

The London School of Economics and Political Science

*Constructing Entrepreneurial Markets for Innovations:
The Emergence of e-Commerce Entrepreneurship
in the South of England*

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Thesis submitted for the degree of Doctor of Philosophy

March 2015

Declaration

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Abstract

This thesis examines how the disruptive innovation of e-commerce took hold among small retailers in the South of England in the first decade of the 21st century. It describes empirically how a regional business-to-business market—providing e-commerce business services (EBS) to retail start-ups and small firms—emerged and operated, and how the goods traded in this market were evaluated. This market can be defined as an *entrepreneurial market for an innovation* because the market goods (EBS) constitute an innovation to be adopted by micro-enterprises as means of production to enable them to retail their own goods online to consumers.

The study investigates two practical problems that concern the construction and operation of entrepreneurial markets for innovations: 1) how small firms as buyers of productive means evaluate complex, intangible market goods (such as EBS), given their lack of resources for conducting such evaluations; and 2) how policy makers and market makers address the market failure that is perceived to hinder the emergence of entrepreneurial markets. At the same time, this research also addresses the theoretical issues of how to define entrepreneurship, innovation, and markets and how to conceptualise the relationships between them, by empirically tracing and articulating the connections between the activities, objects, and places that constitute these phenomena.

Actor-network theory (ANT) was utilised as a research approach to study an e-commerce community across two English counties, using ethnographic methods to collect data via participant observation, interviews, and documents between 2006 and 2010. ANT's material-semiotic method was deployed to trace the emergence, transformations, and workings of the socio-material network of institutions, policies, and technical artefacts that have enabled the functioning of this regional entrepreneurial market for EBS. Industry events such seminars, workshops, and conferences emerged as important marketplaces for establishing—through various trials—the qualities of buyers, sellers, and the EBS.

Dedication

Doktori disszertációm sok szeretettel dedikálom

Erdélyi Jolikának és Mag Jolánnak



Erdélyi János és Mag István emlékére

Acknowledgements

This study's main point about enterprises and innovations being collectively constructed through trials also applies to the genesis of this dissertation and this researcher. Numerous people and institutions have contributed to this project and graciously offered me opportunities to form and test my arguments. I would like to express my sincere thanks to them all for their support, and apologise to those whom I may have unwittingly omitted below.

Firstly I would like to thank the anonymised participants of this research, the enterprising men and women who so generously allowed me into their businesses and their lives, often over the course of several years, and shared their stories and daily realities with me.

I am most grateful to my supervisor, Edgar Whitley, for his unwavering support and guidance throughout, and my second supervisor, Nathalie Mitev, for her helpful feedback.

My heartfelt thanks go to my family, for their love, patience, encouragement, support and sacrifices. Tammy, Beatrice, Flor and Yiming Lu, Jolika, Róbert and Monika Erdélyi, Jolán Mag, Dezső Ferencz, Erzsébet Demecs, Judit and Zoltán Gyetvai, and the Deme family: Thank you! Köszönöm! I dedicate this work to my mother, grandmother, late father and grandfather, who set me on the path of university education. The late Dezső (Desiderio) Demecs, with his two PhDs and adventurous life, was also an inspiration.

I would like to express my gratitude to the staff and PhD students of the Information Systems and Innovation Group at the LSE, for the stimulating debates that make the place such an extraordinary learning environment and from which this project has benefited so much. I would specifically like to thank Chrisanthi Avgerou, Tony Cornford, Mike Cushman, Giovan Francesco Lanzara, Jonathan Liebenau, Shirin Madon, Attila Marton, Roser Pujadas, Susan Scott, Maha Shaikh, Carsten Sørensen, Will Venters, and Leslie Willcocks for their invaluable suggestions, feedback and support otherwise.

I am grateful to Jannis Kallinikos for spurring me on to explore the relationship between Heideggerian phenomenology and actor-network theory. A big "thank you" goes to my fellow members of the ANTHEM reading group, especially to Aleksí Aaltonen, Ofer Engel and Wifak Gueddana, for the enlightening debates and enjoyable collaborations.

I am deeply indebted to Graham Harman and Bruno Latour for—besides many other things—their generosity in sharing their thought-provoking exchanges with me and my

colleagues, especially at the fascinating "Harman Review" event at the LSE on 5 February 2008.

During my explorations of actor-network theory and (economic) sociology, I also had the good fortune of benefiting from inspiring encounters and discussions with Daniel Beunza, Michel Callon, Endre Dányi, Will Davies, Joe Deville, Matthew Gill, Martin Giraudeau, Monika Krause, John Law, Noortje Marres, Yuval Millo, Fabian Muniesa, Nikiforos Panourgias, and Zsuzsanna Vargha, for which I am ever so grateful. I treasure the friendships that developed in the course of this research journey.

I would also like to thank my old friends, especially Monika and Ottó Bolyós, Carlota Caulfield, Sándor Fehér, Matthew Gobey, Christopher Koenigsberg, María Jesús Lara Ferreiro, Krisztina and Péter Lugosi, Csilla and Péter Mészáros, Richard Sanford, and David Summer, and my former teachers, especially Joanne Bergman, Éva Hahnné Duray, Christopher Fynsk, Bridget Gersten, Francisco Iniesta Pujante, Gyula Kríž, Márta and Béla László, the late Anna Mihály, the late Edith Leighton, the late Irén Lőrincz, the late Mária Malíková, Marilyn Chandler McEntyre, Richard Pindell, Eva Preložníková, Juan Roure, William Spanos, and Thomas Strychacz, for their many acts of kindness, inspiration and encouragement over the years.

This research would not have been possible without the material and moral support of my current and former colleagues at Bournemouth University. I am particularly grateful for the kind assistance of Julie Robson, Colin Armistead, Charlie Wilkinson, Gelareh Roushan, George Downie, Rhona Johnsen, the late John Ellis, and Christos Apostolakis. I gratefully acknowledge the financial support of the Business School at Bournemouth University.

I would like to thank both anonymised and named copyright holders for their permission to use their materials in this thesis, as acknowledged in the captions of the relevant figures.

Table of Contents

Declaration.....	2
Abstract.....	3
Dedication.....	4
Acknowledgements.....	5
Table of Contents.....	7
Figures	13
Tables.....	15
Glossary	16
Chapter 1: Introduction	17
PART I: Situating the research project	22
Chapter 2: Rationalist approaches to entrepreneurship, innovation, and markets	23
2.1. Schumpeter’s theory of entrepreneurship as innovation	24
2.1.1. Four concepts of entrepreneurship across two dimensions.....	24
2.1.2. The entrepreneur as constructor and mediator.....	27
2.1.3. Social theory dilemmas ignored.....	28
2.2. Kirzner’s theory of entrepreneurship as market arbitrage	29
2.2.1. Kirzner vs. Schumpeter.....	29
2.2.2. Kirzner's contributions and limitations	30
2.3. Burt’s social network theory of entrepreneurship	32
2.3.1. Bridging structural holes in a social network	32
2.3.2. Addressing social theory dilemmas	33
2.4. Conclusion	34
2.4.1. Contributions, controversies and gaps	34
2.4.2. Pointers for the present research	37
Chapter 3: Empiricist approaches to entrepreneurship, innovation, and markets	39

3.1. Entrepreneurship as heterogeneous assembling	41
3.1.1. Heterogeneous networks and translation	41
3.2. Innovation as a network of translations	43
3.3. Markets as calculative social devices	44
3.3.1. Markets as socio-technical agencements	45
3.3.2. Markets as sites of experimentation.....	49
3.3.3. Qualification as a market process	50
3.4. Conclusion	53
Chapter 4: Actor-Network Theory as research philosophy and method.....	56
4.1. ANT as empirical metaphysics	58
4.2. ANT's methodological procedure	60
4.2.1. Analysis: making deployment visible (1)	62
4.2.2. Synthesis: composing an account and a world (2).....	76
4.3. Conclusion	78
Chapter 5: Research strategy and implementation: ethnographic sensibilities.....	80
5.1. Ethnographic strategy	80
5.1.1. Developing the research question	81
5.2. Questions of knowledge	82
5.3. Location	82
5.4. Access	84
5.5. Field relations and participating	85
5.6. Ethnographic time.....	86
5.7. Observing.....	87
5.7.1. What to observe	87
5.7.2. How to observe	88
5.7.3. Observation data	88
5.8. Supplementing	90

5.8.1. Interviews.....	90
5.8.2. Documents	94
5.9. Exits	95
5.10. Ethics	96
5.10.1. Informed consent	96
5.10.2. Confidentiality	97
5.10.3. Conflicts of interest.....	98
5.11. Analysis and writing	99
5.11.1. During field work.....	99
5.11.2. After field work.....	100
5.11.3. During writing up.....	108
5.12. Conclusion	108
PART II: The emergence and workings of a regional e-commerce market.....	110
Introduction to the empirical chapters	110
Chapter 6: Constructing entrepreneurial markets: birth of a seminar and a government	
intervention	113
6.1. Assembling and formatting a Business Link seminar	114
6.1.1. Gathering things: enrolling participants.....	116
6.1.2. Constructing artefacts and formatting the event	117
6.1.3. Objective: getting a handle on e-commerce.....	123
6.2. Framing things rhetorically.....	124
6.2.1. Framing a marketplace as an educational event	124
6.2.2. Framing e-commerce as an emergency and exigency	125
6.3. Infrastructural framing.....	128
6.3.1. The framing of Business Link.....	129
6.3.2. Market intervention: anxieties and controversies	131
6.3.3. The case for Business Link: micro-macro competitiveness	133

6.3.4. Labour’s re-framing of Business Link.....	136
6.4. Conclusion.....	138
Chapter 7: Breaking and displacing Business Link’s market devices: the seminar as marketplace.....	142
7.1. ‘Fixing’ Business Link: consequences of Labour’s policies.....	143
7.1.1. ‘Targetitis’.....	143
7.1.2. ‘Mere signposting’.....	144
7.1.3. Irrelevant referrals.....	145
7.2. Business Link’s market devices.....	149
7.2.1. Market-making devices.....	149
7.2.2. Seminars as market devices.....	152
7.3. Actualising the Business Link event.....	158
7.3.1. Frames and formats doing their work.....	158
7.3.2. Qualification, articulation and particularisation.....	160
7.3.3. A neutral ‘knowledge economy’ marketplace.....	162
7.4. Conclusion.....	164
7.5. Epilogue.....	166
Chapter 8: The making and make-up of a market maker: Compass Ltd. and Simon Jacobs	168
8.1. Compass Ltd.’s ‘intrapreneurial’ origins at BLS.....	169
8.2. Tracing the making and make-up of Compass Ltd.....	172
8.2.1. Compass Ltd.’s activities and constituents.....	175
8.2.2. Abandoning e-commerce: the end of Compass Ltd.....	184
8.3. Jacobs’s database-related competences.....	186
8.4. Conclusion.....	189
Chapter 9: Internal qualification trials: The firm as a business market device.....	192
9.1. Meeting Mandoline and WebTech at Downshire e-Tailers’ Group.....	192
9.2. Mandoline’s assemblage.....	197

9.3. Mandoline’s e-commerce assemblage as a consumer market device.....	204
9.4. Mandoline’s internal qualification trials.....	211
9.4.1. Marketising the e-commerce artefact.....	211
9.4.2. Trials and errors of finding an SEO provider	215
9.5. Mandoline’s marketised e-commerce assemblage	223
9.5.1. Stabilising the innovation through marketisation	223
9.5.2. Entrepreneurship and innovation ‘diffusion/adoption’ as market processes	223
9.6. Firm as business market device for internal qualification trials	225
9.7. Conclusion	227
9.7.1. Typologies of market devices, trials, and referrals	227
9.7.2. Stages of the e-commerce adoption process	228
9.7.3. The novelty of e-commerce as an innovation	228
9.7.4. The preference for external qualification trials.....	229
Chapter 10: External qualification trials: e-Tailers’ Groups as business market devices.....	231
10.1. The Compass e-Tailers’ Group meeting format	233
10.2. The e-Tailers’ Group as a marketplace for Mandoline.....	239
10.2.1. Direct market exchanges: the eBay experiment.....	239
10.2.2. Confirming/disconfirming the value of existing elements.....	240
10.2.3. Exposing gaps in the assemblage and articulating market demand.....	241
10.2.4. Network for producing qualified referrals and mediating market supply...242	
10.2.5. Acquiring new means of production.....	242
10.3. Trials and tests: Simon Jacobs’s market making competences	243
10.4. Conclusion	248
Chapter 11: External qualification trials: e-Tailers’ Dens as business market devices	250
11.1. The e-Tailers’ Den format	250
11.1.1. BBC Two’s Dragons’ Den: the format and its impact.....	251
11.1.2. Compass’s adoption of the Dragons’ Den format.....	256

11.1.3. The e-Tailers’ Den assemblage.....	264
11.2. The e-Tailers’ Den setup and protocol: Mandoline’s trial.....	268
11.3. Creating a neutral space for a marketplace.....	273
11.4. Conclusion.....	276
Chapter 12: Conclusions: reassembling the digital economy.....	278
12.1. Composition: recounting translations.....	279
12.1.1. Disruptions breeding innovations for stability.....	280
12.1.2. e-sociations: new types of economic associations.....	283
12.1.3. Business market devices and qualification trials.....	285
12.2. Typology of market devices, qualification trials, and their outputs.....	289
12.2.1. Comparing and contrasting Compass Ltd.'s market devices.....	289
12.2.2. Classification of market devices, interactions, and outcomes.....	291
12.2.3. Market devices as judgment devices.....	295
12.3. Market neutrality and gift giving.....	295
12.4. An economy of e-sociations, market devices, tests, and gifts.....	296
12.5. Political epistemology.....	298
References.....	302

Figures

- Figure 2.1: Schumpeter's complex definition of entrepreneurship
- Figure 4.1: The key stages and operations of the ANT method
- Figure 5.1: Participant observation events and interviews timeline
- Figure 5.2: An example of a rich picture - Mandoline's heterogeneous assemblage
- Figure 5.3: Network view of analysed empirical data in ConnectedText's Navigator tool
- Figure 5.4: The 'abstraction-by-extraction engine'
- Figure II.1: Visual guide to empirical chapters 6 to 11
- Figure 6.1: Programme of 12/12 seminar (anonymised)
- Figure 6.2: Front cover of Business Link folder
- Figure 6.3: Back cover of Business Link folder
- Figure 6.4: "e-Marketing Workshop" handout
- Figure 6.5: Slide 5 from DigitAll Ltd.'s PowerPoint presentation
- Figure 6.6: Slide 10 from DigitAll Ltd.'s PowerPoint presentation
- Figure 6.7: Slide 19 from DigitAll Ltd.'s PowerPoint presentation
- Figure 6.8: Slide 21 from DigitAll Ltd.'s PowerPoint presentation
- Figure 7.1: Report from Simon Jacobs's bCentral email marketing database
- Figure 7.2: Keatts House, headquarters of Business Link South in Trumpton
- Figure 7.3: Slide 9 from DigitAll Ltd.'s PowerPoint presentation
- Figure 8.1: A rich picture of Compass Ltd.'s assemblage as of July 2008
- Figure 8.2: Original rich picture created with Simon Jacobs on 25 July 2008
- Figure 9.1: Knife Shop website (as of 2 December 2009)
- Figure 9.2: Mandoline's home page (as of 30 June 2009)
- Figure 9.3: Home page of WebTech (as of 27 November 2009)
- Figure 9.4: An e-tailer contestant's presentation at Heat 4 of e-Tailers' Den on 17 July 2007
- Figure 9.5: Swan Lane with a view of Mandoline (first shop on the right)
- Figure 9.6: A section of Mandoline's ground floor sales area
- Figure 9.7: Mandoline's first floor show room
- Figure 9.8: Mandoline's office
- Figure 9.9: Mandoline's stock room
- Figure 9.10: Mandoline's left shop window
- Figure 9.11: A rich picture of Mandoline's assemblage prior to e-commerce adoption
- Figure 9.12: Peppermill website (as of 2 December 2009)
- Figure 9.13: The homepage of Mandoline's back-end (as of 30 June 2009)
- Figure 9.14: Sage Pay (Protx) - Mandoline's e-payments provider (as of 30 June 2009)
- Figure 9.15: Sage Pay (Protx) Fraud Results (as of 30 June 2009)

- Figure 9.16: A rich picture of Mandoline's multi-channel assemblage
- Figure 9.17: An example of Google AdWords advertising for "Global Knives" keyword
- Figure 9.18: Google Analytics Dashboard example for an online retailer
- Figure 9.19: Website of FindAs (as of 11 November 2011)
- Figure 9.20: Google's Shopping price comparison site (formerly Froogle)
- Figure 9.21: Example of a Kelkoo search result (as of 25 February 2012)
- Figure 9.22: Kelkoo feed options integrated into Mandoline's back-office
- Figure 9.23: A section from FindAs's digital marketing report for Mandoline, Quarter 3, 2008
- Figure 9.24: Mandoline's marketised assemblage
- Figure 10.1: Midsomer e-Tailers' Group meeting in a classroom at Southern University on 19 March 2008
- Figure 10.2: Downshire e-Tailers' Group's meeting room at Enterprise House, Akenfield
- Figure 11.1: Screenshot of BBC Two's Dragons' Den programme website
- Figure 11.2: The layout of a typical contestant presentation, with the dragons observing
- Figure 11.3: Front cover of *Business Startup Show Guide* with Levi Roots, former Dragons' Den contestant
- Figure 11.4: A presenter at Heat 2 of the 9 July 2008 Coach Live! event, with screen and panel members in the background
- Figure 11.5: Dinner break at Heat 2 of the 9 July 2008 Coach Live! event
- Figure 11.6: An audience member contributing at a Compass e-Tailers' Den event at Southern University in 2008
- Figure 11.7: Audience vote for their favourite presentation at a Compass e-Tailers' Den event at Southern University in 2008
- Figure 11.8: Winner of Heat 4 of Series 2 Compass e-Tailers' Den receives prize from sponsor at Southern University on 3 July 2008
- Figure 11.9: Owner-manager of Pool Supplies Ltd. receives panellist feedback at Heat 1 of Series 2 Compass e-Tailers' Den at Southern University on 3 April 2008
- Figure 11.10: Masterclasses held in the dinner break at the Compass e-Tailers' Den at Southern University on 15 May 2008
- Figure 11.11: Screenshot of the "Education Programme" page at the 2011 Internet World trade show website
- Figure 11.12: Screenshot of local TV broadcast with reporter standing in front of the Business Link stand at Heat 4 of the Compass e-Tailers' Den Series 2 at Southern University on 3 July 2008
- Figure 11.13: Rich picture of the constituents of Compass Ltd.'s e-Tailers' Den service
- Figure 12.1: Constructing a consumer market device for e-commerce
- Figure 12.2: Business market devices for EBS: internal vs. external qualification trials

Tables

- Table 5.1: Combined list of observation events, sites, and interviews (all names anonymised)
- Table 5.2: List of interviewees and interviews
- Table 12.1: Classification of market devices, qualification trials, and outputs and outcomes
- Table 12.2: Thesis overview: summary of research questions, answers, literatures, method and contributions

Glossary

12/12 event	12 December 2006 Business Link South* seminar
AA	Alcoholics Anonymous
ANT	actor-network theory
B2B	business-to-business
BERR	Department for Business Enterprise & Regulatory Reform
BIS	Department for Business, Innovation & Skills
BL	Business Link
BLO	Business Link Operator
BLS	Business Link South*
BSP	Business South Partnership*
BSSP	Business Support Simplification Programme
DTI	Department of Trade and Industry
EBS	e-commerce business services
GP	General Practitioner
GTI	Growth Through Innovation
ICT	Information and Communication Technology
IDB	Information, Diagnostic and Brokerage
MCoC	Midsomer Chamber of Commerce*
MD	Managing Director
NHS	National Health Service
PBA	Personal Business Advisor
PR	public relations
quango	quasi-independent non-governmental organisation
RDA	Regional Development Agency
SBS	Small Business Service
SEO	search engine optimisation
SME	small and medium-sized enterprise
SMS	Supplier Matching Service
SORDA	Southern RDA*
URL	uniform resource locator
UK	United Kingdom
VAT	Value Added Tax
W-CAS	WebTech Content Administration System*

* Names of persons, organisations, and locations marked by an asterisk when first mentioned have been anonymised to preserve confidentiality

Chapter 1: Introduction

Napoléon Bonaparte, thought to be citing Adam Smith's (1776) *The Wealth of Nations*, once reportedly described England as "a nation of shopkeepers" (Jay 2012). In this study I trace the history and emergence of a new breed of shopkeepers, *online retail entrepreneurs*, in the South of England in the first decade of the 21st century, during which time the share of online sales grew to over 10 per cent of total retail sales in the United Kingdom, and the UK had become the largest e-commerce market in Europe (Centre for Retail Research 2015). Broadly speaking, this is a qualitative study of the adoption of a technological innovation, that of e-commerce, by retail micro-enterprises and e-tail start-ups, as it unfolded in a community of small businesses in an economic, historical, and geographical region marked by the boundaries of two neighbouring Southern English counties.

Studies of e-commerce adoption tend to approach this problem area by developing and testing propositions about the factors suspected to affect the propensity to adopt this new technology either by retail firms (e.g. Chatterjee, Grewal et al. 2002; Zhu, Kraemer et al. 2003) or by consumers (e.g. McKnight, Choudhury et al. 2002; Pavlou and Fygenson 2006). In this research I decided to take a different path. By adopting a qualitative sociological research approach using ethnographic methods, I shadowed a group of e-tail entrepreneurs in the course of their e-commerce adoption over four years between December 2006 and January 2011. This allowed me to trace their interactions with what turned out to be various types of marketplaces, from where they had acquired the e-commerce technologies and the business service relationships (which I will refer to collectively as e-commerce business services - EBS) that were needed to construct and maintain them. Therefore, this study is simultaneously a story of e-commerce adoption and a story of *entrepreneurial markets for e-commerce*.

I am using the term "entrepreneurial market" to denote a very specific type of business-to-business market or marketplace where entrepreneurs go to acquire the productive means (capital goods) necessary to construct their firms. This terminology implies Joseph A. Schumpeter's (1983 [1934]) definition of entrepreneurship, as the creation of new combinations of productive means (labour and land). However, by a "new combination" Schumpeter also meant an innovation, which raises the question of whether the owner-managers of e-tail start-ups and retail micro-enterprises that had frequented these

‘entrepreneurial’ marketplaces were genuine entrepreneurs, or, as Schumpeter’s theory would suggest, ‘mere repeaters’ of the original innovation—in this case e-commerce—that they were acquiring as their means of production at these venues. The qualitative empirical data about the goings-on at these marketplaces for an innovation offers an opportunity to examine and attempt to resolve some of the core controversies of entrepreneurship and innovation studies regarding their foundational concepts and the relationships between them, while also building some bridges with the emerging disciplines of market and valuation studies. I will review these literatures and identify the relevant theoretical debates in Chapters 2 and 3.

However, the empirical objects of this investigation (e-tail start-ups and micro-enterprises, the innovation of e-commerce, and entrepreneurial markets for EBS) were not only sites and occasions for settling academic disputes but also the subjects of long-standing and ongoing political anxieties and controversies. At the time of the first appearance of e-commerce in the UK at the turn of the millennium, policymakers across the UK and EU were broadly in agreement about the important contribution start-ups, micro-, small and medium-sized enterprises (SMEs) make to their economies (as their share of GDP and employment). Helping the faster adoption of information and communication technologies (ICTs)—especially e-commerce—by SMEs was a cornerstone of UK and EU policy, in pursuit of turning their economies into ‘information societies’ and ‘knowledge-based economies’, as a way to maintain competitiveness both at the firm and the national level, in response to the threat posed by increasing globalisation and the proliferation of new technologies (EU 2000b, 2000a; DTI 2001; EU 2003).

Indeed, as early as 1992, John Major’s Conservative government had acknowledged the need for government intervention to assist SMEs, in order to overcome a perceived market failure that prevented them from adopting new management practices and technological innovations, and the UK from becoming a competitive ‘knowledge economy’ (DTI 1994, 1995). Subsequently, in 1993 it began to roll out a national business support network that in England was called Business Link, and which for the next 18 years had become a public-sector provider of the types of entrepreneurial marketplaces to which I accompanied the e-tail entrepreneurs I was studying. Despite the support of both the Conservative Major government and the Labour governments that followed it for the next 13 years, Business Link’s status as a taxpayer funded quasi-governmental agency intervening in the business services market was a source of ongoing political controversy among people, organisations and elements of the press that were against it for ideological reasons, or because they perceived it as a competitor, or because they found it ineffectual. The Business

Link network was eventually abolished, during the course of this research, by David Cameron's Conservative-led coalition government in 2011, as part of the measures to cut the budget deficit left behind by the 2008 global financial crisis, but also as a response to the aforementioned criticisms.

As Business Link turned out to be an important provider of entrepreneurial marketplaces for the innovation of e-commerce for the entrepreneurs I studied, its regional branch and its market making activities—as well as the market failure it was created to address—had themselves become objects and occasions of empirical study for the current research. Besides providing an account of the emergence of e-commerce and entrepreneurial markets in the South of England, I will also trace the history, emergence, and demise of Business Link in Chapters 6 and 7, as a grand government intervention that could be considered an innovation in its own right. But Business Link was not the only market maker in the entrepreneurial arena. In Chapters 9, 10 and 11, I will describe the operations and services of a private sector entrepreneurial market maker for e-commerce, Compass Ltd.* Chapter 8 is a close examination of an e-tail micro-enterprise, Mandoline Cookshop Group* (a client of both Business Link and Compass Ltd.), the e-commerce adoption process of which I followed the closest.

By way of the empirical descriptions in Chapters 6 through 11, I seek answers to two sets of research questions: one concerning the practical aspects of entrepreneurial markets for e-commerce, the other the theoretical controversies that the empirical material also provides an opportunity to address. The practical research question goes like this: *How did entrepreneurial markets for e-commerce emerge and function in Southern England in the first decade of the 21st century?* The period in the question covers the time between the first appearance of e-commerce websites and entrepreneurial markets for them in the two counties at the end of the 1990s, and the general acceptance of e-commerce as an established retail channel, which also happened to be marked by the closure of Business Link and Compass Ltd., and the sale of Mandoline.

This question can be also considered as a specific version of a more general formulation: *How do entrepreneurial markets for innovations emerge and operate in developed economies such as the UK?* I call this set of questions 'practical' because they concern the practices and tools that are involved in performing the activities of entrepreneurship, innovation and markets. By pursuing these questions I aim to make a contribution to the marketisation research agenda set out by Çalışkan and Callon (2010), as part of the broader pragmatically inspired market studies research programme (Callon, Millo

et al. 2007) to describe how specific markets are constructed and performed, and study their effects.

As for the ‘theoretical’ set of research questions, those concern a number of interrelated controversies emerging at the intersection of entrepreneurship, innovation and market studies, which all have to do with the ways in which their core concepts—*entrepreneurship*, *innovation*, and *markets*— have been defined in relation to, and in contrast to, each other. These questions are also ‘theoretical’ in the sense that they emerge from deductively constructed economic and sociological theories, which I will call *rationalist* approaches, to distinguish them from *empiricist* approaches, such as the above-mentioned neo-pragmatist research agenda in market studies. The key theoretical controversies that will be of interest here include 1) Schumpeter’s conflation of entrepreneurship with innovation, and the consequences of this stance on the role of adopters of innovation; 2) the debate between Schumpeter and Israel M. Kirzner about whether entrepreneurship (and innovation) are the cause or the resolution of disequilibrium in the market; and 3) Ronald S. Burt’s social theory network of entrepreneurship, which articulates the concept of the *network* (that is only implied in Schumpeter’s and Kirzner’s theories) as a metaphor for the role and nature of the market (although it does not engage with the problem of new venture creation directly).

I will develop the above theoretical problems arising from rationalist approaches further in Chapter 2. In Chapter 3, I will examine them in light of the findings of empiricist approaches to the nexus of entrepreneurship, innovation, and markets, and argue that the empiricist use of notion of the network—both as a method and as a metaphor—can resolve some of the controversies of the rationalist literature and offer a way to examine empirically the ones that remain outstanding. I will also identify opportunities for making some contributions to the empiricist literature by way of this study. In Chapter 4 I will present my interpretation of actor-network theory, the research philosophy and method I adopted and adapted from the empiricist literature of Science and Technology Studies (STS). In Chapter 5 I further specify my research strategy and describe how it was implemented for empirical data collection, analysis and synthesis.

Following the presentation of my empirical description in Chapters 6 through 11 (a visual guide to which is available in Figure II.1), I will summarise my research findings and the answers to the above research questions in Chapter 12. Here I should point out that throughout this study the term “description” in reference to the empirical discussion is used in a highly specific sense, as a term and method that arises from actor-network theory. A good (for instance, ethnographic) description in the ANT sense already implies a process of

analysis, evaluation, synthesis and explanation. As Bruno Latour (2005: 137) puts it, “If a description remains in need of an explanation, it means that it is a bad description.” The particular philosophy of truth and causation behind this methodological stance will be discussed in Chapter 4.

Let me end this introductory section on a personal note, explaining the reasons for my interest in the nexus of entrepreneurship, innovation and markets. I was born and spent the first 20 years of my life in communist Czechoslovakia, where private sector entrepreneurship was illegal, which made tales about the innovations of my late entrepreneurial grandfather, whose small business was expropriated by the communists and whom I never got to meet, ever so exotic. Also, I was fortunate to experience the Velvet Revolution of 1989 first hand as a university student at the time, and observe the exuberant flowering of entrepreneurship with the introduction of the market economy (which nonetheless subsided, once a measure of realism and competition kicked in). Since then I have had the opportunity to observe small business entrepreneurship in several market economies, from the USA, to Taiwan, Spain, and most recently the UK; but some of its exoticism has persisted and provided me with inspiration to make my very own description of it for the present study.

PART I: Situating the research project

The first half of the dissertation comprises four chapters (Chapters 2 to 5) that situate this research project— especially the questions it asks and the way it goes about answering them— in relation to relevant academic literatures. Chapters 2 and 3 review how the relationships between entrepreneurship, innovation and markets have been conceptualised and studied by two different methodological traditions: rationalist and empiricist approaches, respectively.

In Chapter 2 I will focus on the foundational works of Joseph A. Schumpeter, Israel M. Kirzner, and Ronald S. Burt, in order to identify their contributions to and differences in understanding the aforementioned phenomena and the relationships between them. I will also highlight key conceptual controversies arising from these rationalist approaches, as well as some relevant limitations and gaps that result from their philosophical assumptions and methodological implementations.

In chapter 3 I will review empiricist approaches to this area, which have come mainly from literatures inspired by Science and Technology Studies (STS) and using sociological and anthropological methods. I will compare and contrast the findings of empiricist studies with those of the rationalist theories and identify both areas of compatibility—to make the most of the conceptual tools that these two traditions offer for the purposes of the present study—and opportunities for making contributions to ongoing controversies and unanswered questions of note.

In Chapter 4 I will present my interpretation of actor-network theory (ANT), the research philosophy and method I have chosen for conducting this study, which was developed by researchers who had contributed to empiricist studies of innovation, entrepreneurship and markets that I have reviewed in Chapter 3. Chapter 5 provides a description and justification of my methodological decisions, showing how I deployed ANT by using ethnographic methods.

Chapter 2: Rationalist approaches to entrepreneurship, innovation, and markets

In this chapter I will review the literature that uses rationalist approaches to the study of the problem area defined by the confluence of entrepreneurship, innovation, and markets. By "rationalism" I mean research methodologies that approach the task of theory development as a process of deduction from intuition, in contrast to empiricist approaches, which consider sense experience as the primary source of knowledge and prefer to develop theory via induction from empirical data (Markie 2013). I will review empiricist approaches in the next chapter. As we will see, these two distinct philosophical approaches tend to focus on different issues and their findings vary significantly, although to some extent they are also complementary. The main questions this chapter seeks to answer are the following: What conceptual and methodological tools do rationalist approaches offer for the study of the relationships between entrepreneurship, innovation, and markets? At the same time I will also highlight the relevant theoretical and methodological controversies that rationalist studies gave rise to, and I will also identify any omissions and blind spots. I will pay particular attention to how the role of the entrepreneurial activity of acquiring productive means has been considered by these theories from the perspectives of the new enterprise and its supply markets, and within the context of innovation diffusion and adoption.

I will focus on the work of three scholars who have made the most original and influential contributions in this area. First, I will review the theories of Joseph A. Schumpeter (1983 [1934]) and Israel M. Kirzner (1973), as well as the debate between them. The disagreement concerns, among others, the source and nature of entrepreneurial agency, the relationship between entrepreneurship and innovation, and the role of markets in this relationship. Then I will review Ronald S. Burt's (1995) theory of structural holes, which can be read as a form of synthesis between Schumpeter's and Kirzner's theories, as it resolves some of their disagreements and contributes to both of their findings. Burt's theory does this mainly by bringing the concept of the *network* to the fore, which is only implicit in the works of the other two.

I will suggest that the main contribution of rationalist theories lies in articulating some key concepts with which the debate about the phenomena concerned can be delineated and conducted. At the same time, their deductivist methodologies have also resulted in a number

of blind spots concerning the enterprise-innovation-market juncture. The lack of direct empirical observation of emergent phenomena has led to a neglect of their contingent, material and practical aspects, with most of the attention having been paid to the activities—and especially the cognitive competences—of human actors instead.

2.1. Schumpeter's theory of entrepreneurship as innovation

2.1.1. Four concepts of entrepreneurship across two dimensions

One of Schumpeter's main contributions to entrepreneurship theory is the rich set of concepts he offers for the characterisation of the nature of entrepreneurship and innovation, engaging with both economic theory and economic sociology. However, not all of these concepts have been articulated with the same clarity in his work: some are explicitly stated, others merely implied. The occasional and casual conflation of a number of different—and even conflicting—meanings of entrepreneurship in Schumpeter's work has had a profound effect on the shape of post-Schumpeterian scholarship, whether in economics, economic sociology, or in entrepreneurship studies. It gave rise to research traditions that hold contradictory views on the nature of entrepreneurship. For instance, for the economics literature on technological change (Cohen 2010) and the evolutionary theory of the firm (Nelson and Winter 1982), Schumpeterian entrepreneurship stands for the "impersonal function" of innovation. For the sociological and psychological studies of entrepreneurial traits and cognition (McClelland 1961; De Vries 1977; Grégoire, Corbett et al. 2011), entrepreneurship is distinctly an individual-led activity. There is a need therefore to isolate Schumpeter's various conceptions of entrepreneurship, in order to make the implications of adopting any of them, while ignoring others, explicit.

Schumpeter's theory consists of several distinct and not-so-distinct interrelated concepts of entrepreneurship that might be best explained if organised into a matrix according to their express or implied relationships (Figure 2.1). On the X axis, we might say that Schumpeter defines entrepreneurship as a simultaneous process of *construction* (A) and *mediation between markets* (B). These are to be thought of as two sides of the same coin. As entrepreneurs construct their start-ups (by creating new combinations of productive means), they are simultaneously mediating between multiple supply- and demand-side markets (where productive means are acquired from, and where the output of innovation will be distributed through and to). On the Y axis, we have Schumpeter's methodological distinction between entrepreneurship as a *theoretical concept* (C) for the deductive construction of

theory, and as an *empirical category* (D) for classifying historical and sociological observations about types of entrepreneurship.

Figure 2.1: Schumpeter’s complex definition of entrepreneurship

A. Entrepreneurship as construction		
C. Entrepreneurship as theoretical concept - deductive - agent of change	1. innovation - successful implementation - large-scale change - global network	2. new venture creation - start-up - emergent - contingent
	3. collectively-driven innovation - by large and established institutions	4. individual-led innovation - by start-ups and SMEs
D. Entrepreneurship as empirical category - historical - sociological		
B. Entrepreneurship as market mediation		

Within the dimension of deductive theory construction (C), there are two main concepts. First, there is a dualism within Schumpeter's theory between the main, explicit concept of entrepreneurship as *innovation* (no. 1) (which is defined retrospectively as successful, large-scale, and global), and the implicit notion of entrepreneurship as the emergent and contingent activity of *new venture creation* (no. 2). Entrepreneurship (no. 1), as an act of innovation, introduces novelty—as difference—into a world of routine repetition, in effect changing that world, by creating new routines and new flows (Schumpeter 1983 [1934]). The novelty arises out of the physical implementation of an innovation through the innovator-entrepreneur's pragmatic actions. “Entrepreneurship as innovation” by definition needs to be a global and large-scale phenomenon within its relevant world in order to be recognisable as such (Schumpeter 1947). Concept no. 1 in Schumpeter’s work is often conflated with *new venture creation* (no. 2), such as when he uses the start-up as the archetypal form of entrepreneurship, without acknowledging the tension between the retrospective notion of successful global innovation, and the emergent and contingent notion of an initially small-scale and local start-up that may not (and usually does not) turn into a fully-fledged global innovation.

The deductive concept of entrepreneurship (C) is separate from Schumpeter’s empirical categories (D) of individual-led (no. 4) and collective (no. 3) forms of innovation, which emerge from his historical descriptions and sociological observations. Schumpeter (2008 [1942]) uses the latter distinction as part of his famous obsolescence argument within his history of the past, present and future of capitalism, whereby institutional forms of innovation (no. 3) are expected to make individual-led innovation (no. 4) (implemented via

start-ups and small firms) obsolete.

But there is more to this classification. The distinctions and relationships between the four concepts of entrepreneurship, and between the theoretical and empirical domains they belong to, are far from clear-cut and straightforward: the dashed lines between these areas in Figure 2.1 are meant to represent that fact. For instance, it is important to note that the relationship and distinction between the theoretical (C) and empirical (D) domains are governed by a complex research philosophy. As Shionoya (1997) notes, Schumpeter's research approach is an idiosyncratic form of *methodological instrumentalism*: his deductively produced theoretical concepts were never meant in themselves to be directly representative of the empirical world.

One consequence of this stance is that the theoretical concept of the innovator-entrepreneur (present in no. 1 and 2), as an explanatory concept within a strictly defined theoretical model of the capitalist economy, applies equally to collective (no. 3) and individual-led (no. 4) forms of innovation in the real world, if it turns out to be suitable for explaining them in a pragmatic manner. In other words, Schumpeter does not privilege the individual entrepreneur in his economic theory, even when he posits individual-led innovation as the driving force of capitalism in his historical and sociological work. Schumpeter has long been criticised for attributing too much importance to the individual entrepreneur (e.g. Akrich, Callon et al. 2002); however, these criticisms had missed the fact that the figure of the individual in his deductively built economic model was primarily meant to serve as a methodological device, not as empirical description (Shionoya 1997). The use of this device allowed Schumpeter (2003 [1928]) to highlight the role of the theoretical innovator-entrepreneur both as a constructor and as a middleman between multiple supply- and demand-side markets—although he did not go on to develop this latter point in any detail, despite calling it an "extraordinarily important aspect for the theory of the market economy" (2003 [1928]: 247).

Still, as I suggested earlier, some of Schumpeter's concepts (such as no.1 and 2) are often conflated, and at times he oscillates between theoretical (C) and empirical (D) descriptions—even in the same piece of work—to such an extent that it becomes difficult to determine whether the resulting ambiguity serves a particular purpose that is not immediately obvious or he is merely being careless and inconsistent; not to mention that many of his contributions to entrepreneurship theory are spread across a varied oeuvre spanning decades, which further complicates their interpretation. Whatever the case, the multiplicity and complexity of Schumpeter's conceptions of entrepreneurship have engendered many debates

and divergent and often contradictory readings and applications (see e.g. the four different definitions of entrepreneurship in Aldrich's (2005) overview of the literature, all of which draw selectively on only one or two of Schumpeter's aforementioned four concepts, often ignoring his distinction between theoretical concepts and empirical categories).

2.1.2. The entrepreneur as constructor and mediator

The conceptual richness of Schumpeter's (1983 [1934], 2003 [1928]) work offers a complex notion of entrepreneurial agency: it arises out of the act of mediating between heterogeneous social entities (markets, and the human and nonhuman resources they represent), by channelling and combining their forces, for the purpose of producing novelty and the profit that comes with the advantage of being first to market. The entrepreneurial actor is a "market-mediating innovation-network builder;" although Schumpeter never quite summarises it in one single phrase like that. The essence of entrepreneurial leadership in Schumpeter's economic theory (1983 [1934], 2003 [1928]), is an activity of dual mediation 1) between the heterogeneous entities that serve as productive means for the new enterprise (and the innovation that is expected to result from it), and 2) between supply-side markets where productive means are acquired from, and those on the demand-side, through which the resulting innovation is replicated and distributed to its eventual users. (And let's not forget that entrepreneurial leadership, as a theoretical concept standing in for an economic function, can be equally fulfilled by persons or institutions (1951 [1949]).)

In both types of mediation *new associations* are being created: between human and nonhuman resources on the one hand, and between multiple supply- and demand-side markets on the other. *Purchasing*, in particular, emerges as an activity that is crucial for the entrepreneurial process of acquiring means of production prior to their re-combination (Schumpeter 1983 [1934]; 2003 [1928]). Effectively, Schumpeter had defined entrepreneurship as simultaneously an organisational process and a market process. Unfortunately, the essay in which he had made this point the most explicitly was only translated into English relatively recently, which may partly explain why this market mediating aspect of his theory has remained neglected for so long (Becker and Knudsen 2003; Schumpeter 2003 [1928]). Nevertheless, this point can be also reconstructed from his better known earlier work, *The Theory of Economic Development* (1983 [1934]), where he identifies the purchasing of productive means as one of the ways in which entrepreneurial leadership is exercised. Schumpeter's definition of entrepreneurship also foreshadows the concept of the *network*, which it already contains, even if only implicitly so. It is present in

two forms: as the network of material and market relationships mediated by the entrepreneur, and as the network of the innovation (connecting the original creative act with its successful diffusion in user markets) implemented by the entrepreneur.

2.1.3. Social theory dilemmas ignored

While Schumpeter had undoubtedly made some crucial contributions to entrepreneurship theory, his particular methodological approach also resulted in some conceptual shortcomings that have to do with the side-lining of some important social theory dilemmas. Schumpeter's version of methodological instrumentalism was based on the doctrine of *methodological individualism*, generally attributed to Max Weber (Langlois 1998), which can be defined as the adherence to the principle that "social phenomena must be explained by showing how they result from individual actions" (Heath 2011). By considering social actors to be simple aggregates of human individuals, Schumpeter (1983 [1934], 2010 [1908]) chooses to exclude the former from his theoretical modelling, and constructs his deductive theory of economic development from the ground up, starting with the actions of hypothetical individuals as economic agents. This move, however, locks in a rather simplistic conceptualisation of the relationships between individual and collective, micro and macro, and local and global aspects of economic and social phenomena into his argumentation, which then return to haunt him. To use an analogy from psychoanalysis, the application of Schumpeter's instrumentalist version of methodological individualism—and its effects on the resulting theory of entrepreneurship and capitalism—can be described as a dynamic of repression and resurgence.

First, it is *collectivity* that becomes repressed by the doctrine of methodological individualism in Schumpeter's (2010 [1908]) work. According to his declared intentions, the concept of the individual was only supposed to serve as a neutral pragmatic instrument in the construction of economic theory. However, when deployed for historical description and extrapolation, Schumpeter's methodological individualism turns into both ontological and political individualism, which was something he (1980 [1908]) expressly wanted to avoid. The individual (represented by the figure of the entrepreneur) turns from a descriptive device (the "paintbrush", as it were), into the hero of the story (the main figure in the "painting" itself). If capitalism pivots on the figure of the individual entrepreneur (and his or her start-up), it logically follows that the disappearance of the pivot would bring down the entire system in the long run. This (methodologically individualist) line of logic had eventually led him to the apocalyptic "extrapolations" of his obsolescence thesis (2008 [1942]), which was

predicated on the resurgence of collectivised innovation (a perspective that was initially repressed in the deductive theory) permanently replacing individual-led entrepreneurship in the final stage of capitalism.

The micro-macro distinction (Barnes 2001) is also treated in Schumpeter's work as rather unproblematic. Within the obsolescence argument, he (2008 [1942]) jumps from the micro-level of individual entrepreneurs to the nature and fate of capitalism as a macro-phenomenon, without considering all the implications of such a methodological move. Within the definition of entrepreneurship (1983 [1934]), this jump is manifested in conflating the contingent activity of new venture creation with the implementation of innovation as a successful global change, without considering the effort that it takes to turn a local effort into a global phenomenon (other than his famous quip that it consists of "getting things done"). Schumpeter's treatment of the local-global jump as unproblematic may explain why he did not feel the need to consider the possible role of adopters in the implementation of an innovation. It may also explain why the emergent and contingent aspect of entrepreneurship did not receive sufficient articulation within his theory.

2.2. Kirzner's theory of entrepreneurship as market arbitrage

2.2.1. Kirzner vs. Schumpeter

There are a number of similarities but also significant differences between the theories and methods of Schumpeter and Kirzner. Both use verbal reasoning to develop their economic theories, rather than mathematical modelling. Both are interested in explaining economic change by introducing the figure of the entrepreneur as an economic agent. Both develop their theories of change in contrast to—and as a criticism of—the static model of classical and neoclassical economics that is based on the predictable behaviour of the rational (i.e. calculating) *homo economicus* (Robbins 1932).

Similarly to Schumpeter, Kirzner practices a form of methodological individualism. However, there is one major difference between their methods: while Schumpeter (2010 [1908]) insists on the arbitrariness of his theories, the truthfulness of which is to be validated pragmatically, by fitting reality, Kirzner (1973), in contrast, considers his approach as a way of introducing more reality into both orthodox economic theory in general, and entrepreneurship theory in particular. While for Schumpeter theoretical and empirical

descriptions are fundamentally different, even if he conflates them at times, Kirzner alternates strategically between treating his deductively produced descriptions as either theoretical economic models or accurate statements about reality. But in the end Kirzner only works with economic theory: he does not have an historical economic sociology that would be comparable to that of Schumpeter's. While Schumpeter's (e.g. 2008 [1942]) economic sociology (or economic history, as he (1954) liked to call it) had served as an empirical testing ground for his theoretical concepts in lieu of normative policy recommendations (which he did not consider his role to give as a scholar), Kirzner (1973, 1979) draws normative conclusions directly from his deductive theory, without any engagement with empirical data.

2.2.2. Kirzner's contributions and limitations

Kirzner presents an original economic theory of entrepreneurship, although in some respects it can also be considered a response and reaction to Schumpeter's work. Initially, Kirzner (1973, 1979) had positioned his theory in opposition to that of Schumpeter: while for Schumpeter an entrepreneurial act was an innovation that created *disequilibrium* (disruption) in the market, for Kirzner it was an act of arbitrage that produced *equilibrium* (stability) instead. Later on in his career he (1999, 2009) somewhat revised his initial framing, by attempting to integrate Schumpeter's theory into his own. He proposed that the Schumpeterian “disruptive entrepreneur” is simply an extension and implementation of the Kirznerian “arbitrageur-entrepreneur.” The alertness of the Kirznerian entrepreneur is needed to discover an entrepreneurial opportunity (an instance of an existing disequilibrium) first; then the aggressive and bold qualities of the Schumpeterian entrepreneur (no. 4 in Figure 2.1, i.e. the individual as a sociological category) need to be called upon to exploit those opportunities. The entrepreneurial opportunity is eventually eliminated when the arbitrage situation disappears due to other arbitrageur-entrepreneurs having competed away the margin, which results in a price equilibrium in the market.

Kirzner's main criticism of Schumpeter is that he had not incorporated the market process (as arbitrage) into his definition of entrepreneurship. Kirzner argues that market functioning and entrepreneurship are effectively two sides of the same coin. He identifies the cognitive mechanisms of *alertness*, *opportunity recognition*, and *decision-making* (judgement) as the critical aspects of the functioning of entrepreneurship as a market phenomenon. For Kirzner, *entrepreneurial opportunity recognition*—as a fundamentally competitive market process—is predicated on the existence of an information error (an

instance of ignorance) in the market, represented by a price discrepancy between inputs and outputs, the exploitation of which produces entrepreneurial profits.

In terms of the role of the market in entrepreneurship, Kirzner attributes much greater agency to it than Schumpeter does, by crediting it with being the exclusive source of entrepreneurial opportunities. Kirzner connects his entrepreneurship concept directly to the concept of the market, and defines their relationship in terms of *learning* (thus becoming one of the sources of inspiration for the literature on entrepreneurial learning (e.g. Minniti and Bygrave 2001; Lévesque, Minniti et al. 2009). Entrepreneurs engage with markets—which serve as information systems for the provision of price information—through a process of trial and error, which allows them to identify price discrepancies and modify their entrepreneurial plans. In contrast to Schumpeter, Kirzner does incorporate adopters of innovations into his theory because such actors can also be seen as pursuing arbitrage opportunities. He posits the role of buying and selling even more centrally within the entrepreneurial act than Schumpeter does, as the arbitrageur-entrepreneur (as a theoretical concept within Kirzner’s model) does literally nothing else.

At the same time, just like in the case of Schumpeter, Kirzner could also be accused of not presenting an actual theory of entrepreneurship in the most widely used sense of the word, as he does not satisfactorily address new venture creation (or even innovation). Instead, he presents an arbitrage theory of the market. As *arbitrage* stands for the instant exploitation of price differentials spotted in the markets, a theory based on this concept is poorly equipped to address the process of entrepreneurship and innovation that can develop over a considerable amount of time and which involves a substantial construction effort. Significant changes could occur during that period, which some of Kirzner's assumptions do not account for. For example, Kirzner’s arbitrageur-entrepreneur is endowed with near-prophetic capabilities to notice price differentials across multiple long periods of time. This may be an acceptable assumption for a speculative theoretical model, if it is to be used instrumentally or pragmatically, in the style of Schumpeter. However, Kirzner (1973, 1979) uses it as a “realistic” assumption, on the back of which he makes broad normative pronouncements for economic policy. This approach contrasts sharply with Schumpeter's (2008 [1942], 2010 [1908]) scepticism about the role of “pure theory” for such political and ideological purposes.

As for Kirzner's assessment of Schumpeter's work, Kirzner is somewhat uncharitable in his interpretation. Firstly, Schumpeter does engage with the concept of the market, and in some respects his middleman-entrepreneur shares some similarities with Kirzner's arbitrageur-entrepreneur (e.g. by mediating between the supply markets of human and

nonhuman resources). Secondly, Kirzner often disregards Schumpeter's methodological caveats, and takes his deductive descriptions as if they were meant to be empirical observations, leading to unfair criticisms. Thirdly, he does not recognise the key aspects of Schumpeter's definition of entrepreneurship *as* innovation, namely that it refers to the implementation of a large-scale, global network of novelty. Instead, he (1999, 2009) prefers to focus on the qualities of Schumpeter's "entrepreneurial type," which is part of Schumpeter's sociological account, not of his deductive economic model. For Kirzner the most interesting aspect of Schumpeter's theory is the psychological profile of the Schumpeterian entrepreneur as an aggressive implementer of a Kirznerian arbitrage.

2.3. Burt's social network theory of entrepreneurship

2.3.1. Bridging structural holes in a social network

Ronald S. Burt's (1995) "structural holes theory" further develops the idea—initially suggested by Schumpeter (2003 [1928]) and also articulated by Kirzner (1973, 1979)—that an entrepreneur is a mediator between markets. Burt's sociological theory utilises the concept of the *social network* to model the entrepreneur-market relationship. *Network* for Burt is a metaphor for describing the structure of social reality. A social network consists of *players* (Burt's term for an *actor*) connected by personal relationships (in the case of individual human beings) or by institutional relationships (in the case of organisations—which nonetheless he still conceives of as networks of humans). A social network is a form of social capital: it is held together by the obligation to honour interpersonal debt (15). Burt implies that all contacts in a social network are based on the fundamentally economic relationship of give-and-take, even in the case of intimate personal relationships.

The life of a social network primarily consists of relaying and processing information and maintaining and changing the composition and shape of the network. Burt argues that entrepreneurial opportunities are produced by the advantageous distribution of gaps ("structural holes") between unconnected contacts in a player's social network, which affects beneficially the flow of useful information for the player, as well as the player's influence within the network. It is the bridging of a structural hole that constitutes entrepreneurial activity (as the exploitation of the available opportunity), which results in new information flows and changes in the network's shape, leading to a return on the player's investment in its network building.

Structural holes represent entrepreneurial opportunities by providing two distinct

types of benefits: information benefits and control benefits. Information benefits may accrue passively to a player and can consist of having privileged and timely access to information, and of becoming the subject of information when a player is referred to others as a resource. Control benefits require active participation from the player, by acting as a mediator between two unconnected contacts in the network, thus becoming the "third who benefits" (after Simmel's (1950 [1923]) *tertius gaudens*). By deciding who to connect to and disconnect from, a player can also engage in the "sculpting" of the network. The activities mentioned so far to extract value from one's social network, however, would only make one a "second-order entrepreneur" in Burt's classification. A "first-order entrepreneur" rises above the management of social network issues and instead aims at changing the rules of the game, the governance mechanism that settles disputes between players in the network.

Burt's theory can be viewed as a synthesis between some aspects of Schumpeter's and Kirzner's theories. He shows in explicit detail how the bridging of structural holes in a social network makes one an entrepreneur through the very act of becoming a mediator. On the one hand, he shows how the middleman role of the Schumpeterian entrepreneur arises out of connecting previously unconnected resources. On the other hand, Burt's *tertius* concept can be understood as a Kirznerian arbitrageur who is exploiting ignorance in the market (i.e. the network) that has arisen out of disparate prices (for the same good) not having been connected yet within the mind of an entrepreneur. Burt's definition of an entrepreneurial opportunity in term of a gap in one's network structure effectively explains the mechanics of Kirznerian arbitrage as a simultaneously entrepreneurial and market process. At the same time, Burt's first-order entrepreneur is reminiscent of Schumpeter's disruptive innovator-entrepreneur, who "creatively destroys" the previous order.

