# **Sixth Edition**

# Fundamentals of Risk Management

Understanding, evaluating and implementing effective enterprise risk management

Paul Hopkin and Clive Thompson



# CONTENTS

List of figures xvii List of tables xix List of case studies xxii Foreword by Stephen Sidebottom xxiii Acknowledgements xxiv

#### Introduction 1

Risk management in context 1
Nature of risk 1
Risk management 2
Risk management terminology 3
Benefits of risk management 4
Features of risk management 5
Book structure 6
Risk management in practice 6
Future for risk management 7
Changes for the sixth edition 8

# PART ONE Introduction to risk management 9

Learning outcomes 9 Further reading 10 Case studies 10

# O1 What risk is and why it is important 15

Definitions of risk 15
Types of risks 17
Risk description 19
Levels of risk 19
Classification systems 20
Risk likelihood and impact 21
Why understanding risk is important 22
Impact of hazard risks 23
Attachment of risks 24
Risk and reward 26

Attitudes to risk 27 Risk and triggers 28

Notes 30

# O2 Risk is an opportunity as well as a threat 31

Four types of risk 31

Timescale of risk impact 34

Minimize compliance risks 35

Mitigate hazard risks 36

Manage uncertainty (or control) risks 39

Embrace opportunity risks 40

# O3 Managing risk: The background, principles and aims of risk management 42

Origins of risk management 42

Taking calculated risks 45

Specialist areas of risk management 47

Enterprise risk management 48

Levels of risk management sophistication 50

Principles of risk management 52

Objectives of risk management 53

Risk management activities 54

Effective and efficient core processes 54

Implementing risk management 56

Achieving benefits 57

Risk management drives and enables activities 57

Notes 58

# O4 Risk management standards 59

Use of risk management standards for listed companies 60

Risk management process 61

Context 61

The standards in more detail 63

Updating of RM terminology 67

Note 68

# O5 Risk management in context 69

Scope of the context 69

External context 71

Internal context 72

Risk management context 74
Designing a risk register 75
Using a risk register 76
The future for risk registers 77

# PART TWO Enterprise risk management 79

Learning outcomes 79 Further reading 80 Case studies 80

# O6 Enterprise risk management 83

Enterprise-wide approach 83
Definitions of ERM 85
ERM in practice 86
ERM and business continuity management 87
Integrating strategy and performance 88
Note 89

# **O7** Implementing enterprise risk management 90

Investment in change 90 A worthwhile change 91 Integrating processes, reviewing and improving 91 Plan, implement, measure and learn (PIML) 92 Notes 98

#### **O8** The context for ERM 99

Changing face of risk management 99
Lessons from the past: Financial and health crises 99
The power of taking risks 101
Managing emerging risks 101
Increasing importance of resilience 103
Note 104

# O9 Setting objectives for ERM 105

Risk management standards and objectives 105 Strategy and objectives in standards 106 Implementing objectives 107 Aligning objectives to risk management principles 108 Notes 109

# PART THREE Assessment and analysis 111

Learning outcomes 111
Further reading 112
Case studies 112

# 10 Assessing risks: Considerations, causes and consequences 115

Importance of risk assessment 115 Approaches to risk assessment 116 Risk assessment techniques 117 Nature of the risk matrix 120 Risk perception 122 Attitude to risk 123

# 11 Classifying risks 127

Risk classification systems 127
Time to impact 128
Examples of risk classification systems 129
FIRM risk scorecard 131
PESTLE risk classification system 133
Compliance, hazard, control and opportunity 136

# 12 Analysing risks: The dimensions of risk 138

Levels of risk 138
Inherent and current level of risk 139
Control confidence 141
4Ts of hazard risk response 142
Risk significance 143
Risk capacity 145
Evaluating risks: Risk appetite 146
Note 147

# 13 Controlling the downside of risk 148

Risk likelihood 148
Risk magnitude 149
Hazard risks 150
Loss prevention 152
Damage limitation 153
Cost containment 153

