOVERNANCE 141

|             |  |     |
|-------------|--|-----|
| <b>7.0</b>  | INTRODUCTION   | 141 |
| <b>7.1</b>  | NEED FOR GOVERNANCE                                    | 141 |
| <b>7.2</b>  | DEFINING PROJECT GOVERNANCE                            | 142 |
| <b>7.3</b>  | PROJECT VERSUS CORPORATE GOVERNANCE                    | 143 |
| <b>7.4</b>  | ROLES, RESPONSIBILITIES, AND DECISION-MAKING AUTHORITY | 144 |
| <b>7.5</b>  | GOVERNANCE FRAMEWORKS                                  | 145 |
| <b>7.6</b>  | THREE PILLARS OF PROJECT GOVERNANCE                    | 146 |
|             | Core Project Governance Principles                     | 147 |
| <b>7.7</b>  | MISINTERPRETATION OF INFORMATION                       | 151 |
| <b>7.8</b>  | FILTERING THE INFORMATION                              | 152 |
| <b>7.9</b>  | UNDERSTANDING POLITICS IN PROJECT ENVIRONMENT          | 152 |
|             | Political Risks  | 153 |
|             | Reasons for Playing Politics                           | 154 |
|             | Situations Where Political Games Will Occur            | 154 |
|             | Governance Committee                                   | 155 |
|             | Friends and Foes                                       | 156 |
|             | Attack or Retreat                                      | 156 |
|             | Need for Effective Communications                      | 158 |
|             | Power and Influence                                    | 158 |
|             | Managing Project Politics                              | 159 |
| <b>7.10</b> | MANAGING GLOBAL STAKEHOLDER RELATIONS                  | 160 |
| <b>7.11</b> | FAILURE OF PROJECT GOVERNANCE                          | 161 |
| <b>7.12</b> | SAVING DISTRESSED PROJECTS                             | 162 |
|             | <b>DISCUSSION QUESTIONS</b>                            | 163 |

## CHAPTER 8 ROLE OF PROJECT MANAGER IN STRATEGIC PLANNING AND PORTFOLIO MANAGEMENT 165

|            |   |     |
|------------|---|-----|
| <b>8.0</b> | INTRODUCTION  | 165 |
| <b>8.1</b> | WHY STRATEGIC PLANS OFTEN FAIL                        | 166 |
| <b>8.2</b> | PROJECT MANAGEMENT: EXECUTIVE PERSPECTIVE             | 167 |
| <b>8.3</b> | STRATEGIC PLANNING: PROJECT MANAGEMENT PERSPECTIVE    | 167 |
| <b>8.4</b> | GENERIC STRATEGIC PLANNING                            | 169 |
| <b>8.5</b> | BENEFITS OF PROJECT MANAGEMENT                        | 172 |
| <b>8.6</b> | DISPELLING MYTHS                                      | 173 |
| <b>8.7</b> | WAYS THAT PROJECT MANAGEMENT HELPS STRATEGIC PLANNING | 176 |
| <b>8.8</b> | TRANSFORMATIONAL PROJECT MANAGEMENT LEADERSHIP        | 179 |