2.3.2. Addressing social theory dilemmas

Similarly to Schumpeter and Kirzner, Burt uses a deductive approach to develop his theory. However, he goes beyond the methodological individualism practiced by the former two and engages more directly with the social theory dilemmas that they had ignored, such as the individual-collective, agency-structure, and micro-macro dualisms. One of Burt's major contributions is his explanation of how a market—understood as a network—can be shown to produce entrepreneurial opportunities for a player independently from the player's particular attributes. Schumpeter's (1983 [1934]) sociological description of the "entrepreneurial type" has inspired a stream of research that had focused on identifying entrepreneurial characteristics that might be contributing to the rate of entrepreneurship in an economy

(McClelland 1961; De Vries 1977). Kirzner had also run into a contradiction when he maintained that everyone is an entrepreneur (Kirzner 1973), while having to concede that alertness as an entrepreneurial attribute is available to people in unequal measure. Burt resolves this problem—to some extent—by explaining a player's ability to act entrepreneurially by the availability of structural holes in its network.

From Burt's perspective, a player's particular qualities are of secondary importance because they are either entirely accidental or possibly even produced by the structure of the network; therefore they cannot be the causes of entrepreneurial opportunities or entrepreneurial activity. Burt is adamant that "entrepreneurial" is not an attribute of a person but a characteristic of a particular type of network: one that is rich in structural holes distributed beneficially from the player's perspective. Among the attributes that he finds irrelevant, Burt also includes the micro-macro distinction of social theory (Barnes 2001). The structural hole argument cuts across the micro-macro distinction: whether a player is considered small or large is the outcome of its networking behaviour, rather than an inherent *a priori* characteristic. An individual or an organisation can equally be a player for him. Burt also offers a solution to the agency-structure problem (Barnes 2001): it is a network's structure that constrains but also enables an agent to act; the agent's action in turn affects the shape and functioning of the structure itself.

Although Burt does provide a theory of how new entrepreneurial associations are created (as the bridging of structural holes), his theory focuses more on describing the general dynamics of social networks, than addressing the specific task of constructing a new enterprise or developing an innovation. Burt's theory only considers the investment made into maintaining individual contacts, not the effort involved in assembling and sustaining a new organisation. The practical steps of acquiring means of production and combining them into a new enterprise in the Schumpeterian (1983 [1934]) sense are of no particular theoretical interest to him. For Burt all entrepreneurial issues boil down to the same make-or-buy dilemma of transaction cost economics (Williamson 1981), and therefore supplier and market relationships are only considered in great generality.

2.4. Conclusion

2.4.1. Contributions, controversies and gaps

The purpose of this chapter was to identify conceptual and methodological tools offered by rationalist approaches for the study of the intersection of entrepreneurship,

innovation and markets, and the relationships between these areas and the actors and activities they represent. I have identified a number of relevant tools, but also some controversies and knowledge gaps, which together help to formulate several conceptual and methodological pointers for the present study. Four main concepts have emerged from this review. Firstly, there is the idea that entrepreneurship as an organisational process is in some ways also a market process. The relationship between entrepreneurship and the market is conceptualised in the form of mediation by an entrepreneurial actor that can be an individual or an institution. Both Schumpeter's innovator-entrepreneur and Kirzner's arbitrageur-entrepreneur mediate between supply and demand-side markets. The activities of Burt's "player" similarly constitute entrepreneurial and market functions simultaneously. Out of the three of them, Schumpeter was the only one that had identified the acquisition of productive means as a defining aspect of entrepreneurial leadership, although he has not pursued this line of reasoning any further.

Secondly, there is Kirzner's and Burt's notion that entrepreneurship has to do with the exploitation of an instance of ignorance in the market that works as an information system of sorts. This idea is closely linked to the third concept, namely that the interaction between entrepreneurship, innovation, and markets has the character of experimentation and learning. In this sense entrepreneurship and innovation involve the trying out of ideas in markets, which serve as testing grounds. The fourth concept that occurs in all three of the reviewed theories in more or less explicit form is the metaphor of the network to describe the relationships between entrepreneurship, innovation, and markets. The entrepreneur emerges as a node that connects resources in a new way within a network: Schumpeter's entrepreneur mediates between heterogeneous resources and markets; Burt's *tertius* bridges gaps in a network; while Kirzner's arbitrageur-entrepreneur connects previously unconnected price points in the market. For Schumpeter, the emerging innovation also has the characteristics of a network, stretching from the creative act to its successful diffusion and adoption.

A number of conceptual and methodological controversies have also emerged at the intersections of—and between—the above theories. A central theoretical controversy concerns the distinction and relationship between entrepreneurship (as new venture creation) and innovation. Schumpeter conflates the two and there is only an implicit difference between them. Kirzner subjugates Schumpeter's notion of innovative entrepreneurship as disequilibrium to his own definition of entrepreneurship as equilibration, reversing the sequence implied by Schumpeter, and thus eliminating the relevance of innovation as an explanatory variable in the process. At the same time, Kirzner is kinder to adopters of

innovation, considering them a type of arbitrageur-entrepreneurs, compared to Schumpeter, for whom they are either mere repeaters and thus not truly part of the entrepreneurial process, or are subsumed in the “getting things done” part of distributing the innovation by the original creator.

Closely related to this is yet another controversy that concerns the source of entrepreneurial opportunity. For Schumpeter, the theoretical entrepreneur creates the opportunity by constructing it—although the forces of others also get incorporated and mediated by this construction. For Kirzner and Burt, on the other hand, entrepreneurial opportunities are independent from and pre-exist the entrepreneur's involvement, as features present in the structure of reality. As a result, Schumpeter's definition places the emphasis on the entrepreneur's practical skills for "getting things done," while Kirzner's and Burt's theories turn the attention towards the individual entrepreneur's cognitive capacities for recognising such opportunities. This preoccupation with the skills of the “entrepreneurial type” and its cognition has had a long-lasting impact on entrepreneurship studies in the form of a persistent focus on individual entrepreneurs’ character traits and their cognitive abilities (McClelland 1961; De Vries 1977; Grégoire, Corbett et al. 2011), at the expense of the social and material aspects of entrepreneurship, especially in the context of the relationship between markets, innovations, and new enterprises.

Some of the controversies have to do with the respective methodological decisions of the above authors. Schumpeter and Kirzner have very different ideas about how to deploy methodological individualism, and what the roles of deductive and inductive (or empirical) descriptions should be. The rationalist approaches used by all three theorists reviewed here are limited by their fundamentally retrospective approach to the conceptualisation of *emergence* (of new firms, innovations, and market transactions), which their methods did not allow them to study directly, *in vivo* and *in situ*. Moreover, the deductivism of these rationalist methods also impedes on their ability to engage with the social aspects of these emergent phenomena—with the exception of Burt's social network theory, which has managed to break away from some of the limitations of methodological individualism. Burt's success in this regard points to the concept of the network as a promising construct both for synthesising the contributions of rationalist theories and for operationalising them for empirical investigation.

The three authors are also divided upon how to use their theories for normative purposes. Schumpeter refuses to draw normative conclusions from his theory directly, as it would conflict with his pragmatic theory of truth. Rather than telling practitioners what to do,

Schumpeter leaves it to his theories to do the influencing, as devices that are capable of making a difference in their own right, should they turn out to be correct. In contrast, Kirzner is much freer to make ideological statements about the superiority of the ‘free market’ economy on the basis of his theories. Burt goes even further, by offering specific strategies for practitioners to extract value from their social networks. As Boltanski and Chiapello (2007) note, Burt's approach to normativity implements a highly instrumental—and to some extent even anti-social—logic of capitalism.

2.4.2. Pointers for the present research

Several pointers emerge from this review for the purposes of the current study, based on the knowledge gaps identified. Firstly, there is a need for alternative methodological approaches in order to complement the shortcomings of the deductivist methods of the above authors. Specifically, there is a need for *in vivo* empirical studies of emergence (with a focus on the construction effort involved), especially at the enterprise-innovation-market interface, which is an insufficiently explored set of relationships in rationalist theories. Such an approach would also need to take into consideration the neglected material and social aspects of the aforementioned juncture, and examine relevant data in their specificity, as opposed to the general plane preferred by rationalist theories. Specific cases of entrepreneurship as emergence in real time—and, simultaneously, the emergence of markets and marketplaces—would need to be described, while also considering the histories of the actors involved.

An approach that would be more attentive to the material aspects of entrepreneurship, innovation, and their relationships to markets could ask 1) how an entrepreneurial actor acquires the necessary means of productions in the first place; 2) how an entrepreneur combines these disparate resources into a productive mechanism; 3) how an entrepreneur keeps this new combination stable; and 4) how the output of this new entity becomes distributed (and if it is an innovation, how it is adopted by users). Regarding the role of markets in all this, point 1) refers to dealing with supplier markets, by accessing, negotiating for, and purchasing the means of production, and point 4) refers to dealing with customer markets (business customers and/or consumers), by selling the product or service and converting it into revenue, with the hope of realising entrepreneurial profits.

The main social theory dilemmas—that rationalist approaches have either neglected (at least in the case of Schumpeter and Kirzner) or addressed partially (in the case of Burt)—would also need closer attention. These dilemmas can be summarised as the individual-collective, micro-macro, local-global, agency-structure, and human-nonhuman dualisms.

These dualisms stand for long-standing theoretical controversies within social theory and organisation studies (Callon and Law 1997; Barnes 2001; Reed 2003), therefore it would be important to acknowledge them and engage with them within the context of the relationships between entrepreneurship, innovation, and markets, as the nexus of highly complex social phenomena.

Although Kirzner and Burt do include the concept of experimentation in their respective definitions of entrepreneurship, it could be extended to the study of markets as well, especially in the way in which markets participate in singular entrepreneurial events. This calls for a methodology that is sensitive to the ontological significance of experimentation, as it is an important theme that keeps appearing in conceptualisations of entrepreneurship and innovation, whether explicitly or implicitly, in the work of Burt, Kirzner, and Schumpeter.

In fact, empiricist studies of entrepreneurship, innovation, and markets—that engage with the experimental aspects of these phenomena and are mindful of the aforementioned social theory dilemmas—do exist. However, they have been primarily conducted in the area of an entirely different domain, the literature of Science and Technology Studies (STS), which has only begun to come to the attention of entrepreneurship studies in recent years (Whittle and Mueller 2008; Jones, Macpherson et al. 2010; Macpherson, Kofinas et al. 2010; Korsgaard 2011). I will review the relevant empiricist contributions to the problem area of the entrepreneurship-innovation-markets nexus in the next chapter.

Chapter 3: Empiricist approaches to entrepreneurship, innovation, and markets

In this chapter I will review empiricist approaches to the study of the intersection between entrepreneurship, innovation and markets that complement the rationalist theories discussed in the previous chapter. This complementarity arises from the fact that these empiricist studies had examined phenomena that are relevant to the problem area, and in many cases they developed concepts that support and expand the insights of the research traditions initiated and defined by the works of Schumpeter, Kirzner, and Burt. Moreover, some of these empiricist studies also provide opportunities for the empirical testing of the deductively developed hypotheses of rationalist theories. Lastly, the empiricist literature I am going to review here deploys research methods that engage directly and deliberately with the gaps and blind spots of rationalist methods, while in some ways remaining consistent with some of the instincts behind methodological individualism, especially of the pragmatist Schumpeterian variety (as I will show in Chapter 4). The empiricist works I will be focusing on belong to or draw on the sociological field of Science and Technology Studies (also referred to as Science, Technology, Society - STS) and tend to use actor-network theory (ANT) as their research method (Crawford 2004; Hackett, Amsterdamska et al. 2008). While this discussion will provide an initial demonstration of the principles and use of actor-network theory, I will discuss the intricacies of ANT (which is also my chosen research approach) in the next chapter. Here I will consider the key conceptual and empirical contributions of this literature to the understanding of the relationships between innovation, entrepreneurship, and markets.

The concepts and topics already present in rationalist theories that STS studies had explored further—and at times had even incorporated as part of their methodologies—include the notion of the *network*, the centrality of *experimentation* to the nature of emergent reality, and an enduring interest in the subject of (scientific and technological) *innovation*, especially its implementation and diffusion. The particular philosophical assumptions and methodological principles behind such STS works also enabled them to address some of the blind spots of the rationalist approaches I had identified earlier, such as the emergent nature of innovations, the construction effort that had gone into them, the particular nature of the various types of mediations involved between participating actors, and a range of social

theory dilemmas captured by the individual-collective, human-nonhuman, local-global, micro-macro, and agency-structure dualisms (Kaghan and Bowker 2001). Furthermore, these different philosophical and methodological assumptions allowed STS studies to approach the whole problem area of innovation, entrepreneurship and markets from an entirely different angle from that of rationalist approaches. Empiricist researchers (often using the ethnographic methods of sociology and anthropology) develop their theories through the description of concrete and detailed phenomena in an inductive manner, in contrast to the generalisation and reductionism of deductive rationalist theories. Also, the relationship between the *potential* and the *real* (and the whole process of realisation and individuation of entities) is approached differently in STS. Finally, STS researchers have become particularly sensitised to the question of how to develop normative judgements on the basis of theory, highlighting the need to be aware of the political implications of one's method.

More specifically, this chapter seeks answers to the following questions: *How have empiricist studies contributed to the understanding of the relationships between entrepreneurship, innovation, and markets? What concepts, methods, and empirical evidence do they offer in this regard, in addition and in contrast to those of rationalist theories?* The previous chapter had already hinted that there is a knowledge gap in rationalist theories concerning how heterogeneous entities become acquired, assembled and stabilised as innovations by new enterprises, and what role relationships with various markets play in this emergence. In this chapter I will examine how STS approaches describe these phenomena, by reviewing the contributions of works in STS-inspired innovation and organisation studies, as well as the economic sociology of markets. I will also consider how the findings of empiricist studies reflect on some of the controversies that emerged from the rationalist literature, such as the distinction between entrepreneurship and innovation; whether entrepreneurship and innovation induce or disrupt stability (market equilibrium); whether entrepreneurial opportunities exist independently from entrepreneurs in the market or are created by them; whether the source of entrepreneurship is an act of cognition or an act of mediation and construction; whether an adopter of an innovation can be considered to be part of the innovation (as an entrepreneur) or is merely a repeater; and whether the acquisition of productive means is theoretically and practically significant for entrepreneurship and entrepreneurship studies or not.

3.1. Entrepreneurship as heterogeneous assembling

3.1.1. Heterogeneous networks and translation

One of STS's main contributions to the field of innovation and entrepreneurship studies is the re-characterisation of innovation and entrepreneurship on the basis of empirical evidence, as *processes of assembling heterogeneous networks*. STS had initially focused on how local scientific inventions in a laboratory might turn into global innovations in the form of widely accepted scientific facts and commercial applications (Callon 1986a; Latour and Woolgar 1986; Law 1994). In contrast to Schumpeter's conflation of entrepreneurship with innovation, laboratory and innovation studies in the STS vein have implied a concept of entrepreneurship that also accounts for the practical efforts that it takes to transport and transform a local invention into a global innovation (Callon 1986a; Law 1988; Latour 1991). While Schumpeter had glossed over this stage by compressing it in his term of "getting things done," STS has shown that the particular nature of 'entrepreneurship' as this transportation and transformation—captured by its technical term as *translation*—is fundamentally important for understanding what it takes for an innovation to emerge and remain stable (Latour 1996). STS scholars have provided descriptions of this process as one of *assembling heterogeneous resources into a network by translating the interests and forces of these resources to a common cause and into a shared formation*.

3.1.1.1. VAL vs. Aramis: an empirical example

Bruno Latour's (1993a, 1996) ethnography of Aramis, a failed project for a personal rapid transport system for Paris, can serve as a good example of both the application of ANT as a material-semiotic method (Law 2009) and the contributions of such a description to the theories of entrepreneurship and innovation. Latour employs two different types of symmetry in his description. First, he uses the same methods of description and explanation for the study of the failed project of Aramis as for the study of the successful project of VAL, a public transport systems for the French city of Lille. He adopts this principle from the Strong Programme in the sociology of science, as a way to avoid triumphalist and Whiggish accounts (Latour 1999a). Secondly, he treats human (or social) and nonhuman (technological) actors symmetrically, again, by using the same methods to record the *differences* they make (in line with ANT's pragmatist roots, which guide the analytic attention to the effects that actors make). One of the main innovations of ANT was to radicalise the empiricism of pragmatist philosophy (James 1907), by extending its focus from

the human experience to the performances of nonhuman entities as well (Latour 1993b). This approach allows Latour to make a number of crucial observations. He is able to describe entrepreneurship and innovation as a network of transactions or exchanges, which have the character of *gathering* and *translation*, between a variety of actors, such as engineers, politicians, government departments, corporations, the voting public, the local geography, technological artefacts and so on.

"Gathering" concerns the enrolment of allies into the project, whose support is essential for obtaining the resources necessary for the project to continue. "Translation" has to do with the process of displacement and adaptation through which the interests of the incorporated allies become aligned, and through which the "object" of the project gradually acquires its materiality and identity as an innovation. "Translation" is a simultaneously physical and semiotic process. Latour (1993a) finds that VAL had succeeded because it was able to undergo a series of transformations from a *statement* (an idea, a dream) to a *quasi-object* (a token, the circulation of which among interested parties was essential for keeping the "game" alive), and eventually to an *institution* (a stabilised heterogeneous assemblage of government, industry, technology, passengers and so on). Aramis, in contrast, failed to enrol sufficient allies (political, material, and economic ones) and adapt to their needs, and thus never coalesced into a permanent institution.

Latour's analysis sheds light on the emergent front-end of *entrepreneurship* and *innovation*, which Schumpeter's retrospective theoretical vantage point was ill-equipped to illuminate. As processes of emergence, they are socio-material practices aimed at translating and aligning heterogeneous actors—and their interests and competences—in order to assemble a new "institution" (the innovation and its support system). Law's (1986) term, "heterogeneous engineering," expresses even more directly the constructive effort that is required for making (or "convincing") disparate entities (humans and nonhumans, tangible and intangible things, local and global, micro and macro organisations) adhere in a stable formation. This is the effort that gets glossed over by Schumpeter (according to him "the only man [the entrepreneur] has to convince or to impress is the banker who is to finance him" (1983 [1934]: 89)), and completely ignored by Kirzner and Burt.

Such an ANT approach also provides a new angle on the importance of the acquisition of productive means. Acquiring resources for a new entrepreneurial combination is far from just being a question of money, as Schumpeter implies. The various constituents that are essential for the survival of an emerging assemblage need to be "convinced" (both discursively and materially) to join forces with the innovation, by having their interests

accommodated, which requires the adaptation and modification of the project's original course. The process of recruiting allies, whether human or nonhuman, is a critical first step of an entrepreneurial construction effort.

3.2. Innovation as a network of translations

ANT's pragmatist concept of translation also provides an important contribution to the theory of innovation diffusion. The concept of *diffusion* "refers to the spread of something within a social system" (Strang and Soule 1998), and is used for describing the introduction and adoption of an innovation. Diffusion studies have traditionally considered diffusion to be a causal process that is responsible for innovation adoption. In their review of the diffusion literature, Strang and Soule (1998: 266) specifically dismiss perspectives (such as the one a pragmatist would take) that consider diffusion to be an outcome as "uninteresting." However, it also transpires from their review that the distinction between innovation and diffusion remains controversial. At times the two concepts are treated as one, yet they are also often defined by designating the former as an internal organisational process, while the latter is supposed to pertain to a process that is external to the originating organisation.

ANT-inspired STS studies show that it can indeed be worthwhile to consider "innovation diffusion" as the outcome of a translation process, among others also because it resolves the above dichotomies between innovation (as internal) and diffusion (as external). As Latour (1987, 1991) shows in his semiotic analysis of the introduction of the Eastman Kodak camera, the "innovation plus diffusion" process does not consist of separate causal events of invention, on the one hand, and distribution and marketing to a target customer base, on the other. Rather, the emergence and spread of the Kodak camera had been an outcome that was contingent upon a series of transformations and transportations (i.e. what ANT calls *translation*), whereby a variety of human and nonhuman actors had to be permanently associated to form a chain that could remain stable over a period of time.

This stability was achieved by resolving a number of technical problems (such as the blistering of the photographic film's coating) through turning a part of the photography process into a black box, in the form of the locked-down camera, and establishing a network of film developers. This has enabled the creation of an entirely new market, that of photography amateurs—which is why it would be incorrect to think of this process as an unproblematic diffusion in a pre-existing system. Latour argues that it is only in retrospect that the successful implementation of an innovation appears to have been a smooth process of

diffusion.

If approached from a pragmatist perspective, by tracing the movements and displacements of actors through the changes that had occurred, it is possible to identify the individual trials in which the particular elements (that have created the stability of the whole) were forged. In other words, creation does not just happen at the start of the innovation process; innovation, including its adoption, is an ongoing process of re-creation and re-configuration, rather than just the diffusion of a finished product.

STS studies have shown that the stability of the network depends on the strength of the associations between each element in the network, including those between human and nonhuman actors. In fact, it is often the delegation of human competences to machines that can increase the stability and reliability of a particular configuration (Latour 1992). In the Kodak case, this machine was the new Kodak camera (Latour 1991). However, for the black-boxed machine to become useful, it was also necessary to construct an associated commercial network of film developers that freed amateur photographers from the need to have their own laboratories. The photographic process thus had become available to a vastly larger number of people than those who had originally possessed the particular competences and equipment to develop their photos by themselves.

This outcome for Eastman Kodak, however, only arose as a result of an ongoing experimentation, not only with the elements of the new camera but also with the entire chemical, technical, commercial, and organisational process of developing a roll of film and the retail network for supporting the customers who needed films developed (Latour 1987, 1992). The adopters themselves needed to be transformed in order to become Eastman Kodak customers: if they were already amateur photographers, they had to be willing to abandon their existing laboratories and practices; and if they were not photographers at all, then they had to be willing to transform themselves into the more limited—but technically less demanding—version of an amateur photographer. At that moment they also became enrolled into the Eastman Kodak socio-technical network, thus contributing to its durability.

3.3. Markets as calculative social devices

Although Latour's re-description of innovation diffusion in terms of translation does show that markets and customers also need to be created for an innovation to emerge, he does not explore the role of specific marketplaces within this process. It fell to Michel Callon, another of ANT's early developers, to apply the ANT approach to the study of markets and

marketplaces. The stream of research that was prompted by Callon's work, often referred to as the sociology of markets or *market studies* (Callon, Millo et al. 2007; Araujo, Finch et al. 2010), offers some additional tools for exploring the particular relationships between marketplaces, innovations and new enterprises.

In this section I will review three main concepts that ANT-inspired market studies have developed and which have significance for the innovation-entrepreneurship-market axis. The first notion has to do with the ability of heterogeneous assemblages to carry out specific types of translations. I will focus in particular on the idea that markets function as collective cognitive devices. The second notion concerns the role of experimentation in the functioning of a market as a socio-cognitive device. ANT-driven market studies have expanded the idea (also proposed by Kirzner) that the market process is a kind of a trial, and that markets function as testing grounds. Finally, I will zoom in on the notion of *qualification* as a market-specific process of articulation and translation that helps explain how products and services turn into economic and market goods.

3.3.1. Markets as socio-technical agencements

3.3.1.1. Callon et al.'s economisation and marketisation agenda

Callon's research programme, launched in 1998 to deploy the tools of actor-network theory to the analysis of economic phenomena, and especially of markets, in recent times has been re-labelled as the social study of *economisation* and *marketisation*, to emphasise that the key aim is to describe empirically how phenomena come to be economic and market-related in the first place (Çalışkan and Callon 2009, 2010). The broader economisation research programme focuses on the role of three main types of agents in how "things" become economic: 1) economic theories (this is also known as the *performativity* research agenda (Callon 2007b)), 2) institutions and technologies that expand human cognition and action, and 3) the entities that are being valued (Çalışkan and Callon 2009). The marketisation research programme is part of the overall economisation research project, and it zooms in on how markets are constituted as socio-technical devices that fulfil socio-cognitive functions, especially the functions of valuing economic goods and facilitating their exchange (Çalışkan and Callon 2010). This research programme's main areas of focus therefore are the nature of calculative agency, the design and organisation of markets, and the processes that constitute the functioning of markets (Callon 1998b).

3.3.1.2. The two meanings of *network* in market studies

Network as method: tracing the composition and functioning of markets

The notion of the *network* in ANT studies of markets appears in two different figurations. Firstly, it is a **method** for carrying out material-semiotic description, by following action across heterogeneous (socio-material) media. Secondly, it can also be a **metaphor** for characterising particular entities that look like networks (Callon 1991). Let me first discuss how "network as method" is used in market studies. By following and recording the process of valuation across a range of interconnected entities that behave as a network of actors (or *actor-networks*), analysts have been able to describe markets as *agencements* (Çalışkan 2010). Traditionally, economists have attributed calculative competence to the human individual, as a defining characteristic of *homo economicus*, the calculative agent of the abstract market in the deductive theories of classical and neo-classical economics (Kirzner 1973). However, ANT practitioners had shown the abstract concept of the market to be itself an outcome of an operation of abstraction from particulars by economists—a process which requires elucidation, and which turns economists and economics into legitimate objects of study for economic sociology and anthropology (Callon and Muniesa 2005). For this reason it seems more prudent to leave open the question of the identity of possible agents that take part in the valuation processes of markets, rather than to presume the existence of a calculating *homo economicus* prior to an empirical investigation.

To facilitate this methodological attitude of agnosticism, Callon (2007a) proposes the French term *agencement* to represent the nature of agency, especially as it applies to markets. From the practical perspective of the field researcher, this term is useful because it avoids the frame of anthropocentrism that is inherent in the terms *actor* and *agent*, and instead it focuses on action and its setting. At the same time, this conception also builds on the empirical findings of STS, whereby agency has often been found to be distributed across heterogeneous networks. The concept of *agencement* was originally introduced in the French pragmatist philosophical tradition by Gilles Deleuze and Félix Guattari (1987), and it is usually translated as *assemblage* or *arrangement* (Muniesa, Millo et al. 2007). Callon and his colleagues propose to use *agencement* instead to further emphasise the thoroughly heterogeneous and distributed nature of agency and to avoid separating actors into assemblers (or arrangers) and the assembled (or the arranged) (Çalışkan and Callon 2010).

A market agencement is "a combination of material and technical devices, texts,

algorithms, rules, and human beings with their various instruments and prostheses" (Callon 2007a: 160) that fulfils the function of a market, which can be defined as "the conception, production and circulation of goods, their valuation, the construction and subsequent transfer of property rights through monetary mediation, exchange mechanisms and systems of prices" (Muniesa, Millo et al. 2007: 4). Çaliskan and Callon (2010) propose the term *market socio-technical agencements* (mSTAs) to distinguish market-specific agencements from other types of economic agencements. A market in this sense is a collective hybrid device for the valuation, evaluation and exchange of goods (Callon and Muniesa 2005).

Callon, Méadel and Rabeharisoa's (2002) study of the repositioning of a brand of orange juice in the French retail market provides an empirical example of what such an *agencement* might look like. The process of redefining the qualities of the good, in order to increase its value in the eyes of the consumer, involves the co-ordination of a range of human and nonhuman actors that form what can be called a chain of requalification. It begins with the farmers and the orange groves of southern Spain, and involves a variety of marketing professionals and their laboratories, such as the tasters, the package designers, the market research and advertising agencies, the producer's strategic partners (the Japanese Pokemon cartoon franchise in this case) all the way down to the supermarkets and the consumers, including—and especially—their children. This heterogeneous assemblage acts as an *agencement* that produces both the market and the customers (by formatting their desires and behaviours) for this re-qualified (or repositioned) product.

While the heterogeneous nature of an *agencement* is an interesting fact in itself, what is more important for the study of markets are the particular functions that such a complex entity can fulfil. STS-based ethnographic market studies show that markets—or elements that help perform the markets—operate as *socio-cognitive prostheses* that enable human actors and institutions to carry out complex calculations that otherwise they would not be capable of. For example, Beunza and Stark's (2004) ethnography of a trading room at a Wall Street securities firm describes how arbitrage calculations are distributed across persons and instruments. However, an *agencement* should not be misunderstood as just a tool for extending human capabilities. Such a definition would simply reinstall the human actor at the centre of the action. Rather, human actors are part of the distributed action and cognition that constitutes an agencement; moreover, they are also produced and configured by it as calculative agents. In this sense a competent *homo economicus* is just as much of a product of a market agencement as are the goods that are being valued and exchanged (Callon 1998b, 2007a, 2008).

Calculation is not the only function of a market. Çaliskan and Callon (2010: 3) identify three main characteristics that for them define markets as socio-technical agencements. 1) Markets organise the process of detaching goods from their original owners and reattaching them to new owners, which involves the "conception, production and circulation of goods." 2) Markets deploy a range of heterogeneous entities in the service of valuation and exchange, including rules, devices, discourses and competences. 3) "Markets delimit and construct a space of confrontation and power struggles" to resolve conflicting valuations and align the interests of participating stakeholders. In this last sense, markets are frames or "encountering devices," within which sellers and buyers, and more abstractly, supply and demand, can meet.

As calculation devices, markets for market studies are concrete (though not necessarily always physical) "things," as opposed to the abstract *market* of economics. This means that for *the ethnographer economic sociologist*, the specific designs and operational processes of markets become key areas of interest, both for scientific and political reasons. The scientific description of markets becomes a political matter due to the fact that the very constitution of any market—as a process of framing—by definition results in exclusions as well as positive and negative externalities, which Callon (1998a, 2007a) refers to as *overflows*. What remains within the frame of a market, and what results from what is being excluded, will often generate controversies. Moreover, markets also generate new beings (for instance the complex financial instruments that came to be referred to as “toxic” in the wake of the 2008 global financial crisis (Treanor 2008)), which can produce their own overflows or externalities: namely, the individual goods (or bads), and the calculating individuals (Callon 2007a).

Network as metaphor: the network-like nature of markets

However, the concept of the network is not only a method of description for STS-based market studies but it is also a metaphor for characterising the network-like nature of the objects that are being described (Callon 1991). In particular, Callon (2007a: 150) argues that a qualitative shift has taken place in the history of economic markets, making contemporary markets "explicitly organized in the form of networks." For Callon (2007a, 2008), the notion of a "market as a network" is synonymous with "innovation as a network:" techno-economic networks that facilitate the development, implementation and distribution of innovations also function as devices that constitute the markets for these innovations. He (2007a) draws a parallel between the mechanisms through which new entities emerge as "innovations" on the

one hand, and as "economised and marketised goods" on the other.

3.3.1.3. The entrepreneurial *Homo Economicus* as a market outcome

Callon here offers a new angle on approaching the question of the relationships between entrepreneurship, innovation, and markets. The entrepreneurial competences of an individual—as the calculating *homo economicus*—are an outcome of the particular *agencement* (assemblage or arrangement) that produces both the innovations and the markets, which the thus enabled entrepreneurial individuals can in turn utilise for their own purposes (Callon 2008). This leads Callon to break with the prevailing tradition in economic sociology to portray the concept of *homo economicus* as an unrealistic theoretical assumption and to argue that *homo economicus* does indeed exist, but only in association with the various prostheses offered by the given *agencements* that equip individuals to operate as ‘individual’ calculative agents. In Callon’s view, there has been a qualitative change not only in the way the economy functions (as a *network economy*) today, but also in the type of the *homo economicus* that populates it. Callon (2007a) designates the highly controlled economising agent of the Taylorist (1911) world as *homo economicus 1.0*, while he considers the entrepreneurial, project-driven economic man of our times as *homo economicus 2.0*. They are different because they are the products of two very different *agencements*.

3.3.2. Markets as sites of experimentation

Similarly to the concept of the network, the notion of the *experiment* serves as both a method and a metaphor in ANT-based market studies. ANT follows American pragmatism in considering experimentation as a fundamental aspect of reality (Latour, Harman et al. 2011). Latour (1988a: 158) had defined this metaphysical principle most explicitly in his *Irreductions*: "There are only trials of strength, of weakness. Or more simply, there are only trials. (...) Whatever resists trials is real." The assumption of the experimental nature of reality (which has also been established empirically in STS) primes the ANT analyst to be particularly sensitive to processes that exhibit the characteristics of trials. As we saw in the previous chapter, even rationalist economists such as Kirzner have already noticed that markets have something in common with laboratories. Callon and his collaborators have observed that experimentation now features heavily both in economic theory (in behavioural and experimental economics) and in market design practices (Callon and Muniesa 2005; Guala 2007; Muniesa and Callon 2007; Çalışkan and Callon 2010). Within market studies, one of the most important contributions of the ANT perspective has been to outline how the

market process of valuation (and evaluation) itself unfolds as a trial. In the context of the current study, this is particularly relevant because the notion of experimentation as trial and error—which, as we have seen, is shared by entrepreneurship, innovation and market studies—provides an opportunity to further articulate the linkages between these areas.

3.3.3. Qualification as a market process

3.3.3.1. Emergence through trials of strength (as explication)

ANT's origins lie in ethnographic studies of laboratories, therefore many of ANT's foundational metaphors have been inspired by scientific practices and settings (Latour and Woolgar 1986; Law 1994). The laboratory was not only a primary site of interest for empirical study for STS but it has also become ANT's archetypal metaphor, on account of it being a good illustration of how emergence in a social setting is material and semiotic at the same time (Law 2009). A laboratory is a place where new entities (including scientific facts) are brought to light—and to life—with the help of complex equipment and through a process of trial and error and heated debates (eventually played out and settled on the pages of scientific journals) (Latour 1987). The scientific proof of the existence of new beings depends on the simultaneous material and discursive *articulation* of their qualities in laboratory tests and scientific publications.

Articulation is an alternative metaphor to *translation*, and, for Latour (1999b: 142), it "may be applied to gestures, papers, settings, instruments, sites, trials." But it can also be applied towards describing the functioning of related domains of innovation, entrepreneurship, and markets. New entities, whether they are scientific inventions, technological innovations, or market goods, become articulated simultaneously as objects and signs (Callon, Millo et al. 2007; Callon 2008). An ethnographic description of emergence itself becomes an explanation through such an articulation process. Latour's concept of translation as articulation is also related to Peter Sloterdijk's (2011) notion of *explicitation*, whereby the characteristics of reality are seen to get articulated through trials of explicitness (Latour 2011). While the notions of articulation and explicitation have been originally developed to describe *becoming* as an ontological and scientific process, researchers in market studies have also found these concepts useful to characterise what happens in a market (Callon and Muniesa 2005). For example, Muniesa (2007, 2011) describes how prices of financial instruments at the Paris Bourse and the Arizona Stock Exchange are constituted through trials of explicitness. This view of emergence contrasts sharply with the rationalist

assumption of the *real* already being contained in the *potential* (as we saw in Kirzner's theory). Instead, the nature of emergence described by ANT studies is more in line with Deleuze's (2004 [1968]) definition of the *actualisation* of the *virtual*, whereby that which becomes *actual* has not pre-existed in germ form as a *potential* but becomes articulated from possibilities that are synchronous (Muniesa and Linhardt 2011).

3.3.3.2. Qualification as a market process

In the domain of market studies, this concept of emergence as *translation*, *articulation*, or *explicitation* has also been described as a process of *qualification*, to emphasise the importance that the determination of the qualities of a product or service play in its transformation into an economic and market good. This is the process that drives what Çalışkan and Callon (2009, 2010) describe as *economisation* and *marketisation*. The dictionary definitions offer some indication of the way the term *qualification* is used here. *To qualify* means, among others, 'to reduce from a general to a particular or restricted form,' 'to declare competent or adequate,' and 'to exhibit a required degree of ability in a preliminary contest' (Webster's 1991: 963).

In the context of markets, the qualification of a good refers to the process of trial and error (experimentation and co-elaboration) by which a) the qualities of a product become extracted and abstracted (e.g. as a marketing proposition or as a market price), b) the economic good itself becomes objectified and singularised, c) the buyer becomes individuated, and d) the market transaction takes place (Callon 1998b; Callon and Muniesa 2005; Muniesa, Millo et al. 2007). The market transaction involves detaching the good from the seller and attaching it to the buyer, through which the economic process of supply meeting demand also becomes fulfilled. The concept of *qualification* aims to capture a complex process at the intersection between material, economic, and social becoming, through which a range of heterogeneous entities—from goods to consumers and various institutions—become constituted, reconstituted, and performed.

At the heart of it all, however, markets are primarily concerned with valuation, and therefore *qualification* also needs to express how the establishment of value—especially through calculation—is carried out. The central questions that emerge in this respect are the following: 1) who or what calculates? and 2) what operations does a market calculation consist of? Empirical market studies show that "Calculation is neither a universally homogeneous attribute of humankind, nor an anthropological fiction. It is the concrete result of social and technical arrangements" (Muniesa, Millo et al. 2007: 5). The task of market

studies thus becomes the description of the constitution and operations of markets as *socio-technical agencements*.

3.3.3.3. Calculation, qualculation, and qualification

However, calculation carried out by an agencement is not necessarily a mathematical operation: "Depending on the concrete achievement of each calculative step, calculation can either meet the requirements of algorithmic formulation or be closer to intuition or judgement" (Callon and Muniesa 2005: 1232). Qualification thus occurs within a continuum between quantitative and qualitative judgement, which, after Cochoy (2008), might be more accurately described as a hybrid process of *qualculation* (Callon and Law 2005). Cochoy describes how the humble shopping cart becomes a 'calculative device' for consumers within the agencement of the supermarket, facilitating the *qualculations* that are involved in daily shopping. *Qualculation* is an activity that is distributed in multiple ways: a) across the quantitative-qualitative judgment continuum, b) alongside a temporal axis where it participates in the conversion of products/services into market goods, and c) alongside heterogeneous entities that constitute the frame and the devices that are required for the quantitative/qualitative operations to take place. Callon et al.'s (2002) distinction between **products** and **goods** is helpful in understanding the nature of the qualification process: *product* refers to the on-going construction and transformation of an offering across time, while a *good* is a snapshot in time, the actualisation, objectification and singularisation of a product as a specific market good, with momentarily stabilised properties that includes the price of the market transaction.

This market process describes not only what happens at formally organised markets like stock exchanges, but also in markets understood in a broader sense, for example for a particular consumer good. To return to the aforementioned case of the orange juice (Callon, Méadel et al. 2002), the redesigned and repositioned offering on supermarket shelves is the re-qualified good, which represents an iteration in the history of the "orange juice product" that the producer continues to develop and modify all the while. Callon et al. show that the re-qualification of the orange juice *into a 'repositioned' good* takes place through a series of tests, which involves laboratories, marketing professionals, supermarkets, and consumers—i.e. the agencement as a whole. In fact, the laboratory metaphor can be extended to include the supermarket as well, as part of the socio-cognitive apparatus within which *qualculation* is distributed: after all, the stabilising of tastes involves the market tests that are conducted in the aisles of supermarkets.

The iterative process of qualification-requalification (which is effectively what is usually meant by ‘responding to market competition’) is revealed as consisting of a number of operations that appear to be common to markets (Callon, Méadel et al. 2002). First, a space of calculation is established through a process that Callon (1998b, 1998a) defines as *framing*. Then the entities to be valued and qualified are detached, moved, arranged, and rearranged within the calculative space, in order to enable comparison and mathematical and qualitative assessment. In this process, entities become manipulated, associated, and transformed, until the result (the qualities, including the value or price) can be extracted and abstracted. As mentioned earlier, market transactions do not necessarily need to result in a price: they may fulfil other functions as well, such as facilitating encounters between buyers and sellers (Callon and Muniesa 2005; Çalışkan and Callon 2010). The dynamic of *qualification-requalification* is both a marketing and market-making process, and, according to Callon et al. (2002), its proliferation has been a defining feature of the contemporary economy, to a large extent due to the accompanying proliferation of ICT artefacts that facilitate it.

3.4. Conclusion

My review of rationalist theories of entrepreneurship and innovation in the previous chapter has concluded that a knowledge gap exists in entrepreneurship and innovation studies concerning the interrelated processes by which *new enterprises are created as heterogeneous entities, innovations are stabilised and disseminated, and markets are involved*. I suggested that the reason why this nexus of relationships is obscured lies in the specific philosophical assumptions and methodological choices of rationalist approaches. ANT-based empiricist studies of entrepreneurship, innovation and markets offer their own answers to some of these questions. While rationalists have approached this problem area and posed the main questions from the perspective of the entrepreneuring agent (mostly conceived of as a human individual), the ANT perspective makes it possible to reformulate the entire problem from the point of view of the entities and processes that form the relationships themselves. Rather than just asking how entrepreneurs acquire means of production, combine them into new combinations, and distribute the outputs through markets, the ANT approach places the emphasis on the *becoming* of all the actors involved. The key concepts through which ANT-based entrepreneurship, innovation and market studies offer some answers to the above questions included the notions of *network, heterogeneity (socio-materiality), agencement, experimentation, translation, articulation, qualification, and qualculation*.

The concept of the network, on the one hand, is a methodological device for the material-semiotic description of associations between heterogeneous elements of an agencement. On the other hand, it is also a metaphor to describe the network-like organisation of practices and entities that link innovation with entrepreneurship and markets. As we have seen, innovation itself needs to become a network in order to be able to provide its function as such (as already implied by Schumpeter); entrepreneurship then can be defined as the activity of assembling such networks. It is thus possible to make a distinction between innovation and entrepreneurship, if by the former we understand the new heterogeneous network that needs to be constructed to stabilise the change it is introducing, while the latter is reserved for referring to the activity of assembling and stabilising (and thus rendering sustainable) such a network, which includes both the original creative act and its dissemination through markets and adoption by users. Markets can similarly be described as networks in which innovations as market goods acquire their qualities, and through which they become distributed. *How means of production are acquired so they can be assembled into an innovation-producing enterprise*—especially if this innovation itself is a means of production acquired and recombined by further entrepreneurs down the line (as is the case with the innovation of e-commerce)—emerges as a significant problem for the theory and practice of innovation and entrepreneurship, as it points to the involvement of markets and marketplaces that so far has not been sufficiently examined in either rationalist or empiricist studies.

By describing how cognition and action are distributed across heterogeneous media (Hutchins 1995), empiricist scholars also offer a solution to the agency-structure conundrum that so strongly frames debates in entrepreneurship studies, and more broadly, in organisation studies (Reed 2003). It may not be necessary to presume (in fact, it is an imperative not to do so) that entrepreneurial agency can only arise from the depths of the human individual's mind. STS-based market studies point to the particular composition and functioning of specific socio-technical agencements framing the relevant markets as possible additional sources of entrepreneurial agency.

Translation, articulation, and qualification are metaphors describing slightly different aspects of the process of becoming as it unfolds in situations of experimentations. Innovations, enterprises, and products become articulated and qualified—as economic entities and market goods—through a series of trials. This particular set of concepts allows the ANT-inspired analyst to take the perspective of the qualification process that connects sellers and buyers, and also that of the good that is being formed. The notion of qualification

therefore cuts across the empirical descriptions of innovation, entrepreneurship, and markets in STS-based studies and offers a handle—and an angle—for approaching this problem area.

ANT-inspired empiricist studies thus offer entrepreneurship and innovation studies a unique perspective—with accompanying conceptual and methodological tools—for the empirical study of entrepreneurship as part of a continuum with innovation and markets. At the same time, such an investigation would contribute to an understanding of the wider economic and social order within which entrepreneurial actors operate and proliferate. It is the very act of attempting such a description that constitutes a practical intervention into politics, as a way of rendering explicit the mechanisms that produce institutions, economic goods, and capable entrepreneurs and consumers—thus paving the way for the possibility to "recompose" the social world, to use Latour's expression (2005). I will examine these political implications of using ANT in the next chapter.

At the overlap of entrepreneurship, innovation, and market studies a number of research opportunities arise for an ANT-enabled approach. The 'new' new economic sociology—as the STS-inspired branch of economic sociology is sometimes called (McFall 2009)—is a relatively recent development. Its core concepts and findings are amenable to further elaboration and empirical support. The qualification of services (as market goods), especially of business-to-business services, is one area that is underexplored in market studies. This literature draws many of its concepts from descriptions of consumer products (such as the aforementioned examples of the Kodak camera and the orange juice), which, however, are rather different from the long-term service relationships between business buyers and sellers.

By describing how cognition and action are distributed across heterogeneous media (Hutchins 1995), empiricist scholars offer a solution to the agency-structure conundrum that so strongly frames debates in entrepreneurship studies, and more broadly, in organisation studies (Reed 2003). Entrepreneurial agency may not arise directly from the depths of the human individual's mind, as presumed by Kirzner or Burt: rather, it might be configured through and mediated by a complex apparatus of tangible and intangible elements, which include the markets. STS-based market studies point to the particular composition and functioning of specific socio-technical agencements framing the relevant markets as possible sources of entrepreneurial agency.

In the next chapter I will discuss how I am going to deploy the ANT perspective to address the research gaps I have identified in Chapters 2 and 3.

Chapter 4: Actor-Network Theory as research philosophy and method

My review of the relevant rationalist and empiricist literatures in the previous two chapters has confirmed that the *acquisition of productive means*, as the activity that overlaps and connects entrepreneurship, innovation, and markets, is a theoretically significant but underexplored area. While Schumpeter (1983 [1934]) had identified it as a defining process of entrepreneurship at the enterprise-market interface some time ago, it had nonetheless received little attention in subsequent rationalist theories. This neglect appears to be due to, among others, the conflation of entrepreneurship with innovation, the lack of consideration for the construction effort involved in these emergent activities (preferring, instead, to search for the sources of entrepreneurial opportunities), and the treatment of markets as abstract entities—all of which can be shown to result from the methodological decisions of rationalist approaches, and the philosophical assumptions that underpin them.

The two main philosophical assumptions that have been constraining the purview of rationalist theories have to do with positing the primacy and centrality of the fully formed human individual (and his or her actions and cognition) as the source of entrepreneurial agency, and presuming that the essence of an entrepreneurial opportunity that comes to be realised is already present in a potential form in the moment of it being recognised as such. This has led to placing the emphasis on cognition (especially as opportunity recognition) in rationalist theories, and side-lining the role of construction and emergence (and their social and material aspects). At the same time, differences in deploying the ideology of individualism (when one compares e.g. Schumpeter's pragmatist version of methodological individualism with Kirzner's ontological individualism and Burt's strategic individualism)—coupled with diametrically opposing roles attributed to entrepreneurship/innovation in the production of market equilibrium—have created ongoing disagreements about the relationship between the creation, adoption, and diffusion of innovation, and about the normativity of economic theory. Nevertheless, rationalist theories have also presented some important insights, which could offer some solutions to their main conceptual difficulties and contradictions. These insights have included the notions that entrepreneurship has to do with some form of *mediation* between markets; that interrelated entrepreneurial and market processes have the character of *experimentation* and *learning*; and that the relationships

between entrepreneurship, innovation and markets involve some forms of *networks*.

As I have shown in the previous chapter, STS empiricist studies using ANT-based approaches have confirmed that the above concepts are central to an understanding of the nexus of entrepreneurship, innovation and markets. STS studies offer tools to consider the emergent, constructive, social and material aspects of these phenomena, which are exactly the aspects ignored by rationalist theories. Entrepreneurial market mediation has been elaborated further as a form of *constructive translation, articulation, explicitation* and *qualification*. *Experimentation* has been shown to occur as a fundamental ontological feature of emergence. *Network* turned out to be useful both as a method of description and a metaphor to characterise network-like formations. The concept of the *actor-network* and the methodology of *actor-network theory* have also offered some solutions to the central methodological and philosophical dilemmas of rationalist approaches, by showing a way out of the rigid metaphysical constraints imposed by the subject-object model and its associated dualisms that formerly had consigned the inquiry to an anthropocentric framework. *Network* as a metaphor was shown to apply to all three phenomena (innovation, entrepreneurship, and markets) and their interconnections.

The present study into the ways in which the entrepreneurial market for e-commerce has emerged and operated in the South of England thus offers an opportunity to consider the particular relationships between innovation (the diffusion and adoption of e-commerce), entrepreneurship (the acquisition of e-commerce as means of production by retail start-ups and micro-enterprises), and the marketplaces where these business-to-business encounters and transactions tend to play out, by way of an empirical description in the vein of empiricist STS studies. In this and the subsequent chapter I will present my methodological choices for conducting such empirical research to address the above research gaps and questions. First, in Chapter 4, I will review my chosen research philosophy and method, which in the case of actor-network theory is one and the same thing. One of the key aims of this chapter is to establish the measures of quality which this current work aspires to in order to qualify as a social science account. I will present my research strategy and design in Chapter 5, where I will also describe in some detail the data collection and analysis processes that I have conducted, before presenting the empirical description itself in the chapters that follow.

While the deductive methodologies of rationalist theories are confined to a hypothetical or retrospective view of entrepreneurship and innovation and require subsequent empirical verification or falsification, ANT, as an inductive approach, allows for the direct, live study of emergence and the construction activities involved. Moreover, ANT enables the

analyst to bypass the metaphysical framework implicit in rationalist theories, represented by the anthropocentrism of the subject-object model and its associated dualisms (the traditional human-nonhuman, individual-collective, micro-macro, local-global, and agency-structure dilemmas of social theory). It does so not by privileging one or the other side of these dualisms or ignoring them altogether, but by putting them at the centre of the inquiry, as controversies that are in need of an explanation alongside the thematic research questions of a given study. In the following I will summarise the key philosophical and methodological principles of actor-network theory by reviewing the rationale and procedure laid out in Latour's (2005) book *Reassembling the Social: An Introduction to Actor-Network-Theory*, which is the first—and to-date the most complete—systematic presentation of the principles and practical steps of ANT.

4.1. ANT as empirical metaphysics

According to Latour, ANT is a new way of practicing the science of sociology. The two fundamental points of departure from traditional approaches for Latour are the following. Firstly, he argues that sociology is inherently and inevitably a practice of metaphysics, and therefore any sociological project worth its salt should be aware of and declare its metaphysical underpinnings and aspirations. Secondly, he proposes that within the historical trajectory of sociology as a discipline, and more widely, within the history of the Western world, we are at a juncture where it becomes necessary to adopt a new kind of metaphysics, one that is better suited to deal with the challenges of the contemporary world (such as the issues thrown up by global ecological and political crises), which to some extent stem from or are exacerbated by traditional Western metaphysical attitudes and positions.

The crux of this argument was developed in some of Latour's earlier books, such as (1993c) *We Have Never Been Modern* and (2004) *Politics of Nature: How to Bring the Sciences into Democracy*, according to which the modernisation efforts of the Enlightenment have resulted in an artificial separation of the domains of Nature and Society in philosophical thought (which he had coined "the Modern Constitution"), with corresponding splits in the relationships between the natural and social sciences, and between science and politics overall. Latour shows that the absolute dichotomy between subject (humans) and object (nonhumans)—mirrored by the dichotomy between Society and Nature—has been artificially constructed as a form of theoretical or metaphysical purification, while in practice hybridity and heterogeneity prevails (which leads Latour to claim that in reality "we have never been

modern"). ANT is a social science method for overcoming the Modernist impulse to separate Nature and Society, by describing reality in its heterogeneity and by reconfiguring the relationship between science and politics.

ANT, as an alternative approach to sociology, is the practice of *empirical metaphysics* (or *practical metaphysics*) according to Latour. It is empirical metaphysics because it argues for an empiricist approach to the study of social phenomena. ANT is a way for sociology to be an empirical science through the practice of empiricism. It is *practical* metaphysics because, drawing on ethnomethodology (Garfinkel 1967), ANT aims to describe the world through the practical efforts of the actors that are being studied. By combining it with semiotics (Greimas and Courtés 1982), ANT is designed to transcend the local interactionist frame of ethnomethodology and bypass the traditional social theory binarisms of micro-macro, local-global, and agency-structure, among others.

In addition to semiotics and ethnomethodology, Latour draws on a variety of philosophical and social science traditions to construct the theoretical and methodological apparatus of ANT. Tracing a full genealogy of ANT is beyond the scope of this study. However, there are a few key influences that can help understand how to deploy ANT for practical research work, from data collection to analysis and synthesis. These include some concepts from Gabriel Tarde, Alfred North Whitehead, American pragmatism, Martin Heidegger, and Gilles Deleuze. I will identify these influences in the following summary of Latour's version of the ANT method, whenever they offer a handle on operationalising ANT for research.

Although it is possible to extract a metaphysical model of the social world à la ANT from Latour's discussion in *Reassembling the Social*, doing so upfront would undermine its central objective, which is to offer an **alternative theory of causation** to the one prevalent in the social sciences, which such an impulse to formulate and apply a metaphysical framework betrays. Therein lies Latour's methodological innovation: rather than applying a preconceived explanatory framework to an empirical situation, in the manner of a deductivist approach, ANT strives for any explanation to arise from the empirical description itself, through the re-presentation of the actors' own metaphysics (efforts to make sense of the world). While in the former approach explanations are already given in the conceptual framework, for which the empirical description offers mainly an opportunity to be demonstrated on, ANT aims for the empirical description to be its own explanation, using the actors' own theories of action in lieu of a theory of causation.

