

*Intelligent Internal
Control and Risk
Management*

Designing High-Performance Risk
Control Systems

MATTHEW LEITCH

GOWER

Contents

<i>List of Tables</i>	ix
<i>List of Figures</i>	xi
<i>Introduction</i>	xiii

PART I: THE BIGGER PICTURE

1	How Much Improvement is Possible?	3
	Example 1: Sarbanes-Oxley versus Revenue Assurance	3
	Example 2: Bureaucratic controls versus intelligent controls	8
	What this book does and does not provide	11
	How this book is organized	11
2	Risk Management and Internal Control: Poised for Progress	13
	The origins of internal control	13
	The long war with quality management	14
	An opportunity for progress	15
	The origins of risk management	15
	Conceptual differences between risk management traditions	17
	Another opportunity for progress	20
	Internal control and risk management collide	20
3	Integrated Risk Control is Simpler	21
	A mental picture of risk control	21
	Other observations on risk control today	26
4	Goals from People and Behaviour	33
	Guidance from the psychology of risk and control	33
	Cases of uncertainty suppression	36
	The big message for risk control	41

PART II: HIGH VALUE CONTROL MECHANISMS

5	A Summary of Control Patterns for More Value	45
	How to benefit from this collection	45
	Format of presentation	45
	A summary of the ideas	46

6	Controls that Generate Other Controls	49
1	Self-generating control system	49
2	Controls development resource direction	51
3	Controls generation applications	52
4	Double loop design	54
5	Top-down design with schemes	55
6	Post-implementation refinement	56
7	Factor-driven design	57
8	Cause-effect intervention	63
9	Evolving uncertainty lists	68
10	Risk registers	69
11	Matrix mapping of risks and controls	71
12	Process step analysis	74
13	Causal models	79
14	Monte Carlo simulation	82
15	Fault and event tree analysis	85
16	Story-telling about the future	86
17	Generic control design library	88
18	Control patterns	89
19	Process control framework	90
20	Project control framework	92
7	Audits, Reviews and Efficient Monitoring	99
21	Controls supervision hierarchy	100
22	Process management control	101
23	Process stats pack	102
24	Personal comparatives	104
25	Statistical process control	105
26	Risk-factor monitoring	106
27	Healthy conversations about control performance	108
28	Control interview questions	111
29	Reporting with uncertainty	116
30	Explanation first analytics	118
31	Graphical business analytics	119
32	Random fraud audits	121
33	Adaptive audit	122
34	Audit against controls designed	124
35	All evidence audit	125
36	Agile documentation reviews	127
8	Learning and Adapting	131
	An overview of learning and adapting	131
	Qualities of adaptive control systems	134
	Beyond Budgeting cases	136
	Control patterns for management under uncertainty	137

37	Flexible requirements	137
38	Risk weighting	139
39	Flexible agreements	142
40	Flexible plans	143
41	The critical chain method	144
42	Evolutionary project management	145
43	Portfolio management	147
44	Negative feedback control loops	149
45	Accelerated targets	151
46	Reforecasting to completion	153
47	Forecasting with statistical extrapolation	154
9	Protection and Inherent Reliability	157
48	Multi-layered access restriction	157
49	Segregation rules on roles	160
50	Cognitive ergonomics	162
10	Checking and Correcting	165
51	Spreadsheet tightening or replacement	165
52	Computer supported authorizations	167
53	Extended edit checks	168
54	Shift from pre to post	169
55	Recovery/cleansing project	172
56	Discrepancy searching	175
57	Anomaly searching	176
58	End-to-end reconciliation	179
59	Mass correction tool	181
60	Error file reduction by cluster	183
PART III: MAKING GOOD CHANGE HAPPEN		
11	Triggering Good Behaviours	189
	Beyond coercion	189
	Using triggers for pervasive behaviour change	190
	Sources of real-time triggers	192
	Some examples of implementation steps	194
	Implementing REPORTING WITH UNCERTAINTY	194
	Implementing RISK WEIGHTING	196
	Implementing FORECASTING WITH STATISTICAL EXTRAPOLATION	198
	Measurement and motivation	199
12	Personal Education and Assessments	201
	Risk and Uncertainty Management Assessment (RUMA)	201
	What RUMA studies have shown	203
	Applying scenario-based testing and teaching	204

13	Understanding Barriers to Improvement	207
	Low expertise and expectations	207
	Uncertainty suppression	208
	Gridlock	209
	Audit and regulation focus	210
	Weak or undeveloped techniques treated as proven	210
	Unhelpful, limiting ideas	210
14	Key Roles and How Each Can Increase Value from Risk Control	213
	The roles of key players	213
	Senior executives	214
	Senior non-executives	215
	Internal audit managers including the head of internal audit	216
	Line managers	217
	IT managers	218
	Everyone else	219
15	Innovation and the Friendly Expansion Strategy	221
	What to expect	222
	Who will succeed?	223
	Useful techniques	224
	How to sabotage innovative projects	226
	The Friendly Expansion strategy	227
16	Helpful Alternatives to Unhelpful Ideas	229
	Contrasting practices	229
	Six strategies to promote better practices	231
	Common problem areas	236
17	The Seven Frontiers	243
	Frontier 1: More controls design and less audit and remediation	243
	Frontier 2: Corporate risk management getting closer to internal control	243
	Frontier 3: Better quantification	244
	Frontier 4: Behaviour change beyond risk registers	245
	Frontier 5: Risk management that targets psychological factors	245
	Frontier 6: Risk and performance management merging through a causal model	246
	Frontier 7: Technical risk register reforms	246
	Finally	246
	<i>Index</i>	249