#### 14 Maximizing the upside of risk 155

Defining the upside 155

Opportunity assessment 157

Riskiness index 159

Upside in strategy 162

Upside in projects/programmes 163

Upside in operations 164

Upside of compliance risks 165

Note 165

# PART FOUR Risk response 167

Learning outcomes 167

Further reading 168

Case studies 168

# 15 Managing and responding to risk 171

The 4Ts of hazard response 171 Strategic risk response 178

#### 16 Risk treatment controls for hazard risks 182

Types of controls 182

Cost of risk controls 189

# 17 Ongoing monitoring and review 193

The importance of monitoring 194

Frequency 195

Process 195

Reporting 196

Responsibility 197

#### 18 Insurance and risk transfer 198

History of insurance 198

Transferring the financial consequences of risk 198

Types of insurance cover 200

Evaluation of insurance needs 201

Purchase of insurance 203

Captive insurance companies 204

#### 19 Surviving shocks and disruption: ERM, BCP and resilience 207

VUCA 207

Business continuity planning and resilience 208

Business continuity planning 208

Business continuity standards 210

Successful business continuity 212

Business impact analysis 214

Resilience, business continuity and ERM 215

Civil emergencies 216

Notes 217

# PART FIVE Organizational environment 219

Learning outcomes 219

Further reading 220

Case studies 220

#### 20 Business and the risk environment 223

Dynamic business models 223

Types of business processes 226

Strategy and tactics 227

Effective and efficient operations 229

Ensuring compliance 230

Reporting performance 231

# 21 The organization's business model, visions and values 233

Components of the business model 233

Risk management and the business model 235

Ethics and corporate governance 236

CSR and risk management 237

Supply chain and ethical trading 239

Importance of reputation 242

Notes 244

# 22 How risk management adds value 246

What is the evidence? 246

Improved performance and key risk indicators 247

The benefits of an ERM approach 248

Climate change as a key risk 251

Becoming more strategic 252

Notes 253

# PART SIX Risk strategy and culture 255

Learning outcomes 255 Further reading 256 Case studies 256

#### 23 Risk architecture and strategy 259

Architecture, strategy and protocols 259
Risk architecture 263
Risk management strategy 263
Risk management protocols 264
Risk management manual 265
Risk management documentation 268

#### 24 Roles, responsibilities and documentation 273

Allocation of responsibilities 273
Range of responsibilities 274
Statutory responsibilities of management 276
Role of the risk manager 278
Risk architecture in practice 280
Risk committees 283

#### 25 Culture and behaviours 286

Styles of risk management 286
Steps to successful risk management 286
Defining risk culture 289
Measuring risk culture 292
Alignment of activities 294
Risk maturity models 296

# 26 Risk appetite and tolerance 299

Nature of risk appetite 299
Risk appetite and the risk matrix 300
Risk and uncertainty 303
Risk exposure and risk capacity 303
Risk appetite statements 306
Risk appetite and lifestyle decisions 309
Note 310

# 27 Risk training and communication 311

Consistent response to risk 311

Risk training and risk culture 312

Risk information and communication 313

Shared risk vocabulary 315

Technology to support risk management process and procedures 316

Risk management information systems 317

#### 28 Risk practitioner competencies 320

Competency frameworks 320

Range of skills 321

Communication skills 323

Relationship skills 326

Analytical skills 327

Management skills 328

# **PART SEVEN** Corporate governance and risk management 331

Learning outcomes 331

Further reading 332

Case studies 332

#### 29 Introducing corporate governance 335

Corporate governance 335

OECD principles of corporate governance 336

Future direction of corporate governance 338

London Stock Exchange corporate governance framework 338

Corporate governance for a financial services organization 340

Corporate governance for a government agency 341

Evaluation of board performance 344

Notes 347

# 30 Stakeholders, ethics and corporate social responsibility 348

Range of stakeholders 348

Stakeholder dialogue 350

Stakeholders and core processes 351

Stakeholders and strategy 353

Stakeholders and tactics 354

Stakeholders and operations 355

Notes 356

# 31 Different approaches to risk management 357

Operational risk management 357 Project risk management 366 Supply chain risk management 375 Note 381

# PART EIGHT Risk assurance and reporting 383

Learning outcomes 383 Further reading 384 Case studies 384

#### **The control environment** 387

Nature of internal control 387
Resilience of the organization in the event of external shock 388
Purpose of internal control 388
Control environment 389
Features of the control environment 392
Expectations of internal control 392
CoCo framework of internal control 393
Good safety culture 395
The future for control processes 396
Note 396

#### 33 Internal audit activities 397

Scope of internal audit 397
Role of internal audit 398
Undertaking an internal audit 399
Risk management and internal audit 401
Management responsibilities 405
Five lines of assurance 405

#### **34** Risk assurance techniques 407

Audit committees 407 Role of risk management 409 Risk assurance 411 Risk management outputs 413 Control risk self-assessment 414 Benefits of risk assurance 415

# 35 Reporting on risk management 416

Risk reporting 416
Sarbanes-Oxley Act of 2002 418
Risk reports by US companies 420
Charities' risk reporting 421
Public sector risk reporting 423
Government report on national security 423
Notes 425

Appendix A: Abbreviations and acronyms 426 Appendix B: Glossary of terms 429 Index 437