Latour's main objections to the traditional method of social science research—where a

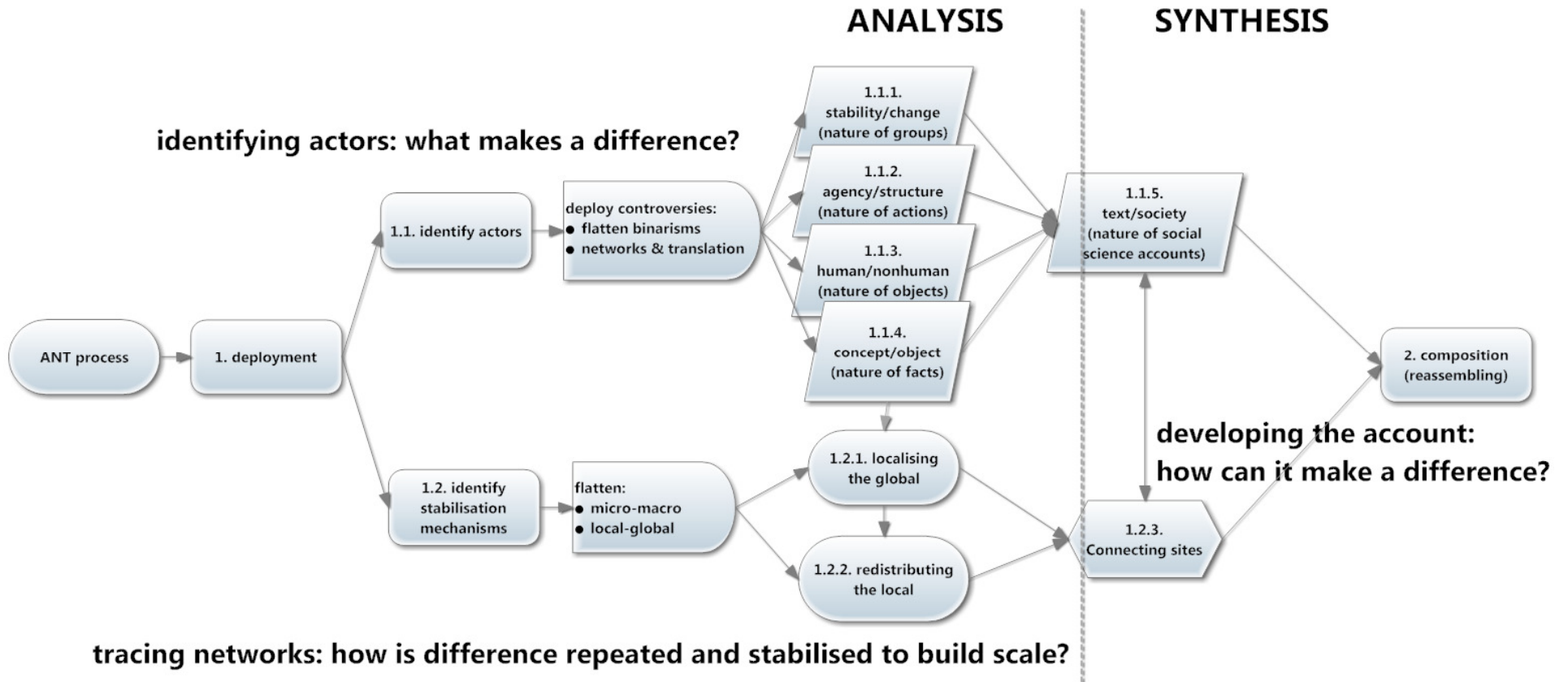
few causes organised into a conceptual framework are used to explain the complexities of empirical data—are that such an approach mistakes the *explananda* of social science for their *explanans*, namely, the conception of the *social*. The *social* is being used to explain things, as if it was a kind of a substance, when in fact it is society (as an achievement) that needs to be explained. For Latour, the *social*—as that which participates in constructing, performing and stabilising society—is a kind of a temporary movement that is in need of continuous description and which cannot be taken as a solid explanatory constant. Taking the meaning of the *social* for granted leads to missed opportunities to capture the ways in which society is reproduced and to recognise new entities that may be participating in that creative process. In other words, the traditional approach is inadequate for accounting for change, as it is geared towards re-presenting the already established state of affairs.

At the heart of Latour's metaphysical stance and its methodological implementation lies the reversal of emphasis in the relationship between identity (or presence) and difference, which is a project that has occupied philosophers for the last century and a half, including Nietzsche (1967), Heidegger (1969) and Deleuze (2004 [1968]). Latour (2005: 15-16) cites Tarde (2012 [1895]) as his inspiration on this: "To exist is to differ ... One has to start from this difference and to abstain from trying to explain it, especially by starting with identity, as so many persons wrongly do." ANT could be summarised as the method to identify, follow, and capture *difference*, as a way of tracing the emergence, formation, sustenance and maintenance of identities (of entities, groups and so on).

4.2. ANT's methodological procedure

In terms of methodological procedure, Latour breaks down the ANT process into a number of smaller steps, some of which need to be carried out simultaneously, while others need to be kept strictly separate, if not procedurally, then at least conceptually. Figure 4.1 summarises the main stages and steps of the ANT process. There are two overall stages to the ANT approach, which Latour insists must be sequential. First, it is necessary to undertake a process of **analysis** (represented by the activities on the left of the vertical dividing line in the figure), in order to identify the actors that are participating in the construction and stabilisation of the empirical situation. For Latour (2005: 123; 256), this process is about making "the deployment of actors visible." As Tarde said, "to exist is to differ," therefore to identify actors means to identify entities that are producing a difference.

Figure 4.1: The key stages and operations of the ANT method



The second stage of the ANT process must be a stage of **synthesis** (represented by the activities on the right of the vertical line in the figure), which for Latour is simultaneously an act of producing a written account and a political act of "reassembling the social," i.e. creating a new scientific and political re-presentation of the world, this time together with the newly identified actors and mechanisms. Latour uses the terms "reassembling," "collecting" and "composition" as synonyms for this unification attempt, which we can interpret as an attempt for 'diplomacy,' the activity of mediating between the various parties that have been identified as stakeholders in the controversy that is the subject of the given study. Latour argues that *controversies* are particularly suitable for ANT-type studies because it is in those situations of turmoil that participating actors and their efforts are the most readily identifiable. Once a controversy has been resolved, some actors cover up their traces, while others have their competences delegated to machines. Some claim victory, others become forgotten.

Underlying this second move is the proposition that social science does not merely represent or explain social phenomena but actively participates in the construction of the world, which is inherently a political process. (This argument is also known as the *performativity thesis* (Callon 1998b).) While these two stages (analysis and synthesis) are conceptually separate and sequential, in practical terms they somewhat overlap in the course of the production of the written account, as the analysis process partly unfolds during the construction of the research report (hence the dividing line in Figure 4.1 cuts across activities 1.1.5 and 1.2.3). If the first stage of the ANT process had to do with identifying and tracing the production and repetition of difference, then this second stage is about attempting to construct an account that can make a difference in the world, both scientifically and politically, by ensuring that the scientific account is relevant and that it provides a new representation of the actors involved.

In the following I will zoom in on and review each of the steps in the ANT procedure. The numbers in parentheses in the section titles represent the corresponding numbers of each step in Figure 4.1.

4.2.1. Analysis: making deployment visible (1)

4.2.1.1. Identifying actors (1.1)

The first, analytical stage of the ANT process ("making the deployment of actors visible") is further divided into two steps: 1) identifying actors in the process of making new

associations (connections, groupings), as they go about dealing with metaphysical controversies concerning their worlds, and 2) tracing the means (methods, entities) that allow these actors to stabilise those metaphysical controversies, and subsequently, their particular worlds. To put it in simpler terms, step one is about identifying actors, while step two is about tracing the networks that those actors constitute and through which they themselves are constituted (an *actor-network* being the outcome of this tracing).

Latour refers to the first step as "the deployment of controversies," and to the second one as "stabilisation." *Deployment* could be understood as the analytical process of attempting to escape preconceived frames of reference (on the part of the analyst) in order to create an experimental situation (e.g. by selecting appropriate sites and events to study) in which the empirical scene under consideration can be approached from a new perspective that allows new actors to become visible. This step is about identifying how differences are produced—and by which actors—in the social scene being studied.

Stabilisation builds on this process, by following the newly identified actors and describing their efforts (and the tools being used) in stabilising the controversies that they are involved in (and the tracing of which made them visible). In this stage, the focus is on how the initial differences recognised in the previous step become repeated and stabilised as identities (entities that appear stable). In the context of the current study of e-commerce as an innovation, the analogous process would be 1) to identify the actors and activities that produce the difference that ecommerce represents, and 2) to identify the mechanisms by which this difference is made to persist as an innovation (i.e. becomes successful by becoming implemented globally in its relevant world, to use Schumpeter's implicit definition of innovation).

At this point it might be helpful to distinguish between two different senses in which the term *controversy* is used in Latour's version of ANT. Firstly, there is the empirical controversy (or thematic controversy) that is the subject of the ANT analyst's inquiry. As mentioned before, topics dealing with controversies are preferable for ANT studies, given the fluidity of the situation in a public controversy that allows for the identification of the actors and actions before they are stabilised and relegated to the background. In the current study the empirical controversy concerns the emergence and adoption of the innovation of e-commerce by start-ups and micro-enterprises in the South of England, with related political and ideological controversies about the role of government (and taxpayer funds) in this process, and theoretical controversies about the nature of entrepreneurship, innovation, and markets, as well as the relationships between them. The second meaning of *controversy* is

that of a metaphysical controversy concerning the composition and construction of actors' worlds. One way or another, all the metaphysical controversies flagged up by Latour have to do with uncertainties concerning the nature and source of *causation, agency, reality, and truth*. While the two different types of controversy that are dealt with within an ANT inquiry are likely to be related (the way actors deal with metaphysical controversies affect the actions they take in the controversies they are trying to settle), it is the second, philosophical sense that is the main focus of Latour's methodological procedure concerning "deployment" and "stabilisation."

Flattening metaphysical binarisms

For conducting the above two consecutive steps (the identification of actors and their stabilisation mechanisms), Latour proposes the technique of **flattening** traditional (or one might say, modernist) metaphysical binarisms used to stabilise metaphysical controversies. The first step (identification of actors) has to do with the flattening of five sets of such binarisms (represented by the five parallelograms in Figure 4.1, from 1.1.1 to 1.1.5), while the second step (identification of stabilisation mechanisms) flattens yet another set of binarisms (ovals 1.2.1 and 1.2.2 in Figure 4.1). Let's begin by examining the five operations involved in the first step. "Flattening" here means 'to resist the implicit hierarchy of one term over another' in five sets of metaphysical controversies. Instead, Latour calls for "feeding off" the uncertainties that these traditional binarisms were meant to settle, by flattening them into the same plane, as it were, and observing how they get normally constructed.

This kind of conceptual and methodological flattening is effectively the deployment of Latour's fundamental metaphysical principle of *irreduction*. This principle states that "Nothing is, by itself, either reducible or irreducible to anything else" (Latour 1988b: 158). It is an implementation of a relativistic perspective, in the sense that it posits that any entity achieves mass and meaning always in relation to something else; and to establish this relation and maintain it as solid (e.g. as a scientific fact), it needs to be tested and traced. Such a relativisation of everything results in a flat perspective of entities and their relationships, which can be described as a *network*. For this reason the concept of the network is fundamental for actor-network theory. However, this network is not meant to be a representation of reality, as if it was a thing out there. Instead, it is a conceptual tool for the tracing of entities and their relationships as they are being constituted, i.e. the movements that construct and stabilise reality.

The principle of irreduction also hints at another of ANT's central concepts, that of

translation. Since an entity can never be fully reduced to another entity, there always has to be a remainder when the force of one entity is transferred onto another (such as when an entity is transported from one place to another or transformed from one state into another). Just as something is always lost and gained when a sentence is translated from one language to another, so do all other types of translation (including transformation and transportation) produce some sort of excess that can be recorded as the proof that the social process of construction and stabilisation had taken place.

The significance of the concepts of *network* and *translation* will become clearer when we examine each of the five types of uncertainties that Latour (2005: 23) advises to keep open during the process of ANT analysis, so that the analyst is able to "let the actors deploy the full range of controversies in which they are immersed." In effect, the semiotic notions of *network* and *translation* allow for the implementation of the ethnomethodological principle to observe and record the actors' own methods of world-making (Garfinkel 2002).

The five uncertainties that Latour calls for to be left unsettled prior to the empirical investigation and description concern 1) the nature of groups, 2) the nature of actions, 3) the nature of objects, 4) the nature of facts, and 5) the nature of social science accounts. These five uncertainties in the discourse of Modernity are usually settled by the following metaphysical binarisms, which Latour asks to flatten with the conceptual device of the network: 1) stability/change, 2) agency/structure, 3) human/nonhuman, 4) concept/object, and 5) text/society (represented by steps 1.1.1 to 1.1.5 respectively in Figure 4.1). In traditional Western metaphysics the first term of each of these binarisms is usually privileged over the second term, leading to specific metaphysical and political positions, such as e.g. anthropocentrism in the case of the human/nonhuman binarism. To remedy these situations, often a reversal of the privileged position is attempted, e.g. by advocating realism or materialism as a philosophy in the case of reversing the primary term of the concept/object binarism. Latour finds both of these situations unsatisfactory and in turn argues for suspending judgement on these relationships during the empirical examination and pursuing a flat ontology instead, where all entities (whether concepts or objects) need to be examined, traced and described under the same terms, symmetrically. Next I will examine the consequences of flattening each of these metaphysical binarisms and draw out the practical implications of these methodological moves for research.

Flattening stability/change (1.1.1)

1) Flattening the stability/change binarism—which is a variety of the

identity/difference dualism—means that the investigation focuses on tracing how the stability and identity of a group (which every entity *is*, on account of being an assemblage of other entities) is achieved, rather than taking the stability of such entities for granted. The device of the network is used to trace the interplay between stability and change in the process of construction. To summarise it in a practical injunction: "Follow the movement through which stability is achieved and performed!"

Flattening agency/structure (1.1.2)

2) Flattening the agency/structure (actor-system) binarism helps deploy the uncertainty about the nature of actions. Rather than deciding upfront whether the source of agency (defined as the production of difference) is an actor or the system it is a part of, the flattened network perspective focuses on tracing the translations of actions (and the networks they describe) through the various relationships that the actors participate in. The purpose of this move is to identify both the actors that translate the various actions involved and the networks they constitute (thus tracing the *actor-network*). This part of the analysis includes identifying a) entities that act, b) entities that may be representing the same action under different guises (or “figurations,” in the language of semiotics), c) entities against which actors define themselves, and d) theories of action with which actors explain the sources of their own agency (i.e. the actors’ own metaphysics).

Latour distinguishes between two types of entities which can be found to participate in accounts about action: *mediators* and *intermediaries*. Mediators are actors that modify action as they pass it on, thus producing a difference. Intermediaries are passive 'machines' that transport action without modification (without producing a difference). For Latour, intermediaries are the outcome of the settling of controversies, which is not to be taken as a mere discursive event but one that also has physical consequences. Once a certain controversy has been resolved, it usually means that the actions of the participating entities have been stabilised, their interests have been aligned, and their agencies and competences have been relegated to a "black box" that acts as one (Latour 1987). Behind actions of construction, stabilisation and maintenance there lies a mediator, and behind the mediator there lies a network of other mediators. ANT "pictures a world made of *concatenations of mediators* where each point can be said to fully act" (Latour 2005: 59).

The purpose of an ANT account is to identify and multiply mediators, as it is the action of the mediators that provides the explanation of a given state of affairs. The bigger the share of mediators in an account, the stronger the explanation becomes. The key point here is

that an ANT account's theory of causation is provided by the actors' own theories of action. Actors are mediators because *they are making a difference*, while at the same time also mediating and translating forces that emanate from elsewhere. However, identifying them requires work, as actors of the past are often black-boxed by prior settlements. The injunction for this second step is: "follow the actors" and trace the networks described by their actions.

Flattening human/nonhuman (1.1.3)

3) The movement of flattening the human/nonhuman binarism leads to the deployment of the metaphysical uncertainty about the role of objects in social life. It also helps further illuminate the nature of the previous two movements of flattening, i.e. how stability is achieved and how action is mediated (and distributed). The answer to both of those questions lies in the role of nonhumans in heterogeneous networks that the flattening of the human/nonhuman binarism renders visible. Once this perspective is enabled, nonhuman entities can be identified as mediators that participate in the translation of actions and in the stabilisation of social relations. The ANT analyst's job is to lend a voice to these objects in the account, by representing their efforts in the mediation of action and in the articulation of new entities that are being constructed.

"Lending objects a voice" does not necessarily mean anthropomorphising them. According to Latour, human language is just one means of articulating things. Objects 'express' themselves by becoming articulated as objects, or by articulating other objects as they pass on their forces to them. Recording how objects change each other and how they change themselves is one way of recording a nonhuman actor's own 'metaphysics.' It is worth keeping in mind that due to its symmetrical approach the actors that emerge in the course of an ANT analysis tend to be heterogeneous assemblages of human and nonhuman elements. Therefore, an object is likely to form part of an institution, some of the elements of which are either composed of human language or are capable of expressing themselves in human language, in the form of written documents or the speeches of spokespersons who speak on behalf of an assemblage.

As we saw in the previous point, objects may often remain hidden from humans, serving silently in the background as black boxes. The role of the analyst is to find opportunities to document the work of objects as mediators, showing how they participate in the construction and stabilisation of their realities. Such opportunities may be, for example, occasions of construction or breakdown, or in the absence of those, studies of documentation that may have preserved traces of such material agencies. The injunction for this step is:

"follow the actors, regardless whether they are human or nonhuman," and trace the networks of action described by them.

Flattening concept/object (1.1.4)

4) Flattening the concept/object binarism engages the uncertainty that concerns the nature of facts, and it constitutes part of Latour's philosophy of science, as an effort to redefine what is meant by a sociological account being scientific. Just like in the previous moves, the flattening produces a perspective that allows for the identification and visualisation of concepts and objects as part of a heterogeneous network of becoming and articulation. Concepts or facts are stabilised outcomes of construction, just like groups or any other types of entity are. The objectivity (or truthfulness) of a fact has to do with the number of objects (actors) that have taken part in its construction and stabilisation. Making these objects visible as *mediators that construct a fact* is one of the ways in which an ANT account can become scientific. Just like it was the case with objects in the previous point, it is easier to identify the agencies supporting a fact when it is still in the process of being constructed, rather than after it has already been settled and black-boxed. Scientific experiments in a laboratory would be one example of facts being worked out *in vivo*, but political and ecological crises, for instance, can also lead to the questioning of already established facts, leading to the reopening of their black boxes, to examine their contents.

Latour contrasts the materialities of the two different states of facts—settled vs. debated—as "matters of fact" vs. "matters of concern." While a matter of fact is already stabilised, a matter of concern allows the mapping of multiple agencies that are concerned about and embroiled in the given scientific controversy about its material existence (for instance whether global warming is a scientific fact). The latter is a type of materiality that can still be seen as a distributed heterogeneous network, as opposed to the cleaned-up and black-boxed state of an established fact. Another metaphor Latour uses to describe the socio-material nature of a fact-in-the-making is Heidegger's (1975) notion of a *thing* as a 'gathering.' A matter of concern is a gathering of people, objects, institutions and various other agencies that assemble for the purpose of settling a fact. At that point a concept has not yet been pinned to a unified object as its representation; rather, there is a multiplicity of objects and agencies being contested, accompanied by a proliferation of disparate concepts.

To establish the truth of a fact then requires the tracing of the network of actors (in the general sense as 'entities,' whether human or nonhuman, tangible or intangible) that stabilise it and make it objective. In Latour's (2005: 103) words, "to explain is not a mysterious

cognitive feat, but a very practical world-building enterprise that consists in connecting entities with other entities, that is, in tracing a network." Causation emerges not from an original cause but from the occasion created by mediators engaged in the translation of action: "the word 'translation' now takes on a somewhat specialized meaning: a relation that does not transport causality but induces two mediators into coexisting" (108).

ANT thus rejects both the correspondence and coherence theories of truth, which claim that truth is either based on the correspondence of a statement to reality or its coherence with other statements (Young 2008; David 2009). Instead of accepting the partitioning of the world into concepts on the one side (inside the human subject), and objects on the other (outside the human subject), for ANT truth is produced through a series of mediations within a network of heterogeneous entities: "one never travels directly from objects to words, from the referent to the sign, but always through a risky intermediary pathway" (Latour 40). In Latour's philosophical system epistemology and ontology have also been flattened and collapsed into the same plane: knowledge emerges from the same heterogeneous network that is represented by the empirically traceable existence of mediators. The injunction of this flattening could be stated as follows: "make the material conditions of truth production visible," by tracing the heterogeneous networks (the matters of concern) that participate in the construction and stabilisation of a fact.

Before I move on to discuss the fifth movement of flattening, it is necessary to pause for a moment at this point, as Latour makes a procedural distinction between the deployment of the first four sources of uncertainty (1.1.1 through 1.1.4) and that of the fifth one (1.1.5). He insists that the first four operations of flattening need to be carried out simultaneously (hence they are stacked alongside one another in Figure 4.1). This distinction marks a difference between the processes of data collection and analysis that are concerned with the first four uncertainties, and the process of writing, which is the subject of the fifth source of uncertainty, and which is more closely associated with the final stage of the ANT process, the "reassembling of the collective" (or Synthesis).

Flattening text/society (1.1.5)

5) The fifth flattening operation concerns the text/society binarism, which refers to the uncertainty about how a social science text can be said to be empirically representative of the social reality it claims to describe. To some extent this problem is a variation of the signifier/signified relationship from linguistics (Saussure (1983)) and philosophy (Derrida (1976)), as it concerns the nature and truthfulness of the relationship between a representation

and the represented. But it is also a practical problem, as it has to do with the construction of the text, from the note-taking during the data-collection phase to the final writing-up. At the same time, this step (operation 1.1.5 in Figure 4.1) can also be seen to be connected to the beginning of the second major stage of the ANT process, the composition of the collective, which takes place in and through the written account.

The method of settling this uncertainty about what makes a written account sociological has been already foreshadowed by the solutions suggested to deal with the first four sources of uncertainty. The assembling of the account is an experimental process, just like the trials of strength in which controversies are settled and groups or facts are forged. It can fail, just like any other experiment or attempt at invention, innovation or reproduction. It is the fallibility of an account that provides the conditions of its truthfulness and the measures of its quality.

To specify the conditions under which an ANT account can fail, Latour flattens the text/society binarism, which, just like in the previous operations of flattening, results in a network-like perspective. The relationship between a sociological account and that which it wants to represent—the social—needs to be traced empirically as part of the network of translations by mediators (actors) that are involved in constructing and sustaining the situation that is being studied. There are a number of challenges that make the tracing of such a network difficult. The *social*, as the process of creating and stabilising new associations, is a temporary movement according to Latour that only becomes visible occasionally, during controversies, such as in times of construction, innovation or breakdown. For this reason, there is a tension between continuity and discontinuity (or commensurability and incommensurability) when attempting to trace the creation of new associations and the movement of the social. On the one hand, there is a presumption of continuity in any social stability that the analyst should aim to trace, as it is the translations between mediators that lend anything its substance and durability. On the other hand, the social movement is discontinuous, as it only leaves traces during moments of construction or breakdown, afterwards withdrawing from view. The analyst therefore either needs to study the social in times of upheaval, or find archival traces of it.

An ANT account of the social then is best conceived of as a laboratory, an experimental site, or to use another of Latour's concepts, an *inscription device*, i.e. a machine for capturing mediators and recording (inscribing) their translations (Latour and Woolgar 1986). The key here to remember is that each mediator is a particular empirical object identified inductively in the course of an empirical study and encouraged to speak for itself.

Flattening the text/society binarism therefore is an attempt at establishing traceable links between the textual account and the activities of concrete actors in the empirical situation:

The whole question is to see whether the event of the social can be extended all the way to the event of the reading through the medium of the text. This is the price to pay for objectivity, or rather 'objectfullness' to be achieved. (Latour 2005: 133)

It is this experiment of trying to capture the actors' own world-making activities that eventually offers the opportunity for "*a social scientist's tiny interpretation*" to make a difference, both scientifically and politically (Latour 2005: 139). The fifth flattening could be summarised in the following injunction: "assemble a textual account of the social by capturing the movement of construction that is mediated (and communicated) by the participating heterogeneous actors." If the resulting account has managed to capture the social by giving it a *form*, it will also *perform* it when the account is being read, i.e. it will participate in the political process of composition, which itself is a process of stabilising the particular controversy that was the empirical object of the given study.

4.2.1.2. Identifying stabilisation mechanisms (1.2)

The first step of the first stage of the ANT process (operation 1.1 in Figure 4.1) had to do with identifying actors (anything that answers the question "What makes a difference?") involved in the empirical situation, by developing a flat perspective with the help of the notions of *network* and *translation*. According to Latour, this first step should result in the multiplication of actors; after all, the goal is to be able to trace empirical connections between specific actors that are found to be mediating actions (i.e. are making a difference) while they are dealing with the metaphysical controversies concerning the nature of groups, actions, objects and facts. Since normally silent or "missing" nonhuman actors are also enrolled into the account in order to explain the stability of the reality being described, the number of participating actors (as "explanatory variables") is bound to increase in the course of data collection and analysis.

The second step of the deployment stage (operation 1.2 in Figure 4.1) in many ways resembles the first one (1.1) and utilises the outcomes of its flat perspective concerning the formation of groups, the distribution of action, heterogeneity, and the material nature of fact-making. However, the second step focuses on the single problem of *how actors achieve scale*, which is an outcome of settling the aforementioned metaphysical controversies. In other words, for actors to become *global* and *macro*, some mechanisms need to be put in place in order to stabilise and pass on the difference they make, which also enables them to act at a

distance. The question to answer here is this: "How has the initial difference (produced by the actors) been made repeatable?" The difficulty is that the mediating actors are more often than not already black-boxed into stabilised formations, which necessitates the deployment of some methodological operations in order to render the associations that keep them stable sociologically (and empirically) traceable again.

Latour offers three moves for the tracing of such stabilisation mechanisms: 1) the *localisation of the global*, 2) the *redistribution of the local*, and 3) the *connecting of the two sites* that emerge from the former two moves (respectively, operations 1.2.1, 1.2.2 and 1.2.3 in Figure 4.1). All three of these moves deploy the flattening operation that was used in the previous step of identifying actors (1.1). Once more, the focus is on enforcing a network perspective by and for the analyst, and tracing the movement of translations (the mediation of actions) across heterogeneous media that constitute the empirical situation. The purpose of these operations is to avoid the temptation to take the size of actors—especially the ones that appear as macro or global actors—for granted, by enabling a perspective that allows for the re-description of how their worlds had become constructed, by following the stabilisation of the difference they make in their worlds. Next I will examine each stabilising move, to draw out the methodological steps for their implementation.

Localising the global (1.2.1)

Localising the global is the first half of the overall move to flatten the local/global and micro/macro binarisms. The aim is to deploy Tarde's (2012 [1895]) monadologist perspective, which holds that not only are large entities composed of small ones—which may sound like a commonplace materialist assertion—but also that the small already contains the big, by possessing the mechanisms which construct and maintain the big. This is the same recognition of the possibility "To see a world in a grain of sand" that was expressed by the poet William Blake (2001 [1863]). Incidentally, and significantly, this is also a defence of induction in social science, as Tarde suggests that the concrete detail already contains its own general meaning, which is why specifics are essential for any explanation and generalisation. In Latour's (2005: 147) words, "being particular is what encountering the social is all about."

The main objectives of the localisation of the global are to show how the scale of a seemingly large actor (for example, an institution, the state, or a supranational entity) is produced and reproduced locally, and to provide a description that traces chains of accountability in this stabilisation process. The aim is to avoid traditional imaginings of 'society' in terms of looming structures such as towers, pyramids or Hobbes's Leviathan, and

instead pursue the circulation of the global in flat networks that in some sense are always local (Callon and Latour 1981). Latour proposes two particular techniques (that he calls "clamps") to discourage the analyst from "jumping" from local (or micro) situations to global (or macro) actors (although the meaning of "micro" and "local" also get redefined during this process).

One of the clamps is called the *oligopticon*, which is a flattened representation of any *centre of calculation*, Latour's (1987) term for significant nodes where some form of control over a network is being exercised. An *oligopticon* imagines any such command centre not as the top floor of a towering structure of control (as one would imagine a *panopticon* à la Foucault (1979)) but as a flat, star-shaped locality that can only see what it is being shown through the few crucial networks that convey information to it and through which it broadcasts its actions as well. Another clamp is to treat the "global view" thus assembled not as a master narrative but as a *panorama*, a local projection on the walls of the *oligopticon* (such as a PowerPoint presentation summarising the essence and performance of a corporation projected on the screen of a board room). Such master narratives include the kinds of accounts that attempt to provide a totalising global explanation, such as ideologies or grand social theories.

The eventual purpose of localising the global is to identify specific "connectors" that provide the stability of a global network locally. These connectors are mediators that are often nonhuman entities operating silently in the background, which is why it is necessary to undertake a semiotic-material reading of the empirical situation to be able to identify them. Examples of such connectors may include forms (e.g. questionnaires or application forms), policies or standards that ensure the stability of a network by circulating within it (Latour and Hermant 2006).

Redistributing the local (1.2.2)

The move to *redistribute the local* is the second half of the flattening operation to place the local/global and micro/macro binarisms into a network perspective. Its aim is the inverse of the previous move: to show the material conditions of the production of phenomena normally considered to be local. *To redistribute* means 'to trace the dispersed origins of singularised points,' such as local interactions, local sites, and the figure of the individual. Latour's proposition is that just like it is possible to trace global phenomena back to local conditions, so can local things be shown to be formatted by a variety of distant (seemingly global and large) actors. Given the central position of the human individual in

much of social science (such as in rationalist theories of entrepreneurship), showing how a person—together with his or her cognitive and calculative competences—is produced as an individual subject via formatting devices such as forms, clichés, or social categories is a particularly important part of this redistribution.

The end result of this move is similar to that of the previous one: a flattened, star-shaped node with far-reaching connections that are mediated by various tangible and intangible actors, many of them nonhumans. In both cases actors have been re-described as actor-networks. Latour's injunction for these two moves is: "go slow, don't jump, and keep everything flat" in order to trace point-to-point connections between mediators, but also between discontinuities, when the temporary movement of associations ceases and we are left with the black boxes of intermediaries. This is where the technique of "free association" (Callon 1986b) becomes helpful, as it allows the analyst to follow the movement of associating across traditional physical boundaries, which includes not only the divisions between humans and nonhumans but also between material and semiotic domains (such as texts and their meaning).

Connecting sites (1.2.3)

The third move has to do with *connecting the star-shaped sites* that result from the overall flattening of the local-global (and micro-macro) binarism by the previous moves. This operation has two main outcomes. Once the actor-networks that participate in producing the empirical situation had been traced, their components and activities suddenly become visible, which include the mediators and their translations that ensure both the stability and the size of the given empirical object. To use a physics metaphor, the particles that give the network its mass have thus been revealed. It is important to note that while the ANT analyst operates by flattening the various metaphysical binarisms, the worlds of the actors that are being studied should not be presumed to have any particular shape: the main purpose of this methodological move is exactly to allow for the actors' worlds to stand out and manifest their dimensions by way of the analyst's tracing (Latour 2005: 220).

The second important outcome of connecting sites and tracing the network of circulations is that it also gives an indication of that which is not connected and which remains on the outside of this formatted knowledge. Latour uses the metaphor of *plasma* to indicate everything else that is unconnected and untouched by the social sciences. There is some debate about this concept of Latour's (see e.g. Harman 2009; Latour, Harman et al. 2011): whether *plasma* is a grand ontological concept that refers to everything that remains

outside that which exists, or simply an epistemological concept referring to the 'outside' of social science, with the latter conceived of as a network of everything it has so far managed to connect and format as 'knowledge' of the social through its accounts.

My interpretation for the purpose of this study is that *plasma* refers to the "unknown" of social science, and not to the ontological category of nothingness, as the 'outside' of everything that exists (which is Harman's (2009) argument). Although Latour's notion of social science as a network of formatted objects does flatten ontology and epistemology to some extent, ultimately it is still a definition that focuses on the particular episteme of social science, rather than on ontology as such. Latour gives a number of indications that he uses the term *plasma* as a specific sociological notion to distinguish between that which has already been described by the social sciences (the "social world") and that which has not yet been described:

Once the whole social world is relocated inside its metrological chains, an immense new landscape jumps into view. (...) I call this background *plasma*, namely that which is not yet formatted, not yet measured, not yet socialized, not yet engaged in metrological chains, and not yet covered, surveyed, mobilized, or subjectified. (...) There is no society, or rather, society is not the name of the whole terrain. Thus we may start all over again and begin exploring the vast landscape where the social sciences have so far only established a few tiny bridgeheads. (2005: 242; 244; 246)

My interpretation is in line with both Didier's (2012) original use, from whom Latour borrowed the term, and the Deleuzian metaphysical position it is putting forward. While there are entities that lie outside the formalised network of knowledge that constitutes social science, these entities are not entirely without form—they are just unformatted in social science terms. They have not yet been collected by social scientists as mediators (objects, concepts, and causes) that participate in the construction of the social.

The concept of the plasma is reminiscent of the Deleuzian (2004 [1968]) notion of the virtual plane of existence, out of which new actualisation of beings can materialise: "And yet there exists a reserve, a reserve army, an immense territory—except it's neither a territory nor an army—for every formatted, localized, continuous, accountable action to be carried out in" (Latour 2005: 245). In this sense a social account à la ANT is itself a description of the process of actualisation that takes place when the 'social fluid' (the movement of creating new associations) connects hitherto unconnected *virtual* entities from the 'plasma' to produce society. Latour's method can thus be interpreted as an implementation of the Deleuzian idea that reality is an *actualisation of virtual possibilities* (represented by the translation of mediators that transform and re-create), rather than just a straightforward *realisation of*

potentials (unproblematic transportation by intermediaries of pre-existing entities): "Either you have actors who realize potentialities and thus are not actors at all, or you describe actors who are rendering virtualities actual (this is Deleuze's parlance by the way) and which require very specific texts" (Latour 2005: 156).

Latour suggests the asking of three questions, as part of implementing the third move to connect the formerly flattened sites of the global and the local. 1) *What makes acting at a distance possible?* The means (connectors, mediators) that allow the transportation of action across large distances and thus make macro actors stable as networks need to be identified. 2) *What is the nature of mediators?* The specific nature of the mediation in each case needs to be identified, as there are many different possible modes of existence through which entities can persist and perform their roles. 3) *What remains unconnected?* This question is hinting at estimating the extent of the **socially unformatted world** out there, both to identify further possible sources of agency from the "missing masses" (silent nonhumans) and to chart future directions for research (Latour 1992).

4.2.2. Synthesis: composing an account and a world (2)

Composition is the second, concluding stage of the ANT process, dealing with putting the social world back together again, after it was approached, defragmented and recollected through the flattened perspective of the previous analytical stage of deployment. Latour calls this stage *political epistemology*, as it involves a new way of learning about the social world, one which allows for new political representations and change. One of the criticisms of Latour's metaphysical position has been that it does not account for change (Harman 2009). However, if we accept Latour's (2005: 59) suggestion and consider ANT to be an implementation of the Deleuzian distinction between *actualised virtualities* and *realised potentials* (as contrasting interpretations of the process of becoming and individuation, with the former implying an active construction of reality by a multitude of mediators, and the latter an unfolding of a predetermined reality accounted for by a few causes transported by a mass of passive intermediaries), then ANT is all about re-introducing change into sociological explanations. Change is captured in an ANT account in the form of the difference implemented by 'dipping' into the *plasma*—a concurrently existing field of virtualities that are sociologically not-yet-connected entities—for the dynamic explanation of what gives an existing state of affairs (an actualisation) its stability.

Such re-descriptions offer the possibility of creating a new social order consisting of a new set of elements. Reassembling the social in the form of writing a sociological account

offers new ways of connecting entities and new ways of black-boxing them, which in turn can enable them to serve as new types of connectors for a new way of formatting the social. Sociology as a science is one of the "connectors" that help format the social, which is why its particular way of re-composing the *collective* (Latour's term for 'society', once it also includes nonhuman actors) needs to be taken seriously as a politically relevant act. New descriptions give political representations to new entities and new groups that hitherto may have been ignored (such as the "ozone hole" or the AIDS virus, and the collectives that are concerned about them (Latour 1993c)). Re-descriptions offer the possibility for new arrangements (including political arrangements), such as differently composed institutions that offer an alternative approach to the Nature/Society binarism of what Latour called the Modern Constitution.

The injunction to implement the composition stage may go like this: "compose an *interesting* account that makes a difference, by representing the difference made by the reassembled actors themselves." Latour (2005: 138) draws on the etymology of the word *to interest* (from the Latin *inter + esse*, 'to be between', 'make a difference', 'concern' (Merriam-Webster 2015)) to define how to make an account itself interesting: "A report is interesting or not depending on the amount of work done to interest, that is, to place it between, other things." These "other things" include the objects (the missing masses) brought in from the plasma (the virtual plane of hitherto unsocialised entities), which lend stability to both the social reality described and to the account itself.

Latour (2005: 127) argues that social scientists should "render explicit the conditions under which their writing can fail," as a way of providing the measures by which the quality of their work can be judged. What are the criteria according to which an ANT account should be judged as a successful one and which the current study should aspire to? Let me summarise the key measures according to Latour. Firstly, an ANT analyst needs to maintain an attitude of fallibility, by treating the writing of the study as an experimental process and the text as a laboratory, where some trials need to be staged to capture the existence of some new actors. According to Latour (2005: 156), the difference between a good account and a bad account is "the same as between a good and a bad laboratory." The ANT analyst needs to make the experimental protocol and the nature of the experimental apparatus explicit, just like a good natural scientist would. In the current case this means declaring the ways in which ANT as a theoretical and methodological apparatus had been deployed (see Chapter 5 and the subsequent empirical chapters).

Concerning the specifics of such a deployment, there are some further measures of

quality. As the flattening of metaphysical binarisms is ANT's main *modus operandi*, one measure is the consistency by which the flattening across the range of the aforementioned binarisms had been deployed, and the urge to divide the world into the two opposing poles in each case resisted. This measure is related to the extent to which the method of the network had been deployed successfully to trace the movement of creating associations. The success of such tracing in turn depends on the multiplication of actors that have been identified as mediators involved in translating a string of actions.

The quality of actors as mediators also depends on their specificity. The account should also allow them to express their own metaphysics, either in terms of the linguistic manifestations of their own theories of action or in terms of the articulations they undergo and enact on other actors. The objectivity of the account will increase by having more objects participating in the description of the translation, and by allowing them to be represented on their own terms. This requires the ANT analyst to resist the temptation to explain the actors' actions in terms of a meta-language and allow for the actors' concepts to do the talking.

Since the *raison d'être* of ANT is to be able to describe the emergence and sustenance of stability and identity through showing how difference was produced and tamed, a good ANT account needs to be able to re-describe reality as the *actualisation of virtualities*, rather than a *realisation of potentials*. This requires the identification of specific new actors and showing how they are contributing to the emergence and stabilisation of said reality. Latour described this process as an activity of engaging with the *unknown* of social science (i.e. *plasma*), by enrolling new actors into the account, to identify who and what translates the forces that produce that social reality. If an account succeeds capturing difference by enrolling a multitude of new actors, then it will also become interesting—and relevant—to a broader range of stakeholders. Becoming interesting to more actors would also increase the likelihood of being able to make a difference scientifically and politically, by offering a new way of understanding and assembling the world. By providing new tools in the form of concepts, the social account will have itself contributed to the stabilisation of the controversy it had studied.

4.3. Conclusion

In this chapter I have presented my interpretation of Latour's version of actor-network theory, as the research philosophy and method that I have chosen for the empirical study of the emergence of e-commerce among micro-enterprises in the South of England. I have

reviewed the underlying philosophical and methodological principles and constructed one possible way of operationalising it for empirical data collection and analysis. In the next chapter I will describe how this method was implemented for conducting the research and producing the account.

Chapter 5: Research strategy and implementation: ethnographic sensibilities

Having reviewed actor-network theory as the main research philosophy and method with which I have decided to pursue the current study, in the following I will describe how this research approach was deployed in practice. Even though up until now I have discussed ANT in the context of the sociology of science, innovation, and markets, at a fundamental level its practitioners consider it to be a form of anthropology. Latour (2013) describes his life-long project as an anthropology of the Moderns, and for him (2005: 68) anthropology as practice is identical with what he called *empirical metaphysics* (Latour, Harman et al. 2011). Consequently, ethnography, the main method of anthropology, occupies an important place within the toolbox of actor-network theory. Ethnography is by definition an empiricist, inductive approach to theory construction. It begins with the specific, it aims to avoid reductionism, and it achieves explanation by way of description.

I will organise the description of my operationalization of the ANT method for empirical research according to the ten sensibilities that Neyland (2008) proposes as general guiding principles for ethnographic studies, especially organisational ethnographies. A “sensitivity” aims to be a non-normative point of guidance to highlight areas that practitioners of ethnography should tend to, without turning them into a set of rules. I will discuss these sensibilities in a slightly different order than introduced by Neyland, but they address the same issues: 1) the ethnographic strategy, 2) questions of knowledge, 3) location, 4) access, 5) field relations and participating, 6) ethnographic time, 7) observing, 8) supplementing, 9) exits, 10) ethics, and 11) analysis and writing.

5.1. Ethnographic strategy

According to Neyland, an ethnographic strategy, as an initial plan and its ongoing modification, helps manage the complexity of conducting an ethnographic study, given the theoretical and practical demands associated with such an endeavour. He stresses that for such an ethnographic strategy to work, it needs to be less of a rigid plan and more of a fluid set of ideas that are allowed to be modified as the study progresses—while still providing some direction. All this methodological tentativeness is in line with the inductivist orientation of ethnography, which aims to avoid prescriptive tendencies even in terms of research

strategy, design, and implementation. There are two main aspects of the initial ethnographic strategy that need to be worked out. First, a research question needs to be developed, and then initial decisions need to be made about the other aforementioned sensibilities.

5.1.1. Developing the research question

I have pursued an exploratory strategy and used my initial research question as a guide that itself was allowed to change as I progressed with collecting and analysing data. There was a practical dimension to it from the start, as the research question was aimed at developing an understanding of how e-commerce as a ‘global’ innovation was being adopted by ‘local’ micro-enterprises in an EU member country (the UK), where the government was concerned about the loss of national competitiveness due to the slow adoption of ICTs by SMEs when compared to its main competitors, especially the USA (DTI 2005). But the research question also followed the strategy of what Neyland called “the pursuit of things,” i.e. the steadfast following of a particular entity, which in this case was the innovation of *e-commerce technology* (as a set of ICT artefacts, associated competences, and institutions), in the course of it being adopted by small retailers across the South of England in the first decade of the 21st century.

The research question has gone through three main iterations, which more or less mirror the stages of the actor-network theory process reviewed in the previous chapter (identifying actors, tracing their networks, and recomposing their worlds). The first iteration of the research question—*What is the role of ICT artefacts in the organisational processes of a retail micro-enterprise?*—was concerned with what goes on within individual e-commerce enterprises, as the entities that were the most directly implicated in the use of e-commerce as a trading platform. Soon thereafter the tracing of the emergence and constitution of e-commerce-related ICT artefacts had led me to the outside of individual firms, by following their external relationships, which prompted the second iteration of the research question, focusing on the external sources of ICTs, and the processes of their acquisition and articulation: *“How do retail micro-enterprises acquire e-commerce technologies as innovations that serve as their means of production?”*

Following the articulation of e-commerce artefacts had eventually resulted in the third iteration of the research question, as the role of markets and marketplaces had become increasingly prominent during the data collection and analysis process. The corpus of empirical data allowed for answering the question: *“How had a regional entrepreneurial market for e-commerce emerged and operated in Southern England?”* which in turn could be

rephrased in more general terms as: “*How do entrepreneurial markets for innovations emerge and operate in a developed economy (in this case the UK)?*” At the same time, developing an answer to this question, by way of the ethnographic description, had also allowed addressing the theoretical question that arose from my review of the rationalist and empiricist literatures: “*What is the nature and significance of the relationships between entrepreneurship, innovation, and markets?*”

Developing the rest of my ethnographic strategy had to do with making decisions—and either sticking with them or altering them in light of new data—about the remaining ten sensibilities, which I will review one by one in the following.

5.2. Questions of knowledge

The second sensibility according to Neyland that needs to be addressed as part of the ethnographic approach is what kinds of knowledge claims the given study can make. The answer to this question is provided by my choice to adopt actor-network theory as my method. As we saw in the previous section, ANT to some extent collapses ontology and epistemology. What becomes known to social science is that which has been touched and connected by it within its accounts, i.e. what comes to be *known* to it as *existing* in the social world. Everything that remains outside social science formulations has been designated as the *plasma* (the ‘social unknown’): the synchronous Deleuzian virtual plane of entities that can be actualised into “social beings,” but only if someone or something makes the effort to connect them to what has been collected as “society.”

ANT, as a qualitative inductivist approach, has its own particular way of making knowledge claims: it insists on applying the actors’ own terms (or metaphysics) in the description as much as possible, in order to avoid the injection of meta-theories as ready-made explanations by the analyst. I have strived to implement this principle by using the depicted human or institutional actors’ own expressions to characterise their activities, and by identifying the particular roles of specific nonhuman actors in these activities, in order to articulate their involvement as well.

5.3. Location

Neyland argues that the question of ethnographic location is intertwined with the questions of knowledge and strategy, as the choice of the site(s) to study implies particular claims about epistemic validity. ANT provides specific guidance on how to treat sites.

Locations in themselves are secondary: what matters for ANT is the circulation of the movement of creating new associations, and the conditions of the production of sites. By abolishing the local/global distinction, for ANT there is no such thing as a privileged starting point, as it is the connections and communications between sites that matter. Any observable site is thought to contain elements and markers of other sites which it constructs and by which it is constructed. Epistemic validity emerges from describing the “constructive travel” between such related sites. ANT implies an approach that Neyland calls *mobile ethnography*: a form of multi-site ethnography where knowledge claims emerge from following things across multiple sites (and thus connecting those sites). In fact, the single vs. multi-site distinction loses its meaning in a way, as the traced network could also be considered as a single site or object in the end.

In the case of my research study, there were multiple commercial, not-for-profit, government, and university organisations involved, and the events I have observed in many cases did not take place at any of the organisation’s own sites (their main locations of operation). There were multiple actors sometimes belonging to multiple organisations criss-crossing multiple sites, where certain sites were merely occasional props for certain events, while other sites were more permanently associated with a given organisation. Effectively, the site of my research has been constituted by all the sites where observation or other type of data collection events had taken place or had been collected from. In other words, the location of my research was *the network described by the actors* that I have studied.

The physical sites I had studied were spread across two Southern English counties, and in this sense the location—and object—of my research could be characterised as the e-commerce market for SMEs in the counties of Midsomer¹ and Downshire*. (There are historical, geographical, and practical reasons for the SME e-commerce market having developed something of a regional identity across these two counties.) What made this e-commerce market regional was not its reach to the end customers (which tended to be at least national, often EU-wide and in some cases world-wide), but the proximity of the buyers and sellers of the e-commerce business services (that were needed to construct and operate an e-tail start-up or micro-enterprise) to each other. However, as we will see in the empirical chapters later on, the traced network eventually had reached far beyond the confines of these two counties. This network can also be considered my ‘unit of analysis’; however, its unity

¹ Names of persons, organisations, and locations marked by an asterisk when first mentioned have been anonymised to preserve confidentiality. I will explain the reasons for this later in this chapter.

was the outcome of the research, rather than a characteristic of an input measure.

While I had collected my empirical data at thirty-six different physical locations, eventually four main types of sites have emerged as the primary objects of study: 1) the sites of micro-enterprises, 2) the sites of e-tailer peer group meetings, 3) the sites of e-commerce industry conferences, and 4) the sites of (governmental and non-government) business support organisations. Together they have constituted a network of sorts that I will call the *regional e-commerce business market*.

5.4. Access

Closely related to the question of how to select locations for an ethnographic study is the problem of gaining access to these sites. Neyland presents this issue as a matter of first identifying an organisation for the study and then negotiating access to it, resulting in a verbal or written agreement. In my case the organisation that had become the eventual object of my ethnographic study—the regional e-commerce business market—was not directly identifiable to me at the start of the research, and I was not even aware at that point that it would emerge as such. Driven by the first iteration of my research question, I was initially interested in gaining access to e-tail micro-enterprises that had already adopted e-commerce technologies, as the most obvious sites for my research study, given that those technologies were already in existence and observable on the ground.

My strategy to find such e-tail micro-enterprises was to become involved with the regional branch of Business Link (Business Link South* (BLS)), the government-funded business support organisation in England, which had regularly run seminars for SMEs on how to adopt innovations, especially ICTs and e-commerce. My position as a university lecturer has enabled me to gain access to Business Link as a participant observer, as I was invited a number of times to be a guest presenter at some of their events. It was at the very first such event on 12 December 2006 that I have met Simon Jacobs*, who at the time was an e-Business Advisor at BLS and the main organiser of that event. Having learnt a few weeks later that Simon had left BLS and set up his own business running monthly meetings of support groups for e-tailer entrepreneurs called Compass Groups*, I had negotiated access to these meetings as a way of searching for my initial case study organisations. This negotiation was not a one-sided effort on my part but a mutual one by all the main parties to enrol each other into our own respective networks of relationships. For instance, Jacobs invited me to one of his events because he was hoping to be able to tap into my network of contacts to

recruit new clients for his business. Similarly, all my other e-tailer research subjects were hoping to gain access to the services that they thought I was able to offer or mediate as a university lecturer.

This interest in mutual enrolment had two main implications for my research. Firstly, it was one of the factors that had led me to insist on anonymising the collected data from the start, in order to deflect the research subjects' interest in wanting to put a positive spin on information shared with me, as a way of creating positive marketing or public relations outcomes for their businesses. By not being able to have their brand names represented in the outputs that would stem from the research, this motivation was largely mitigated, thus removing one major incentive to either withhold information that the research subjects may have thought would put their organisation in unfavourable light or to put a positive spin on information shared with me.

The second implication concerned the selection of the research subjects themselves. There was an element of self-selection by the representatives of these organisations that has resulted in a certain bias towards research subjects that shared similar qualities. These qualities concerned a positive attitude towards academic research, academic institutions, and learning in general. They all had fit the profile of the "lifelong learner" (Chapman and Aspin 1997), as someone who continues with their formal or informal education actively throughout their adult lives. Conversely, there may have been potential participants that did not share these qualities to the same extent; however, it was not possible for me to include them in my study, as they declined to participate in the research. At the same time, the positive attitude to learning and academic institutions among members helped with my negotiations to gain access to my empirical objects and aided me being accepted as a participant observer.

5.5. Field relations and participating

Very closely related to the issue of gaining access is how the ethnographer conducts himself or herself in the field and how relations with other participants are being managed. As a Business School lecturer and researcher with interests in the subject area, I was treated as a service provider in the e-commerce business market. I was presumed to possess relevant expertise and be able to provide access to new knowledge concerning the industry. Furthermore I was seen as a possible access point to other buyers and sellers of e-commerce business services, which included the university as a source of students or graduates looking for placements and employment in the e-commerce industry. My academic and prior industry

experience with the business world and ICTs has equipped me with what Garfinkel (2002: 175-176) calls “unique adequacy,” i.e. sufficient familiarity with the field to be able to engage with it as a “*vulgarly competent*” participant observer.

My position in the field alternated between being a *participant observer* and an *observer participant* (Junker 1960), depending on the roles available to me, or the demands placed on me by other participants. Generally I aimed to be more of an observer than a participant, as even from a practical point of view it made note-taking easier. However, there were times when I had to become more of a participant than an observer, to earn my place within—and maintain my access to—a given group. For example, as a non-business owner member of the Midsomer e-Tailers’ Group*, I was made exempt from paying the membership fee. In return I was expected to make contributions that would provide some value to the fee-paying members, such as preparing presentations on the latest trends in the e-commerce industry and in the field of Internet-related technologies, facilitating some of the meetings, or helping to organise them, e.g. by recruiting visiting speakers. Similarly, managers of firms that have agreed to be interviewed or be observed at times requested consultancy advice from me or other forms of favours, such as requests for reference letters by one participant who had sold his firm and was applying for university lecturer positions.

5.6. Ethnographic time

Neyland notes that there is often a distinction between *ethnographic time* (the time spent on the study that matters for the ethnography) and *organisational time* (the time spent on the study that matters to the organisation). Ethnographies generally require long periods of data collection and analysis, often spanning several years. However, the organisations that make themselves available to the ethnographer may consider different—usually shorter—time scales as useful for their own purposes. The tension between ethnographic time and organisational time was not an issue for this project, partly because its focus had shifted early on from the study of individual organisations to that of the market, and therefore it was not tied to the demands of a single formal organisation. Nonetheless, besides the requirements of the ANT method, this shift was also partly affected by the fact that initial attempts to conduct observations of individual micro-enterprises ran into the practical difficulty of resource constraints. Micro-enterprises operating out of small premises and employing two or three people made it exceedingly difficult to conduct observations without negatively affecting their organisational processes, arising from the researcher physically obstructing their

activities and diverting managerial and employee attention from pressing business matters. The only way to conduct a direct ethnographic study of an individual micro-enterprise would have been by becoming a long-term employee of one. However, this option was not available to me.

Even though the ethnographic vs. organisational time problem does not surface in my study, it is possible to make a distinction between three conceptions of time that apply to and are relevant for this project. Firstly, there was the *historical time* of the emergence of e-commerce as an innovation in the South of England, from the appearance of the first basic informational websites for retailers in the late 1990s to the widespread adoption of e-commerce by SMEs in the region by the end of 2010. The *ethnographic time* of the study could be defined as the time period associated with my direct observation of the regional e-commerce market, which begins with the 12 December 2006 Business Link event and ends with the final recorded participant observation, which took place on 3rd January 2011. However, I continued to collect supplementary information (in the form of interviews and documents); therefore there was also something like *data collection time*, spanning the entire data collection period that began on 12 December 2006 and ended on 30 October 2011 with a final interview with Simon Jacobs.