|  |  |     |  |
|--|--|-----|--|
| <b>8.9</b>                                     | PROJECT MANAGER'S ROLE IN PORTFOLIO MANAGEMENT                               | 183 |  |
| <b>8.10</b>                                    | VALUE MANAGEMENT AND BENEFITS REALIZATION                                    | 184 |  |
|  | Understanding the Terminology  | 185 |  |
|  | Life-Cycle Phases  | 186 |  |
|  | Understanding Value  | 192 |  |
| <b>8.11</b>                                    | BENEFITS REALIZATION METRICS   | 193 |  |
| <b>8.12</b>                                    | PORTFOLIO MANAGEMENT GOVERNANCE  | 195 |  |
|  | <b>DISCUSSION QUESTIONS</b>  | 197 |  |
| <br>   |  |     |  |
| <b>CHAPTER 9</b>                               |  |     |  |
| <b>R&amp;D PROJECT MANAGEMENT</b> 199          |  |     |  |
| <b>9.0</b>                                     | INTRODUCTION   | 199 |  |
| <b>9.1</b>                                     | ROLE OF R&D IN STRATEGIC PLANNING  | 200 |  |
| <b>9.2</b>                                     | PRODUCT PORTFOLIO ANALYSIS   | 202 |  |
| <b>9.3</b>                                     | MARKETING INVOLVEMENT WITH R&D PROJECT MANAGERS                              | 205 |  |
|  | First to Market  | 205 |  |
|  | Follow the Leader  | 206 |  |
|  | Application Engineering  | 207 |  |
|  | "Me Too"   | 207 |  |
| <b>9.4</b>                                     | PRODUCT LIFE CYCLES  | 208 |  |
| <b>9.5</b>                                     | R&D PROJECT PLANNING ACCORDING TO MARKET SHARE                               | 208 |  |
| <b>9.6</b>                                     | CLASSIFICATION OF R&D PROJECTS   | 209 |  |
| <b>9.7</b>                                     | RESEARCH VERSUS DEVELOPMENT  | 210 |  |
| <b>9.8</b>                                     | R&D RATIO  | 211 |  |
|  | Manufacturing and Sales  | 211 |  |
|  | Human Behavior   | 212 |  |
| <b>9.9</b>                                     | OFFENSIVE-VERSUS-DEFENSIVE R&D   | 212 |  |
| <b>9.10</b>                                    | MODELING R&D PLANNING FUNCTION   | 213 |  |
| <b>9.11</b>                                    | PRIORITY SETTING   | 216 |  |
|  | Working with Marketing   | 216 |  |
| <b>9.12</b>                                    | CONTRACT R&D   | 218 |  |
| <b>9.13</b>                                    | NONDISCLOSURE AGREEMENTS, SECRECY AGREEMENTS, AND CONFIDENTIALITY AGREEMENTS | 219 |  |
| <b>9.14</b>                                    | GOVERNMENT INFLUENCE   | 219 |  |
| <b>9.15</b>                                    | SOURCES OF IDEAS   | 220 |  |
| <b>9.16</b>                                    | ECONOMIC EVALUATION OF PROJECTS  | 223 |  |
| <b>9.17</b>                                    | R&D PROJECT READJUSTMENTS  | 225 |  |
| <b>9.18</b>                                    | PROJECT TERMINATION  | 227 |  |
| <b>9.19</b>                                    | TRACKING R&D PERFORMANCE   | 228 |  |
|  | <b>DISCUSSION QUESTIONS</b>  | 228 |  |
| <br>   |  |     |  |
| <b>CHAPTER 10</b>                              |  |     |  |
| <b>PROBLEM SOLVING AND DECISION MAKING</b> 229 |  |     |  |
| <b>10.0</b>                                    | INTRODUCTION   | 229 |  |
| <b>10.1</b>                                    | UNDERSTANDING CONCEPTS   | 230 |  |
|  | Necessity for Problem Solving and Decision Making                            | 230 |  |
|  | Research Techniques in Basic Decision-Making Process                         | 230 |  |
|  | Facts about Problem Solving and Decision Making                              | 231 |  |
|  | Information Overload   | 231 |  |
|  | Getting Access to Right Information  | 232 |  |
|  | Lack of Information  | 233 |  |
|  | Project versus Business Problem Solving and Decision Making                  | 233 |  |
| <b>10.2</b>                                    | PROJECT ENVIRONMENT: ITS IMPACT ON PROBLEM SOLVING AND DECISION MAKING       | 234 |  |
|  | Impact of Constraints on Project Problem Solving and Decision Making         | 234 |  |
|  | Impact of Assumptions on Project Problem Solving and Decision Making         | 235 |  |
|  | Understanding Project Environment  | 235 |  |
|  | Selecting Right Project Manager  | 236 |  |
| <b>10.3</b>                                    | CONCEPTUAL PROBLEM-SOLVING AND DECISION-MAKING PROCESS                       | 236 |  |
|  | Determining the Steps  | 237 |  |
| <b>10.4</b>                                    | IDENTIFYING AND UNDERSTANDING A PROBLEM                                      | 238 |  |
|  | Real Problems versus Personality Problems                                    | 238 |  |
|  | Not All Problems Can Be Solved   | 239 |  |
|  | Complexity of Problems   | 240 |  |
|  | Technique for Problem Identification   | 240 |  |
|  | Individual Problem Solving Conducted in Secret                               | 241 |  |
|  | Team Problem Solving Conducted in Secret                                     | 241 |  |
| <b>10.5</b>                                    | GATHERING PROBLEM-RELATED DATA   | 242 |  |
|  | Reason for Data Gathering  | 242 |  |
|  | Data-Gathering Techniques  | 242 |  |
|  | Setting Limits on Problem Solving and Decision Making                        | 243 |  |
|  | Identifying Boundary Conditions  | 243 |  |
|  | Determining Who Should Attend Problem-Solving Meeting                        | 244 |  |
|  | Determining Who Should Attend Decision-Making Meeting                        | 244 |  |
|  | Creating Framework for Meeting   | 245 |  |
|  | Understanding How People React in Meetings                                   | 245 |  |
|  | Working with Participants during Meetings                                    | 246 |  |
|  | Leadership Techniques during Meetings  | 246 |  |
|  | Handling Problem-Solving and Decision-Making Conflicts                       | 247 |  |
|  | Continuous Solutions versus Enhancement Project Solutions                    | 247 |  |
|  | Problem Solving versus Scope Creep   | 248 |  |
|  | Problem Solving and Decision Making during Crisis Projects                   | 248 |  |
| <b>10.6</b>                                    | ANALYZING DATA   | 249 |  |
|  | Questions to Ask   | 249 |  |
| <b>10.7</b>                                    | DEVELOPING ALTERNATIVE SOLUTIONS   | 249 |  |
|  | Variables to Consider during Alternative Analyses                            | 250 |  |
|  | Understanding Features That Are Part of Alternatives                         | 251 |  |
|  | Developing Hybrid Alternatives   | 251 |  |

