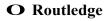
# Managing Technology Entrepreneurship and Innovation

Paul Trott, Dap Hartmann, Patrick van der Duin, Victor Scholten and Roland Ortt



Taylor & Francis Group

## Contents

	List offigures	Х
	List of images	xii
	List of tables	xiii
	Preface	XV
PA	RT I	
Cr	reating the venture	1
1	How entrepreneurship and technological innovation are bound	
	together	3
	Entrepreneurship and innovation 4	
	Defining entrepreneurship 5	
	Overview of studies of entrepreneurship 7	
	Innovation management 10	
	Why the funnel model of innovation is unhelpful 11	
	Innovation as a management process 12	
	The management of innovation requires a new set of skills 12	
	Technological entrepreneurship: A question of context 12	
	A framework for technological entrepreneurship 18	
	Chapter summary 24	
	Study questions 24	
	Notes 24	
	References 24	
	Further reading 21	
2	Visioning the future for a new venture	29
	How entrepreneurs can become visionary 29	
	Building a vision of the future 30	
	Important principles and concepts for looking to the future 38	
	Chapter summary 46	
	Study questions 46	
	References 47	
	Further reading 47	

#### vi Contents

#### 3 Inventive problem-solving and brainstorming

Rope problem 49 Problem-solving 50 Inventive problem-solving 53 TRIZ 51 Brainstorming 62 Chapter summary 65 Study questions 66 References 66 Further reading 66

#### 4 The opportunity and the entrepreneur

When is an idea an opportunity?61Differences in type of opportunity12The cyclic nature of opportunities and the importance of platform ideasOpportunity discovery and recognition14Idea or opportunity?11Chapter summary89Study questions89References89Further reading91

#### PART II Developing the venture

#### 5 Developing a business model

What is a business model? 91 The business model and the business plan 98 The range of business models 100 The parts of the business model 101 Considerations in designing a business model 104 Intellectual property is an asset 106 The licensing business model 101 Income from licensing 108 Marketing issues related to the licensing model 108 Financial and strategic implications 110 Costs and benefits of the licensing model 110 Other strategic uses of licensing 111 Negotiating a licensing deal 111 Chapter summary 116 Study questions 116 References 116 Further reading 111

#### 6 Innovation systems: Embedding the entrepreneur

Introduction 119 The CIM, Level 1: Innovating for the future 122 The CIM, Level 2: A network of actors 123 Detecting innovation system failures using CIM 127 The development of innovation systems applied to CIM 136 Concluding remarks 140 Chapter summary 141 Study questions 141 Note 141 References 141 Further reading 142

#### 7 Academic spin-outs

What is an academic spin-out? 143 Reason academic start-ups can exist 145 Economic value of academic start-ups 146 Research on academic start-ups 147 Stakeholders in academic start-up success 148 Success indicators 149 The entrepreneurial ecosystem 152 Support programmes for academic spin-outs 155 Technology transfer offices and incubation 155 Business incubation and support 156 The benefit of start-up support 157 Added value of support 159 Rebound effects of support 160 Chapter summary 161 162 Study questions Notes 162 References 162 Further reading 163

#### 8 Lead users for market entry

Successful products 165 Diffusion of innovations 166 Customer segments 170 Crossing the chasm 173 Sources of innovation 175 Lead users 175 Chapter summary 181 Study questions 181 Notes 182 References 182

#### PART III

#### Managing the entrepreneurial firm

#### 9 Niche strategies Introduction 185 Some empirical findings on niches in the adaptation phase 188 Niche strategies to introduce high-tech products in specific market situations 190 Specific niche strategies 192 Discussion 196 Chapter summary 196 Study questions 196

References 197

#### 10 Entrepreneurship in context

Introduction 199 A short introduction to management 200 Why success factors are not successful 203 Contingency and contextual innovation management 205 A contextual approach to innovation management 208 Closing remarks 213 Chapter summary 213 Study questions 213 Notes 214 References 214 Further reading 214

#### 11 Developing new products in the new venture

Product development as a series of decisions 216 Marketing's role in NPD 216 Using the customer to develop new products 217 A firm's capabilities, networks and product platforms 217 Opportunities in the competitive environment 221 Differentiating and positioning the product /service 222 Competing with other products 224 Managing the development of new products 225 New products as projects 227 The link with the product innovation process 227 The effect of R&D investment on products 229 Evaluating R&D projects 230 Chapter summary 231 Study questions 231 References 234 Further reading 235

183

185

199

### 12 Expectations of entrepreneurs and patterns of growth

Introduction251The mainstream pattern of development and diffusion239The pattern reconsidered240What happens in the adaptation phase?244Implications of the pattern for entrepreneurs244Discussion247Chapter summary247Study questions248References249

Index