5.7. Observing

While all the previous sensibilities had to do with observation one way or another, Neyland insists that the method of observation needs to be more specifically considered, as it is far from being a straightforward activity in the course of ethnographic research. There are two main issues here: 1) what to observe, and 2) how to observe. In this section I will also summarise the kinds of data that observation had yielded.

5.7.1. What to observe

Neyland suggests that maintaining *ethnographic strangeness*—a classical ethnographic strategy—can be one way to insure that observations go beyond what is commonplace and readily available. There were three main ways in which I was able to sustain a level of strangeness during this study. Firstly, I was a genuine stranger in Southern England, as a relatively recent immigrant from Central Europe (having arrived in the summer of 1999, just around the time that e-commerce was beginning to take off). Secondly, I was also a stranger in an economic sense. Having grown up in the planned economy of communist Czechoslovakia, capitalism as an economic order and entrepreneurship as an

economic activity and lifestyle have retained for me an air of exoticism, as these were phenomena I had only encountered directly for the first time in adult life. Thirdly, I was able to maintain ethnographic strangeness by assuming the role of the “acceptable incompetent” (Lofland 1971). Although I was “vulgarly competent” with ICTs and business processes, I had no direct expertise in the practical and technical aspects of e-tailing and the e-commerce business services market. My relative incompetence in these areas provided opportunities for more seasoned participants to explain to me, the outsider, what was going on. Besides cultivating ethnographic strangeness, breakdowns in personal, social, economic and political matters and relations (e.g. the disruption caused by e-commerce, the financial crisis of 2008 (BRC-KPMG 2008), entrepreneurs’ personal crises) have provided the other main way to sustain an analytical distance for the purpose of making fresh observations.

5.7.2. How to observe

The question of “how to observe” concerns the activity of taking field notes. Note-taking did not generally cause disruption at the observed events (mainly seminars, peer learning group meetings, and industry conferences), as many—and in some cases most—participants engaged in note-taking as a core activity. When I was observing the operations of a micro-enterprise, I would either take notes during the observation event or shortly afterwards, depending on whether or not the note-taking would have been disruptive in the given situation. As for the mechanics of note-taking, field notes were primarily taken as handwritten notes in A5-size hardbound notebooks in a diary format, and occasionally as digital audio-recordings. Some digital photographs of premises were also taken. Finally, documents handed out at observed events were also collected, such as printouts or digital copies of PowerPoint presentations, catalogues, brochures or flyers.

5.7.3. Observation data

Table 5.1 summarises the main organisations that had served as sites or objects of participant observation and sources of supplementary interviews. In total there were 83 discrete observation events that took place between 12th December 2006 and 26th January 2011. Their average duration was two hours, although some events such as the Compass e-Tailers’ Group meetings lasted for three hours. There were a few telephone calls that were shorter (lasting from nine to 22 minutes), and a few e-Tailers’ Den* conference events that were longer (three and a half hours).

Altogether 15 organisations had served as observation sites, and 17 (including two

additional organisations) as sources of interviews. These numbers do not coincide with the number of individual empirical objects that had been encountered, as there were sometimes representatives of over a hundred organisations taking part at some of the observed events. Also, a significant number of organisations had regularly participated at several of the observed events, sometimes performing different roles. However, for the sake of simplicity, I have only included discrete events in the figure of 83, to provide an indication of the extent of participant observation events.

The 15 observed organisations can be divided into three main categories. Five of them were e-tail micro-enterprises that had acted as *buyers* of e-commerce business services. One was a *seller* of EBS services: a web design micro-enterprise.

Table 5.1: Combined list of observation events, sites, and interviews
(all names have been anonymised)

Summary: 83 discrete participant observation events with 15 organisations as observation sites, and 30 interviews with 17 organisations, including 7 EBS buyers, 1 EBS seller, and 9 market makers (7 marketplaces and 2 ‘market framers’), between 2006-2011

Time span	Organisation name & type	Observation events	interviews
	e-tail micro-enterprises (EBS buyers)	(19 total)	(19 total)
2-May-07 to 15-Dec-09	Mandoline	14	9
20-Sep-07 to 22-Dec-10	Expat Food	2	6
24-Oct-07 to 27-Jul-10	Gift Box	1	1
16-Jul-08 to 01-Nov-10	ViewFinder	1	1
05-Mar-09 to 19-Aug-09	LetNet	1	
24-Oct-07 to 30-Jul-10	Gadget Shop		1
3-Apr-08 to 28-Jun-11	Pool Supplies Ltd.		1
	EBS seller micro-enterprise	(1 total)	(1 total)
2-May-07 to 13-Jan-10	WebTech	1	1
	Market makers: EBS marketplaces	(53 total)	(9 total)
12-Dec-06 to 3-Jan-11	Business Link South (BLS Ltd.)	4	1
2-May-07 to 30-Oct-11	Compass Ltd.	8	8
17-Jul-07 to 18-Sep-08	e-Tailers' Den	6	
02-May-07 to 08-Jan-08	Downshire e-Tailers' Group	3	
24-Oct-07 to 19-Nov-08	Midsomer e-Tailers' Group	10	
03-Dec-08 to 14-Jul-10	Continuation e-Tailers' Group	15	
10-Sep-07	APEX Groups	1	
22-Oct-08	Midsomer Chamber of Commerce	1	
12-Jun-09 to 15-Oct-09	Lancer Ltd.	3	
30-Apr-09 to 28-May-09	South-Net	2	
	Market makers: market framers	(13 total)	(1 total)
12-Dec-06 to 14-Jul-10	Southern University	9	1
21-Jan-09	SORDA	1	

The third category was that of the *market makers*: those who created and operated the marketplaces and market spaces where the above buyers and sellers were able to encounter each other. Market makers could be divided into two further sub-categories. There were seven actual EBS marketplace providers who ran the marketplace locations and events. And then there were two ‘market framers:’ organisations that were involved in the EBS market less directly, by providing institutional and physical infrastructures and conceptual tools for the operation of markets.

5.8. Supplementing

Neyland suggests that at times it may be necessary or useful to collect other than observational data to supplement gaps in the accumulated empirical corpus, via interviews, virtual ethnography, visual ethnography, and documents. In my study the entities that would normally be the empirical objects of virtual ethnography (websites) and visual ethnography (photos and videos) can be subsumed under the category of *documents*, as from the perspective of actor-network theory it does not make much difference what physical form an actor—or its trace—assumes. Websites, photographs and other documents can be considered as part of the heterogeneous setup of the organisations that have produced them and use them. The main distinction between *observational data* (which includes some documents that were used during the observed events) and *supplemental data* here is a temporal one. Observations had followed emergent phenomena live, as they were unfolding; while supplemental data are either retrospective (interviews) or had been produced in the past (documents).

5.8.1. Interviews

Interviews were necessary for this study for several reasons. Firstly, it was not possible to conduct prolonged on-site observations of micro-enterprises without significantly disrupting their operations. Observational data needed to be supplemented with information from interviews, especially about relationships with other actors such as suppliers or customers, which otherwise would have been difficult to access for various practical or legal reasons (e.g. if they are at distant locations or are subject to data protection legislation). Besides plugging gaps in my understanding of the observed events, interviews also offered an opportunity to obtain clarification about conflicting or unclear data, confirm the validity of observed data, and observe the reaction of actors to my subsequent interpretations. Finally, the need for interviews also arose from my chosen research method. ANT requires an understanding of the make-up of actors and the trajectories of their emergence. However, in

most cases interviews were the only way to access the histories of the observed actors because there would not be much public information about micro-enterprises.

Interviewees were selected on the basis of the extent of their involvement in the observed events, which primarily concerned decisions and actions about engaging in the market for e-commerce business services in the capacity of buyers, sellers or market makers. Most often interviews were conducted on the premises of the focal organisations, some at external locations such as coffee shops or university classrooms, and one over the telephone. The interviews were predominantly semi-structured interviews with questions concerning gaps in the observational data, its validity, the relevance of my interpretations, and the history, structure, operations and relationships of the given organisation. Occasionally unstructured informal interviews (field conversations) also took place.

Table 5.2 provides a list of the interviewees and the corresponding interviews. (This list includes two additional organisations—Gadget Shop* and Pool Supplies Ltd.*—that were not included in the list of 15 observation sites (Table 5.1) but which, nonetheless, had been observed at a number of other events.) I had conducted 30 interviews between 30 July 2007 and 30 October 2011 with ten different organisations. The average duration of an interview was 1 hour 42 minutes, and in total 51.4 hours of interviewing took place. Out of these ten organisations six were EBS buyers (e-tail micro-enterprises), one was an EBS seller (a web design micro-enterprise), and three were market makers, which included Compass Ltd., Business Link South, and Southern University. The organisations listed above the thick line in Table 5.2 were market participants (EBS buyers or sellers), and the ones below the line were market makers.

The different types of organisations interviewed were the following: 19 interviews were conducted with six e-tail micro-enterprises as buyers of EBS: nine with Mandoline, six with Expat Food*, one each with Gift Box*, ViewFinder*, and Gadget Shop (also as representative members of the Compass e-Tailers' Group), and one with Pool Supplies Ltd., as an illustrative case of an e-Tailers' Den presenter. Eight interviews were carried out with Compass Ltd., as the main market maker, and one with Business Link South and Southern University each, as additional market makers. Figure 5.1 provides an alternative visualisation of the main organisations that had served as data collection sites or interviewees, mapped across the timeline during which participant observations and interviews had taken place, starting with the first observation event in 12 December 2006 and ending with the last interview recorded on 30 October 2011. The entities observed are organised into the categories of market makers (of EBS marketplaces), EBS buyers and sellers, and market

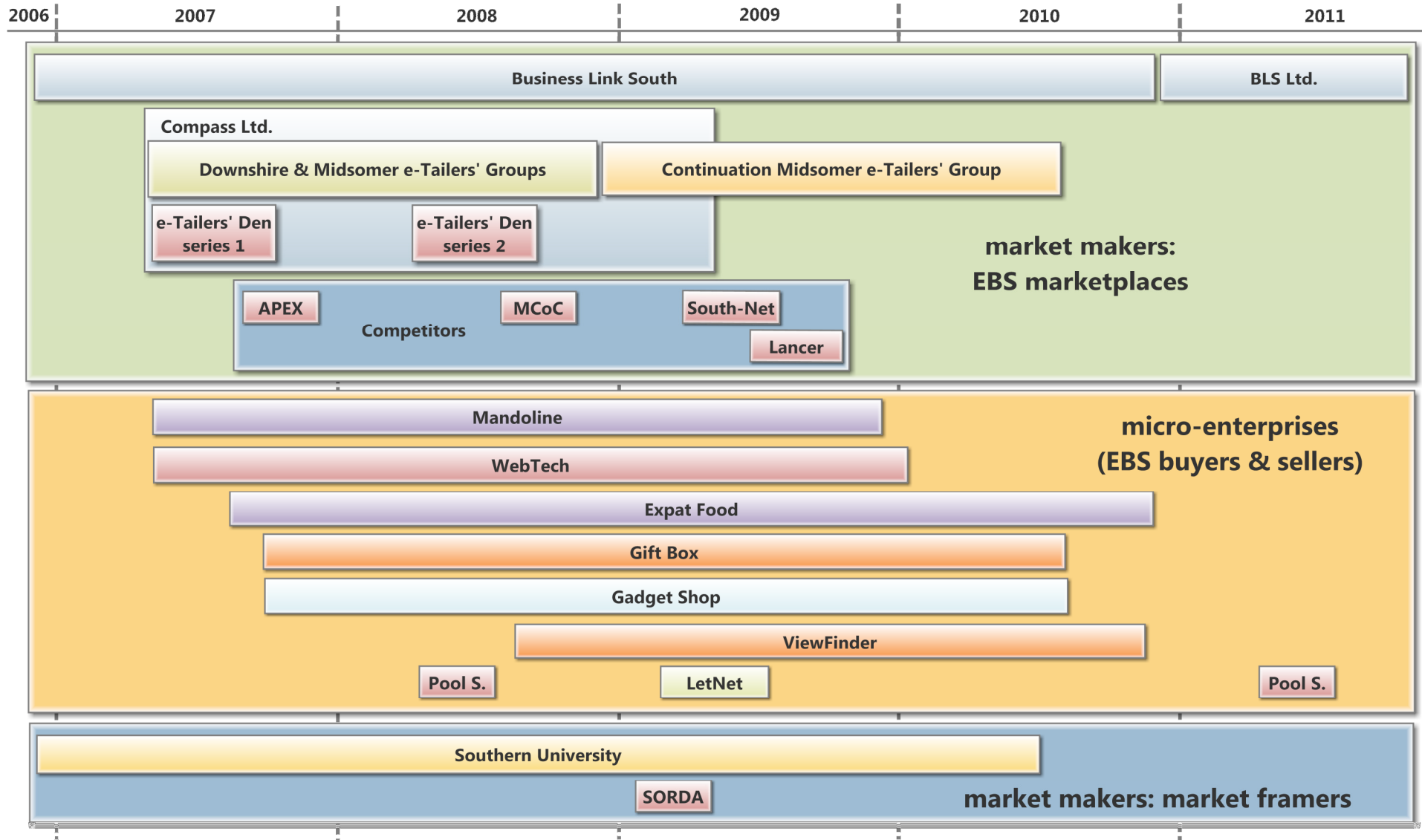
framers.

Table 5.2: List of interviewees and interviews

Summary: 30 interviews (51.4 hours in total; average length: 1 hr 42 min)
with 10 different organisations between 2007-2011, including
6 EBS buyers, 1 EBS seller, and 3 market makers

interviewee (job title)	organisation	type	market role	Compass relationship (membership etc.)	No	Date of interview	Duration (min)
Tom Campbell (Managing Director)	Mandoline Cookshop Group	e-tail micro-enterprise	EBS buyer	Downshire e-Tailers' Group, Downshire Zenith Group; e-Tailers' Den contestant	1	30/07/2007	67
					2	13/08/2007	131
					3	21/07/2008	180
					4	09/10/2008	68
					5	13/03/2009	116
					6	05/06/2009	122
					7	30/06/2009	125
					8	10/12/2009	107
					9	15/12/2009	115
					Total duration:		
Kathy Winslow (MD)	Expat Food	e-tail micro-enterprise	EBS buyer	Women's Group, Midsomer e-Tailers' Group; e-Tailers' Den contestant; organiser of Midsomer Continuation e-Tailers' Group	1	18/12/2007	127
					2	21/01/2008	124
					3	22/07/2008	79
					4	17/04/2009	55
					5	17/07/2009	48
					6	22/12/2010	64
Total duration:							8.3 hrs
Karl Doyen (MD)	Gift Box	e-tail micro-enterprise	EBS buyer	Midsomer e-Tailers' Group; e-Tailers' Den contestant	1	27/07/2010	87
Ed Bason (MD)	ViewFinder	e-tail micro-enterprise	EBS buyer	Midsomer e-Tailers' Group	1	28/07/2010	85
Fred Hills (MD)	Gadget Shop	e-tail micro-enterprise	EBS buyer	Midsomer e-Tailers' Group	1	30/07/2010	110
Michelle Sullivan (MD)	Pool Supplies Ltd.	e-tail micro-enterprise	EBS buyer	e-Tailers' Den contestant	1	28/06/2011	24
Jack Huntley (MD)	WebTech	EBS micro-enterprise	EBS seller	Downshire e-Tailers' Group, Downshire Zenith Group	1	26/01/2009	165
Simon Jacobs (MD)	Compass Ltd.	micro-enterprise in executive education	market maker	Founder, owner	1	10/09/2007	87
					2	25/07/2008	133
					3	20/10/2008	95
					4	02/03/2009	146
					5	09/06/2009	160
					6	26/01/2011	110
					7	02/05/2011	85
					8	30/10/2011	88
Total duration:							15.1 hrs
Ray Holford, (e-Business Adviser)	Business Link South	quango	market maker	BLS ex-colleague; volunteer, sponsor at e-Tailers' Den	1	05/11/2010	122
Prof. Michael Bryant (Dean)	Southern University	Business School	market framer	Panel chair at e-Tailers' Den series 1	1	18/09/2008	57
Total duration of 30 recorded interviews:							51.4 hrs

Figure 5.1: Participant observation events and interviews timeline



5.8.2. Documents

The reasons that necessitated conducting interviews also apply to the collection of documentary evidence. Firstly, some documents were part of the observational data, as they were used as tools by participants, either as handouts for the facilitation of the observed event, gifts to each other, or marketing instruments for their own individual businesses. Actor-network theory calls for paying special attention to the role of nonhuman actors in the constitution of events and objects, and within organisational life textual documents tend to play a prominent role. Besides serving as tools, documents were also helpful for reconstructing histories and learning about actors that reside at and act from distant locations. Digital audio and video recordings of individual events that I was unable to attend within an event series helped to fill some gaps in my observational data.

Digital documents primarily included textual documents in PDF, Microsoft Word, PowerPoint, and plain text format, websites in HTML format, and images and audio and video recordings in a variety of formats. In total 1,360 discrete files have been collected and stored (excluding the 2,879 web pages that were stored and analysed separately in a dedicated web capture software called *Surfulater*). Most important of these digital documents were the 24 audio and video recordings of e-Tailers' Den presentations, 9 local TV reports, Compass Ltd.'s email correspondence (267 emails), biographical documents for Simon Jacobs (91 files), and digital screenshots of websites and photographs of the premises of observed organisations (828 images).

In terms of their content, documents were either for private (internal) use or for public use, and they were either produced by the observed organisation or by an external entity. Internal documents included emails, financial statements, invoices and receipts, tender documents, supplier quotes, statistics (such as web analytics), database reports, performance reviews, product lists, handouts for activities, meeting agendas, and prototypes. External documents produced by the observed organisations included business plans, annual reports, presentation slides, product catalogues, brochures, fliers, advertisements, blog posts and books. Publically available documents produced by others included academic and commercial case studies, reports, policy documents, research articles and media coverage in the form of press articles and video reports. The types of organisations that were involved with the collected documents included micro-enterprises in the areas of e-tailing, e-commerce business services and executive education, central government, governmental and non-governmental business support organisations, quasi non-governmental organisations

(quangos), universities, media organisations and religious organisations.

5.9. Exits

When to stop collecting data and exit the field is another sensibility that Neyland suggests ethnographers should develop. Choosing the time and method of exiting the field has significance for field relationships and for the quality of the collected data. As this research had concerned itself with the study of the diffusion of an innovation (e-commerce) over a defined geographical area (two Southern English counties), while it was happening, it was not entirely possible to strictly define how long it would take to collect sufficient amount of relevant data. However, based on prior knowledge of innovations carried out in STS studies (Latour 1987) and on the concept of the social process inherent in the ANT method (Latour 2005), it was possible to anticipate that the development of this phenomenon would largely consist of a stage of upheaval (the disruptive arrival of the innovation), followed by a stage of stabilisation, should it be successful (which was by no means certain at the time the study was being planned and the field work was being conducted).

In the end, the durations of what I earlier defined as *ethnographic time* and *data collection time* of this study was affected by the *historical time* of the phenomenon studied. Overall, there were three interrelated factors that have influenced the exiting of the field: external, internal, and personal factors. The external factors had to do with the aforementioned shape of the phenomenon studied, which had in turn influenced the internal factors that had arisen from the research strategy of the study. As e-commerce had become gradually stabilised as an innovation, many of the organisations—as well as the processes studied—had reached a new stage in their development where they were either sold as black-boxed entities to new owners or shut down, having become redundant. The middle of 2010 had marked the end of ethnographic time, as continuing the study would have started to take it into directions that were beyond the original research aims and would have required new negotiations for access with new owners to study new kinds of phenomena.

The internal factors had to do with my adopted data collection strategy. Since observations had to be supplemented with interviews and documents, *data collection time* had continued for some time until *informational sufficiency* (Neyland 2008) was achieved. The criteria for deciding when there was sufficient information to terminate the collection of supplemental data included the filling of specific gaps in the observational data, the clarification of ambiguous data, and the gathering of sufficient data to be able to develop the

main themes of the study to answer the central research question. The personal factors that had an influence on the duration of the study and the staging of the exits arose from my status as a part-time PhD student. Part-time registration allowed for a maximum of eight years for the study, in contrast to the maximum of four years of a full-time PhD. The extended duration of part-time registration made it possible to carry on with the data collection process longer (four and a half years in total), until the phenomenon studied came to a natural end (the innovation having entered a stabilisation stage) and until I was able to achieve informational sufficiency through the collection of supplementary data.

5.10. Ethics

The methods of data collection discussed above, together with the choice of organisational ethnography as a research strategy, had given rise to a particular set of ethical issues that had to be considered both at the planning stage of this research project and during its implementation. As Neyland suggests, a sensibility needs to be developed towards the ethical dilemmas that may be raised by decisions concerning what data gets collected, how it gets collected, and what gets included in published accounts. The overriding objective of this sensibility is not to cause harm to the participants during a research project and after its conclusion. This was one of the reasons why I had to opt for interviews instead of direct observation at the premises of micro-enterprises: observations ran the risk of disrupting their operations and causing negative financial consequences. Another objective of maintaining a sensibility for ethics (Neyland 2008) is not to harm the chances of future ethnographers who may want to carry out work in the same field with the same participants. The measures discussed in this section therefore have also been meant to ensure that this would remain the case. A consideration of the ethical dimensions of the research study is also a requirement by the institution under the auspices of which this study had been carried out, namely, the London School of Economics and Political Science. The LSE has its own research ethics policy, with which this study needed to be compliant. Moreover, reflecting on how ethical issues have been dealt with also helps to demonstrate the ethical accomplishment of the researcher and the reliability of the study itself. Finally, the particular types of ethical issues that emerged during this study themselves constitute ethnographic data.

5.10.1. Informed consent

This study was designed and conducted as overt research, with informed consent obtained whenever it was necessary and practically possible. There were three different

scenarios under which data had been collected and where the needs and possibilities to obtain consent were different. Firstly, there were the relationships with individual representatives of observed organisations, who tended to be owner-managers of micro-enterprises. Informed consent was obtained by providing them with a verbal explanation of the project, and in some cases with also a written one. The incentive for taking part in the research offered by me was the sharing of the research results (effectively a form of consultancy) pertaining to their organisations.

The second type of relationship was with organised groups of participants, such as the Compass e-Tailers' Groups. Here informed consent was obtained from both the main organiser of these groups and the members who were representatives (usually the owner-managers) of e-tail micro-enterprises. Consent was obtained verbally in the first meeting when I introduced myself and my project. I offered the incentive of providing an academic's perspective on the organisational matters discussed, as a form of consultancy. Access and consent was renegotiated when the Midsomer e-Tailers' Group became independent from Compass Ltd. in December 2008.

The third scenario concerned public events such as the e-Tailers' Den events and conferences. At these events normally it was only possible to obtain consent from the organiser and not from each individual participant, given the large number of participants (e.g. 127 on average at an e-Tailers' Den event) and the events' particular format. However, these events were usually designed and promoted as public events, with audio and video recordings (including local television reports) often published on the Internet by the organisers and local media organisations; therefore, the proceedings of these events were publically available information, for the collection of which no consent was necessary.

5.10.2. Confidentiality

Regardless of under which scenario data had been collected, I have decided to anonymise all personal and commercial identities that have been discussed in this study and in any subsequent publications. There were a number of reasons for this. Due to the fact that participants were primarily commercial entities, they were interested in gaining publicity through this research study, which, however, would have undermined the reliability of the data, as participants would have been motivated to share only information they found advantageous for such publicity purposes. Anonymisation of data was necessary to eliminate—or at least mitigate—this interference. In all cases where consent was obtained, it was made clear that information resulting from the collected information may be used in

subsequent research publications some years later, but only in anonymised form, not as a promotional opportunity.

However, confidential treatment of information was also necessary for ethical and legal reasons, in order not to harm the interests of the research participants. Harm could have primarily arisen in the form of financial loss, reputational damage, or negative effects on relationships, such as with partners, customers and suppliers, due to the disclosure of commercially sensitive information or the violation of customer confidentiality, as stipulated by the UK Data Protection Act 1998. Particular care was taken not to collect consumer data or interactions that have included participants that have not given consent, such as suppliers or customers at the other end of a telephone line when they called in the course of a recorded interview or observation event. I have also kept the identities of the organisations studied secret from each other during the data collection process. This was particularly important as some of them were in various personal and commercial relationships with each other (including supplier-customer relationships), and disclosure of information collected at either end of a relationship could have negatively affected them.

The risk of disclosing sensitive information after the data collection phase has been largely mitigated by the significant amount of time that had elapsed between the period during which data was collected (2006-2011), and the time when publications in research journals can be realistically expected to appear. Most of the focal organisations that have disclosed commercially sensitive information are no longer in existence (e.g. Compass Ltd. or the Continuation e-Tailers' Group*), or have been sold by their original owners (Mandoline and Expat Food) or have fundamentally changed the nature of their operations (BLS Ltd.). The main informants have either retired or have got employed elsewhere, often in entirely different industries, pursuing different career paths.

5.10.3. Conflicts of interest

Concerning my status as a university employee, there were no conflicts of interests that would have caused ethical difficulties while conducting this research. While participants (managers of micro-enterprises) did occasionally call upon my assistance to access certain university services, e.g. looking to recruit students or graduates for internship or employment, these services were publically available to anyone, and my mediation had not had any material influence on the outcome of these queries, other than resulting in good will towards my role as a participant observer within the regional e-commerce community.

5.11. Analysis and writing

All the sections so far in this chapter have dealt with the collection of empirical material. But there comes a point in an ethnographic research project when the data collection stops and the attention shifts to the construction of one final textual account from the multitude of texts and other data that have been gathered and generated. The nature of the relationship between analysis and writing in ethnographic work constitutes a particularly important sensibility according to Neyland. In qualitative social research it might be commonplace to say that the boundaries between the two processes are fuzzy and that their stages in a research project overlap. However, in an ethnography it is especially the case that analysis and writing begin simultaneously, practically with the taking and writing-up of observation notes in the data collection stage. Analysis takes place through writing, and written notes and accounts in turn prompt further analysis and data collection, and so on.

In the previous chapter I have already discussed the philosophical aspects of the relationship between conducting an analysis and producing a written account according to actor-network theory. Here I will focus on the practical implementation of these tasks, their mechanics and specifics. While analysis and writing had occurred together throughout the research project, it is nonetheless possible to isolate at least three different stages where each played a different role: 1) during the *data collection time* (in the field), 2) after the *data collection time* (after having exited the field), and 3) in the writing-up stage, while producing the final written account.

5.11.1. During field work

During field work, writing and analysis had occurred simultaneously, as observation notes were being recorded and reviewed, but also recursively, as interim written accounts had been produced and presented to various audiences for feedback. The latter process was first used to test the validity of data and the relevance of interpretations on participants in the field (through interviews), and then to situate these interpretations within debates taking place in various academic communities (through workshop presentations and conference papers). This phase of the analysis-writing relationship involved searching for and experimenting with a range of theories and concepts that could serve as conceptual grips and handles in the initial stage of actor-network theory analysis that focused on identifying actors through an ongoing material-semiotic reading of the observed sites and their happenings. Reflexivity as an analytical process therefore had occurred at multiple stages of the research process in

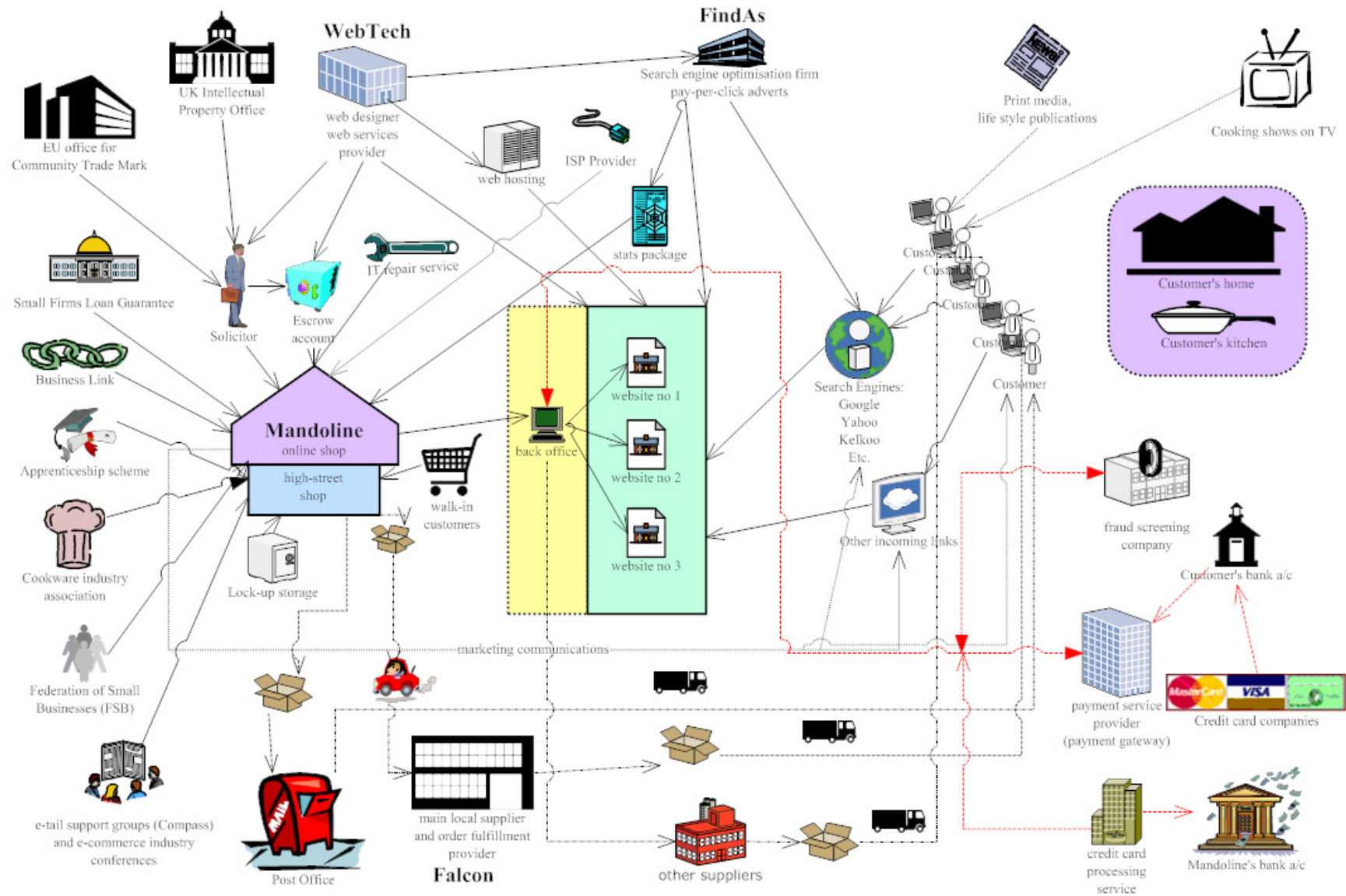
different forms: during the note-taking process, during the production of interim accounts, during interviews with field participants, and during presentations with various academic communities.

The presentations of interim interpretations to participants in the field had primarily taken place during the supplementary interviews. Since the initial analytical effort focused on developing an understanding of the composition and functioning of the organisations that participated in the emerging e-commerce market, I often produced visual representations of the heterogeneous elements and arrangements of the relevant actors, in the form of *rich pictures* (Checkland and Scholes 1990), as prompts for discussion. Figure 5.2 is an example of such a rich picture, showing the elements and relationships of Mandoline, an e-tail micro-enterprise selling cookware. These images and discussions also helped reorient the analytical attention on the second phase of the ANT process, which aimed to identify the relationships of these heterogeneous elements to networks that transgress the boundaries of the given organisation.

5.11.2. After field work

Once the field work has ended, the relationship between analysis and writing had entered a new phase. Given the volume and diversity of the body of material collected (observation notes for 87 events filling ten A5 sized notebooks, two boxes of collected hard copy materials and digital memory devices, 30 interviews with over 50 hours of recording, and around 2,500 digital files and 2,879 web pages), analysis—in the form of *processing*, *ordering* and *relating* data—had dominated over the act of writing for some time. These activities of processing, ordering and relating could be summarised as an overall effort to translate multifarious data into a single object that could be subjected to another round of systematic analysis, with a view to produce the arguments for its final textual representation. To use Latour and Woolgar's metaphor (1986), an *inscription device* had to be constructed that was capable of translating the collected data into social science facts about the studied phenomena. Indeed, all three of these activities had required the use of specialist tools: computer hardware and software that were part of the instrumentation of my own social science 'laboratory'.

Figure 5.2: An example of a rich picture - Mandoline's heterogeneous assemblage



5.11.2.1. Processing

The *processing* of data mainly consisted of its conversion from one physical state to another. Digital audio and video recordings of interviews, observation events and news media coverage had been transcribed into typewritten text form. The notebooks with the handwritten field notes were scanned into PDF files. At a subsequent stage of the analysis, selected sections of these notes were further transcribed into typewritten text. The main objective of processing was to bring all form of data into a common analytical space, which was provided by a computer workstation.

5.11.2.2. Ordering

Once all relevant data had been imported into the computer, the next steps were to *order* and *relate* individual pieces of data to each other. *Ordering* and *relating* were to some extent overlapping activities of analysis, as putting data into common groups was already a way of entering them into relationships. Still, it is possible to define a distinction between these two stages: I will reserve *ordering* to denote the arranging of pieces of data according to their surface identifiers, such as the file and folder names containing data that share some common characteristics, while I keep *relating* as a term for the process of creating associations between the contents of individual pieces of data in a subsequent stage of analysis.

Ordering primarily had to do with reviewing digital data residing in chronological folders and organising them into thematic groups, such as by the names of the organisations or phenomena to which they refer to, and by the type of data they contained (observation notes, event transcripts, interview transcripts, internal and external documents, and so on). This ordering was initially carried out in a qualitative data analysis (QDA) software called NVivo 9, with the exception of web pages, which were easier to organise in Surfalter 3. Once material had been organised into thematic and typological groups, it became possible to begin the next phase of analysis, by interrelating both the data files and their contents in several stages.

5.11.2.3. Relating

The first stage of relating simply continued the ordering process, by establishing some deeper relationships between sets of data representing various actors, such as e-tail micro-enterprises that were members of the same peer group meetings or were the customers of the same e-commerce business services supplier. However, as the assembled corpus of data grew

in size and complexity, it turned out to be increasingly more challenging to navigate the data set in NVivo and analyse it in a way that would allow for the ANT-type tracing of associations. Therefore halfway through the analysis (also due to some other limitations of NVivo) I switched to another software that was better equipped to deal with such interrelating: the desktop wiki system called ConnectedText.

As it implements the principles of the hyperlink technology of HTML-based systems (such as webpages) and the editing functionality of sites like Wikipedia, ConnectedText enabled me to link any word or phrase or digital file to any other word or phrase or file. This made it possible not only to navigate through these links (and the dataset as a whole) with ease, but also to visualise the relationships they captured as a *network* (using ConnectedText's Navigator, a tool for visualising the network of interlinked pages). ConnectedText thus was eminently suitable for conducting an ANT-type analysis to trace relationships between actors and pursuing free associations across heterogeneous entities (Callon 1986b). At the end of the first stage of the relating process I was able to group my data in terms of its relevance to the 19 individual organisations represented in Figure 5.1, and link these organisations in a variety of ways according to the multiple groups and events that they had participated in, and according to any characteristic or activity that they had shared in. Figure 5.3 shows one possible visualisation of the network-like object that had emerged from the interrelation of the whole range of actors that were identified during this process (it is a screenshot of ConnectedText's Navigator pane in graph view), and which also represented all the empirical data that had been collected and selected for analysis.

Coding

The second stage of *relating* consisted of what in qualitative research is called *coding*, i.e. annotating text and other data items (such as images) with qualitative codes or themes and then gathering these annotated passages—as well as the codes themselves—elsewhere, in another document, for the purpose of establishing new relationships between objects and concepts, and developing new interpretations and knowledge. I refer to *coding* as a form of *relating* because—both in practical and conceptual terms—assigning an annotation to two or more segments of text results in the creation of physical links (in the case of ConnectedText, actual hyperlinks) between all these marked-up passages, but also in conceptual linkages between the notions thus connected.

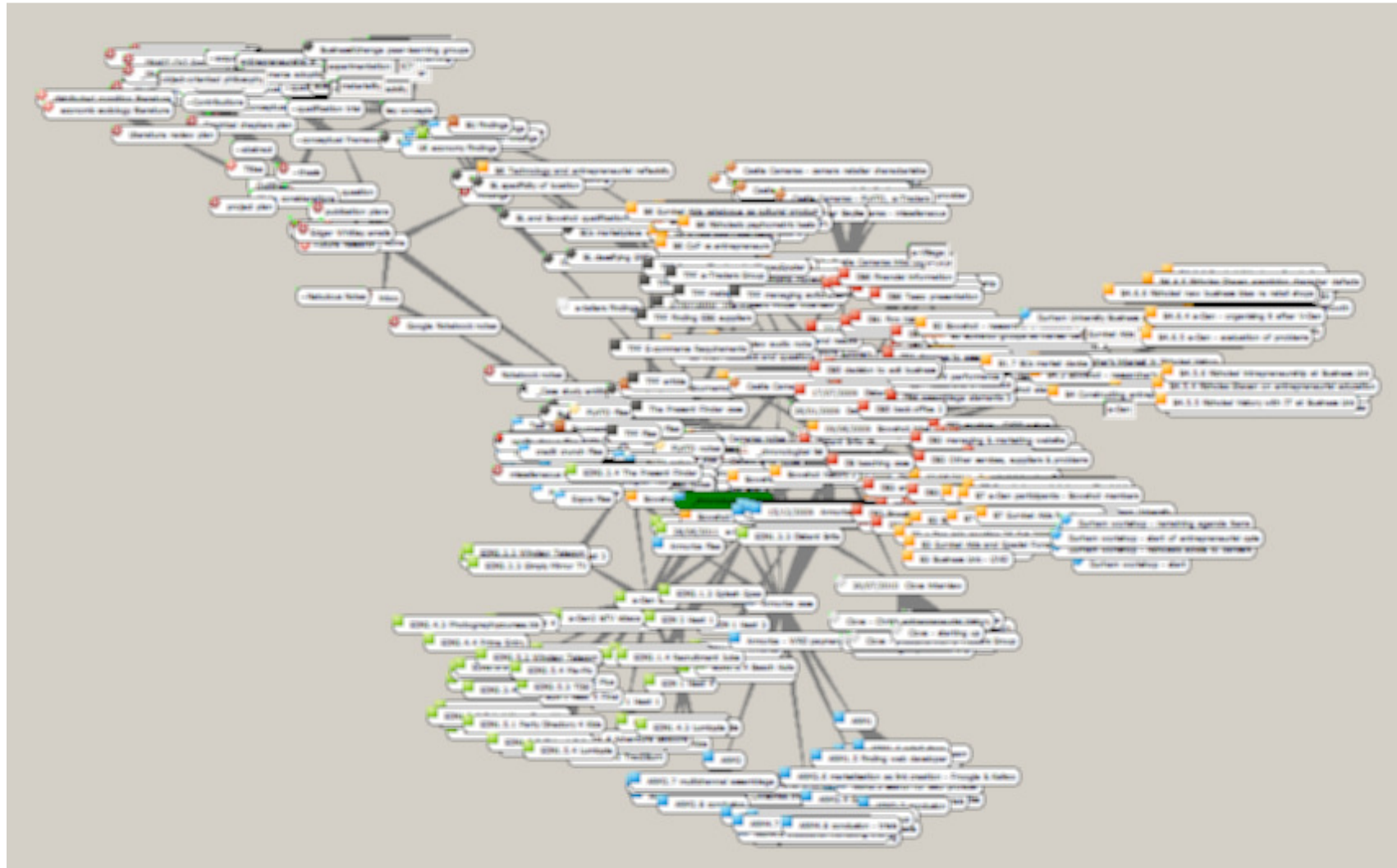
5.11.2.4. Extracting and abstracting

The final stage of analysis, after the data had been ordered, related, and coded in ConnectedText, concerned the extraction and abstraction of findings. Here extraction and abstraction should be understood as interrelated technical and cognitive processes. ConnectedText made it possible to extract sections of documents according to their thematic content and collect them in another document, while still preserving the links between them. Thanks to the technology of hyperlinks, the process of abstraction remained fully traceable in both directions (from the empirical data to the interpretation and back), while also offering opportunities to visualise the resulting network (Figure 5.3).

At a technical and practical level, the development of an inductive argument from a large amount of qualitative data is inevitably an exercise in some kind of reduction. For example, the institutional requirements for this thesis specify that it cannot exceed 100,000 words in length. However, the transcripts of the audio and video recordings of observations and videos alone amounted to over 700,000 words, and if we were to count the words in the additional 2,500 digital files and 2,879 web pages, we are probably talking about a word count in the millions. Therefore the challenge with this type of analysis is to be able to produce a translation of the empirical data in such a way that it results in a significantly more succinct and unified text, yet—to remain faithful to the ANT method—the actors that are represented by this account should not themselves be reduced to a smaller number of actors (or causes).

ANT has a very particular approach to dealing with abstraction as reduction. Latour's (1988a: 162) principle of irreduction states that "Nothing is, by itself, the same as or different from anything else. That is, there are no equivalents, only translations." There are two methodological implications of this principle for the implementation of abstraction. Firstly, it suggests that the onus is on the ANT analyst to trace the point-to-point connections and any discontinuities between the mediators that establish 'equivalences' (i.e. translations) between the empirical data and the scientific account, in such a way that this tracing creates *accountability*. Secondly, it suggests that to establish such a chain of accountability between the empirical data and the text, the ANT analyst needs to provide a material-semiotic description of how the empirically observed actors had carried out their own abstractions while simultaneously trying to make sense of and construct their worlds. Latour's (1999b) "Circulating Reference" essay provides an example of such a material-semiotic description of both the abstraction processes of natural scientists (through which soil samples are

Figure 5.3: Network view of analysed empirical data in ConnectedText's Navigator tool
(Document titles blurred to preserve participants' anonymity)

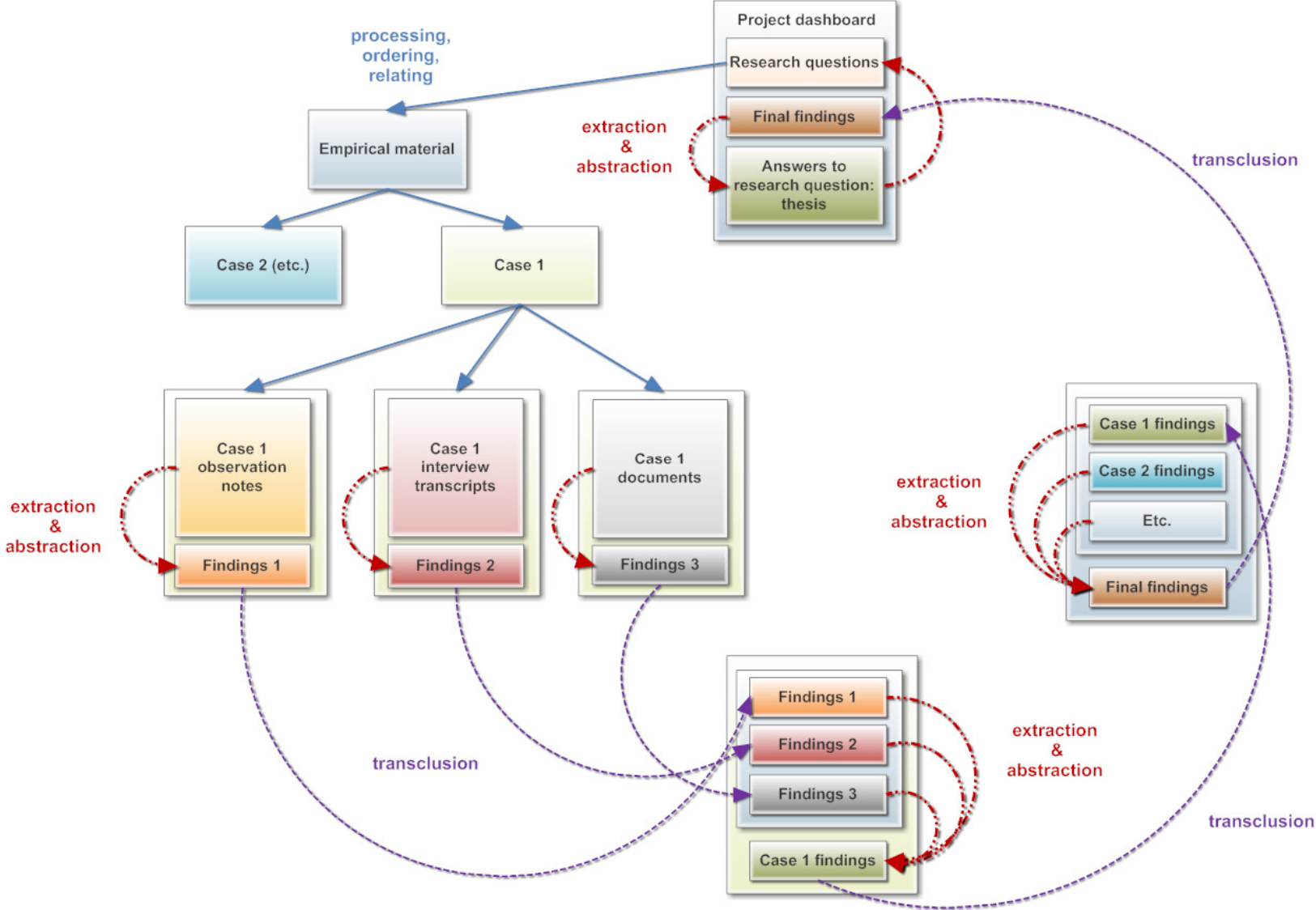


‘translated’ with the use of scientific instruments into scientific facts presented in research papers) and those of the social scientist observing them.

To deal with these philosophical and practical challenges, I have made use of a wiki technology called *inclusion* available in ConnectedText (or *transclusion* in the language of computer science (Kolbitsch and Maurer 2006)), which enables the incorporation (and therefore cloning) of a passage from one document into the body of another document. If one makes a change in the original text, the changes are propagated to all the other cloned passages included in any number of other texts. This technology enabled the construction of a mechanism that I called the *abstraction-by-extraction engine*, whereby the conclusion sections containing the findings of the coding process of individual source texts belonging to a particular ‘case’ could be gathered in a new document, which could be further subjected to analysis and reduction by extraction (i.e. selecting the most significant interpretations and the supporting empirical evidence). A ‘case’ in this case is not a reference to “case study as a research strategy” but merely as a container of related material pertaining to a particular empirical object. Then the conclusion sections of these newly created ‘case level’ documents could themselves be gathered in yet another document and subjected to further analysis, extraction and reduction. This process was repeated until a text had resulted at the end of this daisy chain of interconnected texts that was sufficiently succinct for the drawing of final conclusions to answer the original research question, and which could serve as the conceptual outline and empirical summary for the final writing-up process. Figure 5.4 provides an overview of the structure of this analytical mechanism.

The figure illustrates the various steps of analysis and synthesis (using the abstraction-by-extraction process) that produced the argument that supports the final written account. The process starts out with the processing, ordering and relating of the empirical material, in reference to the initial research questions. Then the individual data items of the various interrelated cases (which, as Figure 5.3 had shown, formed a network of documents) were subjected to the “abstraction-by-extraction” process, whereby coded passages and the findings produced by the inductive process of analysis were gathered in a separate section of each document, which then were extracted and included (using ConnectedText’s transclusion capability) in separate summary documents, which were in turn subjected to the same abstraction-by-extraction process, until all the ‘cases’ have thus been processed and the final findings have been derived (which had eventually provided some answers to the research questions).

Figure 5.4: The 'abstraction-by-extraction engine'



This process of analysis was still a form of writing, in the sense that a succession of texts was being produced. However, the focus was on the analytical construction of an argument, rather than on the composition of a final account. The construction of the argument was simultaneous to the gradual construction of the abstraction mechanism itself. The end result was an object that was both physical and epistemological. It was a physical object because the output of the abstraction machine consisted of the entire network of textual objects (the wiki database) that were interconnected in a purposeful manner according to the particular analytical requirements of an ethnography using actor-network theory. But it was also an epistemic object, in the sense that it was a mechanism that produced social science knowledge claims about the relationships between innovation, entrepreneurship, and markets.

5.11.3. During writing up

The writing-up stage focused on the production of the final report, which had to represent the ethnographic description of the chosen empirical situations and objects according to the conventions of such academic research studies. Writing-up still required a great deal of analysis, for instance in the form of decisions about what to include and exclude while still attempting to fit within the framework of the academic research report. In this stage presentational concerns came to the foreground, as the bulk of the analytical work had been done in the preceding stages of processing, ordering, relating and abstracting. These presentational concerns included decisions about how to select and employ the most representative pieces of empirical data for the description of the reality studied and for the presentation and justification of the theoretical arguments made on their behalf. The aim was to develop an answer to the research question about the ways in which the e-commerce market had emerged, and what this said about the relationships between entrepreneurship, innovation, and markets. ‘Representative’ in this context is used not in a statistical sense but in the sense of Tarde’s monadology, where a concrete piece of empirical evidence can be demonstrated to possess the elements that construct and stabilise the ‘big’, in this case the market, economy and society of which it is a part. The next six chapters will present the outcomes of this writing experiment.

5.12. Conclusion

In this chapter I have described the methodological aspects of my implementation of actor-network theory for empirical description. I have used Neyland’s ten ethnographic sensibilities as categories for organising the various relevant aspects of requisite

methodological decisions. I have provided an overview and typology of the collected empirical data. I have also discussed the material equipment that was employed for the collection, analysis and synthesis of the empirical corpus; including computer software and hardware, as well as the analytical instruments I have constructed to suit the particular philosophical and methodological demands of ANT.

PART II: The emergence and workings of a regional e-commerce market

Introduction to the empirical chapters

In this second half of the dissertation, I will present my empirical description over six chapters (Chapters 6 to 11), as way of developing some answers to my main research question: *How did a regional entrepreneurial market for the innovation of e-commerce emerge and operate in Southern England?* At the same time, this empirical material will also provide opportunities for examining the relationships between entrepreneurship, innovation and markets, in an attempt to contribute to the debates and knowledge gaps identified in Chapters 2 and 3.

Adopting the principles of actor-network theory, I will be using an inductive approach to identify the various participating actors and trace the networks of translations (transformations, delegations, displacements, and distortions) between them, as a way of constructing a history of the emergence of e-commerce among small firms in Southern England, and providing an account of the operations of specific marketplaces that had facilitated that emergence (and the spread of e-commerce as an innovation).

Figure II.1 offers a visual guide to the overall structure and content of the six empirical chapters. It also marks the process of tracing, and identifies the key actors, networks and activities that had emerged as a result. Different colours have been used to distinguish between the main empirical sites and the actors encountered and followed. The grey background for Chapters 6 and 7, in contrast to the light blue background for Chapters 9 to 11, is there to indicate that the former chapters focus on a public sector market maker, *Business Link*, while the latter deal with a private sector market maker, *Compass Ltd*.

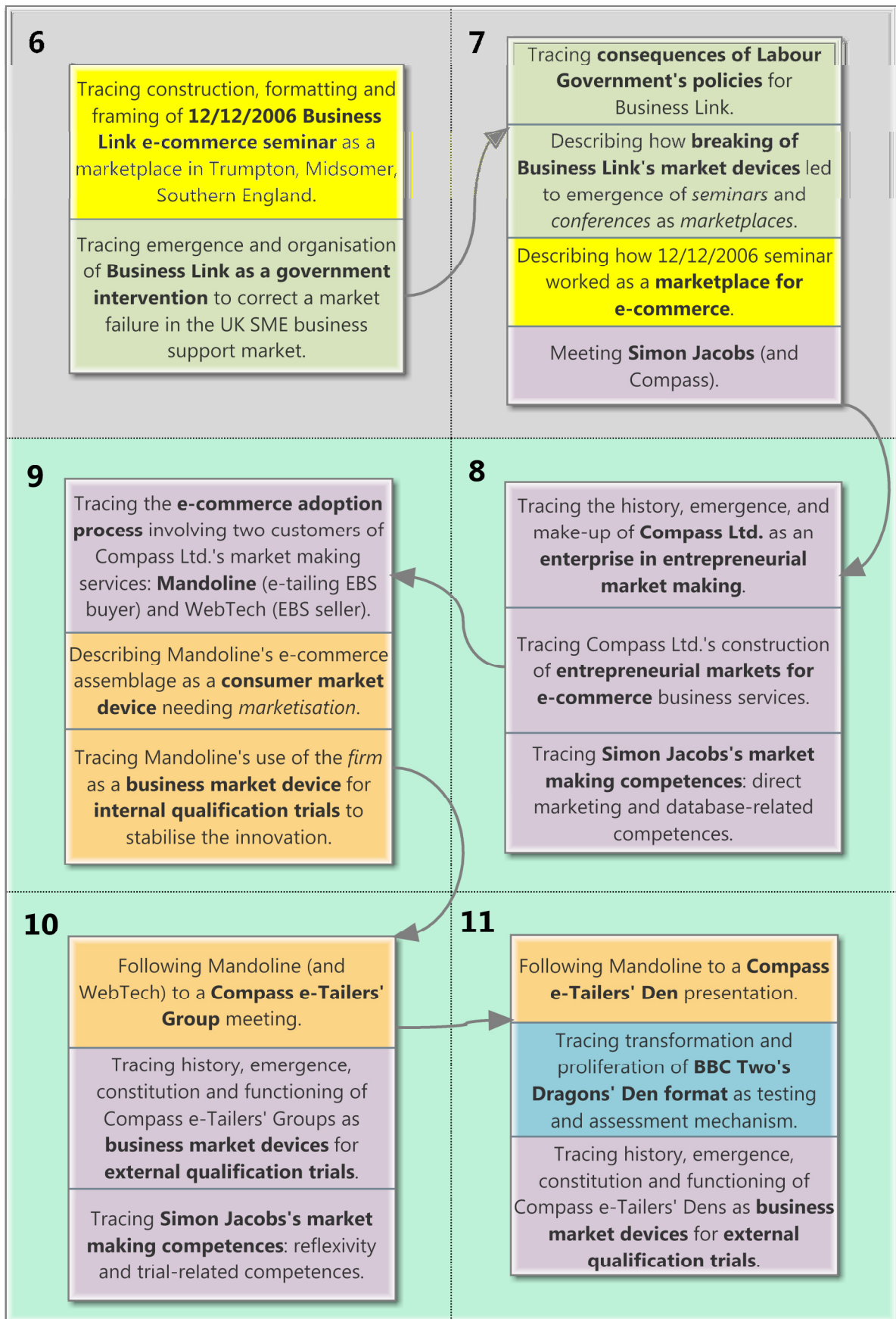
Chapter 6 and 7 are so closely related that they could be considered two parts of the same chapter, as they concern the construction and delivery of a single Business Link seminar (the sections in bright yellow) that took place on the 12th of December 2006 in the town of Trumpton* in Midsomer County, as well as the emergence and transformations of the national Business Link network as the implementation of a government intervention (in light green) to correct a perceived market failure. The two chapters aim to identify the ways in which public sector market makers have engaged with the construction of entrepreneurial markets (which, I will argue, happened by constructing *business market devices*), and to find

an answer to the question as to why Business Link seminars and conferences in particular had emerged as marketplaces for e-commerce. Chapter 7 closes with encountering Simon Jacobs (in purple), then employee of Business Link, who shortly thereafter went on to launch a private sector enterprise in market making, Compass Ltd.

The continuity of the purple colour to Chapters 8, 9, 10 and 11 signifies that Jacobs and Compass Ltd. remain key objects of study throughout. Chapter 8 traces the history, emergence, and make-up of Compass Ltd., in order to identify the resources, activities and competences required for such a private sector market maker to emerge. In Chapter 9 I zoom in on one of Compass Ltd.'s customers, Mandoline Cookware Group (in orange), and describe how the inadequacies of using one's own retail firm as a market device for *internal qualification trials* had led the manager of Mandoline to seek out Compass's market making services. I will also show that e-commerce adoption is not just about the acquisition of ICT artefacts and the services that can produce them, but that it also requires the connecting of those artefacts to electronic markets (or what I will call *marketisation* after Çalışkan and Callon (2010)), so they can function as a *consumer market device*.

In Chapters 10 and 11, I will follow Mandoline to two of Compass Ltd.'s main market making services: Compass e-Tailers' Group meetings and e-Tailers' Den conferences. In both cases I will trace the history, emergence and functioning of these events as *business market devices* for performing entrepreneurial markets for e-commerce business services, by way of conducting various *external qualification trials*. In Chapter 10 I will continue to trace the origins and nature of Jacobs's market making competences. In Chapter 11 I will also investigate how the format of a television programme, that of BBC Two's Dragons' Den (BBC 2015), was adopted by Compass Ltd. to perform entrepreneurial markets for e-commerce.

Figure II.1: Visual guide to empirical chapters 6 to 11



Chapter 6: Constructing entrepreneurial markets: birth of a seminar and a government intervention

This chapter is an introduction to a specific market—the market for e-commerce business services in the two Southern English counties of Midsomer and Downshire—through the description of a specific marketplace event for EBS: the “Growth Through Innovation: e-Marketing Workshop” that was held at the Midsomer Business Link* office on 12 December 2006 in Trumpton, one of Midsomer's larger towns. Starting with the description of this Business Link event (the "12/12 event" hereafter) offers an opportunity to identify several of the main actors that had taken part in constructing and constituting the regional e-commerce market. Business Link was a governmental business support agency that had operated in England between 1993 and 2011, and whose main mission was to support start-ups and SMEs, which also included the facilitation of innovation diffusion and adoption among them. As Business Link played a prominent role in promoting the adoption of e-commerce by SMEs, including the provision of a variety of marketplaces, its history is inseparable from the history of e-commerce in the South of England; therefore it will be traced alongside it. My description will also highlight the controversies that had surrounded the UK government's intervention into the business services market for start-ups and SMEs, the particular effects of which on the regional e-commerce market will be further explored in the next chapter. Both of these chapters will focus on the "how" of the research question concerning the emergence of the regional market for e-commerce in Southern England, as a particular example of the emergence of an entrepreneurial market for innovations in a developed economy.

Invoking Horace, Latour (2005) suggests to start an ANT inquiry in *medias res* (‘in the midst of things’), though he means something more than just starting a story in the middle, as opposed to *ab initio*. Partly it is a call to delve straight into the action of the empirical scene and start following what “things” (actors) do. However, Latour also builds on Heidegger's (1975) etymologising, by hinting that the “things” to follow are likely to be socio-material “gatherings,” which can also be thought of as assemblies (even in the political sense, as parliaments) representing the interests of various parties and addressing shared matters of concern. I will begin my description in the middle of things both in a Horatian and a Latourian sense. Although the Business Link event of 12 December 2006 that I will recount

over these two chapters was the very first one I had observed, it represented something of a midpoint in the story of the emergence of e-commerce in Midsomer and Downshire. The 12/12 event took place roughly halfway between the setting up of Business Link's first team of dedicated e-commerce business advisors in the region in 1999 (which was more or less simultaneous to the appearance of the first transactional e-commerce sites in the area, e.g. that of Gadget Shop*2), and the wholesale closing down of the national Business Link service in 2011 (by which time e-commerce websites had become an accepted and even expected way of operating among local retailers). Thus the 12/12 event represents the opportunity for a Horatian beginning to the story.

But I will also start in the midst of things in a Latourian sense, as the 12/12 Business Link event was my first point of entry into the world of the gathering (or "thing") that was the regional e-commerce market. My tracing of the various heterogeneous actors involved had begun at that point. If the network that I had traced empirically using the ANT method can be compared to the channels of a termite gallery (Latour 2005), then the 12/12 event is the entrance to that 'system of tunnels'. While at the beginning of the research project this event seemed insignificant, upon the conclusion of the tracing I have come to realise that just like William Blake's "grain of sand" can be thought of as containing the wider world in some sense, so can the 12/12 seminar be shown to have comprised all the major elements of the regional business market, which can be used as so many threads for unravelling its pre-history and following its subsequent development. I will supplement my first-hand account of participant observation of the 12/12 event with documental evidence on the history of Business Link, and with material from subsequent interviews with employees and clients of Business Link South.

6.1. Assembling and formatting a Business Link seminar

After beginning my PhD studies formally on the 1st of October 2006, I was keen to find a way to encounter the regional e-commerce market and begin identifying potential sites and case studies for my empirical data collection. The first opportunity had presented itself the following month, when, in my capacity as a marketing lecturer, I was invited by my managers at Southern University* (in Walmington*) to represent my institution as a guest

² An e-tail micro-enterprise selling mobile computing and telecommunications devices, based in Walmington, Midsomer, a long-standing member of Simon Jacobs's Compass Groups. They set up their first informational website in 1995, their first website taking orders via email in 1996, and their first e-commerce site capable of taking online payments in 1999 (Fred Hills*, 30/7/2010).

speaker at a Business Link South (BLS) event on the 12 December 2006. The “Growth Through Innovation: e-Marketing Workshop” was going to be held in the nearby town of Trumpton, which housed the Midsomer branch of Business Link. As this event was directly aimed at encouraging small firms in the local area to make more commercial use of the World Wide Web, it was suitably aligned with my initial research question that concerned the use of ICTs in SMEs.

Upon agreeing to take part, two sets of parallel series of meetings, telephone calls and email exchanges had commenced in preparation of the event: one with Business Link South (the regional franchise of the national Business Link service for three neighbouring counties, including Midsomer and Downshire), and the other within the Business School itself. Firstly, I was put in contact with Annamarie Ferguson*, the project manager for the “Growth Through Innovation” event series at BLS, who had subsequently organised two meetings in November and December 2006 with the three organisations that had provided the three guest speakers, in order to develop the programme for the event and to agree on the content of the proposed talks.

The other two speakers were the representatives of two local EBS micro-enterprises: the twenty-something Ben Wooldridge* was one of the founders and directors of DigitAll Ltd.* based in Walmington, and Geoff Steele*, a gentleman in his late fifties, was the commercial director of InterWeb Ltd.*, based in Trumpton. They were local competitors of each other. DigitAll described itself in the brochure that was produced for the event as “a web design, development and promotion company;” while InterWeb referred to itself as a “web development” business that can not only design but also “make your website profitable.” DigitAll had been in operation for three years and had eight employees at the time, most of them in their twenties. It was launched by four Southern University graduates at the university’s start-up incubator facility. InterWeb was in its fifth year of operation.

At the two meetings organised by Annamarie and held at Southern University, we agreed the overall format of the event, the running order, and developed and divided the topics among ourselves. Annamarie told us that the audience would consist of small local firms with limited marketing budgets that are considering either adopting e-commerce or improving the marketing effectiveness of their existing websites (in terms of return on investment, by generating more customer inquiries and increasing sales). It was going to be a publicly promoted event, financed by Business Link and free of charge to the participants, but with limited places. Business Link South had a database of tens of thousands of SMEs based in the three neighbouring counties, and inviting an audience was a matter of sending out a

series of email shots in the weeks preceding the event, asking qualifying businesses to apply. The speakers were expected to participate without remuneration from BLS; or, rather, gaining access to an assembled body of potential customers for their services was the unspoken reward.

6.1.1. Gathering things: enrolling participants

This initial stage of the becoming of the Business Link event could be characterised as a process of *gathering 'things.'* Business Link, through the co-ordinating actions of Annamarie, the GTI Project Manager, was the leading force in bringing together the other actors that were needed for the actualisation of the 12/12 event. The “things” (or actors) that had been brought together were the various institutions and their representatives that have been compelled and/or attracted to participate in this event. The nature of the particular kind of compelling and attracting differentiated the participating actors not only in terms of their motivations but also in terms of their market roles.

The Business School, as a co-organiser of the GTI workshop series, was a long-term partner of Business Link South, involved in the organising of similar event series over the years. Its motivation to collaborate with BLS was at least twofold. Firstly, it was part of the University's (as well as the Business School's) mission statement to engage with the local business community. For instance, the University's 2006 Corporate Plan stated: "Southern University will contribute to the knowledge economy and in doing so will engage closely with and bring benefit to our local communities." The extent of this engagement (in terms of involvement in industry activities, the dissemination of academic research results, and generation of consultancy income) by managers and academic staff was the subject of various individual and organisational performance targets and reviews. Secondly, Business Link seminars offered an opportunity for the University and the Business School to promote their services and products (courses, consultancy, and graduates) to SMEs, as potential customers.

As for Business Link, collaboration with universities was also part of its remit (see e.g. SWERDA 2006). Associating with a university offered an opportunity to co-brand events and market them jointly to businesses that were also interested in accessing the university's services, while academic staff could provide content for Business Link's numerous events, as it was the case with the 12/12 event. The two presenting EBS providers (DigitAll and InterWeb) would have been attracted by an audience that was made up of SMEs looking to adopt e-commerce or expand their use of it, thus fulfilling the role of potential EBS buyers. In the parlance of actor-network theory, various participants were *enrolled* into the project by

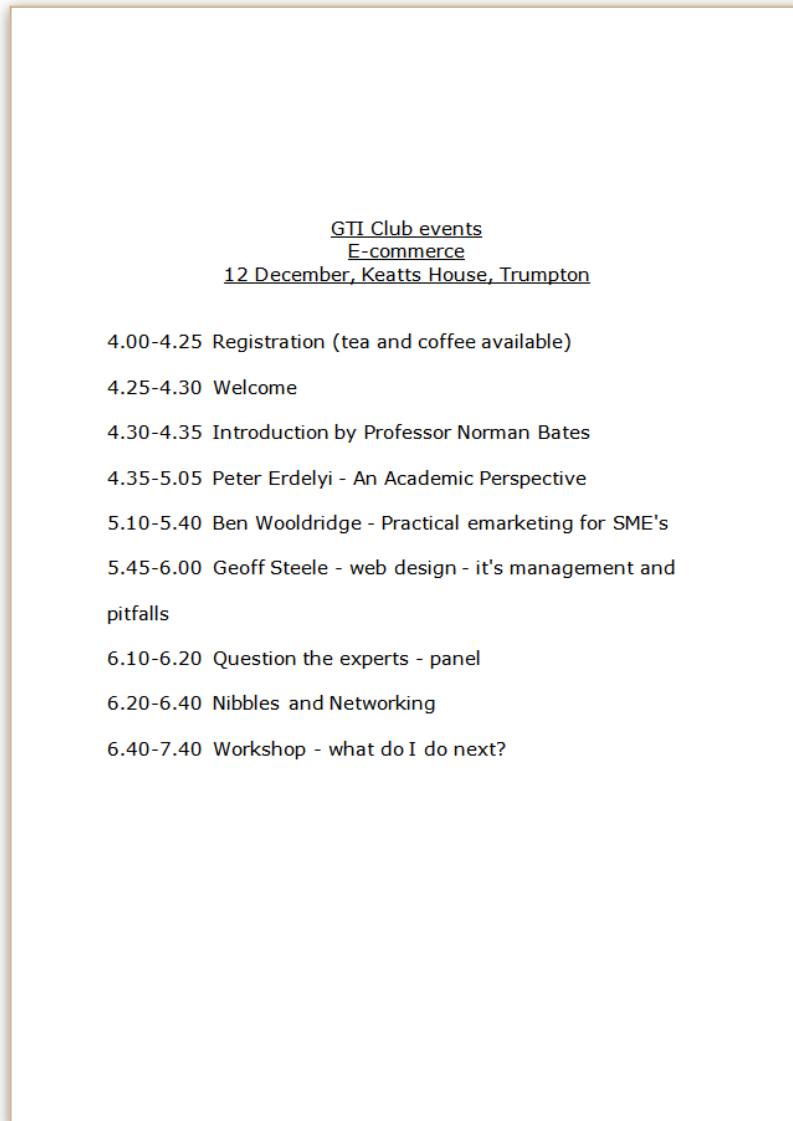
making their interests converge at the single point that was going to be the 12/12 event (Callon 1986b).

6.1.2. Constructing artefacts and formatting the event

Once the three presenters and their organisations had committed to participate, the subsequent interactions between them resulted in activities that could be described as the more or less simultaneous and concurrent processes of *constructing artefacts* and *creating a format* for their deployment. The first product of these discussions and construction/formatting efforts was the **programme** of the event (Figure 6.1), which served both as an agreement about the overall format of the event and a guide to the presenters for developing the scripts for the execution of their future performances. There were three main requirements to the programme, which emerged from our discussions based on Business Link's experiences with similar events, and the particular interests of each of the participants. During the meetings, these requirements would only be discussed as communicational or educational requirements and participants would not express their commercial needs. Nevertheless, as we will see later, the implementation of these three requirements in the design of the event would implicitly also address the organisers' commercial interests.

The first requirement was *to enable participants to encounter each other*. Elements of the programme that targeted this requirement were the registration process, where each participant would be identified and provided with a name tag; the coffee break and the "Nibbles and Networking" break following the presentations; and the workshop segment itself. The second requirement was *to provide a scripted content* in the form of PowerPoint slide presentations by the three presenters, to be delivered using a projector and also made available to the audience as printed handouts. We were each asked to prepare a 30-minute talk, to be performed consecutively within an hour and a half session, without a break. I was asked to go first and present an "academic perspective" on e-commerce and e-marketing, as a way of defining the subject matter and introducing the topic, and to provide an overview of their main applications, with some concrete examples. This academic overview would be followed by the two EBS providers who would provide "practical" advice, based on their commercial experience. Ben of DigitAll was asked to go second and illustrate his practical considerations about e-marketing and e-commerce with case studies from his company's portfolio. Geoff of Interweb was asked to go third and provide further practical "dos and don'ts" of web design. As Geoff had a reputation of being an entertaining speaker, Annamarie thought he should go last, in order to liven up the audience who might begin to

Figure 6.1: Programme of 12/12 seminar (anonymised)



GTI Club events
E-commerce
12 December, Keatts House, Trumpton

4.00-4.25 Registration (tea and coffee available)

4.25-4.30 Welcome

4.30-4.35 Introduction by Professor Norman Bates

4.35-5.05 Peter Erdelyi - An Academic Perspective

5.10-5.40 Ben Wooldridge - Practical emarketing for SME's

5.45-6.00 Geoff Steele - web design - it's management and pitfalls

6.10-6.20 Question the experts - panel

6.20-6.40 Nibbles and Networking

6.40-7.40 Workshop - what do I do next?

lose concentration after having listened to an hour of presentations already. The third requirement that had emerged was *to include an 'open' element*, where the audience would have the opportunity to query the presented content and interact with the presenters in an unscripted way. This 'experimental' requirement was to be satisfied by the "Question the experts" panel, a session in which the audience could ask questions of all three presenters after their presentations, and the "workshop", where they could continue to interact with each presenter and their accompanying colleagues in a more intimate setting (in a group seated around a table).

The second series of meetings and communication exchanges occurred with my departmental head, Dr. Lisa Belmore*, and the dean, Prof. Norman Bates*, who supervised

my work and who were also going to take part as representatives of the institution and as group facilitators at the workshop. Our meetings and email exchanges concerned the content of my presentation and the format of the “workshop” that followed the presentations in the second half of the event. While Business Link South took the lead on developing the programme for the event as a whole and to recruit the audience, we, the academic co-organisers, were asked to design the workshop because it was deemed to be in line with our expertise, as a quasi-pedagogical feature that is similar to a seminar that normally follows a theoretical lecture with some practical exercises.

Based on the limits imposed upon them by the available government funding, the premises, and the number of facilitators, Business Link had decided that maximum 25 SME representatives would be allowed to attend this event. Keeping these constraints in mind, the Southern University team came up with the following format for the workshop segment of the programme. The 25 attendees would be divided into groups of five, so that the key learning points of the event and the SMEs’ needs could be discussed in a more intimate setting. Each of the participating organisations (Southern University, DigitAll, Interweb, and BLS) would bring along a sufficient number of qualified colleagues, so that together with the presenters each of the five groups would have at least two facilitators. After about 20 minutes the facilitator teams would switch tables, so that each group had an opportunity to talk to each of the presenters’ teams. A number of BLS’s own e-commerce advisors would also be at hand to mingle and deal with relevant SME queries.

The month-long preparation of the programme had resulted in the materialisation of another set of artefacts a few days before the event was due to take place. These had included digital artefacts, such as the PowerPoint slides of the three presenters, and paper documents that were going to be presented to each attendee inside a branded glossy folder featuring the logo and description of Business Link (Figure 6.2: front cover, Figure 6.3: back cover). These paper documents consisted of a one-page programme of the event entitled “GTI Club events: E-commerce” (Figure 6.1), a one-page introduction of the speakers and their organisations, printouts of two of the slide presentations (Geoff Steele did not provide his slides in time for the printing), and a one-page handout entitled “e-Marketing Workshop” for the eponymous section of the event (Figure 6.4). An additional set of mostly digital artefacts were created to promote the event, in the form of a registration form on the Business Link South website, press releases to be displayed on the websites of the presenting organisations, and several email shots to Business Link South’s extensive database of small businesses in the region, inviting them to apply for the event.

Figure 6.2: Front cover of Business Link folder

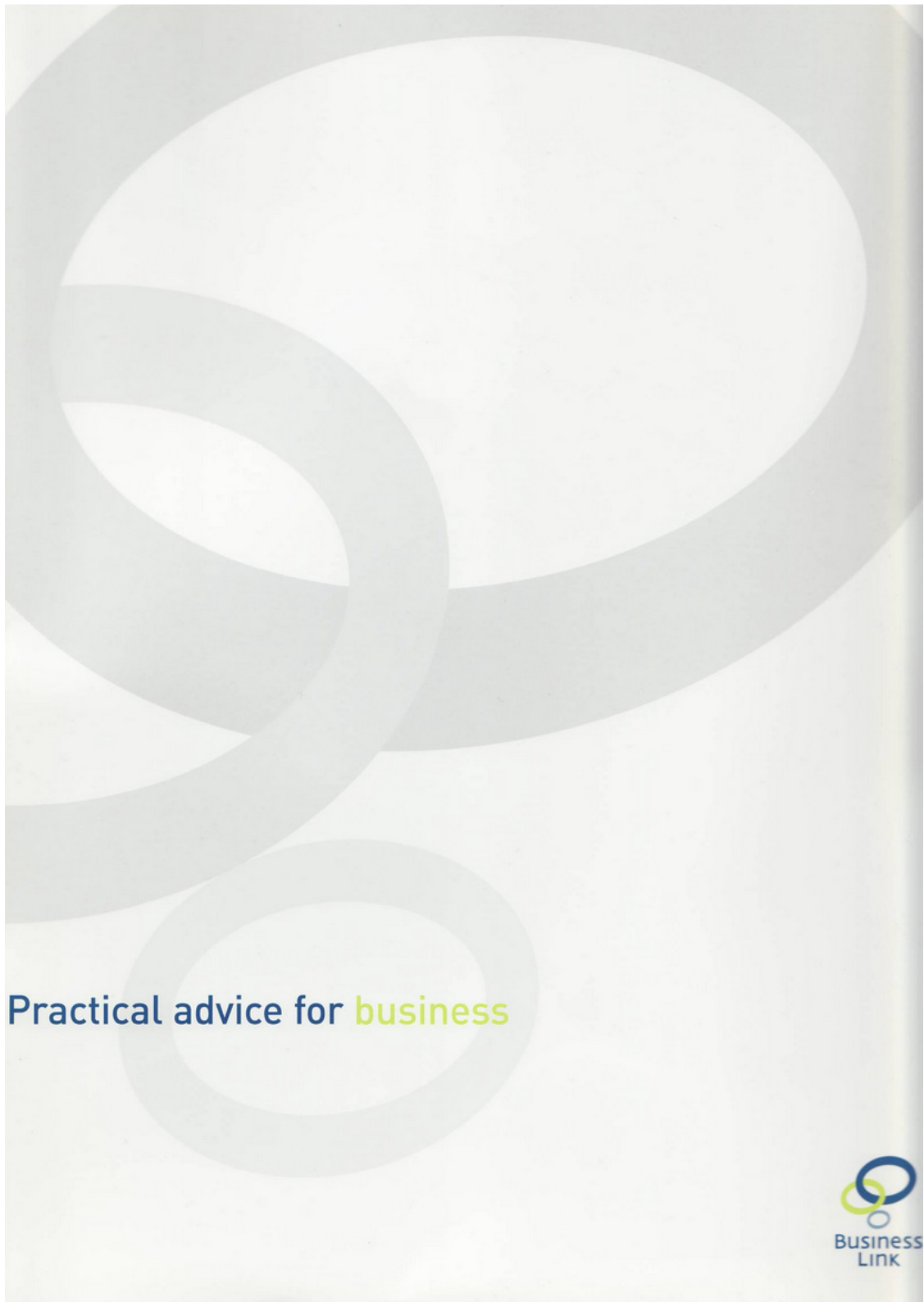


Figure 6.3: Back cover of Business Link folder

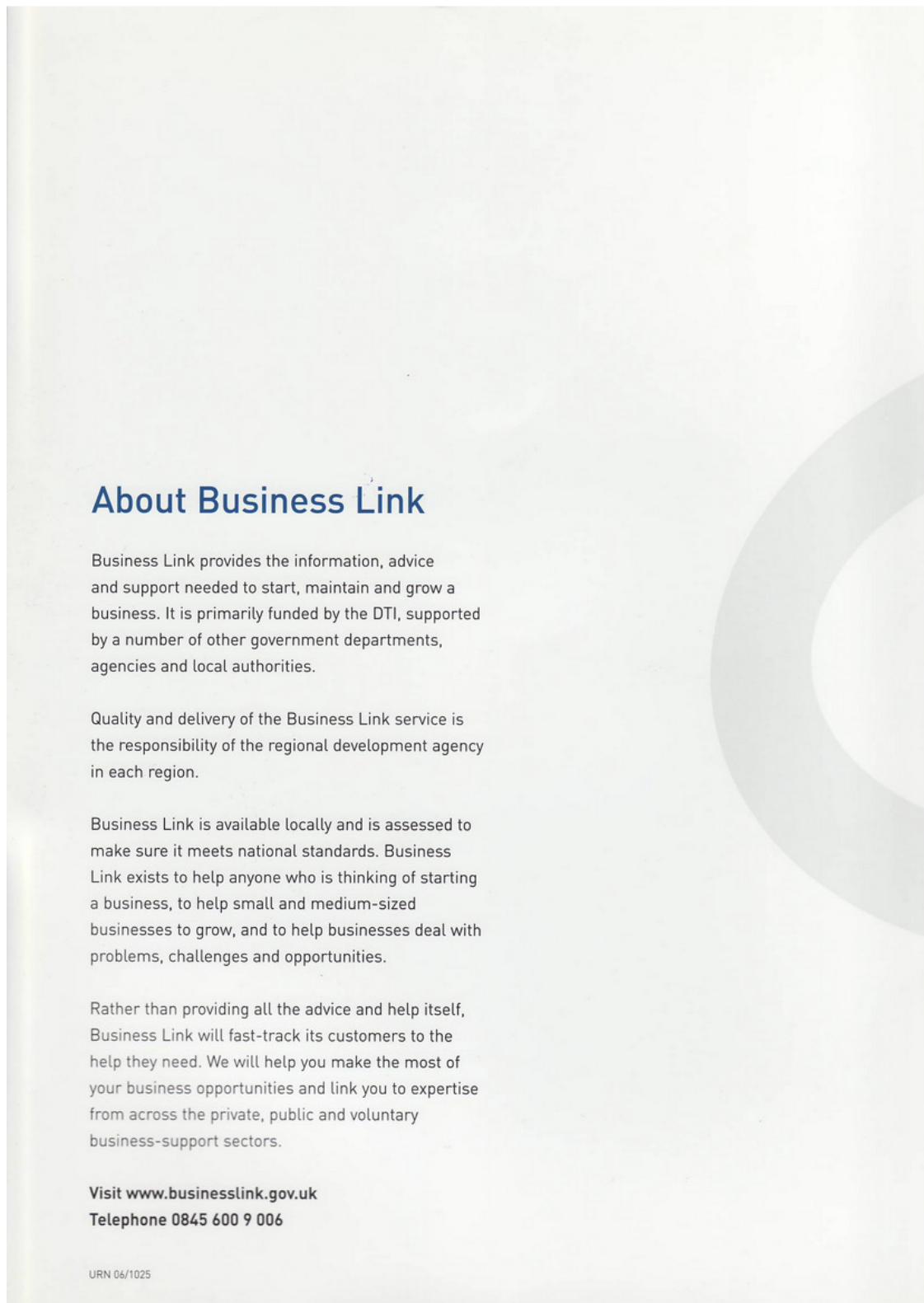


Figure 6.4: “e-Marketing Workshop” handout

Diagnostics
<p>Where would you locate your business on the DTI's e-business adoption ladder: Step 1: my business owns a PC Step 2: we use e-mail Step 3: we have a publicly accessible website Step 4: we support on-line ordering Step 5: we support on-line payment Step 6: we support on-line order tracking Step 7: we integrate ICT into our fundamental operations</p> <p>Do you use any specific ICT solutions for managing relationships with other stakeholders (suppliers, distributors, investors, lenders, interest groups, media etc)?</p> <p>Do you have any specific plans to invest in a particular e-marketing/e-business solution?</p>
Presentation and Discussion Notes, Questions
Action Points/ To Do

These artefacts together implemented the agreed *format* put in place to guide the execution of the intended programme. The *formatting* efforts of the organising team had given the 12/12 event's programme and content a particular shape, with the hope of producing a particular set of results, to satisfy the various needs of the participating organisations and their representatives. There was a certain dualism of intent to this preparatory formatting work, at least in the case of the Business School, and most likely with the other organising institutions as well. While the inter-organisational meetings focussed on how to fulfil the thematic and pedagogic requirements of a business seminar about e-commerce, in order to satisfy the audience's perceived needs (which were partly identified by Business Link's customer surveys), at their internal meetings about the content of the presentations, each organisation was also likely to discuss how to achieve their own commercial and institutional objectives at the 12/12 event. This was certainly the case with the Business School team. As a result of our internal discussions, Prof. Bates, the Dean, had prepared a couple of slides with an overview of the Business School's services to the local business community, which he was going to present before my talk, as a way to promote our services and attract prospective customers.

Similarly, DigitAll had also inserted several slides into its presentation about itself, its portfolio of services, about its most prestigious clients, as well as two case studies of its clients as illustrations, to make the most of this opportunity to present itself as a capable EBS provider to the assembled potential clients. In this sense the 12/12 seminar was formatted explicitly as an *educational event*, while implicitly its format was also designed to allow for certain *market functions* to take place: for sellers to present their wares, for buyers to articulate their needs, and for the two to encounter and assess each other in the relatively neutral setting of a Business Link meeting room. The market-like nature of the emerging format of the event was implicit in the way it was set up to bring together market makers (Business Link and Southern University), buyers and sellers of EBS, and to create opportunities for encounters, information exchange, mutual evaluations, and the development of new associations, which could turn into full-blown commercial relationships later on.

6.1.3. Objective: getting a handle on e-commerce

There was one additional 'object' (or 'objective') that unified and mobilised all those involved, as their main matter of concern that gave the event its *raison d'être*: *e-commerce*, the technological innovation that had had irrupted into the commercial sphere of the participants. This concern with the demands and effects of e-commerce was expressed in the

title of the event series, “Growth through Innovation,” and in the title of the 12/12 event, which was referred to alternatively as an “e-commerce” or “e-marketing” seminar in the various promotional materials. DigitAll Ltd. described the event on its website as “a workshop on how to best use e-marketing to help business growth.” The concern with new technologies was also present in the titles and contents of all three presentations: “E-marketing: An Overview,” “Practical e-marketing for SMEs,” and “Web Design: Its Management and Pitfalls.” (The two terms, *e-commerce* and *e-marketing*, were used interchangeably in the documentation, which reflected the relatively unsettled state of the disciplines and practices involved at the time.) This concern with e-commerce technology was sufficiently strong to drive 25 SME representatives to register for the event in the weeks leading up to it.

6.2. Framing things rhetorically

In addition to the aforementioned efforts to *format* the event, by giving it a shape and a structure, there were also some activities aimed at *positioning* the thus formatted event and communicating it to the target audience (SMEs as potential EBS buyers). This was achieved through techniques of *rhetorical framing*.

6.2.1. Framing a marketplace as an educational event

It is self-evident that the organisational actors of this event were drawn together partly by their commercial concerns about a new technology that had begun to affect their activities in one way or another. In the case of Business Link as a government-funded service, supporting the diffusion of the innovation of e-commerce among SMEs gave it a new lease on its troubled and continued existence that was continuously under attack (as we will see later). In the case of the Business School, getting involved with e-commerce, as a new way of doing business, was also seen as critical for it to maintain its relevance in the eyes of its diverse customers and stakeholders (students, employers, consultancy clients, and the government). In the case of the two EBS providers, the 12/12 event was a way for them to promote and sell their expertise concerning this new technology to potential clients. The commercial nature of the event was evident from the activities and self-descriptions of the participants. Yet, on the face of it, there was nothing in the promotional materials or in any of the documents produced for the event that would have recognised its marketplace character explicitly. Instead, the event was framed rhetorically first and foremost as an *educational* occasion. This positioning was already apparent in the characterisation of the event in

educational terms as a “seminar” and a “workshop,” and by the open involvement of academics. BLS’s press release described it as

A fantastic opportunity to get ahead of the competition and develop your enterprise skills. Business Link, Southern University and specialist providers are working together to deliver a series of workshops designed to accelerate your *knowledge* and *understanding*. By attending you will benefit from the *commercial knowledge* and *academic forward thinking* of some of the real experts in the region. [my emphasis]

DigitAll Ltd. also spoke of the benefits of attending this event in terms of education and learning on its website:

DigitAll Ltd. will be teaming up with Business Link South and Southern University to deliver a workshop on how to best use e-marketing to help business growth. The aim of presentation will be to *educate* companies who are looking to use e-marketing to grow their businesses, on best practises and to *learn* from examples of previous successful implementations. [my emphasis]

Nowhere in these public descriptions was it suggested that the “seminar/workshop” would be a marketplace of sort, just as it was never explicitly discussed during the inter-organisational preparatory meetings that the event should have a marketplace function. *What may have been the reasons for this reluctance to articulate and communicate the market function of this event explicitly, and for promoting an alternative framing in terms of education instead?* I will return to answer this question at the end of this chapter, as it goes to the heart of the debate about the nature of the SME business support market in England and the rationale for the government’s intervention in the form of Business Link.

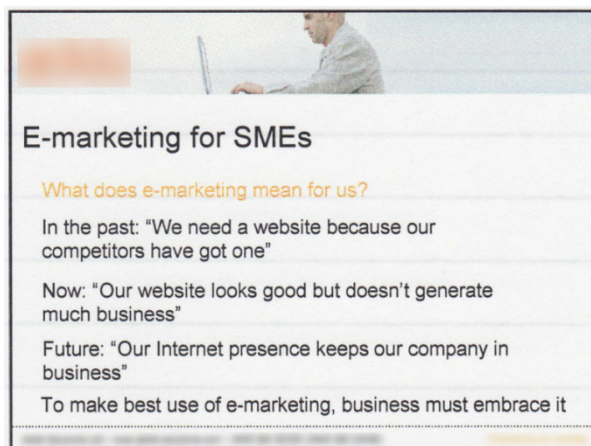
6.2.2. Framing e-commerce as an emergency and exigency

Alongside the educational framing, the event was also framed rhetorically as *a response to an emergency* posed by the emergence of the disruptive technology of e-commerce. The novelty of e-commerce was presented as an exigency that exposes a knowledge and skills deficit on the part of SMEs and affects their growth and profitability prospects, thus constituting an existential threat. This framing was already present in the promotional materials, though in a more subdued form than the more explicit warnings contained in the presentation scripts that were to be delivered at the event.

The earlier cited Business Link press release already implied a knowledge deficit on the part of SMEs, which was aimed to be alleviated by “the commercial knowledge and academic forward thinking of some of the real experts in the region.” Exigency is expressed in the prospect of getting “ahead of the competition.” The DigitAll invitation also referred to

a knowledge deficit about “business growth.” But it was in the text of the presentations that the exigency was spelled out the most directly. All three presentations made attempts at defining the different ways in which ICTs were likely to make certain long-established business practices obsolete, and offered strategies to respond to them. The following slide (Figure 6.5) from DigitAll’s presentation expresses best how the exigency of the innovation was used to rhetorically frame the market event, by defining the need for action (which would eventually involve the contracting of e-commerce business services to develop the required ICT artefacts):

Figure 6.5: Slide 5 from DigitAll Ltd.’s PowerPoint presentation³



Ben Wooldridge here is using the rhetorical strategy of formulating SMEs’ concerns about ICTs as a way of preparing the ground for the solutions he was going to offer. These problems concerned issues of competitiveness, productivity, and the ultimate survival of a business, the solution to which according to DigitAll was to “embrace e-marketing” by deploying ICTs more fully (Figures 6.6 and 6.7) with the help of e-commerce business service providers like DigitAll (Figure 6.8).

The educational framing could be seen as part of the response to the problems posed by e-commerce when framed as an emergency. The educational frame of the 12/12 event offered a relatively safe and neutral setting to address the ‘knowledge deficit’ that may have existential consequences for the businesses concerned. The “neutrality” of an educational frame would become apparent if it is contrasted with the sales-orientated and pressurised environment of an explicit marketplace, such as a street market, a stock exchange, or an expo.

³ Permission to reproduce the PowerPoint slides in Figures 6.5, 6.6, 6.7, 6.8 and 7.3 has been granted by the copyright holder.

We will see in the next several chapters why the neutrality offered by an educational frame mattered to start-ups and SMEs when engaging with the EBS market.

Figure 6.6: Slide 10 from DigitAll Ltd.'s PowerPoint presentation³

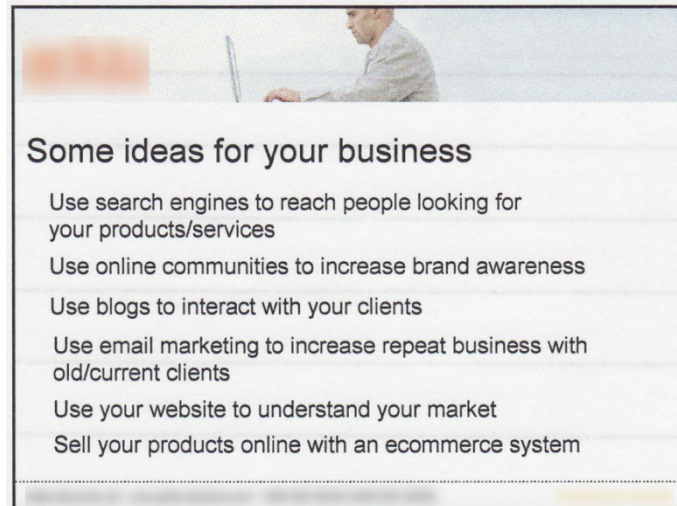


Figure 6.7: Slide 19 from DigitAll Ltd.'s PowerPoint presentation³

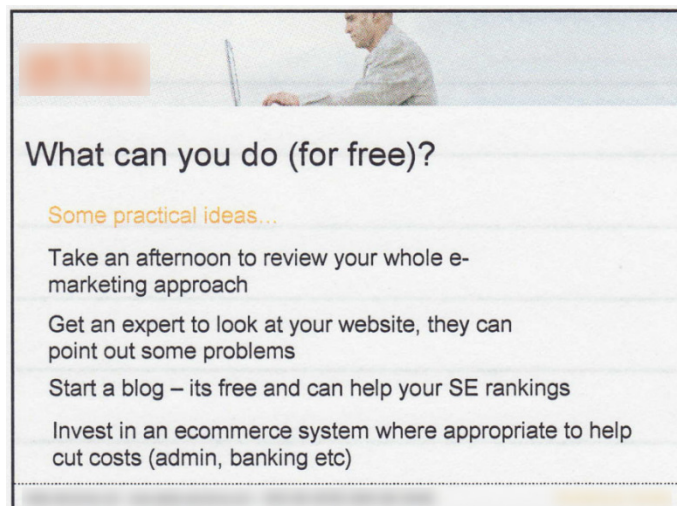
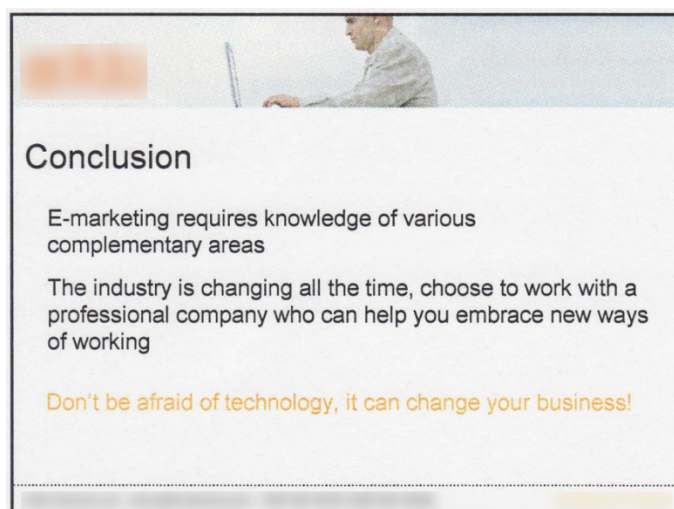


Figure 6.8: Slide 21 from DigitAll Ltd.’s PowerPoint presentation³



6.3. Infrastructural framing

However, the framing of the 12/12 event was not merely a rhetorical operation. It also involved a multifaceted engagement with an ‘infrastructure’ that had pre-existed the event and which acted as a frame for it. *Merriam-Webster’s Dictionary* (2014) defines ‘infrastructure’ as “the resources (as personnel, buildings, or equipment) required for an activity,” a “basic framework (as of a system or organization).” Some of the *institutional*, *physical* and *political* elements of such a pre-existing infrastructure underpinning the 12/12 event had become already manifest in the preparatory stages, as could be seen from the description so far. The institutions that we have seen having been involved included Business Link, Southern University, and two industry operators (the EBS providers).

The physical resources (which could be subsumed into the institutional framework, as they were operated, owned or leased by the participating institutions) included the buildings where meetings took place, and the equipment that was used to produce the programme and its contents. A policy framework that was manifest from the start—and in effect provided the impetus for the 12/12 event—was the “Growth through Innovation” scheme itself, with its associated funding from the government. Its aim was to encourage the development and adoption of innovations among SMEs, with the 12/12 event focusing on e-commerce in particular. Annamarie’s job (as Project Manager) was directly tied to the availability of specific government-funded schemes like this one, and when funding for Annamarie’s next programme ran out a couple of years later, Business Link South made her redundant.

The various elements of this infrastructure had existed for different stretches of time and they were provided by a variety of institutions, but they were all concurrently available

when they were assembled to deliver the 12/12 event. Indeed, it was necessary for the institutions, their policies and the physical resources to pre-exist in order for this event to occur. The aforementioned activities of *assembling*, *formatting* and *rhetorical framing* were dependent on and enabled by this *infrastructural frame*. But they were also constrained by it, as the infrastructure had been put in place by others, many of whom had continued to exert control over it from a distance.

Even if the main actors responsible for putting this infrastructure in place and maintaining it were distant, they were not necessarily invisible. In fact, there were some that insisted on making their *framing work* explicit. For example, the artefacts that had resulted from the preparatory stage of the event (the programme, the slide printouts, and the workshop handout) were themselves “framed” by the Business Link-branded paper folder (Figure 6.2) in which they were going to be presented to the SME participants. On the back cover of that folder the broader infrastructural framework had manifested itself through a statement entitled “About Business Link” (Figure 6.3). This piece of text specifies some of the political and institutional frameworks that had supported Business Link at the time, which allows us to identify some additional actors and observe them in the explication of their *frame-working* activities.

6.3.1. The framing of Business Link

This statement defines Business Link as a vehicle for implementing government policy in England, with a complicated set of relationships that span the two extreme points of its organisation, from Central Government to local government: “It is primarily funded by the DTI [Department of Trade and Industry], supported by a number of other government departments, agencies and local authorities.” Having started out in 1992 as a project controlled from the centre, by 2005 (HM Treasury 2007) the London-based Central Government had delegated the delivery of the Business Link service to regional non-departmental public bodies (also known colloquially as *quangos*: quasi-autonomous non-governmental organisations): “Quality and delivery of the Business Link service is the responsibility of the regional development agency in each region.” By 2006 there were nine regional development agencies (RDAs) in operation (originally set up in 1998 and 2000), including two that focused on Southern England, and one for the London area (HM Treasury 2007). Their main function originally had been to develop and implement regional economic strategies, by directing funding to what they deemed as the most appropriate industries and projects in their particular regions. Central Government had delegated to them the

administration of the regional Business Link networks as an added responsibility in April 2005.

But most of these RDAs had themselves delegated the actual performance of the Business Link service to other organisations (BERR 2009). Six had contracted a single private company to operate Business Link for their region. In London, for instance, the Business Link service was outsourced to Serco Group PLC (Serco 2006). The two Southern RDAs between them had used eight subcontractors for their regions, and it was only the Northwest Development Agency that had delivered the Business Link service directly by itself. So when the folder description says “Business Link is available locally,” it is in fact referring to the 240 local Business Link offices, most of which were operated by a variety of sub-regional private and not-for-profit organisations referred to as ‘franchisees’ of the given RDA, on three-year rolling contracts (Irwin 2001). (According to Bennett and Robson (2004b) labelling them as ‘franchisees’ was a misnomer, as technically speaking they would be more correctly defined as licensees.) However, this picture of 15 Business Link operators already reflects a substantial reorganisation carried out by Tony Blair’s Labour Government by 2001, as originally there was a total of 89 Business Link partnerships when John Major’s Conservative Government had completed the rollout of the network in 1996 (Forte 2011: 30).

In the South of England, such franchisees would normally be responsible for providing the Business Link service across two or three counties. In the case of the 12/12 event, the Business Link service in Trumpton was delivered by Business Link South (serving three neighbouring counties), which had been operated by BLS Ltd., a private, not-for-profit company since 2001. Prior to 2001 each of the three counties had their own operator, but in 2001 Business Link Downshire took over Business Link Midsomer and that of the third county, and rebranded itself as *Business Link South*. As described on its website, BLS Ltd. in turn was a wholly owned subsidiary of Business South Partnership* (BSP), a holding company set up in 2000, which was also private and not-for-profit, “limited by guarantee,” meaning that instead of shareholders it had members that acted as guarantors (Companies Act 2006). BSP was controlled by a board appointed by its members, half of which consisted of educational institutions (among others, Southern University), local and regional government (including the borough councils for Trumpton and Walmington, and the county councils for Midsomer and Downshire), and industry associations (e.g. Chambers of Commerce, Institute of Directors, Federation of Small Businesses); while the other half of BSP's board was made up of private businesses from the three neighbouring counties that were served by BSP and BLS. BSP received its funding from and was accountable to the Southern Regional

Development Agency* (SORDA). The corporate set-up of the regional Business Link network thus was a form of public-private partnership (PPP). In fact Business Link was not the government's first attempt at intervening in the SME sector: Business Link had replaced a network of 82 Training and Enterprise Councils (TEC) in England, which were led by 750 volunteer employers to provide strategic direction over the dispensation of £1.8 billion of public money for vocational education, training and enterprise (DTI 1994).

6.3.2. Market intervention: anxieties and controversies

Nevertheless, the back cover text on the Business Link folder does not reveal to the end user (the attending SME representative) the full complexity of the framework in place. The end user would not likely know without some additional research that the particular Business Link service they were experiencing was in fact being delivered by a franchisee and not by the government—and not even by the quango to which Central Government had devolved responsibility. However, this chain of delegation from Central Government to regional bodies and then on to local franchisees still manifested itself in the form of some anxiety about the quality of service delivery at the users' end, which the text attempts to attenuate by stressing that local service delivery “is assessed to make sure it meets national standards.” The lack of consistency in the quality of service delivered across the 240 advice centres, as well as the complexity of administering Central Government policy from London all the way to the point of delivery at a local advice centre, were ongoing causes for concern and sources of controversy during the 18 years of Business Link's existence, and consequently the subjects of several restructurings by subsequent governments (Bryson and Daniels 1998; Bennett 2008; BERR 2008b, 2008a; Forte 2011).

The text also affirms that Business Link is an instrument for government intervention into the market of management consultancy for start-ups and SMEs: “Business Link exists to help anyone who is thinking of starting a business, to help small and medium-sized businesses to grow, and to help businesses deal with problems, challenges and opportunities.” How does Business Link provide such help? “Business Link provides the *information, advice and support* needed to start, maintain and grow a business” [my emphasis]. The three elements of help serve as shorthand for the three main services provided by Business Link: the provision of *information* about starting and growing a small business refers to the contents of Business Link's publications, available e.g. on the Business Link website (the URL of which was printed at the bottom of the folder) or at seminars; the provision of *advice* is alluding to the one-to-one advisory service delivered by an army of Personal Business

Advisers (PBAs)⁴; and provision of *support* alludes to the financial help Business Link is able to provide, mainly in the form of grants from the UK and EU governments, or by signposting to various subsidised loan schemes.

While it is only implicit in the cover text, there is evidence of yet another framework: that of *capitalism*, as an economic order, within which the aforementioned infrastructural framing can take place. Capitalism is expressed in the text through the tacit recognition that private enterprise is not only allowed but it is to be encouraged in the society which it addresses as its audience. Moreover, the text proffers a particular type of capitalism in which the government considers it its responsibility to support entrepreneurship and small businesses. Business Link was the outcome of an industrial policy favouring direct government intervention (using taxpayer money) into the growing small business segment of the economy, as a way to increase the national competitiveness of the British economy (which had seen a period of decline since the 1950s), and to address the economic recession of the early 1990s (DTI 1994; Forte 2011).

However, given the scale and ambition of this project (with its chief aim of being able to reach every business in the UK and affect their management skills), this form of government intervention was highly unusual in Britain, especially for a Conservative Government that succeeded Margaret Thatcher's large-scale privatisation of state-owned enterprises and deregulation of industries (DTI 1994; Cortell 1997). Michael Heseltine, who was the President of the Board of Trade (i.e. Secretary for the Department of Trade and Industry) within John Major's Conservative Government between 1992 and 1995, and who is credited with developing the vision for Business Link and overseeing its launch, himself acknowledged that his project was and remained ideologically suspect in the Conservative Party and among some of the industry bodies and the right-leaning press:

My Party would not take kindly to the arguments that you should have these in depth support systems. In truth, when I did it, I did comprehensive presentations to Conservative back benchers so that they could see what I believed an industrial policy was about. (...) But I'm deeply aware that there is a very substantial body of opinion, which would reflect itself in many of the representative organisations and in many of the newspapers, the populist newspapers I should say, which would be, very suspicious of anything that smacked of interventionism. (cited in Forte 2011: 255)

For Heseltine and his government, Business Link was a way of making both SMEs and the British version of a capitalist economy more competitive, by matching the industrial

⁴ 1,600 PBAs by 2010 (Bridge 2010).

strategies of other national economies within the framework of global capitalism:

I think that there's an unanswerable case for giving advisory support to small to medium sized companies, to help improve their performance, to answer questions, to be a sympathetic spectator if you like, in a way that most competitor economies provide in one way or another. (cited in Forte 2011: 256)

Besides having won the argument against sceptics within his party, Heseltine's project also garnered broad political support: all three main political parties in Britain have included the idea of a "one-stop shop" business advice centre for small businesses and start-ups in their 1992 election manifestos (Forte 2011). Following the Conservative Party's election victory, the first Business Link opened in Leicester on 27 September 1993, and 79 regional Business Links had been established with 222 local offices by May 1996 (Forte 2011). Eventually a total of 89 Business Link organisations had been set up with 240 local "one-stop shops" across the country (DTI 1998a). In Scotland they were called *Scottish Business Shops*, in Northern Ireland *Local Enterprise Development Units*, and in Wales *Business Connect* (Forte 2011).

6.3.3. The case for Business Link: micro-macro competitiveness

The Major Government presented the case for Business Link in the 1994 cross-departmental White Paper (led by the DTI) entitled "Competitiveness: Helping Business to Win," by which time the setting up of the national network was well under way. The argument was based on the concept of *competitiveness*, which drew a parallel between the (micro-level) competitiveness of individual firms and the (macro-level) competitiveness of the nation in a world characterised by dramatic political and economic change:

Our success, and ultimately our standard of living, will depend on continuously improving all aspects of our performance across the whole economy. *For a firm*, competitiveness is the ability to produce the right goods and services of the right quality, at the right price, at the right time. It means meeting customers' needs more efficiently and more effectively than other firms. *For a nation*, the OECD defines competitiveness as: "...the degree to which it can, under free and fair market conditions, produce goods and services which meet the test of international markets..." (DTI 1994: 9) [my emphasis]

The dramatic historical changes that heightened the sense of competition had to do with the effects of the end of the Cold War in 1989, and the end of the isolated planned economies of the Soviet bloc, which had resulted in the expansion of global markets and supply chains, and in the appearance of new threats and opportunities: "Even the smallest local company is operating in a global market—whether consciously or not... (...) In the

increasingly global market there is no hiding place, no comfortable backwater” (DTI 1994: 8). The UK economy thus was facing a host of new competitors. The post-communist countries had just entered the world economy. The single European market was about to expand eastwards, bringing in a well-educated but cheap labour force. East Asian economies, the so-called "Asian Tigers," had emerged not only as low-cost competitors but also as leading manufacturers of high-tech equipment. New technologies, especially ICTs, were thought to be on the brink of revolutionising the way business was done: “The pace of technological change in coming years will be dramatic. New developments will spread rapidly around the globe” (DTI 1994: 107). These were concerns shared across the EU economies, as also expressed in the European Commission’s own White Paper a year earlier (Commission of the European Communities 1993).

Against this backdrop of the heightened threat of international competition, the Major Government had felt that a number of important sectors of the UK economy were in a state of decline (some for as long as a hundred years), and that the UK had performed poorly in areas that were newly emerging, such as the development—or even adoption—of innovations like ICTs (DTI 1994). There was poor growth in manufacturing productivity, the rise of living standards lagged behind those of other European countries, as did the UK's industrial R&D expenditure as a proportion of GDP, the UK’s share of US patents, remuneration of holders of technical qualifications, and the adoption of new technologies and exploitation of inventions (DTI 1994: 72, 76).

The Major Government saw primarily two main reasons for this disappointing state of affairs: one was the lack of a proactive industrial policy similar to those of other European and Far Eastern nations it saw as its competitors, and the other was a general lack of modern management techniques among UK companies, especially SMEs (DTI 1994). Given the growth of SMEs under the Thatcher Government as a share of employers and GDP output, this deficiency in management skills was seen as a major impediment to the competitiveness of individual firms, and consequently to that of the UK economy as a whole: “...overall national performance is determined not by the standard of the best but by the average. It is here that the UK lags behind competition” (DTI 1994: 62). One evidence cited for firm-level management problems was a 1993 survey, which found that UK managers appeared to have an overinflated sense of the quality of their own management skills, when compared to how it was perceived by managers in other European countries (DTI 1994: 63). Considering that competitiveness in the new global situation was expected to be based primarily on the basis of knowledge, this was seen as a major hindrance towards the UK becoming a "knowledge-

based economy," especially as start-ups and small firms were seen as important sources of innovation (DTI 1994: 6).

The government cited two reasons for the management skill gap in SMEs. One had to do with the intrinsic characteristics of small firms: "They are by nature independent, and may be reluctant to seek outside help and doubtful about its quality and relevance" (DTI 1994: 66-67). The other reason had to do with the nature of the business support market: "Many services are available but they are of variable quality and there is no common access point" (ibid.). As a result, if managers of SMEs "decide they want help they frequently do not know where to go" (ibid.). This situation describes a *market failure* in the management consultancy market for small firms (Bennett 2008). While medium-sized and large firms are prepared to hire management consultants for advice, in the case of start-ups, micro-enterprises and small firms, accessing external knowledge becomes more difficult. This perception of a market failure in private sector business support for SMEs was not newfound: since 1988 there had been a scheme in place (until it was replaced by Business Link in 1993) called the Enterprise Initiative, which had provided SMEs with funding to take on external consultants from a list approved by the government (Forte 2011).

Business Link was thus created to become a single point of contact, a 'one-stop shop', through which multiple public and private sector initiatives, programmes and resources could be made available to every SME in the country. The national network of local Business Link offices had become a communication and distribution channel for the Central Government of the day, for instance to encourage the adoption of specific innovations such as management techniques (e.g. benchmarking) or e-commerce, by offering grant money. In order to address the perceived market failure in SME business support, the provision of one-to-one consultancy through Personal Business Advisers became the central plank of Business Link's service: "They will take responsibility for giving advice on customers' problems, not just refer them on to someone else if they do not have an immediate answer" (DTI 1994: 67). This was going to be achieved by also having some in-house specialists, such as e-commerce advisers or export counsellors (Forte 2011). When no in-house expertise was available, PBAs or specialist advisers would make referrals to external private sector suppliers, thus fulfilling a market making function by providing a brokerage service (Forte 2011).

In a matter of three years, Business Link, as a government intervention, had grown to become a large-scale socio-economic experiment, an innovation in its own right, aiming to reach straight inside small firms and attempt to affect their management practices across the entire country. The achievement of this scale came at a significant price for the taxpayer: the

annual cost of maintaining the Business Link network was estimated to be around £150 million in the early years (Tyler 2010).

6.3.4. Labour's re-framing of Business Link

After their 1997 election victory, the Labour Government under Prime Minister Tony Blair continued to support the then 4-year old Business Link network, but it had also decided to drive through a number of changes. Firstly, it began to put a greater emphasis on using Business Link more directly to encourage the diffusion of ICT-based innovations, especially e-commerce, as the importance of these emerging technologies for national competitiveness had become increasingly more apparent by the turn of the millennium (DTI 1998b, 2004). The 1998 White Paper entitled "Our Competitive Future: Building the Knowledge Driven Economy" had made explicit commitments to "ensure that, by 2002, the UK provides the best environment in the world for electronic trading" and to "launch new support services aimed at helping one million UK businesses to get wired up to the digital market place by 2002" (DTI 1998b: 62). The UK was acting in accordance with the EU's strategies to further the development of "knowledge-based economies" by fostering the adoption of ICTs by SMEs, as agreed at the 2000 Lisbon and Feira Councils (EU 2000b, 2000a). The achievement of organisational and national competitiveness would be judged by Britain's ability to become a "knowledge-based economy," "knowledge economy", "knowledge driven economy," "information economy" or "digital economy" (terms that had often been used interchangeably), as a response to the threats posed by globalisation and the higher adoption rates of ICT-based innovations by other nations (DTI 1998b).

To address concerns about the variable service quality of regional Business Link partnerships, the government initially centralised its control over them by bringing them under the newly established Small Business Service within DTI in 2001 (Robson and Bennett 2000). However, by 2005, as part of its agenda to devolve decision-making power to the regions, it had decided to put Business Links under the auspices of Regional Development Agencies, which were charged with developing and implementing regional economic strategy (Pearce and Ayres 2009; Forte 2011). Typically, an RDA would be responsible for targeting hundreds of thousands of SMEs in its region. For instance, the East of England Development Agency (EEDA) had identified 215,835 VAT-registered SMEs in its region, out of which its Business Link service had reached 33% (71,335 businesses) by 2005 (Chatterjee and Ash 2005). The devolution of power from Central Government was accompanied by some centralisation on the ground, as the number of Business Link operators in England was

reduced, in several steps, from 89 to 15 (BERR 2009).

6.3.4.1. Introducing “Information, Diagnostics, and Brokerage” (IDB)

The transfer of control over regional Business Link services from Central Government to RDAs in 2005 had coincided with arguably one of the most radical changes to Business Link’s service offerings. As we saw earlier, the provision of one-on-one consultancy advice by Personal Business Advisers was a core feature of the service design from the start, to add value on top of ‘mere’ signposting to other providers (DTI 1994). This, however, had invited the ire of some private sector management consultants who had felt that Business Link was either taking business away from them or not directing enough business to them (Forte 2011). Although most (62%) of Business Link offerings were free of charge (at times subject to some eligibility criteria on the part of SME clients), Business Link also had some paid-for services, as by design (between 1993 and 2001) it was obligated to aspire to earn up to 25% of its income on its own (DTI 1998a; Bennett and Robson 2004b). Consequently, from time to time, Business Link had been accused of a conflict of interest when it came to referrals, especially by private sector consultants who did not feel they were receiving a sufficient volume of business from Business Link’s brokerage service (BERR 2009; Forte 2011). “They promote just their ‘products’ and nothing else and only support a narrow range of favoured business,” alleged one commenter on an SME industry website (“Ged Parker” cited in Hesse 2010). Some SME clients were also concerned about the possibility of biased referrals. Many of them were negatively disposed towards paying for a public service (Bennett and Robson 2004a; BERR 2009). Given this reaction from clients and competitors, perhaps it should not come as a surprise that—as Priest (1999) had found—Business Link operators were reluctant to charge for their services, despite the obligation to raise income. Since the *raison d’être* of Business Link was to correct a market failure in the provision of SME consultancy, being perceived as competing with existing private sector consultants became a source of discomfort for Business Link and the government.

To remedy this situation, the Labour government made a crucial change to Business Link’s delivery model when it handed its management over to the RDAs in 2005: it removed Business Link’s direct consultancy service entirely from its product portfolio (Chatterjee and Ash 2005). Instead, Business Link’s core service offering was redefined as the “Information, Diagnostics, and Brokerage” (IDB) model:

The fundamental principle of the Business Link model is that it *does not offer direct advice* to businesses. Instead, via a process known as information, diagnostics and brokerage (IDB) it analyses a business’s individual

requirements and introduces the business to a range of organisations and information that can then help them to find solutions to their specific needs. (England's RDAs 2008: 3) [my emphasis]

“Informing” consisted of making information available via websites, telephone, face-to-face meetings, “networks” (various business group meetings) and events. “Diagnosing” was conducted either in the form of a “structured self-assessment,” e.g. via the Business Link website, or by way of a “structured assisted diagnosis” in one-to-one meetings between PBAs and clients. The “brokering” service was for clients

who have been provided with an assisted diagnosis and have agreed an action plan with their Business Link adviser. This will provide customers with a *referral to at least three quality-assured solution providers* (where possible) who are most appropriate to provide the expert support needed to achieve the business objectives identified in the Action Plan. (Yorkshire Forward 2010: 1) [my emphasis]

This IDB policy—still relatively new at the time—was also reflected in the statement on the aforementioned Business Link folder (Figure 6.2) for the 12/12/2006 event:

Rather than providing all the advice and help itself, Business Link will fast-track its customers to the help they need. We will help you make the most of your business opportunities and link you to expertise from across the private, public and voluntary business-support sectors.

In other words, Business Link was to act primarily as a *market making broker*: it would facilitate encounters between buyers and sellers of business support services. While the 12/12 seminar was not an explicit brokerage event, its emerging design did respond to and implement these objectives in a number of ways. Business Link was not providing all the help by itself and it was linking participating SME owner-managers to expertise in the private sector (the teams of the two EBS providers) and in the quasi- or semi-public sector (represented by the Southern University team).

6.4. Conclusion

In this chapter I traced the emergence of a regional e-commerce market through the genesis of an industry event that was going to take place in a southern English town on 12th December 2006. I started by identifying some of the initial actors that took part. Then I traced the various types of activities involved in the construction of this event, which gradually revealed some of the characteristics, objectives and rationales of the participating actors. At the same time, I also identified some of the controversies that the pursuit of some of these objectives had led to.

The activities involved in constructing the 12/12 event can be summarised as

consisting of *assembling*, *formatting* and *framing*. Assembling can be further broken down into the activities of *gathering* and *constructing*. Each of these activities can be characterised as being *social* and *object-orientated*. The social nature of these activities manifested itself in the fact that they were all involved in bringing together multiple and diverse groups from different sectors of society: economy, education, and government. Moreover, one of the primary objectives of gathering these various groups was to create yet another gathering, the 12/12 event itself. At the same time, these activities were all object-orientated, both in the sense that actors needed to construct artefacts to be able to achieve their objectives with this event, and in the sense that the ultimate aim of the gathering was the eventual construction of e-commerce artefacts, which would be the desired successful outcome of the format that was put in place. To a large extent it was the looming and shapeless 'spectre' of the emerging technological innovation of e-commerce that both threatened the existence of traditional SME retailers and offered some tantalising prospects for their growth and survival. The 'virtual' object of e-commerce was used to mobilise the diverse participants to come together, so that they can identify ways to come to grips with it.

While a number of characteristics of the planned event—such as its format, the content, and the types of participants it aimed to assemble—suggested that it was designed to perform some market functions by bringing together possible buyers and sellers of e-commerce business services, there was a conspicuous absence of the acknowledgement of this marketplace character by the event's organisers during their dealings with each other and in the communications that were used to promote the event to its intended audience. The reasons for this seeming contradiction manifested themselves once the tracing of the actors was extended to participants that acted from a distance, through the processes and instruments of infrastructural framing. We saw that the 12/12 event was made possible by an institutional, political, and physical infrastructure put in place and maintained by Central Government, which was represented by the complex network that included universities, Regional Development Agencies and Business Link Operators, who were encouraged and compelled to collaborate for the primary purpose of overcoming a perceived market failure in the SME sector of the economy. In a sense, Business Link's *raison d'être* was to create a market where SMEs could access business services in the areas of management consultancy and innovations. However, overcoming SME owner-managers' resistance to accessing external sources of business advice required that this market mechanism is constructed in such a way that it does not trigger the causes that discourage this type of buyer from engaging with such a market. Especially after the direct consulting services of PBAs had been

abolished (which is when the planning of the 12/12 event was taking place), Business Link needed new ways of performing this market.

The 12/12 event thus was framed as a marketplace infrastructurally, but for strategic reasons—to overcome the market failure—it was rhetorically framed as an educational event. Its proposed format blended the pedagogic features of a lecture, a seminar, and a workshop with the market functions of creating encounters between potential buyers and sellers. The educational framing of the 12/12 marketplace event was further supported by the ideology of the *knowledge economy*, which, to adopt Latour's (2005) notion, served as a *panorama*, a grand discourse that provided a justification for the government intervention, by offering the prospect of an economy based on ICT-based knowledge-intensive services as panacea for solving the UK's economic decline and maintaining its competitiveness in a global economy. Additionally, the ICT-based knowledge-intensive nature of the particular type of services involved in the 12/12 event—namely, web design and e-marketing—were amenable to the educational format, as their presentation to potential clients involved a significant effort to introduce new knowledge in areas that may be outside of SME clients' traditional areas of expertise. Finally, the original intent behind the government intervention that gave birth to the Business Link network had a didactic—and some might say, patronising—aspect to it from the start: after all, its primary aim was to improve the managerial skills of individual SME managers.

The tracing of the infrastructural frame of the 12/12 event revealed a complex institutional structure behind Business Link, which, as the subsequent restructurings revealed, was an ongoing cause of controversy. The various controversies revolved around the particular ways in which Business Link intervened in the management consultancy market for SMEs. The introduction of the IDB model for instance was a response to criticisms concerning conflicts of interest and disparities in service quality among PBAs and regional BLOs. However, it had also fundamentally interfered with the way PBAs performed their market function. We could say that by the time of the 12/12 event the PBAs' role as direct market makers was somewhat diminished, as they were no longer allowed to provide consultancy advice and perform their own referrals. In this new situation, events such as seminars and conferences took on a new significance when it came to Business Link's mandated mission to correct the perceived market failure.

I will conclude the story of the 12/12 seminar in the next chapter, by describing how the programme put in place by its organisers was actualised on the day, and how the event performed its function as a 'neutral' knowledge economy marketplace. I will examine more

closely how the various policy changes under the Labour Government had affected Business Link's ability to fulfil its market function, by paying particular attention to the consequences of their IDB policy on the emergence of the regional e-commerce market.

Chapter 7: Breaking and displacing Business Link's market devices: the seminar as marketplace

In the previous chapter I have described how the construction of the 12 December 2006 seminar event was enabled and supported by what I called an *infrastructural frame*, the back bone of which was constituted by the complex implementation of the Business Link network, the public face of a government intervention into the SME business support market. In this chapter I will examine more closely the specific mechanisms by which Business Link was able to perform its market functions, and how these mechanisms were affected by changes introduced under the Labour government. I will do this in order to more precisely delineate the circumstances in which the 12/12 event took place, especially as these changes had particular consequences that had affected the standing of Business Link events as marketplace occasions.

I will adopt Callon et al.'s (2007) term *market device* to refer to the instruments that had been constructed by Business Link to facilitate the emergence of markets and the operations of marketplaces. This concept is useful because it emphasises the socio-technical nature of markets and highlights that in each case there are **particular instruments** that are necessary for a market to function as such. I will argue that some of the Labour government's policies towards Business Link had in effect broken a number of its market devices, which challenged Business Link and its employees, especially Personal Business Advisers, to find new ways of addressing the market failure they were tasked with to overcome.

I will trace the various translations, displacements and distortions that occurred due to these policy changes and I will show how they had affected the emergence of the regional e-commerce market in the South of England. I will argue that the introduction of the IDB model—by disabling Business Link's main market devices (PBAs and their informal databases for making qualified referrals of EBS providers)—had contributed to the increasing prominence of its seminar and conference events as alternative ways of performing the function of market-making. The regional e-commerce market was one of the beneficiaries of these changes in Downshire and Midsomer, as there was a period of several years (between 2002 and 2008), during which e-commerce-related marketplace events proliferated, organised both by Business Link and private sector enterprises. After reviewing and evaluating the changes that had befallen Business Link's market devices, I will conclude this chapter by

describing how the 12/12 seminar was performed on the day, as a substitute for the market devices that Business Link no longer had at its disposal.

7.1. 'Fixing' Business Link: consequences of Labour's policies

7.1.1. 'Targetitis'

In the previous chapter I described how the Labour Government introduced the Information, Diagnostics and Brokerage (IDB) model to eliminate the causes of a number of accusations and criticisms that Business Link was subjected to in its first decade of existence. One plank of this policy removed one-to-one consultancy from the PBAs' arsenal, which solved the problem of disparate service quality in consulting from adviser to adviser, and region to region, and made the interactions between PBAs and "intensively assisted" businesses more standardised. The other main plank of the policy concerned banning PBAs from making direct referrals from their own informal databases of suppliers, to eliminate accusations of bias and corruption.

However, the introduction of IDB was not the only radical change to affect the way Personal Business Advisers had used to go about their daily business. The Labour Government also felt compelled to respond to another persistent criticism coming from a variety of stakeholders who claimed that Business Link was not good value for taxpayer money (BERR 2009). The Government aimed to address these doubts about efficiency and effectiveness by introducing contractual performance targets for Business Link Operators (DTI 2004). The Small Business Service (the Central Government office in charge of Business Link between 2001 and 2005) had imposed three primary measures: 1) a penetration target (number of users accessing Business Link services); 2) a target for one-to-one consultancy by PBAs ("intensive assistance"), and 3) a target for customer satisfaction (Forte 2011: 117).

Under the aegis of SBS, market penetration had subsequently increased from 14% in 2001-2002 to 24% by 2003-2004 (Forte 2011: 122). When the RDAs took over in 2005 and reduced the remaining number of Business Link operators from 45 to 15, leaving only one back office per region, the penetration targets (and, consequently, workloads) for Personal Business Advisers had doubled, in some cases trebled, as a result of consolidation and increasing demand (Forte 2011: 175). Ray Holford*, e-business adviser with BLS between 1999 and 2010, recalls:

the target kept being increased every year, in quite a step change in that target

from the regional development agencies: ‘You need to see more businesses and with the same or reduced numbers of staff.’ So you ... couldn’t pick and choose who you dealt with. ...Whoever walked through that door, you had to see, because you needed the numbers. It became a numbers game. (5/11/2010)

By 2008, RDAs reported a 29% increase in penetration, a 73% increase in one-to-one consultancy, and the achievement of a 90% customer satisfaction rate since they took over (Forte 2011: 176). A case was made to Parliament in 2009 about Business Link’s performance improvements (Business and Enterprise Committee 2009). However, as Hood (2006) argues, the reporting of the achievement of targets is not necessarily evidence for the actual achievement of targets, as reporting managers may engage in “gaming,” i.e. various forms of strategic behaviour aimed at achieving targets at the cost of sub-optimal actual performance. Also, the achievement of excessive targets may mask a redistribution of resources that may disadvantage other stakeholders elsewhere, undermining the quality of the given service in ways that may go underreported because they are not measured by targets. Indeed, Business Link franchisees reported that the ever-increasing focus on targets had a negative impact on the service they provided:

With those levels of targets you can’t do hand holding. This is a shame as it leaves action plans unimplemented. (...) The chase after large numbers of intensive assists has caused demoralisation amongst staff and detriment to the service. What clients really value is the time they get to spend with an impartial advisor. (cited in BERR 2009: 33)

7.1.2. ‘Mere signposting’

However, thanks to the IDB policy, the PBAs’ relationship with their clients had changed fundamentally, even when they had the luxury to spend more time with them. PBAs were no longer tasked with performing the consultancy and supplier referral services directly by themselves, using their own intellectual and social 'capital.' In their mission to overcome the market failure in the SME business support market, they were now only allowed to act as neutral intermediaries pointing their clients to independent third-party suppliers from the private sector instead. One government report defined the essence of this model as “a market-making approach to business support” (BERR 2009: 11). However, this had also been interpreted by some of the RDAs in more simplistic terms as “*signposting* the region’s enterprises to the most appropriate source of support to address their needs” (SWERDA 2006: 6) [my emphasis]. While this change had removed one of the causes of constant criticism (without direct consultancy there was no more disparity in the quality of advice offered by individual PBAs across the country (Bennett, Robson et al. 2001)), it had replaced

it with another: Business Link was now criticised for becoming a ‘mere signposting service’ (the very thing its creators in 1993 vowed to avoid). It stopped offering specific advice to address the problems its PBAs would continue to diagnose in “intensively assisted” SMEs. In the words of Ray Holford, the IDB model

took us away from charging for our services and just giving information, going in, diagnosing business problems, and then referring out, brokering out to suppliers, which is where some of the criticism [came from] then of course a couple of years down the line...: ‘You don’t do anything.’ You go in, the business owner says, ‘Oh, we’ve got a problem.’ You say, ‘Yes, you have. Go and find a consultant.’ (5 November 2010)

This situation had caused discontent on the part of both the PBAs and the “intensively assisted” businesses. Some PBAs felt frustrated and ineffective for not being able to go the next step and provide the consultancy advice they felt would have been appropriate (BERR 2009: 37). According to Holford, the IDB process—in combination with the new focus on chasing penetration targets—had made the diagnostic process very superficial:

as a general adviser that I’ve been doing the last few months, you go in, undertake a diagnostic under these little areas—and I’ve got two hours of time that I can give them some basic advice—and then I’ve got to get out of there and write up the action plan. I haven’t got the time to spend with them. (...) You may have enough time to spot these issues but you don’t have enough time to actually help them, to give them the information they need to fix it. And that’s where I think it’s a let-down, a dumbing down. And over the years I think the service has dumbed down quite a lot. (5/11/2010)

Some “intensively assisted” businesses also found it surprising that after being “diagnosed” they were pointed to third party suppliers that did not come with the adviser’s personal recommendation, especially as the switch to the IDB model had not become widespread knowledge among SMEs: “Many businesses continue to associate Business Link with ‘mentoring’ and ‘hand-holding’ services, and there is an overall lack of awareness of what the service currently involves” (BERR 2009: 37).

7.1.3. Irrelevant referrals

The IDB model was also designed to address Business Link’s “partiality” problem in the brokerage process. As Elliot Forte (2011)—a PBA from 1996 to 2011 at two different Business Link franchises—had observed, there were a number of reasons why PBAs tended to be partial to a relatively small pool of suppliers in their referrals to SMEs. Firstly, as individual consultants, especially when they were new in their jobs, PBAs would only have known a few suitable suppliers. Depending on the positive or negative experiences of the SMEs with the recommended suppliers, over time PBAs would be inclined to stick with the

ones that had proven themselves to be reliable, especially as dissatisfaction of the client would reflect negatively on the PBA's and Business Link's customer satisfaction survey results.

Over time, PBAs would inevitably develop personal relationships with the best performing suppliers, which could introduce an additional element of positive bias to the brokering process in favour of providers with a proven track record. In their recollections, former PBAs would admit that there had been attempts on the part of suppliers to corrupt PBAs in order to be "brokered" more often; but they would deny witnessing actual corruption. "There were kickbacks on offer, but I don't know anyone who took them. But [whether] that was the case for all regions and all areas, I don't know," said Ray Holford (5 November 2010). Elliot Forte (2011: 129) expressed a similar view: "Personally, I never witnessed any adviser act without integrity and [not] in the best interests of customers. That isn't to say categorically this didn't happen on occasion."

Prior to the introduction of the IDB model, local teams of PBAs would have developed their own databases for their region or specialism. At Business Link South, the team of five specialist e-commerce PBAs (set up in 1999) had built their own list of e-commerce business service providers in an Excel spreadsheet for their own internal use:

in the early days we just had a little spreadsheet of contacts that we knew of, of local [web] developers, and we had seen some examples of their work, who's fine, and we knew clients weren't going to get ripped off if we said, 'Oh, go and have a chat then.' And we would always give them a couple from our own knowledge, of who we think would be appropriate for their level, for the amount that they wanted to pay. (Ray Holford, 5/12/2010)

Nevertheless, accusations of bias and corruption must have been sufficiently troubling for the government to introduce—as part of the IDB policy—a ban on PBAs making their own recommendations, and to delegate the task to regional co-ordinators who would be managing the supplier database behind a "Chinese wall" (BERR 2009; Yorkshire Forward 2010). Ray Holford recalls:

Business Link was getting more stick at the time from people we weren't recommending. It was like, 'Well, you're paid by the government, it's unfair, you're giving competitive advantage to others not us.' So then that was brought in as a mechanism to quell that uprising at the time. (5/12/2010)

In Eastern and Southern England, the *Supplier Matching Service* (suppliermatching.co.uk)—developed earlier by Ngage, the Business Link franchisee in Buckinghamshire—was adopted to fulfil this function (other regions had their own versions, such as the *North East England Service Provider Register* or the *Select Supply Supplier*

Database in the West Midlands) (Business Link 2007). The Supplier Matching Service (SMS) consisted of a website (where suppliers could register by subjecting themselves to a light-touch approval process) and a group of regional co-ordinators (who PBAs could contact on behalf of their “intensive assistance” clients to run database queries for potential suppliers). The supplier registration was free of charge, and it required suppliers to have a 3-year plus trading record, list three skills, and provide three testimonials from their customers (Business Link in the South East 2010). In Ray Holford’s words,

when there was a need for a supplier, we would do a referral to the co-ordinator that ran the database in each area and say, ‘we need suggestions of suppliers, this sort of day rate, this sort of skill, in this sort of location.’ And then the database would be searched and it would spew out three results, which would get e-mailed out then to clients along with the supplier profile and the supporting testimonials. (5/12/2010)

The PBAs’ market role thus was restricted mainly to help identify and articulate a buyer’s requirements, advise the buyer on how to assess sellers and their offerings, execute the ‘impartial’ brokerage, and follow up with the buyer on their experience with the selected seller (Yorkshire Forward 2010). By 2010, the Supplier Matching Service had over 3000 service providers from the South of England in its database (Business Link 2010b).

According to a 2009 study commissioned by BERR , the IDB model had succeeded on the “impartiality” front, as clients (both buyers and sellers) by then had perceived Business Link’s service as more impartial than it was before. However, the achievement of this perception of impartiality came at a cost. The “impartial” or random search results (within the provided parameters of location, expertise, and cost) could produce a list of suppliers that turned out to be wholly irrelevant or unsuitable for the given SME client’s highly specific needs, as Ray Holford observed:

when I’ve spoken to businesses again, they said, ‘Oh, yeah, we phoned and didn’t like any of them, we went with somebody else.’ And the results that I saw going out, where you would get copied in, I wouldn’t have chosen any of those myself. They were just wrong. I know that they were wrong for the client. (...) And I’ve heard of people who did take up one of the suggestions from that database and had a bad experience. So, yeah, it certainly wasn’t the panacea that it was supposed to be. (5/12/2010)

Moreover, the service quality of the suppliers and the accuracy of the data they provided about themselves in the Supplier Matching database were not reviewed sufficiently over time. Even when suppliers’ relationships with the clients that provided the original testimonials in the database had soured later on, those testimonials would have continued to be used. To help them avoid “cowboy” suppliers, Ray Holford advised his SME clients to

‘make sure you get the testimonials and ring these people up’ because quite often I would have seen developers using examples, and the client has fallen out with them. They don’t want to be their testimonial and never gave them permission to use their testimonial. (5/12/2010)

The shortcomings of the “light-touch” registration process, which allowed suppliers to be listed in the SMS database without a great deal of assessment (other than the initial one-off cross-checking of referrals) was also common knowledge among the SME community, as exemplified by the following comment by a member of the 4Networking online community in 2008:

So far I have found Business Link SMS a total waste of time. They don’t bother to check how good the people are or aren’t, that they recommend. They go completely on references which can be fiddled. (4Networking 2008)

The IDB process thus had shifted the task of assessing the quality and value of the referred sellers’ service offering almost entirely onto the buyer, who may have lacked the skills to carry out sophisticated assessments (which was indeed considered to be one of the sources of market failure and part of the justification for setting up Business Link (DTI 1994)). Under those circumstances, a PBA’s inability to give explicit consultancy advice or a firm recommendation of a tried-and-tested supplier had exposed the Business Link service to charges of ineffectiveness. For example, the director of Mandoline, a Downshire-based e-commerce micro-enterprise, thus described his experience with the IDB model in 2009:

I had a bad result with Business Link actually... [T]his person came along to see me, this lady, she was an MBA... She was quite aloof and didn’t want to get her hands dirty. She kept a distance, and she said, ‘Oh yes, I’ll find something.’ And she gave me one or two names or something. It was all very superficial, nothing came of that. (Tom Campbell*, 5/6/2009)

This contrasted sharply with Campbell’s earlier experience with Business Link referrals prior to the IDB change. In 2003, when Mandoline was looking for a web designer, they turned to Business Link for referrals, and one of the firms recommended by the adviser did turn out to be an appropriate match, resulting in a 7-year relationship that had lasted until the sale of the business (and has continued with the new owner).

The restrictions that the IDB model put on PBAs, coupled with the expectations of SME clients who wanted help with the evaluation and selection of suppliers to resolve the diagnosed problem, had led to some “rogue” behaviour on the part of the advisers, despite the fact that one of the aims of the policy was to standardise adviser service quality by eliminating idiosyncratic advice. Simon Jacobs, e-commerce adviser at Business Link South between 1999 and 2006, deliberately bent the rule on “impartial” referrals:

There is the way to do it by the book, and there is a way that mavericks like

me would do it. (...) [V]ery often in my case, when I was dealing with the kind of clients that I would deal with on a one-to-one, I, in all my years of working in the area, would only know of one company that would actually do this [be able to solve the diagnosed problem]. And I wouldn't beat about the bush, and say 'Look, that's the only company I know, I've never heard anything bad about them, talk to them.' But that was not the way it was supposed to happen. And I would be reprimanded if it was found out that I had done that. (10/9/2007)

His colleague, Ray Holford, similarly admitted to bending the IDB rules:

It was slightly outside of the role but I always said, 'If any quotes you get, send them to me, and I'll talk you through what my impression of the quotes [is]. Are they reasonable? Or are there some hidden issues in there? What are they covering?' So I always added that little bit on the end of mine, but that wasn't the required part of the service. (5/12/2010)

If one of the goals of the IDB model was to standardise PBA behaviour, then the above examples show that by forbidding direct consultancy advice and qualified referrals the government had introduced a conflict into the adviser-client relationship, as PBAs were forced to choose between strictly following company policy or exercising what they considered their professional duty—to fulfil the clients' needs and expectations. What originally constituted their job description had now been reclassified as “rogue behaviour,” thanks to the IDB policy.

Business Link managers in the South must have been aware of some of the aforementioned problems with the brokerage model: they closed the Supplier Matching Service down on 25th March 2010, promising to replace it shortly with an “improved service” that was in the process of being implemented (Business Link 2010a). Nothing came of that in the end, as a new government took over two months later, with a radically different plan for Business Link.

7.2. Business Link's market devices

7.2.1. Market-making devices

In the previous section I have identified a number of instruments that have been deployed as part of the government intervention to fix a perceived market failure in the SME consultancy market in England by way of the Business Link network. I use the term *instrument* here both literally and figuratively, as these apparatuses—designed to perform a variety of market functions—consisted of heterogeneous elements that included human beings (the PBAs), a network of institutions (from the SBS to RDAs and BLOs), intangible policies (the IDB model), and physical artefacts (the Excel spreadsheets with a PBA's own

database of qualified suppliers, the IT systems, buildings, and vehicles used to deliver the Business Link service). Following Callon et al. (2007), I will call such instruments *market devices*, to emphasise the fact that they were implements specifically designed and deployed to construct markets and facilitate the performance of market functions.

Market devices were specific to each case of performance, and whether they succeeded in their function depended on the particular circumstances of their deployment, as well as on the appropriateness of their design. While Central Government decisions could make or break a market device, local implementations could also provide differing results. Regional Business Link franchises differed in their particular implementations of the national guidelines, as they had some leeway to decide on certain aspects of the local service provision. For instance, some Business Links focused on reaching a large number of clients with lighter-touch assistance programmes, while others decided to concentrate on providing intensive, one-on-one assistance to a smaller set of selected firms (Mole, Hart et al. 2011.) At a fundamental level, Business Link's primary function under Major's Conservative Government was to create a market supply of management consultancy at a subsidised price to SMEs. This first iteration of a Business Link market device therefore centred on qualified PBAs empowered to provide their own consultancy advice, which was completely removed (except when performed illicitly by 'rogue' advisers) after the introduction of the IDB model by the Labour Government in 2005.

A second function of this initial Business Link market device normally came into force as an output of the consultancy process. The diagnostic activity of reviewing the constituent elements and business processes of an "intensively assisted" SME would in many cases result in the identification of areas of the organisation that would either need replacing or restructuring, and which in turn would require the use of specialist expertise that the regional Business Link organisation would be unlikely to possess. In these cases the PBA's assistance to the given SME would have consisted in articulating their need as a buyer in the relevant supplier market (e.g. for management consultants, marketing agencies, or web designers), providing them with qualified recommendations to suppliers from the PBA's own informal database (such as the aforementioned Excel spreadsheet used by the e-business advisers at Business Link South), and guiding the SME through the supplier selection, hiring and control process. These would not have been impartial recommendations: but their value—when they resulted in successful relationships—lay exactly in the fact that they were 'pre-qualified' by the PBAs, meaning that they were made on the basis of the PBA's prior experience with the given supplier.

The reforms introduced by the Labour Government had gradually weakened both of the above market-making functions. Firstly, the introduction of the absolute ban on direct consulting and qualified referrals had eliminated the very policy that enabled Business Link to operate the aforementioned market devices (the socio-technical networks of humans, policies and artefacts that had resulted in the output required by the SME clients, namely, relevant consultancy advice and qualified recommendations of suppliers). At the same time, all the other elements of this socio-material assemblage still remained in place, such as the offices, the PBAs with their vehicles that allowed them to visit individual businesses, and their informal databases of tried and trusted suppliers. Business Link's resource base—including its ability to supply subsidised consultancy and qualified brokerage—was intact: but it was prevented from being deployed legitimately; and the increasingly ambitious and onerous performance targets even made the illegitimate provision of those market functions difficult to undertake in practice. The introduction of regional supplier matching databases (such as the SMS) was an attempt to create new market devices dedicated to perform the brokerage function previously carried out by PBAs and their informal databases. However, due to their various design faults discussed earlier, these supplier matching services left the key stakeholders frustrated, which included the advisers (as intermediaries), the suppliers (as sellers), and the SME clients (as buyers).

This was the general state of the government intervention into the SME business support market in England around December 2006, when the 12/12 event was due to take place in Trumpton. Control of the Business Link network had just been transferred to the RDAs the previous year, and the implementation of the IDB model was in full swing. Targets became the main levers with which Central Government was attempting to affect the performance of Business Link through a complex chain of delegation: Central Government imposed targets on the RDAs, the RDAs imposed targets on the Business Link operators, and the BLOs imposed targets on individual business advisers (Pearce and Ayres 2009). The Labour government's approach to public management through the extensive—and according to its critics, excessive and counterproductive—use of targets has been nicknamed 'targetitis' in the British press (Sylvester 2002; Telegraph View 2002; BBC 2003). According to Hood (2006: 515-516), by the mid-2000s the UK government under Tony Blair "took the centralized target approach to public service management further than any other in recent times;" and its reported rate of performance improvements was approaching that of the Soviet Union of the 1930s. In the experience of Ray Holford, the assistance targets set for him and his immediate colleagues by the RDA were impossible to achieve through the usual means:

As a team, we were in the thousands a year, the businesses that we met. Our target was ... 3000 a year between two of us, to do two hours of customer [visits], which wasn't physically possible. I think there are only 800 odd two-hour slots in a working year anyway. (...) In the first two years we failed our targets. They were just so huge, that me, on my own, doing one and a half thousand businesses, it's just ridiculous! No way [laughs] that was even gonna work! (5/11/2010)

7.2.2. Seminars as market devices

In this new situation, Business Link events, such as seminars, regular meetings of facilitated peer-groups (clubs with more or less stable membership), and conferences, had begun to take on a more prominent role: both as means for advisers to achieve their performance targets more quickly, and as market devices in their own right, enabling the meeting of buyers and sellers of entrepreneurial services. While the provision and dissemination of information in the form of public events such as seminars had always been part of Business Link's remit, the changes introduced under the Labour Government—especially the increase in penetration targets for PBAs and the shift away from qualified supplier recommendations to impartial (but unqualified) brokerage under the IDB scheme—had increased the attractiveness of organising seminars to PBAs greatly. Each participant at such a seminar counted towards the penetration target, which means that the larger and better attended an event was, the more valuable it became to the organising PBAs, as they could improve their performance records.

For example, to meet the increasingly ambitious 'light-touch assistance' performance target (as opposed to intensive, one-on-one assistance), advisers at Business Link South would resort to organising workshops:

when ... vast numbers you needed to deal with, you try a workshop with 10-12 people in, run them through a standard type of 'this is how you develop a marketing plan, here you go.' And that was your numbers dealt with. (Ray Holford, 5/11/2010)

Simon Jacobs, one of the five specialist e-business advisers at Business Link South between 1999 and 2006, would become particularly adept at coming up with creative ways to tick the performance target boxes:

Simon was always famous for his bending his rules and coming up with the easy solution to it. He would probably see 300 without blinking, from that sort of approach. But that was fine because his end of stuff, the e-biz [e-business] stuff, they did get quality advice. (Ray Holford, 5/11/2010)

Eventually Business Link events became the main way for the e-business team at BLS to meet their performance targets: "but towards the end we started to get up in the near

thousand, through putting on events and seminars and stuff. We were getting up to the thousand target each” (Ray Holford, 5/11/2010).

While Jacobs’s larger-scale events were partly prompted by the pressure of the targets that were increasing since 2001, they were also addressing needs that e-business PBAs had spotted in the emerging local e-commerce industry. In 2002 “I realised that there was a major market opportunity,” relates Simon Jacobs:

the ICT sector, with which I had very good connections, were really good technically but crap at sales and marketing. I said, ‘right, what I would do, have a seminar that’s about sales and marketing for ICT companies.’ So, a hundred people turn up from different companies and we lay on a series of talks and workshops about selling, marketing. People loved it! (2/3/2009)

Following the success of the first event, the day-long *e-Suppliers’ Forum** turned into a series. Jacobs organised seven of them at Business Link between 2002 and 2004. The format gradually evolved to include a variety of activities. It would typically start with the presentations of three directors of organisations that buy ICT solutions, from SMEs to multi-national corporations and government agencies, who would discuss their purchase requirements with the EBS suppliers present. There would be a panel consisting of early adopters of e-commerce, as well as non-adopters still delaying the decision, and their reasoning would be compared and contrasted. There would be talks of successful EBS suppliers sharing their experiences with their peers. There would also be break-out workshops on specific topics, such as viral marketing, customer relationship management, or IT security. The lunch and coffee breaks would provide an opportunity for attending buyers and sellers to meet. The *e-Suppliers’ Forum* focused on developing the supply-side of the regional e-commerce market.

After having helped local EBS providers develop their marketing and sales skills for several years, Jacobs’s next move was to facilitate the encounters between EBS buyers and sellers with a two-day event called the *Business Link e-Fair** in March 2006. He booked an entire floor at a major business expo in Elsbridge*, an industrial and commercial hub in the South of England. Forty EBS providers were selected as exhibitors, who would also deliver “clinics, exhibitions, workshops, presentations and demonstrations” (as the text of the invite said) in their topic of expertise in seminar rooms around the floor. Ben Wooldridge of DigitAll Ltd. for instance gave three presentations over two days on blogging and podcasting, and his company also gave away a free e-commerce website as part of a raffle. In Ray Holford’s recollection, the format was particularly amenable to the needs of timid SME buyers:

the footfall through to the seminars and events—and informal networking bits that were going on around that area—was a lot higher, than [to] those people standing in as exhibitors. People didn't want to be thrown into the lion's den, getting picked on, walking around from stand to stand, people being pounce on them. But it was more casual, the 'learney,' 'networky' type environment that people go along [to] because they want to learn. And they bump into somebody who knows what they're talking about, can strike up a relationship, and it's up to them if they want to then follow that up. (...) [T]hose sort of events are much more powerful from a business support aspect than your exhibitions and your 'all right, these are three people that are going to come in and quote.' They get to know them a lot better that way. (05/11/2010)

Holford's account suggests that the market failure attributed to SMEs' unwillingness to take on external management advice partly stems from the difficulties involved in evaluating service providers. Bennett and Smith (2004) call this the problem of "ex ante evaluation," and they also find it prevalent among SMEs in the UK. Jacobs's e-Fair event (under Business Link's brand) provided opportunities to SME buyers of e-commerce services to evaluate the competences of sellers in a way that allowed the causes of the market failure to be overcome. This was achieved by enabling buyers to assess potential sellers in a social setting, through sampling their service offering, which is what effectively a seminar or workshop was. As DigitAll Ltd. reported on their website after their seminar at the subsequent 2007 e-Fair, Wooldridge's presentation "attracted much interest and questions from the audience." In this relatively neutral, quasi-educational setting, prospective buyers were able to interrogate DigitAll as a potential supplier without the fear of being subject to a "hard sell." They were also able to benefit from the answers given to the questions of others. Participating sellers like DigitAll had subjected themselves to a public test, through which some of their qualities became apparent to the buyers in the audience, which then made any future exchange transactions (sales) more likely. This approach to creating opportunities for the evaluation of the sellers and their offerings would become a standard element of the events organised by Simon Jacobs and his colleagues at BLS.

In addition to small seminars (with typically 15 to 20 participants) and larger conference-type events such as the e-Fair presentations (with up to 80 participants) and the e-Suppliers' Forum (with around 100 participants), Jacobs also developed a third type of format: regular peer-group meetings for e-business entrepreneurs. These could be described as clubs, but they were also referred to sometimes as "networks" in Business Link literature. Jacobs named these monthly gatherings of entrepreneurs the Compass Groups.

The first Compass group started out in Walmington in 2001, and was born out of an

informal dinner at a hotel to which Jacobs, out of his own initiative, invited some IT and EBS entrepreneurs he knew. He recalls:

We got together, and we got on like wildfire. One of them talked on a topic and [the group] started identifying and before I knew, I had a dinner group going. And that group was so popular, people wouldn't leave. Then I had to start a second group. (...) I was then asked if I would start a Compass group in Downshire by one of the members who was commuting... So I opened one in Downshire; that was the third group. Then I was approached by two women and they said, 'Would you start a Compass group for women?' So I started a Women's Compass Group; that was number four. (10/9/2007)

By the time of the 12/12/06 event, Jacobs had five Compass groups running at Business Link South for several years.

Despite the popularity of the Compass Groups among regional start-ups and SMEs, initially they were clandestine operations: "all of this was going on under Business Link's radar really," admitted Jacobs: "it was definitely not part of my job description; it was definitely something that I was doing on the side" (ibid.). However, in the end his Compass peer-groups came in very handy for meeting the ever-more ambitious "intensive assistance" targets imposed first by SBS and then the RDA:

eventually, Business Link woke up to the fact that this was going on and fortunately that coincided with the point where they realised that I was their highest performing adviser, in terms of delivery of the ticks in boxes that they needed for their meeting the targets. And the reason I was so successful was because of these groups! Everyone in these groups was a tick in the box and I had 60 of them by this stage. I was like, 'Wow! I could deliver 60 of these before I'd start the year!' sort of thing. (Ibid.)

Thanks to his novel service delivery method, Jacobs was able to achieve the highest "intensive assistance" target at the regional BL office: "I produced 101 in a year and that was 30 more than the next best result." In the end, Jacobs and his colleague Holford would even stop recording their achievements for the sake of maintaining friendly relations with other PBA colleagues in the office: "We just dealt with clients and we didn't even log on the system because it made others look too stupid" [laughs] (5/11/2010).

Jacobs described his intrapreneurial approach within a bureaucratic organisation governed by targets as a strategic form of rogue behaviour: "I would start something rolling. By the time it was going, it was so successful, people couldn't stop me. It's like being a corporate guerrilla" (ibid.). Eventually the running of seminars, conferences, fairs and peer group meetings become the mainstay of his work, despite the fact that they were entirely unorthodox ways of delivering the PBA role: "Officially, my job was to work one-to-one with businesses to advise them on their IT and e-commerce, e-business stuff. I in fact did

very little of that. I would say that less than 25% of my time was spent on that” (Ibid.). Instead, he managed to convince his line manager eventually to include his event organising activities in his job specification: “And my annual objectives would have things like ‘Run two e-Suppliers’ Forums or run an e-Fair, and continue to run the Compass groups’” (ibid.).

At the heart of Jacobs’s operation, supporting the various events, there was another secret weapon, as Ray Holford explains:

When Simon and I started, we worked quite rogue in our marketing. Simon set up the first ever Business Link e-mail list server because when we joined [in 1999] Business Link didn’t have one. Around those days if you wanted to promote an event, they printed it, off went the flyer eight weeks before into Marketing [department], they were designing it etc. Six weeks forward, it got off to the printers. It’s come back four weeks before: you were sitting at your desk with the whole team stuffing envelopes to however many thousand people. (...) And then we started building up our e-mail marketing database and sending out e-marketing, of which Marketing weren’t aware and suddenly we were filling these events. They were like, ‘How is that happening?’ [Laughs] (5/11/2010)

To get around the limitations of the paper-based marketing process, in July 2001 Jacobs convinced his manager to allow him to subscribe to Microsoft’s online e-mail marketing service called *bCentral List Builder*. Within a matter of months Jacobs had built a contact list of 18,000 companies in the three neighbouring counties served by BLS (Figure 7.1). By December 2006 the database grew to 22,000 companies, mainly SMEs.

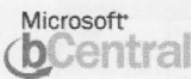
However, he and his team had to keep quiet about the fact that they were bypassing the institutional marketing communications procedure:

It was unofficial. If they had known what I was doing I would have been stopped. But I was using that to promote all my groups, all my events, and to promote the good of Business Link in all kinds of ways. (26/7/2008)

Jacobs’s clandestine database of regional SMEs (which included both buyers and sellers of e-commerce business services), in combination with the events it was used to promote, effectively served as an alternative market device to the official Supplier Matching Service, in the sense that buyers and sellers were brought together through its means at events where they could encounter and evaluate each other directly, rather than through the random process of three matches based on three keywords. Eventually Jacobs’ *bCentral* database acquired legitimacy, as it emerged as the most effective way of organising Business Link South events.

Figure 7.1: Report from Simon Jacobs's bCentral email marketing database

List Builder - Overview
Page 1 of 2


My bCentral | Home | Resources | Log Out | Help
List Builder

List Builder Billing
Payment Options | Account Settings

Overview Send mail Check stats Manage subscribers

What do you want to do? Account status - November 12 Nov 2001

Plan type: Super
Imports credits available: 15,651
Monthly email credits available: 38,654
Extra email credits available: 9,211

You have 17923 subscribers

subscribers	Total
Subscribed since account created (25 Jul 2001)	20195
Unsubscribed since account created	2272
Active subscribers	17923

You have 18 interest groups

Interest groups	Current total	Joins today	Drops today
	11	0	0
Business Growth	9980	2	74
Business Growth	16657	1	34
Business Growth	1480	0	0
I	330	1	0
Design & Marketing	391	5	0
Engineering & Manufacturing	44	3	0
Engineering Skills	341	2	1
Environmental Issues	222	2	0
For Design Professionals	298	1	0
ICT & E-Business	870	5	0
International Trade	3144	1	19
Invention & Innovation	218	4	0
	76	1	0
Media & New Media	569	1	0
Opportunities for ICT Providers	572	1	0
Seminars, Events & Courses	473	5	0
Test	1	0	0

Recent drafts see all

Saved on	Subject	To	Target	Recipients
07 Sep 2001	Bringing cold quotes back to life	Opportunities for ICT Providers	None	-
06 Sep 2001	Click for research	ICT & E-Business	None	-
11 Nov 2001	Effective Client Management Systems	ICT & E-Business	None	-
11 Nov 2001		Design & Marketing	None	-
11 Nov 2001	Notes	Environmental Issues	None	-

http://lb.bcentral.com/ex/index
12/11/2001

It even saved Jacobs' job, when Business Link Midsomer, which originally hired him, was acquired by Business Link South:

At that point I've been offered a job with a very good salary working for someone else. And Business Link South agreed to match the salary to keep me, particularly because of this e-mail database that I got going. (2/3/2009)

7.3. Actualising the Business Link event

While Simon Jacobs was not visibly part of the preparations for the 12/12 seminar (I only met him for the first time at the event, and I had no knowledge of him beforehand), he and his bCentral database played a key role in the background, promoting the event and attracting the audience. In the end, twenty-five small business owners and managers from the region have registered to attend the event, which was a confirmation of their interest in this subject matter, as existing or potential adopters of the innovation of e-commerce, and potential buyers of e-commerce business services.

7.3.1. Frames and formats doing their work

On the day, the 'execution of the script,' i.e. of the programme (Figure 6.1) developed in the preceding month by the joint effort of Business Link staff, Southern university staff, and the two EBS suppliers, had run smoothly and according to plan, broadly in line with the format that was agreed upon. The participants—both the SME representatives (primarily owner-managers, some of them husband-and-wife teams) and the organisers—began arriving at 4pm at the local BLS head office in Keatts House* (a smart office building that was also home to the local branch of the RDA and several multi-national financial institutions in downtown Trumpton.

They were all led to a sizeable conference room that contained a desk by the door with the registration materials, several tables and chairs across the room, and a projector with a screen, giving the room the air of a spacious university seminar room. Upon registration, participants were provided with name tags with their name and affiliation, which they could affix to their clothing, as well as the aforementioned BL-branded folder (Figures 6.2 and 6.3) containing various documents.

Figure 7.2: Keatts House, headquarters of Business Link South in Trumpton

(Source: estate agency's website)

(Permission to use this image has been granted by the copyright holder)



The process of framing (that began with the email and online invitations) continued quietly to pre-qualify the participating service providers as experts in their field. This framing was carried out by the documents contained in the BL folder: e.g. the programme sheet with the service providers' names (Figure 6.1), the biography page with the description of their expertise, and the slide presentation printouts. The building (Figure 7.2) also acted as such a frame, as the very appearance at a Business Link venue had granted presenting suppliers the organisation's tacit approval concerning their expertise and professionalism. For instance Tom Campbell of Mandoline Ltd. thus justified approaching and hiring a marketing consultant he met at another Business Link event: "by definition, if he is giving a seminar under the auspices of Business Link, Business Link must have vetted this guy at some point" (13/3/2009).

The format of the seminar event itself was one of the devices that allowed for the

qualification of multiple market participants to take place *as a market process*, thus turning the occasion into a marketplace for e-commerce business services. Firstly, the event was an opportunity for encounters between prospective buyers and sellers. After the participants became appropriately labelled during the registration process via their name tags as potential buyers or sellers of EBS, they were free to mill around the refreshments table, where Business Link staff were introducing them to each other, as part of casual conversation. Each of the participating EBS providers, including the *market makers*, i.e. Business Link South and Southern University Business School, were represented by several members of staff. Such informal encounters continued throughout the event during every coffee break. However, the workshop segment in the second half of the event was the most elaborate “encounter device,” as it enabled a form of interaction that specifically focused on the articulation of the SMEs’ buying needs, with the assistance of a specific EBS provider or market maker, and the printed self-diagnostic form (Figure 6.4).

It was also during the registration process that participants, including the speakers, were presented or introduced to Simon Jacobs, who turned out to be the compere of the event, presumably because of his position as the senior e-business advisor at BLS (having served in that position since 1999), and despite the fact that he was not involved in the planning meetings. Nonetheless, it transpired during the introductions that he already knew personally most of the attendees. Jacobs opened the event and introduced the first speaker, Prof. Bates, the Dean of the Business School, as his friend.

7.3.2. Qualification, articulation and particularisation

Prof. Bates started off the presentations, introducing first the Business School and then me. As planned, the three main speakers had delivered their presentations in subsequent 30-minute blocks, using PowerPoint slides with the projector. While the presentations themselves only enabled the attending SMEs to assess the qualities and capabilities of the presenting EBS providers passively, the subsequent “Question the Experts” panel gave the audience an opportunity to ask specific questions about particular points raised by each of the presenters. The three presenters, Ben Wooldridge, Geoff Steele, and I, stood in front of the audience, taking questions in turn. Some audience members continued to pursue their questions with the presenters in the coffee break.

While a number of e-commerce applications and online services were discussed in the first half of the event as case study examples, they referred to other organisations that were either well-known to all (such as Wooldridge’s slide in Figure 7.3), or were part of the client

portfolios of the two EBS providers. In this sense the first half focused on conjuring up a generalised image of e-commerce, as the central object of interest.

Figure 7.3: Slide 9 from DigitAll Ltd.'s PowerPoint presentation³



It was only in the workshop segment in the second half that the participating SMEs could present aspects of their own existing e-commerce websites to the given EBS or market maker representative that facilitated their particular group discussion. After dividing the participants into five groups of five SME owner-managers with two EBS, BL, or SU representatives each, they were all asked to sit down around a table, and after a round of introductions there were each asked to present one by one the contents of their “e-Marketing Workshop” handout (Figure 6.4), which they were asked at the start of the event to fill out while the presentations were under way.

The workshop form developed out of the joint discussions between Business Link and Southern University, and it reflects the interests and experiences of both, while also keeping in mind the interests of the co-organising EBS providers. On the one hand, the form focuses on diagnosing the current state and future requirements of each business in relation to their e-commerce capabilities (not unlike the diagnostics step of the IDB model). On the other hand, it is structured as if to facilitate a typical university-style seminar discussion. But the form also asks specifically about the given SME’s current ICT solutions and their intentions to purchase an e-marketing/e-business solution in the future. This handout acted as yet another framing device aimed at coaxing a market function into existence, by allowing for the

articulation of EBS buyer needs.

In the course of the group discussions not only were the individual SME members able to articulate their own needs regarding e-commerce, but they were also able to compare them with each other. Finally, the discussions provided an opportunity for the given facilitators (staff members of DigitAll, Interweb, BLS or Southern University) to find out about the various SMEs' particular purchase requirements and thus assess them as prospective customers. The rotation of facilitators from table to table allowed the SME representatives to gain different angles on their problem, given the different interests and experiences of industry operators, university lecturers, and business advisers. The group that I facilitated included a cross-section of SMEs, from a husband-and-wife team of a small manufacturing firm wanting to improve its e-commerce website, to pure e-tail SMEs, and a start-up for a social networking site for Christians.

The event ended with the exchange of business cards and promises of follow-ups on the parts of the various potential buyers and sellers. In this sense the seminar was not simply an informational event. It was a marketplace, as certain market processes were enabled by the format of the event. These market processes concerned the bringing together of market participants, the facilitation of their encounters, as well as the establishment of some of the particular qualities and features of the participants and the organisations they represented, including the products and services they were offering.

7.3.3. A neutral 'knowledge economy' marketplace

Somewhat counterintuitively, for the 12/12 event to work as *a type of marketplace*, it had to avoid defining and presenting itself as such. The reason for this lies in the very same characteristics of small firms that were also cited as one of the causes of market failure in the SME business advice market. As small firms by definition lack extensive resources for the evaluation of new service providers (especially of intangible managerial or technical advice), they tend to be circumspect with direct sales efforts. Hence the need for the rhetorical framing of the event in educational terms, as a way of 'neutralising' SME managers' fear of becoming the subject of high-pressure sales efforts where they would lack sufficient opportunities for evaluating the offerings. The participation of a university and a quasi-governmental service provided some guarantees of neutrality, in addition to the educational rhetoric of the event's promotional materials.

The constitution of the 12/12 event could be described as a quintessential "knowledge economy" event (Brinkley 2006), in the sense that government, academia and industry had

joined arms to create a platform for the confluence of different types of knowledge, all aimed at the diffusion and adoption of a new technological innovation, e-commerce. The 12/12 event was an ideal example of the implementation of the EU's Lisbon agenda, which was intended to encourage the adoption of ICTs by SMEs in member states, in order to create globally competitive "knowledge-based economies" (EU 2000b, 2000a). The 12/12 Business Link seminar could also be characterised as an instance of a "national innovation system" (Nelson 1993), where there are multiple collaborative interactions between government, education, and industry to foster innovation in an economy (Matlay and Mitra 2002). Pre-existing linkages between the various participants had contributed to the existence of an interlocking structure that was capable of constructing and performing instances of this regional market for a technological innovation. For instance, the founders and directors of DigitAll Ltd. were graduates of Southern University and they launched their start-up at the university's start-up incubator that was in turn funded by the very same Regional Development Agency that also managed Business Link South. At the same time, high-ranking representatives of Southern University (e.g. its Pro-Vice Chancellor for Research and Enterprise) sat on the boards of both the BLS franchise's holding company and its Regional Development Agency. We can include these interactions as part of the 'frameworking work' that was required for constructing the infrastructure that would contribute to the emergence of a regional market for an innovation, through the enabling of specific marketplaces such as the 12/12 event exemplifies.

We have seen from the description of the framing and formatting efforts of the organising actors that the construction and maintenance of a perception of neutrality on the part of the SMEs as prospective buyers of complex advisory and technological business services was essential for Business Link's events to work as marketplaces. This neutrality or impartiality was by no means absolute, nor did it have to be for the marketplace function to work. Even Business Link South and Southern University, as the 'impartial market makers' in the case of the 12/12 seminar, were not entirely devoid of commercial interests. They were both interested in exploiting the event for promoting some of their other products and services. Business Link South had displayed a range of flyers and booklets about its other free and paid-for services at the table where participants were registering on the day. As for Southern University, Prof. Norman Bates started his introduction by highlighting the Business School's services to the local business community (including its teaching, research, and consultancy), as well as its main 'product', the graduates as potential employees of the assembled businesses. This level of self-interest in the part of the organisers appeared to be

acceptable to the participants, as the event still enabled them to engage in processes of developing their requirements as buyers, and in evaluating suppliers without being the targets of direct sales pressure.

7.4. Conclusion

In this and the previous chapter, I approached the task of pursuing an answer to the question of how entrepreneurial markets for innovations emerge and function in a developed economy by tracing the emergence and operations of a regional market for e-commerce through the description of how one particular marketplace event—the 12/12 Business Link seminar—came to be and how it functioned. I showed over these two chapters that the creation of this marketplace event consisted of four main types of activities: 1) *assembling*, 2) *formatting*, 3) *framing*, and 4) *performing*. The first three activities I discussed in Chapter 6. Here I focused on the consequences of certain changes in the infrastructural frame (the introduction of the IDB policy and of performance targets) on the various market devices developed and employed at Business Link. In this chapter I also provided a description of how the programme of the 12/12 event was actualised, and how its format took on new significance in the new situation Business Links had found themselves after the aforementioned changes introduced by the Labour government.

The performing of this marketplace event focused on the diffusion and adoption of the innovation of e-commerce, by facilitating the market and organisational processes that were necessary for rendering e-commerce artefacts actual. For such an actualisation to take place, first buyers and sellers of e-commerce business services had to be brought together, the needs of the buyers had to be articulated, and the offerings of the sellers had to be evaluated. This market process can be described as a process of *qualification* (Callon, Méadel et al. 2002), whereby various entities—buyers, their organisations, ICT artefacts, sellers, and their offerings—are subjected to a series of tests in which the qualities can be made manifest, and even be constructed. The 12/12 event operated as such a market mechanism, by creating opportunities for encounters and mutual evaluations.

However, the functioning of Business Link's various market devices for entrepreneurial services and innovations were far from being smooth and unproblematic. As the result of a large-scale government intervention into the SME market, this market-making was plagued with controversies and repeatedly attacked by critics and various stakeholders throughout its 18 years of existence. The very existence of Business Link was continuously

criticised on ideological grounds, and questioned by competitors who felt their ground to be encroached upon. Business Link was accused of conflicts of interest, and for being ineffective and inefficient. In order to address the various criticisms, subsequent governments had continued to reorganise the Business Link service, often fundamentally transforming the very mechanisms that were intended to rectify the underlying market failure.

It was the specific configuration of Business Link as a sociotechnical assemblage that had made or broken the market-making functions of its various market devices in each case. When policies, organisational structures, qualified human beings, and databases were aligned in a way that it was possible to deliver the market function of management consultancy and the brokerage of qualified referrals (as was the case under the Major Government), then, in the given instance, Business Link (and, ultimately, the government) was capable of correcting, or at least mitigating, the market failure. However, when elements in this sociotechnical chain were misaligned or disconnected (e.g. by the introduction of the IDB model, the targets culture, and the devolved supplier matching databases), the market making function became either impaired or ceased to exist, unless this misalignment was clandestinely adjusted by rogue advisers, in contravention of their policy brief and job description (but in the interest of their clients, their own sense of professionalism, and the overall policy aims to correct a market failure). The breakdown of formerly functioning market devices had also led to Business Link events—such as seminars, conferences, peer-group meetings and exhibitions—taking on a more prominent role as informal marketplaces.

In this chapter I showed how one specific Business Link event served as an instance of a market device for facilitating the performance of an entrepreneurial market for EBS. Although the overall Business Link infrastructure was not specifically designed as a channel for the diffusion of ICT-based innovations, it was convenient for the Labour government to use it as such when Internet-based retailing and other forms of e-business emerged around the turn of the millennium, as promising innovations that could fundamentally affect the national competitiveness of the entire economy. It was a convenient instrument for implementing the UK's obligations towards the EU's Lisbon agenda, as a ready-made channel for the distribution of communication and funding from central government to SMEs. However, the other changes the Labour Government had introduced resulted in the degrading of Business Link's market-making functions, turning it primarily into a distribution and communication channel, except for the occasions when maverick advisers ignored its directives and when events were successfully designed and delivered as marketplaces.

Events such as the 12/12 seminar described here are not simply auxiliary phenomena

that support the emergence of markets: they can be considered as actual marketplaces in their own right. My argument supports the point made by Miller and O’Leary (2007) that events such as conferences can be central to the operation of “mediating instruments” (their term for *market devices*) that contribute to the making of markets. Examples of other mediating instruments in my story included Excel databases, email marketing software (bCentral), the workshop form, and the format of the seminar and the infrastructural framework that enabled the collaboration between government, higher education, and industry. The very emergence of such Business Link seminar events as marketplaces was to a large extent due to the Central Government intervention that had disabled PBAs’ consultancy and brokerage functions and inserted the arm’s length supplier matching databases into the seller-broker-buyer relationship, thus breaking the formerly functioning market devices.

A number of answers arise from Chapter 6 and 7 to my research question, “*How has a regional e-commerce market (as an entrepreneurial market for innovations) emerged in Southern England?*” Firstly, it had emerged at the impetus of an exigency, the perception of a threat posed by the rise of ICT-enabled economic development—and concurrent political changes to the prevailing world order (the end of the Cold War and the rapid rise of low-wage economies)—to the national competitiveness of the UK economy, and specifically the threat posed by the emergence of e-commerce to the revenues and profitability of traditional small retailers. At the same time, the emergence of a regional e-commerce market in the South of England was facilitated by the existence of a massive market making government intervention, the national Business Link network, which was available for disseminating information about e-commerce, but, more importantly, also for providing platforms for the formation of marketplaces for e-commerce business services targeting SMEs.

The activities of *formatting, framing* and *performing* such e-commerce marketplaces were carried out by an assemblage of government, higher education, and industry actors, the funding of which (from taxpayer funds) was justified by a vision of a “knowledge-based economy” that would safeguard the competitiveness of the UK economy (within an EU framework) by supporting knowledge intensive, ICT-based service industries. Retailers, providers of one of the most ancient forms of services, were also under pressure to adopt ICTs in order to fend off new competition brought about by the emergence of e-commerce.

7.5. Epilogue

On the 4th of January 2007, about three weeks after the 12/12 seminar, I was working

in my University office when my phone rang. Simon Jacobs, the host of the Business Link seminar, was on the line and told me that he had in the meantime resigned from his job as an e-business adviser and started his own company, Compass Ltd. His new business wasn't entirely new, as it primarily consisted of the Compass Groups that he had clandestinely developed over several years at Business Link. Jacobs was calling me, as having seen me perform at the 12/12 event, he thought I might be a potential source of SME clients for his new venture. While Business Link allowed him to take the Compass Groups private and to use the bCentral database for one last time to offer SMEs in the region the chance to join the mailing list of his new business, he had lost access to Business Link's database and marketing muscle. Having expressed to Jacobs my continuing research interest in the regional e-commerce scene, he invited me to the next regular meeting of the Downshire e-Tailers' Group as an observer, so I can find out more about his business and the way his e-tailers' peer groups operate. He also told me that he is in the process of organising an e-Tailers' Den conference, mimicking the format of the BBC television series Dragons' Den. I was happy to accept Jacobs's invitation and was looking forward to finding out more both about his various e-Tailers' Groups and the e-Tailers' Den event.

Jacobs's phone call was certainly fortuitous for my research, just as I was considering where my next data collection venue was going to be. However, it can also be considered as a market outcome produced specifically by the 12/12 seminar as a marketplace, which effectively 'brokered' me, as a potential service provider, to Jacobs, who was able to assess my qualities by way of my performance during the presentation and workshop sessions, as well as my contribution to the organisation of the event. Conversely, the seminar as a marketplace also allowed me to encounter Jacobs as a prominent player in the regional e-commerce market, who had been involved in an intrapreneurial—and now also in an entrepreneurial—capacity in the construction of e-commerce marketplaces. I had decided to follow Jacobs in his efforts to create a private sector venture in the small business support market with a particular focus on the regional e-commerce industry. This journey had allowed me to observe the operation of peer group meetings of e-tail micro-enterprises, as well as the e-commerce expos that the e-Tailers' Den events had turned out to be. In the next chapter I will investigate the making and make-up of Jacobs's Compass venture, and then in the following two chapters I will zoom in on the ways in which the process of qualification took place at Compass peer group meetings and the e-Tailers' Den conferences, allowing them to operate as bona fide marketplaces for e-commerce business services, and ultimately for ICT artefacts.

Chapter 8: The making and make-up of a market maker: Compass Ltd. and Simon Jacobs

In the previous two chapters I have traced the history of the infrastructural frame that had enabled first the emergence of entrepreneurial markets for business services across the United Kingdom through the Business Link network and its variants, and subsequently the emergence of a regional e-commerce market in the South of England. I have followed the transformations in the sociotechnical arrangements that have first enabled and then hindered the functioning of these markets. After Business Link's original market-making functions had become degraded due to the alterations made to the competences and tools available to Personal Business Advisers, industry events such as seminars and conferences emerged as alternative marketplaces for entrepreneurial business services, including those focusing on e-commerce.

I have described how a particular seminar and workshop event in the winter of 2006 was constructed and used by Business Link South to provide an entrepreneurial marketplace for e-commerce business services. I have suggested that this event was an enactment of various government policies and ideologies promoting the adoption of ICTs by small firms, as a way to ensure the competitiveness of the UK economy in the face of the perceived opportunities and threats posed by globalisation. At the same time, I also showed that these policy aims were sometimes fulfilled in contravention to the actual rules for their implementation, for instance through clandestine means by 'rogue' advisers such as Simon Jacobs at BLS.

Indeed, Jacobs had emerged at Business Link South as one of the main forces behind the organisation of the regional e-commerce market, through 1) helping EBS providers (the sellers) develop their marketing competences at a series of events such as the e-Suppliers' Forums; 2) helping budding e-tailers (the buyers) develop their purchase requirements at the Compass peer group meetings, and 3) creating marketplace occasions where buyers and sellers of EBS could encounter and evaluate each other, such as the various seminars, workshops, conferences and expos (e.g. the e-Fair series or the 12/12 event itself). As we saw, Jacobs's bCentral database of regional SMEs played a crucial role in the construction and functioning of BLS's *business market devices*—the various configurations of the sociotechnical network of institutions, policies, advisers, technical instruments, and event

formats—that have enabled the performance of the regional e-commerce market.

Given the extent of Jacobs’s decade-long influence in the local business support scene during his time at Business Link South between 1999 and 2006 and afterwards through his private venture until 2009, in this chapter I will investigate how Jacobs and his Compass venture could emerge as such influential market makers. This also requires identifying and analysing Jacobs’s market-making competences, and tracing their origins. First I will examine the pre-history of Compass Ltd. as an ‘intrapreneurial’ venture at BLS. Then I will chart the history of Compass Ltd. as a private enterprise, while also undertaking an analysis of its constituent parts, to develop an understanding of how this “market maker” was itself made, and what it was made of.

Methodologically speaking, this chapter continues the tracing of the actors and activities involved in the construction of the regional e-commerce market by following, on the one hand, the empirical research data collection process as it unfolded in space and time, and, on the other hand, the individual histories of Jacobs and of Compass Ltd. as market makers. If the previous two chapters focused on Central Government’s efforts to construct *business market devices* for business services targeting small firms, then this chapter describes how a private sector provider (Compass Ltd.) was constructed, so that in turn it could create business market devices for the facilitation of markets for small business services, especially EBS.

8.1. Compass Ltd.’s ‘intrapreneurial’ origins at BLS

In Chapter 7 I mentioned that one of Jacobs’s clandestine initiatives at BLS involved organising a monthly gathering of local IT and e-commerce entrepreneurs, which he gradually transformed from a single, informal, self-financing dinner group in 2001 to five formal, fee-based peer-learning groups—the Compass Groups—by the end of 2006. While this initiative stemmed from Jacobs’s own personal and professional interests in supporting entrepreneurship, BLS management had eventually recognised Compass Groups as one of its legitimate services, thanks to their utility for achieving newly introduced performance targets. We also saw in the previous chapter that, simultaneously to creating the Compass Groups, Jacobs was also involved in organising a variety of e-commerce industry events. Together they constituted the elements of a regional e-commerce business services market: the e-Tailers’ Compass Groups were effectively a monthly gathering of buyers of EBS, covering the demand side of Jacobs’s and BLS’s market-making efforts; while events such as the e-

Suppliers' Forum series focused on the supply-side, to develop EBS suppliers' marketing competences as sellers. Finally, the e-Fair events created opportunities for the buyers and sellers to encounter each other.

In hindsight, the beginnings of Jacobs's entrepreneurial market-making services could be labelled as a story of *intrapreneurship*, i.e. entrepreneurship that had taken place within a corporate setting, in this case within the relatively bureaucratic, quasi-non-governmental organisation of BLS, a non-profit licensee implementing the enterprise policy of Central Government. However, such a characterisation would risk misrepresenting the accidental nature of the development of these various innovations of Jacobs, which, to a large extent, came about through his recalcitrance to the official measures to implement government policy, even though his acts eventually could be seen as consistent with the spirit of the policy goals. As we have just seen in Chapter 7, the radical restructuring of the core services of Business Link, in tandem with the introduction of demanding (and according to many Personal Business Advisers, unrealistic) performance targets, had produced a situation where PBAs were at times faced with making choices between meeting performance targets or remaining true to their professional ethos and mission. Jacobs's Compass Groups had managed to resolve this tension by accomplishing both.

The birth of Compass Ltd., as a private entrepreneurial venture, was just as unintentional on the part of the 'corporate parent', BLS, as were its 'intrapreneurial' origins. Due to the ending of some government funding streams and the related reorganisation it prompted within BLS Ltd., Simon Jacobs was facing redundancy at the end of 2006, after seven years of service. Being one of their top performing PBAs (thanks to the various peer groups, seminar series and conferences that Jacobs had organised over the years), BLS's management had tried to retain him by creating a new position that he was invited to apply for. However, Jacobs took the opportunity to take the Compass Groups private, and BLS had consented to the transfer of this venture:

When the Compass members found out that that was going to happen, they kicked up a big fuss, but it was clear that Business Link was not able to go on funding Compass. It was largely a self-supporting operation anyway. So I then approached them and said, "Look, I'll take it off your hands," and they very graciously gave it to me. So I not only got a redundancy payment but I got a business as well, with 60 members. (10/9/2007)

In this sense, the origins of Compass Ltd., as an innovative start-up in the area of e-commerce market making services and executive education for entrepreneurs, appear a lot less deliberate than Kirzner's (1973) entrepreneurship theory would suggest, which is postulated

on an alert entrepreneur first cognitively recognising an arbitrage opportunity in the market, and then acting upon this cognitive feat by setting up an enterprise to exploit the price difference inherent in the recognised profit opportunity. In Jacobs's words,

it was never a sort of business that I would have started from scratch. I never have set out, said, "Well, I think I'm going to start a business that runs groups for entrepreneurs." It wouldn't have happened like that. I was ambushed. It was an accident, in a way. But I'm very glad that it did because obviously it is an area where I had talent and it worked! (9/06/2009)

Nevertheless, once the clandestinely developed peer groups and the bCentral database of SME contacts were well-established at Business Link South, there *was* a recognition on Jacobs's part that they could be used not only to meet but also vastly exceed the newly imposed performance targets which otherwise seemed unachievable and unrealistic. As we will see later, the need to prove naysayers wrong by showing that the impossible can be accomplished was a central tenet of Jacobs's own theory of entrepreneurship, which he readily deployed in the course of designing his various entrepreneurial ventures: "the thing that is most likely to make me interested, if somebody says 'that can't be done.' Then I'm interested!" (9/06/2009). Jacobs thus resembles the profile of the Schumpeterian innovator-entrepreneur—for whom overcoming resistance is a crucial aspect of entrepreneurship (Knudsen and Swedberg 2009)—more closely, than that of the Kirznerian arbitrageur-entrepreneur.

Despite Jacobs's central role in his various market-making initiatives at BLS, it would be wrong to discount the agency of the environment within which Jacobs was able to develop his 'intrapreneurial' venture. BLS—and especially its Midsomer branch—had a role to play not only *negatively*, as the implementer of policies that had challenged the entrepreneurial Jacobs to meet 'impossible' targets, or *passively*, as the institutional resource at Jacobs's disposal to be recombined, but also *positively*: by allowing Jacobs to run his experiments and by co-opting their outcomes when they became successful and useful for the organisation. According to Ray Holford, Jacobs' close colleague,

Midsomer ignored them [the rules] a little bit. Their interpretation of the guidelines was different to Downshire's interpretation of the guidelines. Downshire were very much playing by the rulebook, 'This is the letter of the law; we cannot do it.' (5/10/2010)

The relatively progressive, innovation-friendly character of Business Link South—when compared to other Business Links in the country—was also evident in the fact that they were the first in the UK to experiment with the peer-group learning model for entrepreneurs, by purchasing a licence for the APEX* programme in 2003, a scheme developed and widely

used in continental Europe to bring together SME owner-managers with CEOs of larger corporations in a monthly meeting for two years to act as a “virtual board” of non-executive directors for the member organisations. BLS went on to run 30 APEX Groups in Midsomer and Downshire in the space of four years, with over 400 participants.

The appearance of the APEX Groups on the scene had caused some difficulty for Jacobs, who had started his own Compass Groups two years before that, as he had to avoid the impression that he was directly competing with his employer’s official groups. Nevertheless, he also benefited from the APEX programme. Several group facilitators trained under the APEX scheme had either ended up running groups at Compass Ltd. or participating as guest speakers, and a number of former APEX members joined various Compass groups, especially after the APEX Groups were discontinued in 2007 (as government funding for it, managed by the Southern RDAs, had dried up).

The support of Jacobs’s line manager was also crucial for the survival of his clandestine entrepreneurial projects, especially when the APEX programme appeared on the scene: “my boss, he was really, really good with me. He said, ‘What I did was, I kept everyone off your back, so you could do this sort of stuff.’ But there was a certain amount of sweatiness and anxiety around” (2/3/2009). And, as we saw in the previous chapter, Jacobs could also count on some of his closest colleagues for support, such as Ray Holford, who continued to help Jacobs with the organisation and promotion of his events even after he left BLS to pursue Compass Ltd. as a private venture.

In summary, the emergence of Jacobs’s ‘intrapreneurial’ and entrepreneurial initiatives, while clearly driven by Jacobs’s personal and professional interests and capabilities, were also supported by 1) a receptive institutional setting within BLS that was tolerant towards ‘rogue’ PBA behaviour; 2) the presence of demand on the part of the clients partaking in Jacobs’s services; and, 3) perhaps somewhat counter-intuitively, the policies of the Labour Government that broke Business Link’s existing *business market devices*, thus creating a need for alternative ways to create markets and spurring Jacobs—a maverick PBA with an entrepreneurial attitude—to find ways around the restrictions imposed by Central Government and meet their seemingly unachievable performance targets.

8.2. Tracing the making and make-up of Compass Ltd.

Having reviewed the ‘intrapreneurial’ origins of Compass Ltd. at Business Link South, let me now take up the story of the birth of this not-quite-new enterprise where I left

off in the previous chapter, namely, with Simon Jacobs's phone call to me on the 4th of January 2007. This phone conversation was significant for a number of reasons. Firstly, Jacobs had invited me to visit one of his Compass peer-group meetings, which had opened the door for me to continue my empirical data collection journey from the site of Business Link South to the many sites of Compass Ltd. and its client base of EBS sellers and buyers. Secondly, it was a manifestation of an actor—the properties of which were still to be determined—that subsequently had turned out to be a central force in the construction of the regional e-commerce market. While at the time I was not aware of the full extent of Jacobs's prior market-making and entrepreneurial history (at Business Link and even before that), or what the merely days-old Compass Ltd. was going to achieve in the next two and a half years, the phone conversation did reveal some of the key actors and motivations involved in the activities that contributed to the ongoing construction of this e-commerce market.

One of these actors (or one element of *the* overall actor, if we take that to be Compass Ltd.) was, most apparently, the person of Simon Jacobs. Nevertheless, the phone conversation itself concerned not himself but a nonhuman actor that—as we saw in the preceding chapter—had also played an important role in entrepreneurial market-making. The apropos of the phone call was the fact that Jacobs had been cut off from the bCentral database of 22,000 SME representatives that he had assembled and managed over the years at Business Link South (Figure 7.1). He was contacting me primarily to ask me to direct some new leads his way, so he could include them in his now proprietary Compass Ltd. database. Prior to his redundancy, BLS allowed Jacobs to send out one final email to ask his bCentral contacts to join the Compass Ltd. mailing list. At that point only about 2000 SMEs from the original database took up his offer, roughly 20%, which significantly narrowed his access to this market. But he was also contacting me because he was interested in developing and maintaining his relationships with Southern University and the Business School, which he pursued on multiple fronts with several of its representatives, from teaching staff to the Chairman of the University Board.

This telephone conversation in January 2007 marked the beginning of a 4-year research relationship that had allowed me to follow 1) the rise and fall of Compass Ltd. as a private enterprise, up to the moment Jacobs had retired from it in April 2009; 2) several of his SME clients, both buyers and sellers of EBS; 3) two Compass peer-groups, which continued to meet until July 2010 even after their closure by Compass Ltd. in November 2008 ; 4) two series of the e-Tailers' Den conferences in 2007 and 2008; and 5) Simon Jacobs himself, during and after his venture, with a final interview in January 2011.

To continue the tracing of the emergence of the regional e-commerce market, in order to develop an understanding of its main elements and driving forces, it is necessary to outline the short history of Compass Ltd. between 2007 and 2009, as it had become one of the key providers of entrepreneurial market making services in the area (perhaps unsurprisingly, considering that BLS had lost one of its most active market makers in e-commerce). Simultaneously, I will also describe the key elements of Compass Ltd., to identify how its market making function was performed, and to show how it constituted a novelty, on account of which it could be described as a Schumpeterian “new combination,” i.e. an instance of entrepreneurship by way of an innovation.

When Compass Ltd. launched at the start of January 2007, with its five entrepreneurial peer-learning groups, it had entered into an industry and market that could be defined by the overlap of a variety of more or less similar services targeting entrepreneurs and small business owner-managers, provided by a range of for-profit and not-for-profit, governmental and non-governmental organisations. These organisations included multinational corporations, UK-wide businesses, and regional and local competitors (including central and local government, via Business Link and other organisations). Players operating in this space describe themselves as providing “leadership coaching” (Vistage), “leadership and business development” (MD2MD), “management consultancy and advice” (Shirlaws), “reciprocal business referral” (BNI), “mentoring” and “peer group learning” (APEX Groups, operated by Business Link South), “non-competitive networking” and a “virtual board” (CommerceNet*), or “executive education” (Compass Ltd.).

Each of these providers had their own particular methodologies for delivering their group events and their joining criteria for shaping and controlling the composition of their groups. Most of these services concentrated on facilitating learning from peers and mentors, rather than serving as marketplaces for their members’ products, with the exception of BNI, which expressly focuses on generating business referrals for its members through other members. In contrast, CommerceNet, for instance, explicitly stated on its website that its service “isn’t about cross-selling or lead generation” but about learning and being supportive. In addition to the meetings and peer-group learning industry, Compass Ltd. had also entered the more obviously market making industry of trade shows, as in 2007 and 2008 it went on to organise two series of its e-Tailers’ Den conferences (each series consisting of five events), which were a combination of a public mentoring event for e-tailers and a trade show for EBS. In the expo market, Compass’s main competitors were large national events, such as the Internet Retailing Expo and the E-Commerce Expo, and regional and local events, such as the

Elsbridge trade show where Jacobs used to organise his e-Fairs during his Business Link days.

8.2.1. *Compass Ltd.'s activities and constituents*

8.2.1.1. Working in the business and on the business

At the time of Compass Ltd.'s launch in January 2007, we can identify a number of elements or constituents that had formed and performed this new entity. The person of Simon Jacobs was one such obvious and important element; however, as we have seen, the SME database and direct marketing software was also critical for him to be able to interact with his market. The third important constituency were his customers in the existing Compass Groups. The fourth constituency were his EBS contacts, who had an interest in accessing the e-Tailers' Groups—composed of potential customers—as guest speakers, for instance. These four elements constituted the initial structure of Compass Ltd.

Using Gerber's (2007) distinction, Jacobs's activities—as the managing director and entrepreneur—could be divided into those directed at *working in the business*, and those *working on the business*. As was typical of start-ups and small businesses, there was a tension between the two. As a one-man band initially, Jacobs was his own sole employee, and much of his time was taken up by managing his existing groups and facilitating the meetings, to ensure that peer-learning did take place and that his customers were continuing with their membership. At the time of its launching, Compass Ltd. consisted of five groups across Midsomer and Downshire: three dinner groups and two e-tailers' groups, with 12 members per group on average. Each group met once a month for a 2 to 3-hour meeting, with each member on average paying £1000 per year. The meetings in the early days were facilitated by Jacobs himself. Each group type had its own format, to suit its particular needs. An important aspect of customer satisfaction was the ongoing supply of high-quality guest speakers at these meetings.

At the same time, as the managing director, Jacobs also had to work *on the business*, which, among others, involved the strategic management of the company, developing new products and discontinuing old ones, marketing new products to existing and new customers, while maintaining the profitability of the venture. In terms of strategy development, the year 2007 marked a deepening involvement with the e-commerce market for Compass Ltd. The two e-Tailers' Groups had gradually become the backbone of the business, especially as the dinner groups (one of them was set up all the way back in 2001) began to fade. To facilitate

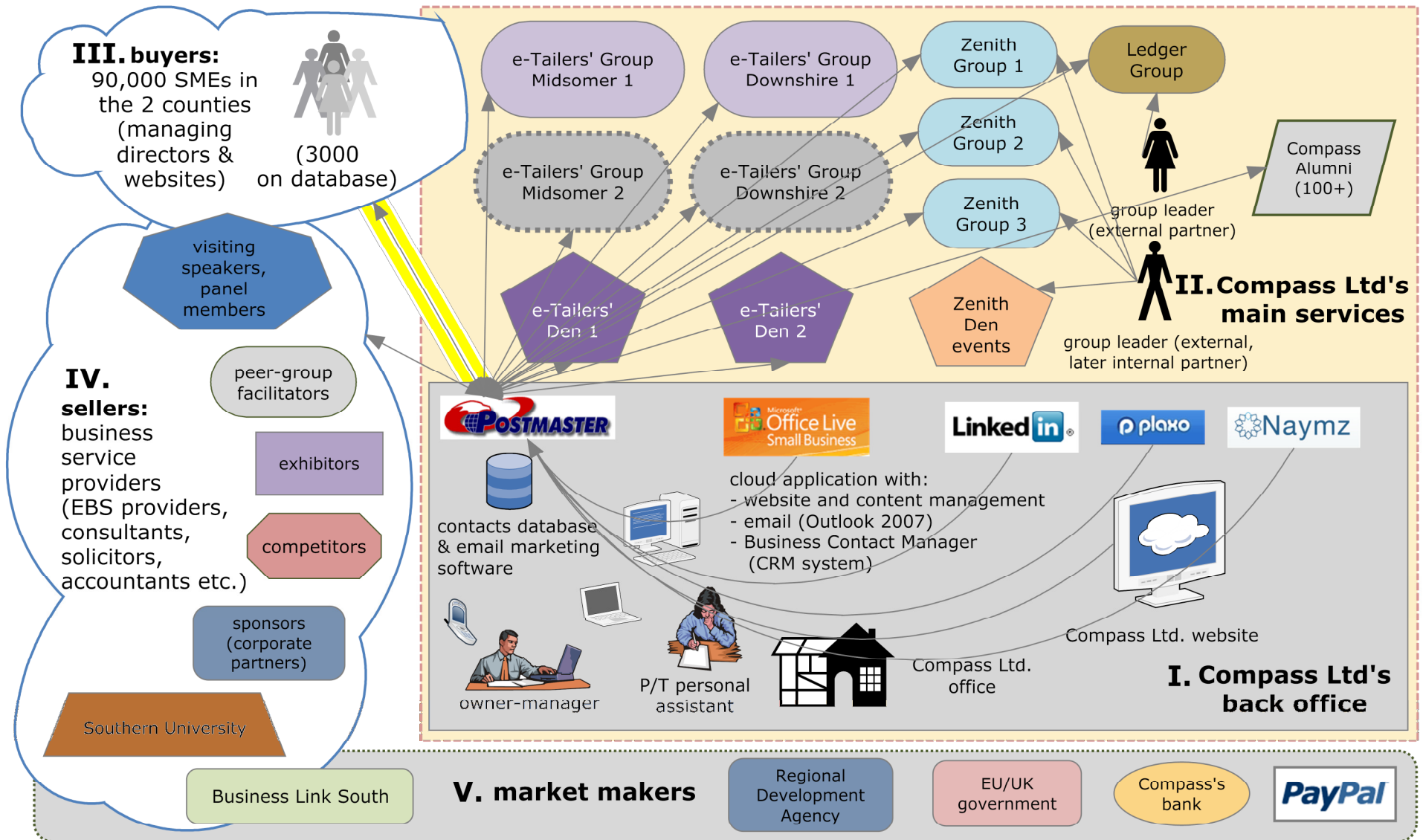
the recruitment of new e-tailers for existing and new e-commerce-focused groups, Jacobs had developed and launched the e-Tailers' Den conference series, which consisted of a competition of four heats and one final event taking place between May and September 2007, loosely following the format of the popular BBC television series *Dragons' Den* (BBC 2015). In it, sixteen e-tail SMEs and start-ups competed for a prize, while being publicly mentored by a panel of judges in front of an audience of other small e-tailers and EBS providers. In the breaks, EBS providers delivered masterclasses for the attending e-tailers, and in the later events it was also possible to set up stalls to display products, just like at a bona fide trade show.

The e-Tailers' Den concept was part of a broader business model, which Jacobs described as follows:

on the ICT side of things, I saw things as a three-layer cake. (I always see things as a three-layer cake probably...) The e-tailers' group is the middle layer. These are people with turnovers in excess of a quarter of a million [pounds]. So they've already succeeded to a certain degree. (...) The top layer [are] people who want to invest in e-businesses... I haven't specifically done anything for them in terms of forming a group or anything, but I have got ideas, an embryo of how that could work. But the bottom layer of the cake was everybody who was interested in e-business in some way or other: users, suppliers, start-ups, people providing various different services and so on. And that's what the e-Tailers' Den addresses. [It] is principally to cater for that part of the market but also to provide me with a constant supply of new candidates for the e-tailers' group. And actually those three layers all work together because investors are interested in investing in people who are interested in moving up the chain. (10/9/2007)

In 2008, the second year of Compass Ltd.'s operation, Jacobs continued to implement the above business model, by delivering a second series of the e-Tailers' Den between April and September, and recruiting enough members to open two new e-tailers' groups (one in each county). However, it had also become clear to Jacobs in the course of the first year of independent trading that his time working *in* the business, as the facilitator of the five groups, was detrimental to his effectiveness as the manager of the company. Therefore, he decided to restructure his product portfolio in such a way that he would be gradually released from his facilitator duties, to spend most of his time working *on* the business. This he had achieved partly by the middle of 2008, by closing down the three dinner groups, and by beginning to build partnerships with external consultants who could run peer groups in their own area of expertise under the Compass brand and tutelage, in exchange for a percentage of their income, in the manner of a franchise. Jacobs in return helped his partners by recruiting new members for their groups, using his database and marketing expertise.

Figure 8.1: A rich picture of Compass Ltd.'s assemblage as of July 2008



8.2.1.2. The Compass Ltd. assemblage

Figure 8.1 is a rich picture (Checkland and Scholes 1990), depicting a snapshot of Compass Ltd.'s operations in July 2008, roughly halfway through its two and a half years of existence as a private sector business. It is a somewhat abstracted and organised version of a rich picture drawn mostly by Simon Jacobs himself (Figure 8.2) during an interview on 25 July 2008.

Figure 8.2: Original rich picture created with Simon Jacobs on 25 July 2008



The purpose of the exercise was to identify the key elements, activities and associations of Compass Ltd., as a way of analysing the organisation and delineating its critical assets and competences. The image helps trace the transformations that the Compass venture had to undergo to establish itself as a start-up, as well as the co-ordination of the various interests of the involved actors, to make this new entity commercially viable and sustainable.

There are five main, more or less distinct, areas to Compass's assemblage that are identified by roman numerals in Figure 8.1., in a counter-clockwise order, starting in the lower right corner of the diagram. Sections I and II represent Compass's back office operations and main services respectively. Sections III and IV stand for the buyers and sellers

of small business services (including EBS), together constituting the regional entrepreneurial market. Section V comprises actors that can be described as generalist market makers, providing the infrastructure for Compass Ltd. to perform its own specialist market making activities in the small business services industry.

Compass's back office was located at Simon Jacobs's private residence, a modest two-storey row house in Walmington. Normally he worked there alone, although he had also contracted a part-time personal assistant to help out with administrative tasks at peak times, e.g. to process online payments for the e-Tailers' Den conferences. Jacobs had an ICT setup that he described as "really, really rudimentary. All I've got [is] two laptops, and a desktop (which are just sort of daisy chained), a router, an Internet connection" (25/7/2008). He also had a landline telephone and a mobile phone. While Jacobs's hardware setup may have been basic, his information system was fairly sophisticated in other respects. He was an early adopter of cloud computing, which allowed him to conduct most of his business functions online, and provided him with a significant cost advantage over competitors (such as BLS's APEX Groups):

the whole of the business is run on Microsoft Office Live, which provides a website (fully content managed website), e-mail, Business Contact Manager (which is a CRM system), collaborative workspaces, wikis; the whole suite of stuff that is a phenomenal thing. And it costs about £30 a month. (Ibid.)

Nevertheless, his most important piece of software, called Postmaster, was still run on a local PC: it held his database of SME contacts, which by mid-2008 had grown to around 3000 email addresses, and allowed for designing and executing sophisticated email marketing campaigns. This was the 'son' of the bCentral database that Jacobs had developed and left behind at BLS. He was in no doubt that his Postmaster database was the linchpin of the business: "the power comes very much from having this database, which, by the way, I am investing in, getting more people" (Ibid.). He described the channel of communication that the Postmaster database allowed him to maintain between his organisation and the 3000 SMEs in Midsomer and Downshire (Compass's reach of potential customers in Section III) as "the main 'highway' that gives strength," "the seam of gold." Growing the database was an ongoing project. Jacobs's online social networking accounts with LinkedIn, Plaxo, and Naymz were one source of new contacts:

I'm probably one of the best connected people in Midsomer on LinkedIn. And, this is a bit pathetic but I enjoy just getting more connections. I've got a little bit competitive about it, and I use it a bit in association with my database because it can generate data for that. (Ibid.)

Besides his database management and email marketing skills, Jacobs identified his

knowledge of the buyers (Section III) and sellers (Section IV), especially the ones that made suitable speakers and panellists, as well as his ability to motivate his new group facilitator partners, as the other key competences at the heart of the operation.

Section II in Figure 8.1 summarises Compass Ltd.'s main service offerings. Reading it from the left, the first column of shapes—with the first series of e-Tailers' Den in 2007 below, and the first Midsomer and Downshire e-Tailers' Groups above—represents the bottom two layers of Jacobs's aforementioned "three-layer cake" business model. The e-Tailers' Den series was repeated in 2008, and during that time Jacobs had also recruited a sufficient number of new members to open two new e-Tailers' Groups (one in each county). In line with his efforts to reduce his time working *in* the business, Jacobs had enrolled an external partner, Gary Bucknell*, to run some peer groups with a strategic management focus under the Compass umbrella brand.

These groups were called the Zenith Groups* and they were facilitated by Bucknell under a franchise agreement. The first Compass Zenith Group formed in March 2007, the second one in September 2007, and the third one in March 2008. Jacobs and Bucknell recreated the two layers of the "three-layer cake" model by also organising the Zenith Den* events, following and adapting the e-Tailers' Den format. The Zenith Group also became a service for existing e-Tailers' Group members to 'graduate to,' as its entry criteria were more stringent (it required new members to have a minimum annual turnover of £1 million, as opposed to the £250 thousand turnover required by the e-Tailers' Groups). Due to the fast growth of Zenith Groups, Bucknell had become increasingly important for Compass Ltd., and by July 2008 he was appointed Chairman of the company. The fourth column of Section II included a third external partner, Candice Roach*, who in September 2008 began to run the Ledger Group* as another of Compass's offerings, focusing on accounting and financial management. The plan was to create further Ledger Groups in the future.

Missing from Figure 8.1 are the original Compass Dinner Groups, as Jacobs wound them up in April 2008, to free up some management time. But former Compass Group members did not completely disappear from the picture. There were over one hundred alumni in Jacobs's database (represented by the rhomboid shape on the far right of Section II), whom he could call on as visiting speakers, panel members or audience at any of his Den events, or even as potential members of some of the newly formed groups, such as Zenith or Ledger.

The "cloud" shape of Section III represents the approximately 90,000 SMEs that according to Jacobs constituted Compass's target market (he got this figure from his research while at BLS), of which he was able to enrol 3000 into his email database. Each of these

firms had a managing director who was a potential customer for the Zenith and Ledger Groups, and many of these businesses were also expected to have an interest in e-commerce. The “cloud” of Section IV, in contrast, represented the sellers of business services targeting SMEs, who may be focusing on general management (such as management consultants), a particular functional area (such as solicitors or accountants), or e-commerce business services (such as web designers, SEO providers, or digital marketing specialists).

These service providers could fulfil a number of specific roles within the peer-learning meetings and marketplace events delivered by Compass Ltd. Some acted as visiting speakers at peer group meetings. Others served as panel members, exhibitors, or masterclass providers at the e-Tailers’ Den and Zenith Den events. Some independent consultants could even become Compass group leaders (franchisees), as Gary Bucknell and Candice Roach had done. There were also opportunities to sponsor the various Den events in exchange for publicity in associated marketing communications. For instance, there were a number of Zenith Dens organised in close partnership with corporate sponsors (large regional accountancy and legal firms) who provided input into the content and marketed the event as a co-branded product to their own customer base.

Service providers of Section IV were just as much customers of Compass Ltd. as were the buyers depicted in Section III. Indeed, there was no distinction between the two at all as paying audience members at the Den events. The success of Compass Ltd.’s events depended greatly on striking the right balance between the quality and quantity of buyers and sellers in the audience; or, as Jacobs put it, between the ‘goldfish’ and the ‘piranhas.’ This is why Compass Ltd. can be defined as an enterprise in *market making*. As for service providers who performed the roles of visiting speakers and panel members at Compass events, they could be also classified as suppliers to Compass Ltd. Nevertheless, they provided their services free of charge, in effect paying Compass Ltd. (as customers) in kind, to gain access to the valuable market it created for them.

We can also include some of Compass Ltd.’s competitors in Section IV, as their activities often benefited its services directly or indirectly. I have already mentioned in Chapter 7 how several facilitators and former customers of BLS’s APEX Groups had joined Compass Ltd. Candice Roach was one of those APEX facilitators. The skills she learnt at APEX and the contacts she made there had allowed her to create her own Ledger Group at Compass. Gary Bucknell was similarly trained by a competitor. He honed his facilitator skills for many years at Vistage, a large international player in the executive peer-group learning industry.

At the bottom of the “cloud” of Section IV, we find Southern University and Business Link South, at the overlap with Section V., the generalist market makers. SU and BLS can be added to both categories because, as we saw in Chapters 6 and 7, they were interested in both creating markets and selling their own services to SMEs. In the case of the now private Compass Ltd., Southern University was involved in supporting the venture by having the Dean of the Business School chair the panel of judges in the first e-Tailers’ Den series. But SU was also a supplier of seminar rooms and lecture halls to Compass’s various meetings and events. As for BLS, they supported Compass Ltd. formally, by officially sponsoring some of the e-Tailers’ Den events under the Business Link brand, and by co-organising some events (Jacobs continued to help them achieve some of those ambitious government targets), and informally, with some of Jacobs’s ex-colleagues ‘moonlighting’, when he needed some urgent help, such as registering and ushering audience members at some of the larger scale Dens. The remaining actors in the market-making category in Section V either provided the financial infrastructure necessary to operate as a business (Compass’s bank and PayPal for collecting customer payments), or the general entrepreneurial market support infrastructure in the form of institutions (the RDAs behind Business Link and Southern University) and government grants (EU and UK government), as I have already described in Chapters 6 and 7.

But Sections IV and V were not the only ones that overlapped. There was also an overlap between Sections III and IV, as some service providers were themselves SMEs and therefore potential or actual buyers of some of Compass’s services. There were some, such as Jack Huntley*, who owned both an EBS provider (WebTech*, a web development firm) and an e-tail firm (of paintings), and used those dual roles to participate as both a buyer and a seller in Compass’s various marketplace services. Finally, there was also movement over time from one section to another: e.g. Tom Campbell transformed from an e-tailer in Section III to a consultant, and eventually into a university lecturer, which put him in Section IV. Finally, there was also an overlap between Sections II and III, as naturally some of the 3000 SME owner-managers in Compass’s database had become customers of some of its services.

8.2.1.3. Jacobs’s direct marketing database

These highly diverse groups of actors in the five sections of the rich picture of Compass Ltd.’s assemblage were all, one way or another, represented in Jacobs’s database: they were brought together by it, or had affected its formation, or owed their existence to it. As we saw in Chapters 6 and 7, government intervention, and Business Link South’s way of

implementing it, partly triggered the birth of this database and affected strongly its development and deployment. Jacobs and his database during his time at BLS had a crucial role to play in organising marketplaces for the newly emerging e-commerce industry in the region. Without being able to transfer part of this database to his private venture, Jacobs probably would have been unable to develop new groups and conference events in 2007 at the rate that he did.

Even when he experimented with distancing himself from the daily management of the various groups and events, by trying to delegate the management of the 2008 e-Tailers' Den series to an external partner, he came to the realisation that his database management and direct marketing skills were absolutely critical for the ongoing success of his organisation:

I was looking for somebody to delegate the whole of the e-Tailers' Den thing to. And I started off with her. But it became clear that actually what the Den most needs to succeed is the bums on seats, and I'm the best person without any question—better than Business Link, better than our sponsors, better than anyone else—to get those bums on the seat, better than DMC* [Compass's direct marketing agency]. I actually had to take that back. (27/7/2008)

The same skills applied to the formation of the peer-learning groups:

It took me a little while to understand what I had, and my particular skills. (...) [I]f my main talent is in starting the groups, getting people together, using my big contacts database, where I need to invest is in the improvement of that database because that's the thing that allows me to get 27 people in the room who are interested. And then my selling skills help to convert them into a new group. (27/7/2008)

As for its business model, Compass Ltd. achieved its profitability in its first year of operation as a private enterprise. When compared to its initial main competitor in the area, BLS's APEX Groups, Compass had a more varied product portfolio (different types of peer-groups and conferences) that were narrower in their specialist focus (e-commerce, strategic management, finance), and had tailor-made formats for the different groups (rather than following a single formula, as the APEX Groups did). Compass Groups were much more genuinely peer-learning-based than the APEX Groups. The latter were premised on SME directors being mentored by CEOs of large organisations, while in a Compass Group it was owner-managers of e-tailers of similar size and experience that mentored each other. Jacobs took pride in the fact that already at Business Link when Compass Groups and APEX Groups ran side by side between 2003 and 2006, APEX Groups were "rapidly dubbed 'the poor man's Compass'" (10/09/2007). Thus Jacobs was able to charge higher prices while maintaining incomparably lower costs than BLS's APEX Groups. Annual membership of an APEX Group was £500, while it was double of that on average in a Compass Group, and in

the case of the Zenith Groups it went up to £1500.

At the same time, using the Microsoft Office Live cloud service with basic hardware at his home office allowed Jacobs to keep his running costs very low. All the premises used for Compass events were rented from Southern University and hotels and exhibition halls around the region; therefore, Compass had a relatively small asset base, especially if compared with an organisation like Business Link South. BLS in 2008 had 200 employees operating out of two regional offices, which led to a considerably bigger overhead than that of Compass Ltd. BLS's budget was £500,000 for opening three peer-learning groups, which Jacobs found wasteful: "I'm thinking, 'I don't know what that's for. People will pay. Why do you want to do it for free?'" (2/3/2009). While Compass Ltd. was self-sustainable from day one, the APEX programme had to be wound up when the government funding that subsidised it had run out.

8.2.2. Abandoning e-commerce: the end of Compass Ltd.

The months that followed the moment captured in the snapshot in Figure 8.1 brought some dramatic changes in the history of Compass Ltd. First, the firm abandoned its e-commerce focus completely by November 2008. Then Jacobs retired in April 2009. The decision to abandon e-commerce as a focus had to do with changes to Compass Ltd.'s governance and the subsequent revision in the strategic direction of the firm. In order to withdraw himself from group facilitation completely and to build up the firm's value prior to selling it, in the autumn of 2008 Jacobs decided to bring in Gary Bucknell, the facilitator and franchisee of Zenith Groups, as a 50-50 partner of Compass Ltd. Together they developed a strategy to remove Jacobs from the day-to-day running of groups and conferences, so he could be completely freed up to create a large number of new specialist groups to be run by external consultants as franchisees.

The e-commerce focus was a casualty of this strategy for several reasons. Firstly, Jacobs was the sole facilitator of the e-Tailers' Groups, and given his decision to remove himself from facilitating, finding a new facilitator who would have been acceptable to the members of these rather closely-knit groups that were at a mature stage in their life cycle would have been challenging. Secondly, after having spent two years trying to grow the e-tailers' groups by using the e-Tailers' Den as a feeder, Jacobs came to the realisation that out of the 90,000 SMEs in the two counties there might only be about a few more dozen e-tailers that are suitably developed to meet the membership criteria. In other words, the regional e-tailers' market turned out to be too small for Compass to specialise in it:

to have one successful group, we would probably want about 300 companies to choose from; 100 at the least. But for e-tailers, probably we would be lucky if there were 20 per group. There is 60 companies altogether to support three groups. It just wasn't enough. (20/10/2008)

In a way, it was organising the two e-Tailers' Den series in 2007 and 2008 that proved to Jacobs that the e-commerce market was not big enough to sustain the growth of Compass Ltd: "I spent most of that time organising an event which took an enormous amount of effort and energy but didn't produce many members" (ibid.).

Instead, Jacobs and Bucknell developed an ambitious plan to turn Compass into more of a franchiser, specialising in organisational functions as themes for its services, rather than in any particular industry, by helping what they called "talented entrepreneurial group leaders"—independent consultants with functional specialisms—build their own groups, following the example of the Zenith and Ledger Groups. These functional groups would have had names like *Business Acceleration Group*, *Innovation Group*, *Streamlining Group*, *Getting More from Existing Customers Group*, *Leadership and HR Group*, *Building Business Value Group*, *Marketing and the Web Group*. The plan was to open 24 of these in Midsomer and Downshire, and then 76 more across the UK in the next four years: "We reckon that by 2012, the average group membership will be £300 a month. So 2000 Compass entrepreneurs at £300 per month is £7 million per annum. That will be a reasonably substantial business at that stage" (Ibid.). And that would have been the point at which Jacobs would have wanted to retire from the business.

Unfortunately for Jacobs and Bucknell, this was not to be. The carefully planned launch of the first tier of these new groups in November 2008 happened to coincide with the outbreak of the deepest global economic recession since the Great Depression of the 1930s. By October 2008 the media were full of reports on how the credit crunch had begun to affect SMEs in the UK (Eaglesham and Croft 2008). The collapse of the US investment bank Lehman Brothers in September 2008 set off a banking liquidity crisis that quickly spread to European and British banks, initiating a series of government bailouts—including three large UK banks—in October, which forced banks to undertake immediate emergency measures to tighten their lending (Ibid.). Small firms in the UK found themselves at the receiving end of these changes, suddenly losing access to even such basic borrowing facilities as overdrafts, which were commonly used by SMEs, especially by retailers, to smooth over cyclical fluctuations in cash flow (Eaglesham 2008).

These developments happened so quickly that they caught Compass's management completely by surprise. While group launches in the past attracted large numbers of people,

some of the November 2008 launch events did not attract even a single person. Suddenly small businesses were fighting for their survival and did not have the time or the money to be investing into their executive education just then. Compass Ltd. had to cancel its expansion plans. It did not take long before Jacobs had decided to retire, as he effectively found himself without a job:

I couldn't foresee the credit crunch hitting quite so hard. I closed all my groups. (...) And here I am with nothing to do. (...) Prospects for opening new groups at the moment are not good. (...) And I'm really just about to hand over Compass to my business partner and walk away from it. (2/3/2009)

And that is exactly what he did at the end of April 2009. As for Compass Ltd., the company and the brand quickly disappeared from the scene, as Bucknell was more interested in continuing with his Zenith Groups than in building the Compass brand and organisation.

Nevertheless, Jacobs and Compass Ltd. did leave some legacy behind. The two senior e-Tailers' Groups—one in Midsomer and one in Downshire—continued to operate on their own accord for another year and a half after their closure in November 2008, which suggests that demand for e-commerce-related entrepreneurial peer groups continued. The disappearance of Compass Ltd. created something of a vacuum in the regional SME peer-learning group industry, which prompted Candice Roach, the facilitator of Compass's Ledger Group, to team up with another ex-APEX facilitator to launch a new company, Lancer Ltd.*, in July 2009, in order to follow in Compass's footsteps. However, Lancer Ltd. folded a few months later, after they had also found it difficult to recruit new members in sufficient numbers in times of a deep economic recession (Wearden 2009).

8.3. Jacobs's database-related competences

While Jacobs did not consider himself to be an IT or e-commerce expert in the technical sense ("I was never a technologist in the first place," he stated, having been more interested in "the experience of being an entrepreneur" (10/9/2007)), his database-related skills were instrumental for the emergence of both Business Link South's e-commerce related services and those of Compass Ltd., as we have just seen in this and the previous chapter. The question then arises: Where had Jacobs's database creation and management skills come from? How come he was so adept at developing and using such databases, even when it meant doing it clandestinely, breaking the rules of the organisation that had employed him? This question is closely related to the broader question that concerns the origins and nature of Jacobs's entrepreneurial competences, which I will explore and describe in more depth in Chapter 10, as part of the description of how Compass Ltd.'s peer group meetings had

functioned as entrepreneurial marketplaces for the innovation of e-commerce. Jacobs was undoubtedly a critical element of the Compass Ltd. assemblage, therefore the making of Jacobs as a market maker needs to be considered.

As one might suspect by now, Jacobs had a long history with databases and direct marketing prior to his BLS days. He traced his interest in creating groups and databases all the way back to his childhood:

I had my own army when I was nine. I just said something to some boys, got them organised, and they all did it, and I got a buzz out of it. First time in my life I realised leadership is exciting for me; it's a mood-altering experience. (2/5/2011)

This project involved creating Jacobs's first database: "I interviewed each member and I made a little record for them and so there was some kind of a database even then" (Ibid.).

His post-secondary education and first career had provided him with technical and intellectual skills for creating databases and using them for long-distance communication. Jacobs was trained as a communications specialist at the Royal Military College at Sandhurst, the Royal School of Signals, and the Royal Military College of Science. He then went on a 12-year career in the Royal Corps of Signals, the communications and information systems arm of the British Army—a job that took him around the world. At one point he led a Psychological Operations (Psyops) team, where his work was aimed at altering the behaviour of a large number of people through electronic communications—not unlike the goal of direct marketing.

After leaving the army, Jacobs tried his hand at entrepreneurship and started Wilderness Essentials Ltd.*, which sold equipment for outdoors pursuits. The business had grown into a £4.5 million a year operation (in 1980s money), with a chain of stores across the UK and with substantial direct sales through catalogues. It won awards for its use of the latest information technology. At the heart of the business there was a £70,000 computer system, an important part of which was its distance selling software:

We had a complex mail order system. We had a quarter of a million names on the database. We had 5000 stock lines. We had customers in 60 countries, and the whole business was run with this computer. (10/9/2007)

Jacobs noted that he derived particular pleasure from being able to affect people from a distance, or as he put it, "getting people to do things that they wouldn't otherwise do:"

it was really with my business that I first began to see what power there was in direct marketing. And I loved that, to be able to do something at remote control. And I enjoyed the feedback, which was when you got a pile of envelopes with orders in them. I mean that was [inhales and exhales sharply] a buzz to get that. (2/5/2011)

He attributed it to one of his personality traits as to why this had to be ‘action from a distance:’

I do naturally prefer to deal with people in writing, rather than verbally. I’m actually quite shy; I don’t particularly enjoy social situations. I have a fairly high index of social discomfort. (...) But I like having a big database and writing to people. (2/3/2009)

Following his entrepreneurial career, and after a period of unemployment in the early 1990s, Jacobs had decided to complete an NVQ2 qualification in Information Technology: “when I came back into business, it became very clear to me that I needed to get up to speed with technology” (10/9/2007). Then came a succession of jobs, each of them having something to do with databases or direct marketing using ICTs. In his first job, he “learnt about fax broadcasting, introduced that company to fax broadcasting, and they from then onwards did all their marketing using fax” (Ibid.). In his second job for a nationally dispersed training organisation he was tasked with “working out the way for us all to communicate with each other and have a central database. So now we have distributed working with electronics and e-mail” (Ibid.).

His third job was with a Business Link Operator in Northern England, as an IT adviser assisting SMEs with their ICT adoption. While he was there, he developed a business plan for an Internet-based electronic marketplace to bring together the county’s 25 major industrial buyers with about 150 local SME suppliers. Stakeholders had been recruited and the company had been formed, but Jacobs eventually accepted a job offer from Business Link South in 1999 and moved on. However, it did not take long before he began working on similar projects at BLS. By 2001, out of his own initiative, he had developed a business plan for creating an electronic marketplace to bring together the region’s 24,000 ICT suppliers with 120 training and executive education providers. The business plan stated that it was going to be a “database driven operation.” While it never moved beyond the planning stage, it was an opportunity for Jacobs to conduct research in this area and get to know some of the major stakeholders in this market, which became useful for his subsequent projects later on.

As we saw in Chapter 7, at BLS Jacobs had developed a secret bCentral database, which became a critical element in the market device that allowed Jacobs and BLS to bring to life a series of entrepreneurial marketplaces for e-commerce business services, thus helping the evolution of the regional e-commerce industry. In Chapter 7 I have also described how various government policies had influenced the emergence of this clandestine database. For Jacobs, some of these constraints directly interfered with what he perceived as his entrepreneurial traits, such as his desire for control and his aversion to being controlled:

Within Business Link of course, Business Link had a database. But the Business Link database—I very soon realised—I couldn't really use because it had too many rules associated with it. So, part of it is about creating your own database, so you've got the power to do that, to do the manoeuvre, and so on. A lot of this is about power. (2/5/2011)

We can conclude that the particular constitution of Jacobs as someone with relevant technical background, expertise, work experience and entrepreneurial history in communications and databases, with a preference to deal with people at a distance, the compulsion to create spaces—especially marketplaces—for organisations to interact, and the willingness to break rules in order to bypass restrictions that prevent him from being creative and develop his own mechanisms of control, had an important part to play in the history of the emergence of the regional e-commerce market. While the disparity in the quality of services provided by regional Business Links was a persistent criticism that subsequent governments felt compelled to act upon, we can see from this story that the vigour with which a given Business Link Operator such as BLS was able to respond to the needs of its SME clients also depended on its ability to go out on a limb and undertake innovative projects, such as trialling the APEX Groups, and even more importantly, to tolerate and even support the activities of staff with the entrepreneurial compulsion to accomplish its organisational goals with methods that were unforeseen by policymakers and senior management.

We can also see from this description that if we wanted to distil the essence of what it takes to create entrepreneurial markets for innovations (how could “entrepreneurial market-making capability” be defined), it would require tracing a complicated imbroglio of interrelated skills that—among others—have to do with creating and managing databases, communicating at a distance, creating spaces for facilitating encounters and exchanges between buyers and sellers, creating groups, and breaking institutional rules. As we will see in Chapter 10, that were many other participating competences and actors that were necessary for the services of Compass Ltd. to emerge and function as marketplaces.

8.4. Conclusion

While the previous two chapters focused on the making and functioning of public sector entrepreneurial market makers in Southern England (in the form of the Business Link network, and the 12/12 seminar in particular), this chapter examined the history and operations of a private sector market maker, Compass Ltd. Nevertheless, there was direct continuity between the former and the latter, as Jacobs was also responsible for much of the

e-commerce market making at BLS between 2001 and 2006, and he took a significant chunk of that market (the five Compass Groups and the 2000 database entries)— and most of BLS's market making competences— with him.

In the spirit of the ANT method, I followed the actors engaged in entrepreneurial market-making in e-commerce from the previous site, the 12/12 event at BLS, to the next site, Compass Ltd.'s office, where all of the eight interviews that provided much of the data for this chapter were conducted. These actors turned out to be members of the Compass assemblage (Figure 8.1), coalescing around the figure of Jacobs and his database. The above tracing was conducted in pursuit of the overall research question: What does it take for an entrepreneurial market for an innovation (e-commerce) to emerge?

In Chapters 6 and 7 we saw that in an economy such as the United Kingdom in the 1990s and 2000s, there was a great deal of government intervention in order to provide a complex market making infrastructure for overcoming a perceived market failure in the SME business services market. The availability of this infrastructure, set up by the former Conservative Government, was fortuitous and beneficial for the incoming Labour Government, which was able to make use of it for the implementation of its policy to support the diffusion of ICTs and e-commerce, as part of a broader national industrial strategy of competitiveness. In this chapter we saw that this infrastructure had also contributed—directly and indirectly— to the birth of the entrepreneurial venture of Compass Ltd. This was an unusual start-up, not only because it started out as a secret, and to some extent, unplanned project in the belly of a quango much derided for its bureaucracy that simultaneously inspired and frustrated its entrepreneur (Simon Jacobs), but also because its primary customers were themselves entrepreneurs, and the services offered included the creation of entrepreneurial markets for an innovation, e-commerce.

What does it take then to become an entrepreneurial market making entrepreneur in e-commerce? As the tracing of the history of Compass Ltd., the personal history of Simon Jacobs, and the elements of the Compass assemblage had shown, there was a highly specific constellation of particular and peculiar persons, competences, technological objects and institutions that was necessary for this emergence to occur. To this we can further add the fortuitous confluence between Jacobs's interest to support entrepreneurs and the appearance of e-commerce as an innovation. Despite the complexity of this heterogeneous melange, it is possible to point out some competences and objects without which this market making enterprise would not have been possible. Jacobs's interest and facility in creating databases and using them for direct marketing was an important element, as was the availability of

suitable technological artefacts, such as the combination of the Postmaster software with the Microsoft Office Live cloud service. His personal entrepreneurial characteristics—such as a low boredom threshold, his desire to create things that haven't been done before or which he was told were not possible, and his aversion to being controlled and compulsion to 'manipulate' others—were also important for the construction of the Compass venture. The Postmaster database in particular had allowed Jacobs to literally collect the market participants (buyers, sellers, and market makers), and recombine them in Schumpeterian fashion, by way of the innovative marketplaces that the e-Tailers' Group meetings and e-Tailers' Den conferences for instance had become, which enabled the creation of new associations between these market participants, thus allowing the entrepreneurial market for e-commerce to function.

In the next chapter I will continue to trace both the history of this regional market and its constitutive elements, this time by following the formation of one specific Compass customer, an e-tailer member of the Downshire e-Tailers' Group and a contestant at one of the e-Tailers' Dens, in order to describe how and why these market participants had engaged with the marketplaces that Compass Ltd. had offered.

Chapter 9: Internal qualification trials: The firm as a business market device

In this chapter I will carry on with the description of the emergence of the e-commerce market in the counties of Midsomer and Downshire, by following the action of market making to the site of a specific retail micro-enterprise, in order to examine its process of e-commerce adoption. The purpose of this chapter is to follow the story of the emergence of e-commerce in the South of England to its natural end, which is marked by the construction and stabilisation of specific ICT artefacts that enable traditional retailers to implement the innovation of online trading. I will focus on the formation of one particular EBS relationship and its e-commerce artefact, as a way to identify the needs of EBS buyers and sellers that prompt them to access the types of marketplaces that the likes of Compass Ltd. had offered, and which I will move on to describe in the chapters that follow.

The two organisations in question, Mandoline (an e-tail micro-enterprise) and its supplier, WebTech (a small web design firm), were clients of Compass Ltd., as members and participants of several of its peer groups and conferences. They were also among the very first Compass customers that I had encountered during the data collection process. Describing the activities of a particular EBS buyer and EBS seller will assist here with the articulation of the relationships between these market participants, and between them and the marketplaces involved. This chapter will also provide some contextual information for understanding the significance of the workings of these marketplaces from the perspective of its primary users.

9.1. Meeting Mandoline and WebTech at Downshire e-Tailers' Group

Following my telephone conversation with Simon Jacobs on the 4th of January 2007 and a series of subsequent email exchanges, the first Compass Ltd. event I was able to attend was the 2nd May 2007 meeting of the Downshire e-Tailers' Group. Jacobs's invitation email—based on a template normally sent out to guests who he hoped to convert into full members after inviting them to one free sample session—laid out the composition of the group and the basic structure of the event:

This group, which comprises businesses with on-line sales in excess of £250k per annum, will next meet from 3-6 pm on Wednesday 2 May, at Enterprise House*, [address], Akenfield*, Downshire.

The first hour will be a “hot issues” session for the group members only. (...)

Then, at 4pm, our guest speaker, John Shepard* of strategypath.com*, will give a presentation on “Optimising operations for distance selling.” (...)

From 5-6 pm we’ll open up for discussion. This will be an opportunity for everyone to share their experiences of best practice, including you.

The meeting took place in a meeting room at Enterprise House, a business centre that leased office space to the local business community, including a start-up incubator financed by one of the Southern RDAs. The Downshire e-Tailers’ Group was formed a year earlier, in May 2006, and by this time members had come to know each other well.

I was keen to attend this event not only to be able to study one of Compass’s service offerings, but also to make contact with the e-tailers themselves, with the hope of convincing some of them to participate in this research project and allow me to study their organisations from up close. It turned out to be easier for me to achieve this objective than I had expected. After I had introduced myself and my research project to the assembled fifteen members and the guest speaker at the start of the meeting, one of the members came up to me during a coffee break and had shown interest in my research in the course of the small talk that ensued. It was Tom Campbell, Managing Director of Mandoline, a high street cook shop that also had an online store.

In the third segment of the meeting, Campbell had presented to the group his latest e-commerce website called knifeshop.co.uk* (Figure 9.1), which hived off the knife section of his main website, Mandoline.com (Figure 9.2), to better serve this rapidly growing product category. He asked his fellow members for their opinions on the content, structure, and aesthetics of the website (which was projected onto a large screen using an overhead projector), and a lively discussion unfolded, providing Campbell with feedback and suggestions for improvement. It also transpired that the owner-manager of the firm that developed the website, Jack Huntley of WebTech (Figure 9.3), was also present, as a member of this group, although in a capacity as the owner of another e-tail business—otherwise membership of EBS providers was not allowed (for reasons that I will discuss in the next chapter).

Figure 9.1: Knife Shop website (as of 2 December 2009)

The screenshot shows a Mozilla Firefox browser window displaying the Knife Shop website. The browser's address bar shows the URL <http://www.co.uk>. The website's header includes a navigation menu with links for Home, About, FAQs, External Links, and Contact Us, along with a search bar and a shopping basket icon showing £0.00 and 0 items.

The main content area is divided into several sections:

- Knives:** A vertical list of product categories on the left side, including Knife Sets, All Christmas Gift Ideas, Special Limited Offers, Bunmei Knives, Kuhn Rikon Colori Knives, Global Knives, Henckels Knives, L.O.SHEN Knives, Kai Knives, Kasumi Knives - Damascus, Kasumi Knives - Ceramic, Kasumi Titanium Knives, Kyocera Ceramic Knives, Masahiro Knives, Miyabi Knives, Robert Welch Knives, Rockingham Forge Professional Knives, Sabatier Knives - Veritable, Sabatier Professional, Stellar Sabatier Knives, Stellar Samurai Knives, Stellar Taiku Knives, Taylor's Eye Witness Forged Knives, Taylor's Eye Witness IF 4000 Knives, Taylor's Eye Witness Sheffield Choice Plus, Taylor's Eye Witness Stainless Steel Knives, Tojiro Knives - Tojiro Senkou Knives, Tojiro Knives - Tojiro Supreme Knives, WMF Grand Gourmet Knives, Wusthof Knives, Accessories and Knife Sharpeners, Cooks Knives Guide, Japanese Knives Glossary, and Knife and Knife Uses Glossary.
- Welcome:** A central section with a background image of a snowy path. The text reads: "Great Choice of Top Brands at great value prices, expert advice and Great Service. We are professional cooks and we stock what is probably the widest range of Cooks Knives available online! Plus as we are part of the ... Cookshop Group - You can see before you buy! Look and handle the knives of your choice in our shop. That's why we stock top brands including Henckels Knives, Sabatier Knives, Global Knives and the widest range of Japanese Knives! We are Restaurant and Catering Professionals - if you have any questions about Knives, Cookware, Food or Cooking then please just ask - we always love talking to our customers!"
- Top Sellers:** A section on the right side featuring four product listings:
 - Kai Shun Japanese Knife Set:** in Kai Shun Knives, £195.95
 - Global Anniversary Seven Piece Knife Block Set:** in Global Knives Knife Blocks and Sets, £249.99
 - Robert Welch Knives 4 Piece Set - Limited Edition:** in Robert Welch Knives, £90.00
 - Henckels Twin Cuisine Special Offer Two Piece Knife Set:** in Henckels Twin Cuisine Knives, £69.95
- Hot Offers:** A section on the left side featuring three product listings:
 - Global Knives Five Piece Knife Block Set:** Save £200 on this Special Global Set, Our Price £249.99
 - Sabatier Professional Knife Block Set:** Save £90 on this Superb Sabatier Professional Set, Our Price £99.95
 - Tojiro Knives - Tojiro Senkou Special 5 Piece Knife Set:** Save £250 on this Tojiro Set

The browser's status bar at the bottom shows "Done" and the Zotero extension icon.

Figure 9.2: Mandoline's home page (as of 30 June 2009)

£0.00 | 0 item(s) | [View Basket](#)

[Home](#) | [About](#) | [FAQs](#) | [Recipes](#) | [External Links](#) | [Contact Us](#)

[GO](#)

Specials

- ▶ Cooks Companion
- ▶ Bargains and Specials
- ▶ Eva Solo Barbecues
- ▶ BBQ & Accessories
- ▶ Picnic Time
- ▶ Tableware
- ▶ Barware
- ▶ Wedding and Gifting
- ▶ Corporate Orders

Electrical

- ▶ Coffee Machines
- ▶ Kitchen Electrical

Cookware

- ▶ Cake Tins and Bakeware
- ▶ Kitchen Trolleys
- ▶ Pancake Pans
- ▶ Cooking Utensils
- ▶ Cooks Equipment
- ▶ Pots and Pans
- ▶ Jam Making
- ▶ Sunday Lunch
- ▶ Fish Supper
- ▶ Pasta Machine

Knives

- ▶ Bunmei Knives
- ▶ Colori Knives by Kuhn Rikon
- ▶ Global Knives
- ▶ Henckels Knives
- ▶ Kai Japanese Knives
- ▶ I.O.SHEN Knives
- ▶ Kasumi Knives - Damascus
- ▶ Kasumi Knives - Ceramic
- ▶ Kasumi Titanium Knives
- ▶ Kyocera Ceramic Knives
- ▶ Masahiro Knives
- ▶ Miyabi Knives
- ▶ Rockingham Forge Professional Knives

Welcome to **Cookware Online Shop**

- We have the Best Cookware and it is always Great Value Now with more of us cooking at home than ever, we want the best results AND to enjoy the whole cooking process. Good Cookware is a great investment - it works better AND lasts longer

Hot Offers

Henckels Four Star Carving Set + FREE KNIFE SHARPENER

Special Price Carving Set - plus free £35 sharpener!
Our Price £83.19

Magimix 4200 XL Food Processor (Satin Steel Finish)

Free Extra Discs and Cover!
Our Price £199.99

Nespresso CitiZ & Milk M190 - Black

£30 Cashback off all Nespresso
Our Price £179.99

▶ [More](#) ████████ [Offers](#)

Top Sellers

Henckels Professional "S" Range 7 Piece Knife Block

in Henckels Professional "S" Knives
£176.12

Zyliss Salad Spinner

in Bargains and Specials
£19.99

Paella/BBQ Cooker System

in BBQ & Accessories
£19.99 - £95.95

Cuisinart Ice Cream Maker Deluxe with FREE BLENDER!

in Ice Cream Machines
£69.00

Swift Asparagus Pan

in Swift Supreme
£17.00

Our Customers Say . . .

“

Thank you so much for helping me with this order! You all are so nice and helpful over there. I know this order was a ...

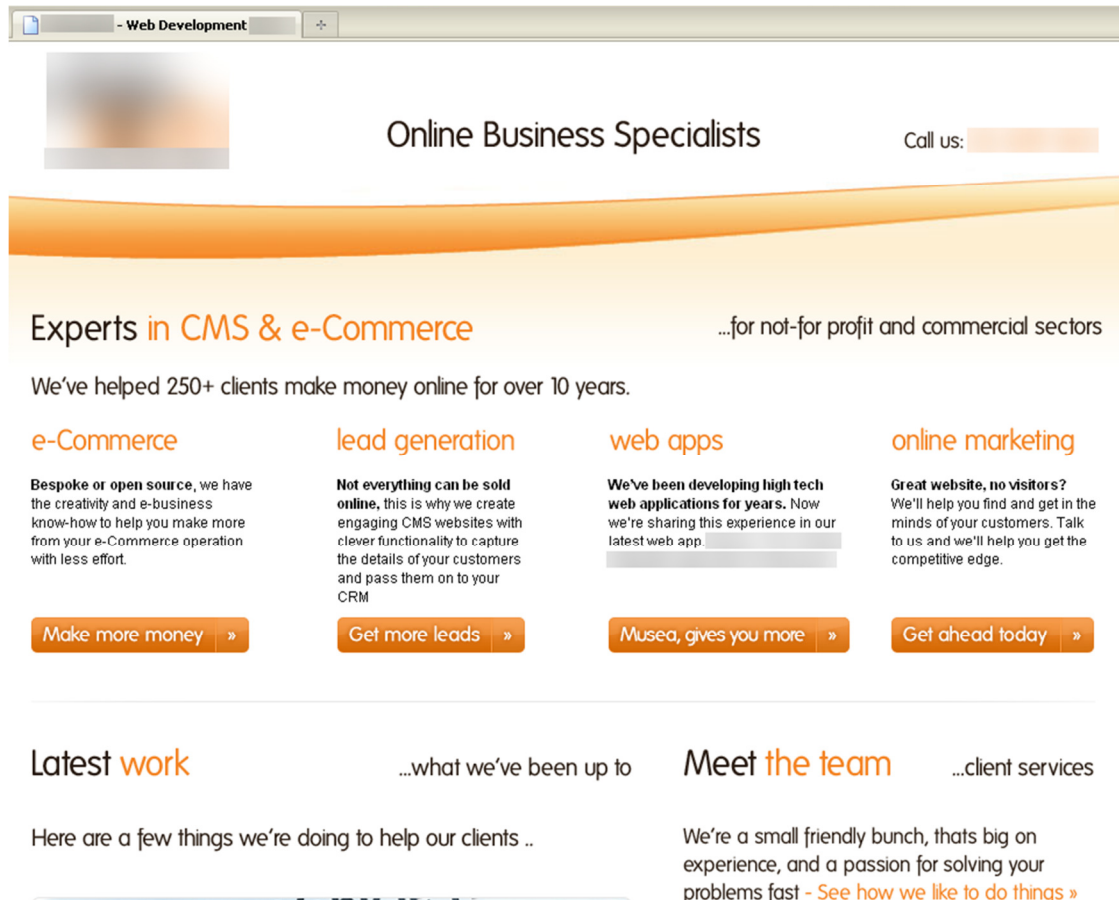
”

▶ [Read More](#)

Newsletter

Tips, Tricks and Advice: Enter your email address for our FREE Newsletter

Figure 9.3: Home page of WebTech (as of 27 November 2009)



At the end of the meeting I asked Campbell whether he would allow me to study his business, and he responded positively. When I met him again a month and a half later at the 17th July 2007 e-Tailers' Den event (Figure 9.4), he was one of the four presenting e-tailer contestants, which reassured me that Campbell's Mandoline Cookshop Group was a suitable candidate for closer study, as an e-tailer that was actively engaged in the regional e-commerce scene. Campbell had reconfirmed his interest in participating, and our first interview took place at his business's premises in the affluent and attractive market town of Milchester*, Downshire, on 13th August 2007, initiating a series of interviews and observations that had ended on 15th December 2009.

Figure 9.4: An e-tailer contestant's presentation at Heat 4, e-Tailers' Den on 17 July 2007

(Source: Compass Ltd.)⁵



9.2. Mandoline's assemblage

The first time I visited Mandoline in August 2007, it had already been operating as a reasonably successful small e-tailer for three years, well exceeding the minimum £250 thousand revenue bar set by Compass Ltd. as an entry requirement for membership in its Downshire e-Tailers' Group. In the year to 31st August 2007 its total sales amounted to over £750,000, and about 60% of that was generated online. Mandoline was originally founded in 1999 as a high-street shop at a single location and had no e-commerce capability before having been acquired by the husband and wife team of Tom and Mary* Campbell in September 2003 (at that time Tom was in his mid-50s and Mary was in her late 40s). The value creation process in this traditional mode of retail consisted primarily of serving as an intermediary between wholesale distributors of cookware (who sourced their products mainly from abroad) and consumers located within approximately a 20-mile radius of the shop. The Campbells had introduced e-commerce to the firm in 2004 as an emergency measure because the physical shop sales failed to reach levels at which the newly acquired business would have been sustainable. Adding the online operations had significantly extended the

⁵ Permission has been granted by the copyright holder to reproduce photos sourced from Compass Ltd. in Figures 9.4, 10.1, 11.6, 11.7, 11.8, 11.9 and 11.10.

geographical reach of the business, turning it into a national retailer, with occasional international orders.

Mandoline was housed in a two-story brick building in a prominent section of Swan Lane* (Figure 9.5), a purpose-built pedestrianised open-air shopping arcade accessible from the High Street. The shop was relatively small, both in terms of its physical size and the number of people it employed. Its business premises consisted of a 750 sq. ft. ground floor sales area (Figure 9.6), a 350 sq. ft. show room on the first floor (Figure 9.7), and a 160 sq. ft. office (Figure 9.8) and ancillary area, which included a stockroom (Figure 9.9). As a purveyor of premium cookware, Mandoline stocked a range of high-end products, from small speciality items such as a pepper mill shaped like a rabbit for £7.95 to sophisticated cooking tools such as a £575 Kitchenaid Artisan Mixer or an £1,895 Jura coffee machine. The online operation was run from the upstairs office, which contained two desks with just enough space to allow three people to work on three computers. The shop floor staff normally consisted of the two owner-managers taking turns, and at least two other core staff, who would be a mix of full-time and part-time personnel (with one of them having the responsibility to also tend to the online orders), except the busy Christmas season, when additional casual staff would be taken on.

Figure 9.5: Swan Lane with a view of Mandoline (first shop on the right)⁶



⁶ Photographs in Figures 9.5 to 9.10 were taken by me on 30 June 2009.

Figure 9.6: A section of Mandoline's ground floor sales area⁶



Figure 9.7: Mandoline's first floor show room⁶



Figure 9.8: Mandoline's office⁶



Figure 9.9: Mandoline's stock room⁶



Figure 9.11 presents a rich picture summarising the key elements of the physical retail store part of Mandoline's assemblage. In a nutshell, Mandoline's traditional retail operations consisted of using its shop windows (Figure 9.10) and other marketing media to entice potential customers—from the c. 68,000 visitors that walked through Swan Lane in a good week in 2007 (source: Footfall Survey)—to come into the store, so that sales staff can attempt to convert them from potential customers into actual ones, by creating an association between them and the products, i.e. engaging them in a retail market exchange. This way Mandoline had served as an intermediary between consumers and the wholesalers (and eventually the manufacturers) of those cookware products. Being a micro-enterprise, Mandoline was supported by various government loan and training schemes and industry support services. It was also a customer of the usual business services such as accounting, banking and property management.

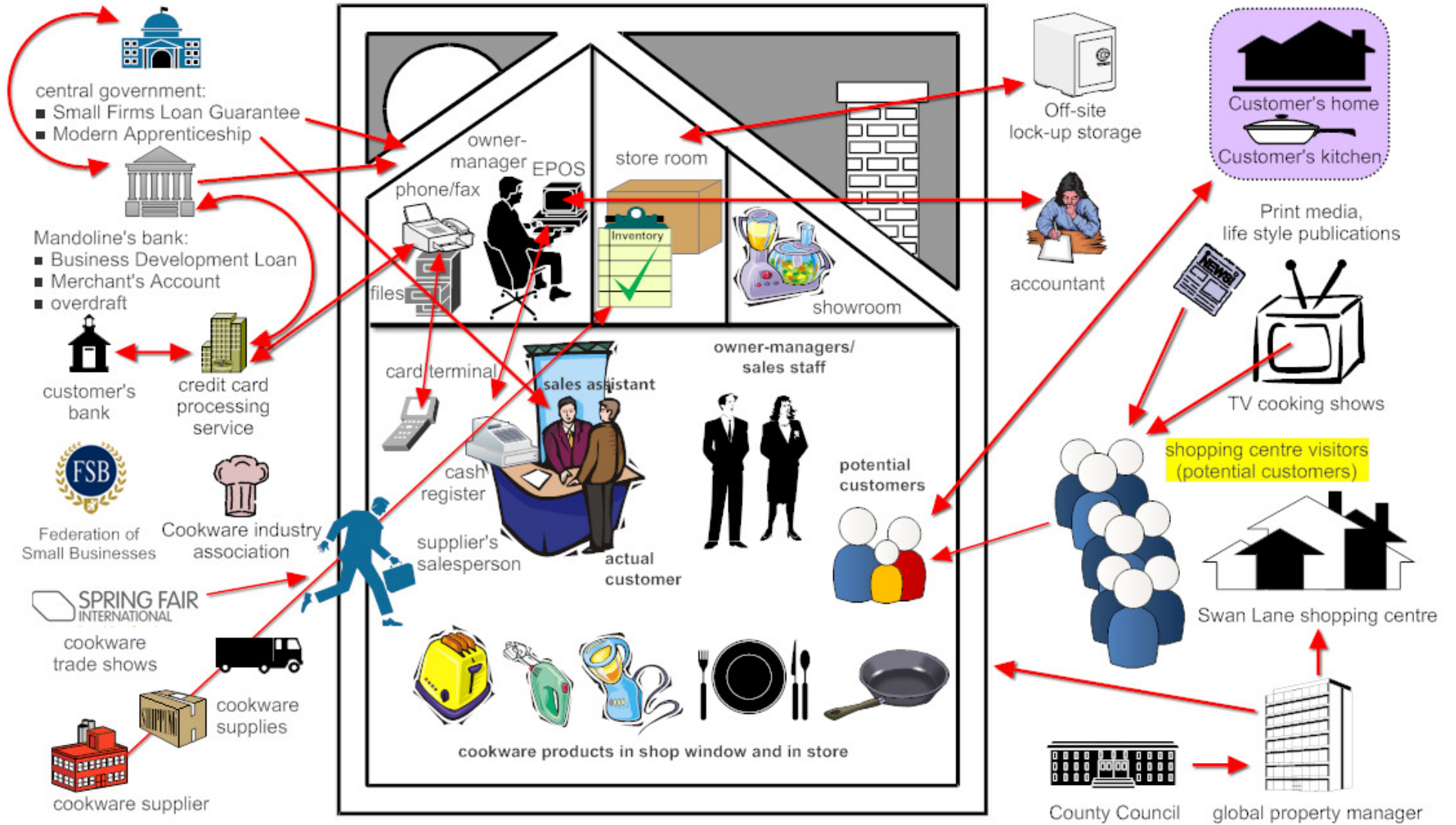
Figure 9.10: Mandoline's left shop window⁶



The rich picture presents this retail micro-enterprise, on the one hand, as a heterogeneous assemblage of human actors, physical objects, institutional relationships and technological networks, all brought together to enable the performance of this business; and on the other hand, as a set of flows, of retail goods from warehouses to the shop and on to the

customer, of money between the various actors, and of marketing messages, such as television cooking shows prompting consumers to seek out particular products. It was this setup that turned out to be unsustainable when the Campbells took over the shop, partly for internal reasons (the previous owner overstated the sales when selling the business), and partly for external reasons (the rapid growth of online sales in the UK (up 28.9% in 2005, as opposed to the 1.5% growth in retail sales) had cut into the sales and profitability of high street retailers (BBC 2006)).

Figure 9.11: A rich picture of Mandoline's assemblage prior to e-commerce adoption



9.3. Mandoline's e-commerce assemblage as a consumer market device

Once the decision had been made to adopt e-commerce, the Campbells' next challenge was to find, acquire and install the appropriate e-commerce solution. They did not possess the technical skills or the necessary resources to develop the required ICT artefacts in-house, therefore they had to start looking for both the appropriate technical solution and a service provider capable of producing it. Tom Campbell turned to the Downshire branch of Business Link for advice. This was in 2003, prior to the IDB policy change discussed in Chapter 7, and therefore Business Link's e-business adviser was free to make a direct recommendation of a regional web developer, WebTech: "Business Link I've seen as a filtering process in the initial stages. And it really worked well. They've suggested some people who could help, WebTech being one of them" (Tom Campbell, 30/7/2007). As these were still early days for e-commerce in Downshire, Mandoline also turned out to be the first substantial e-tailer client of WebTech: prior to that they had only developed non-transactional websites for commercial and non-commercial organisations. WebTech appealed to the Campbells because it was based locally and it was a small firm of a similar size (for instance, in 2006 Mandoline's sales were £700,000, while WebTech brought in £600,000).

Given the urgency to deploy an e-commerce site at Mandoline in order to make the business sustainable, a phase of rapid development and mutual learning ensued, allowing Mandoline to launch the first version of their transactional website in April 2004—which in turn was also the first iteration of WebTech's W-CAS* (WebTech Content Administration System) solution, an online platform for delivering and managing both the front-end (the consumer-facing website) and the back-end (the online back office) of an e-commerce shop. The acquisition of e-commerce technology and capability for Mandoline was not a singular market transaction and purchase decision for a piece of capital equipment (although Mandoline did pay WebTech a lump sum of £15,000 for the creation of the initial website). Rather, it marked the start of a long-term supplier relationship, whereby Mandoline was leasing its use of the W-CAS platform indefinitely, paying £2000 for it monthly, while WebTech was obliged to continually improve the system and also deal with *ad hoc* troubleshooting and new feature requests.

The front-end of Mandoline's website consisted of a Home page (Figure 9.2), product pages, an About page, FAQs, a Recipes page, External Links page and a Contact Us page.

Product pages made up the bulk of the site (for around 3000 products), which could be accessed via the product category links listed in the left-hand side column of each page. In 2007 the Knife Shop* site was added (Figure 9.1) to the website and the W-CAS platform, as well as Peppermill* (Figure 9.12), a competitor site acquired by the Campbells (an opportunity Tom found out about at a Compass e-Tailers' Group meeting).

Figure 9.12: Peppermill website (as of 2 December 2009)



Mandoline’s back-end was only accessible to authorised Mandoline and WebTech employees via a password-protected website. Upon logging in, users would see the Summary page of Mandoline’s W-CAS site (Figure 9.13). The main functionalities consisted primarily of content management and order processing.

The content management functionality enabled Mandoline employees to add, modify and remove text, images and webpages on the front-end of the website (such as a product’s page, name, description, image and price). It also allowed Mandoline staff to carry out merchandising, i.e. to place digital representations of products into Mandoline’s virtual shop window (the homepage) and its virtual aisles and shelves (product categories and specific product pages). The order-processing functionality of the back-office enabled Mandoline employees to view and process orders taken via the front-end of the website.

Figure 9.13: The homepage of Mandoline’s back-end (as of 30 June 2009)

The screenshot shows a web browser window with the address bar displaying "Group - Administration". The page has a navigation menu with items: Summary, Sections, Products, Orders, Sub-Orders, Logs, Content, Miscellaneous, Newsletter, Testing, and Archive. The main content area is titled "Summary" and contains several sections:

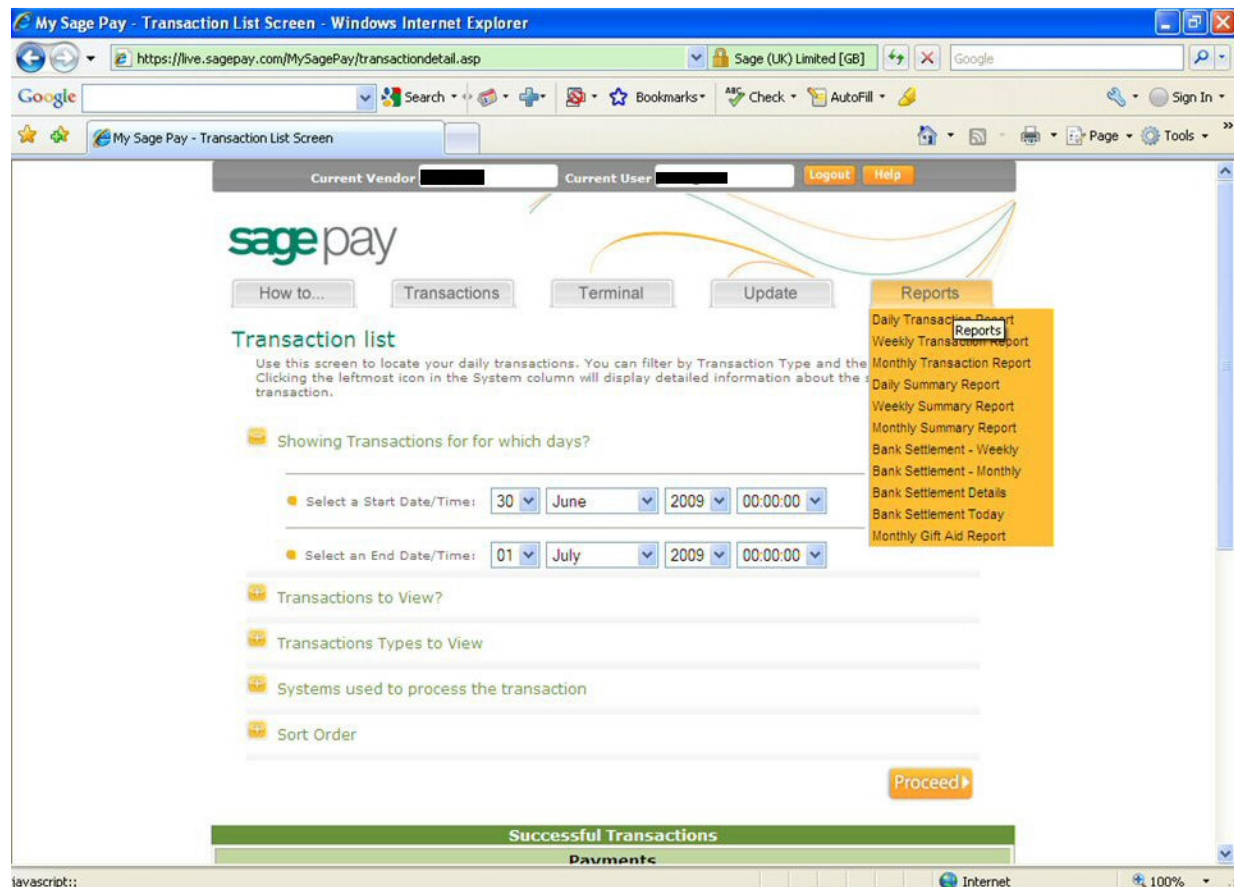
- Sales from the past seven days:**
 - Number of Products: 152
 - Number of Invoices: 0
- Total sales:**
 - Number of Products: 41731
 - Number of Invoices: 29
- Order Information:**
 - New Orders: 943
 - Current Orders: 3788
 - Completed Orders: 20658
- Out of Stock (Click to view related order):**

Code	Product	Quantity
7-750552	Adjustable Baking Tray	1
55624	Demeyere Apollo Proline Frypans	1
G666/9	Global Knife Case for up to 9 Knives	1
GS7	Global Knives Paring Knife 10cm	1
	Greenpan Vienna Hard Anodised Frying Pan	1
SM-606	Kasumi Magnetic Knife Block	1
KF-4	Rockingham Forge Pro Series 8" Carving Knife	1
22403	Silver Anodised Bakeware 10in Pie Plate	1
56042	Silver Anodised Bakeware 4in Pork Pie Mould with Loose Base	2
	Simplehuman Surefit Bin Liners 20 Litre Code D	2
	Spare Glass Liners	1
10.462/L215	Tuscany Chunky Handled Board with Leather Tie in Acacia Wood	1
10.489/L219	Tuscany Salad Hands in Acacia Wood	1
- Options:**
 - [Make a telephone order](#)

The footer of the page displays "Content Administration System version 4.7" and "Called from global file".

The accepting and processing of payments was conducted outside of the back-end facility, via a secure login on the website of the electronic payment gateway called Protx (renamed to Sage Pay in April 2009) (Figure 9.14).

Figure 9.14: Sage Pay (Protx), Mandoline’s e-payments provider (as of 30 June 2009)



Protx was a critical element of Mandoline’s e-commerce assemblage, as without it (or a similar online payment processing system) the Mandoline website would not have amounted to an online store, as it would not have been able to take customers’ payments. Protx provided several essential services. Firstly, it mediated between Mandoline’s bank account and its customers’ credit card accounts. Secondly, it provided tools for the qualification of online shoppers as *bona fide* customers or potential fraudsters (Figure 9.15 shows an example of the results of fraud checks on individual customers and transactions), to aid Mandoline’s decision about whether or not to accept a payment. Accepting a fraudulent payment invariably led to Mandoline losing the value of the transaction, as under the legal arrangements and practices in place in the UK at the time, it was the retailer’s responsibility to refund the defrauded card holder. Therefore, evaluating the credibility of a customer was

one of the first and most important steps in the order processing routine from the e-tailer's perspective. The screen in Figure 9.15 represents the step before the final decision is made by the e-tailer to legally and practically associate the online shopper with the purchased good and accept his or her payment in return, thus performing an instance of the e-commerce market.

Figure 9.15: Sage Pay (Protx) Fraud Results page (as of 30 June 2009)

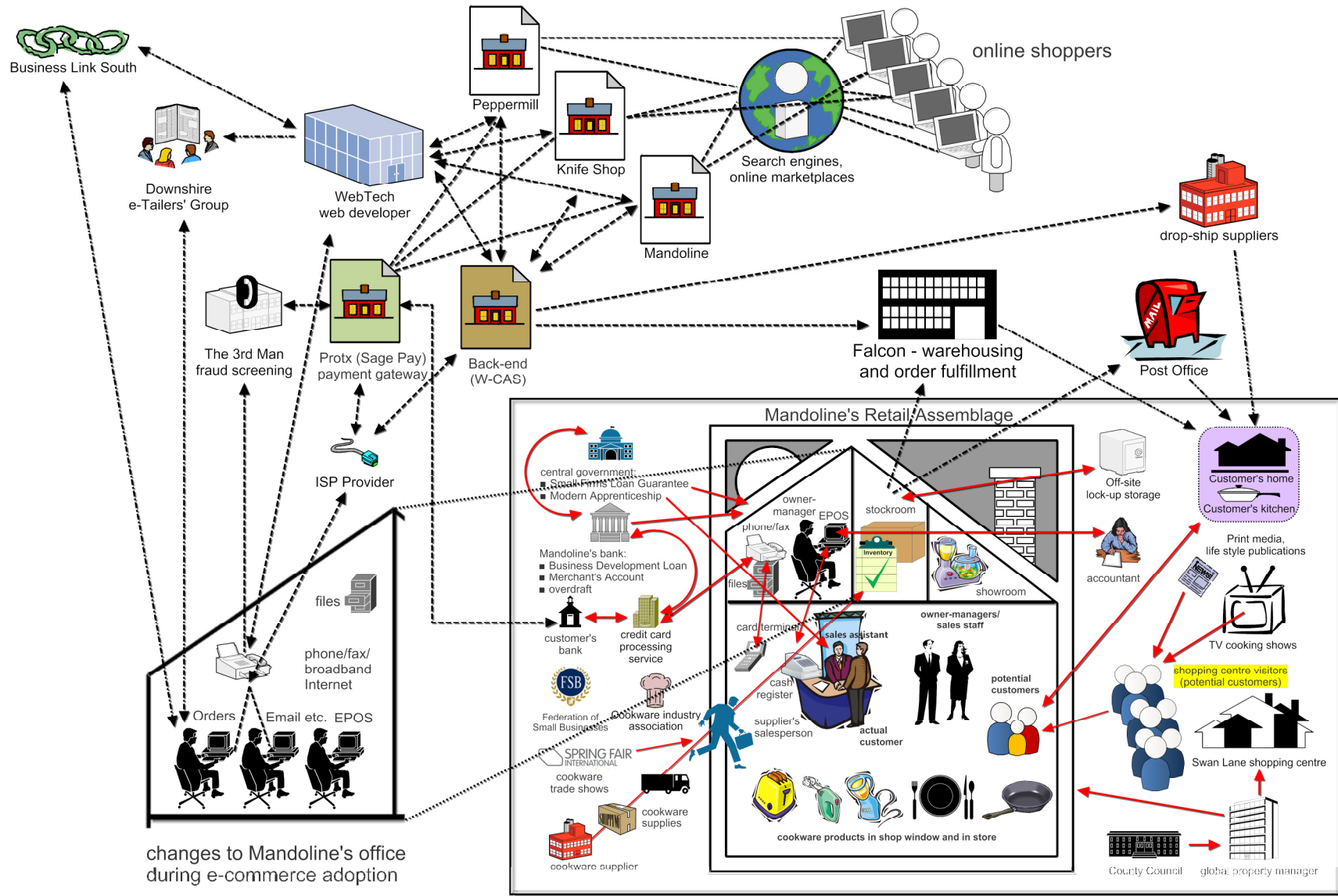
Successful Transactions												
Payments												
System	VendorTXCode	Received	Amount	VPS AuthCode	Fraud Results					Card Holder Name	Rep	Ref
					CV2	PC	Adr	T3M	3D			
F	████_31736	30/06/2009 14:33:11	28.95 (GBP)	170975525	✓	✓	✓	🟢	🟢	████████████████████	✗	✗
F	████_31735	30/06/2009 14:02:49	283.95 (GBP)	170966142	✓	✓	✗	🟢	🟡	████████████████████	✗	✗
F	████_31734	30/06/2009 13:19:02	27.95 (GBP)	170952295	✓	✓	✓	🟢	🟡	████████████████████	✗	✗
F	████_31733	30/06/2009 13:07:21	61.95 (GBP)	170949319	✓	✓	✓	🟢	🟢	████████████████████	✗	✗
F	████_31732	30/06/2009 12:43:09	104.77 (GBP)	170941535	✓	🚫	🚫	🟢	🟢	████████████████████	✗	✗
F	████_31731	30/06/2009 11:30:19	58.77 (GBP)	170918808	✓	✓	✓	🟢	🟢	████████████████████	✗	✗
F	████_31722	30/06/2009 10:06:41	113.95 (GBP)	170891083	✓	✓	✓	🟢	🟢	████████████████████	✗	✗
GBP Total:			680.29 (GBP)									

Figure 9.16 is a rich picture that summarises the new elements that Mandoline needed to add to its existing socio-technical assemblage (depicted in Figure 9.11 earlier), as well as the new types of flows it needed to establish, in order to be able to operate as an online retailer. Commissioning WebTech to develop the front- and back-ends of the websites and connecting them to an electronic payment gateway (Protx) was just the beginning. Mandoline also needed to redesign the cookware supply and order fulfilment process, by enabling the direct (so-called “drop-ship”) fulfilment of orders by wholesale suppliers (rather than having the goods delivered to Mandoline's premises first, as they had limited storage capacity and manpower for online order fulfilment), and by enrolling a nearby wholesaler (Falcon*) to increase their capacity for the warehousing, packaging, and shipment process. A major new challenge that the deployment of e-commerce brought for Mandoline was the need for digital marketing, i.e. bringing its websites to the attention of online shoppers, for example by improving the position of its product pages in search engine rankings. Having found out about it from a Business Link newsletter, Tom Campbell had joined Business Link's Downshire e-Tailers' Group to learn more about both the technical and marketing aspects of

running an e-commerce operation.

Comparing and contrasting the overall shapes and elements of Mandoline's socio-technical assemblage before and after the adoption of e-commerce (Figure 9.11 and 9.16) reveals a number of characteristics of entrepreneurship and innovation. The adoption of the global innovation of e-commerce—which Schumpeter would have characterised as the result of an act of entrepreneurship, i.e. the creation of a new combination of productive means—itself required a fundamental rearrangement of the elements of the adopting organisation. However, even before that could take place, the innovation-adopter (Mandoline) first had to access the market for EBS providers and 'acquire' the EBS provider (WebTech) relationship as one of the *productive means* it needed to recombine. Only then could the creation of the ICT artefacts—that enabled the innovation to function—take place. The result was a new shape for Mandoline's assemblage (Figure 9.16), enhanced by new organisational elements that enabled new types of flows. The new functionality of this new combination was aimed at encountering potential customers online from across the country and even abroad, and creating a new type of economic association, between the electronic representation of the retailed goods and the online representation of the customer and his or her credit card. In this sense the e-commerce website (together with the services that were enabling it) could be defined as a type of market device: it was a *consumer market device*, facilitating to the creation and functioning of online consumer markets for cookware, once it had connected a traditional retailer with electronic marketplaces.

Figure 9.16: A rich picture of Mandoline's multi-channel assemblage



9.4. Mandoline's internal qualification trials

9.4.1. Marketising the e-commerce artefact

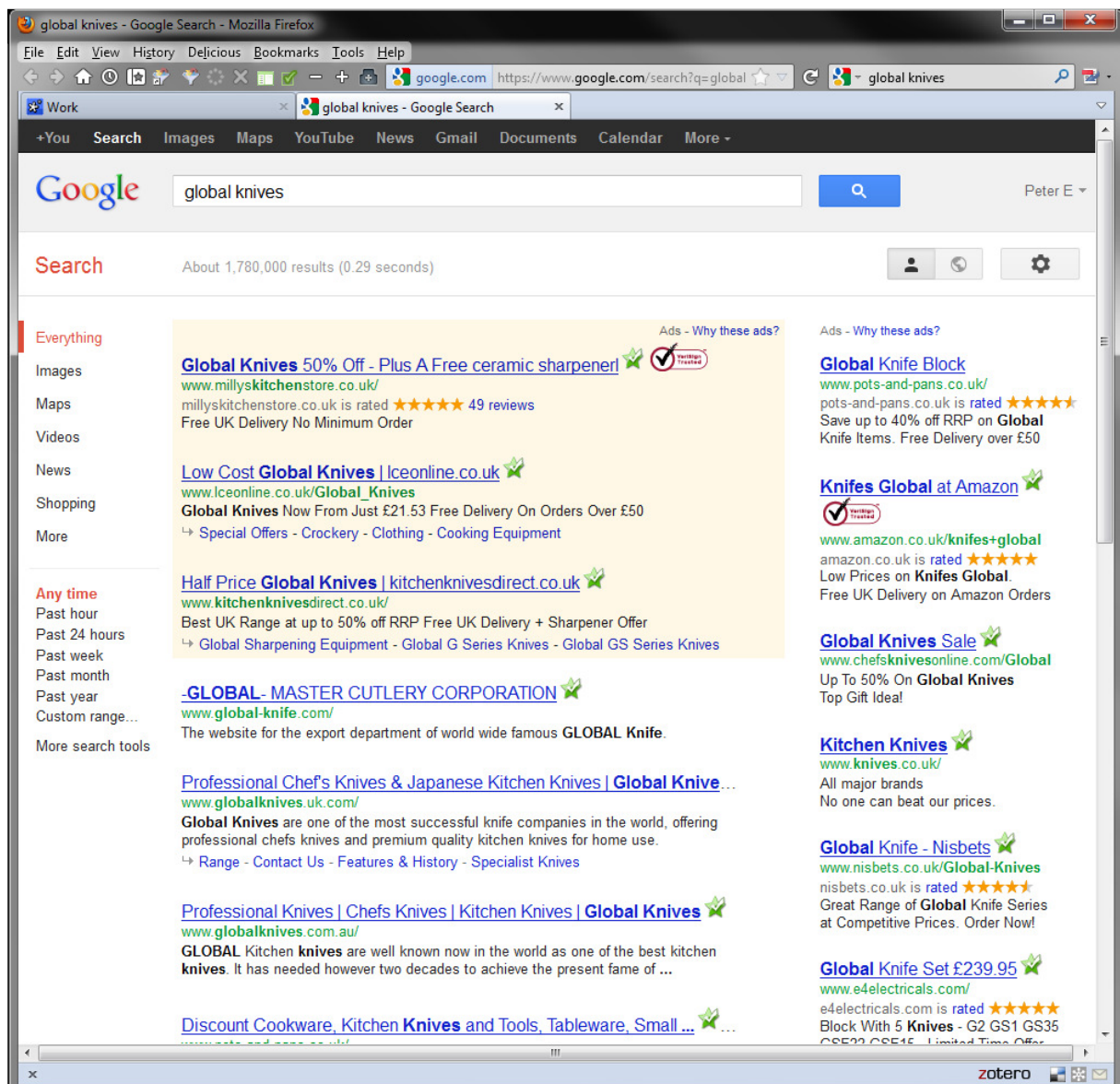
Creating electronic links between Mandoline's e-commerce website and electronic marketplaces (such as search engines and shopping comparison sites)—so that the website as an ICT artefact could turn into an actual means of production (a functioning, value-producing *consumer market device*)—was far from being a trivial task, as it required the acquisition of additional expertise and the development of further ICT artefacts, which took several additional years. Enticing customers to engage them in the shopping process was naturally considered by WebTech and Mandoline at the design stage of the website. The front-end (Figure 9.2) in particular was designed in such a way as to visually and practically appeal to an online shopper, to invite him or her to enter the online shop and start developing attachments to the showcased products. The purchase process was also designed to reduce the required steps—from putting items into the basket to making a payment—to as few as possible.

Nevertheless, the inclusion of these facilities in the e-commerce artefact had not yet connected Mandoline's website to consumer markets. They merely provided the possibility for attachments to develop and transactions to take place, once the site was made available online and shoppers began to encounter it. The first instance of Mandoline's engagement with online consumer markets happened when WebTech published the Mandoline website in April 2004 by uploading the relevant files (HTML, JavaScript, image files, Cascading Style Sheets etc.) to a server, adding the necessary meta-tags (`<meta name="robots" content="INDEX,FOLLOW" />`) to enable the website to be indexed by search engine robots (also called “search engine spiders”), and linking the site to Mandoline's domain name and web address (URL). At this point, there would have been two ways for customers to find Mandoline's website: either by typing in its URL directly or through encountering its product listings in search results on a search engine such as Google or Yahoo! Initially, however, Mandoline had to face the same problems as any other newly launched website: practically no one would have heard about its URL and search engines would take considerable time before including its individual product pages in top search results, which in the case of retail meant the first page—or at least the first few pages—of product search results.

The rise of Mandoline in ‘natural’ (also called ‘organic’) search rankings (as opposed to positions acquired through pay-per-click advertising) had been slow: “it was probably 18

months or 2 years before it really got going in the search engines,” Campbell recalled (30/7/2007). Instead, Mandoline had to resort to pay-per-click advertising for individual products on Google from the start, using Google’s AdWords service (Figure 9.17), which allowed Mandoline’s particular product link to be listed above ‘natural’ search listings for the related keyword (in the shaded rectangular area) or next to the search results in the right-hand side column of the webpage.

Figure 9.17: an example of Google AdWords advertising for “Global Knives” keyword (as of 24 February 2012)



Mandoline normally spent between £3000-4000 per month on pay-per-click advertising, which for instance in one particular month in 2008 amounted to £120 per day, breaking down

further as £40/day for Mandoline, £70/day for the Knife Shop, and £12/day for Peppermill.

The activity of creating electronic linkages between an e-commerce website and an electronic marketplace (such as a search engine)—and online shoppers—is commonly known as *digital marketing* (e.g. through pay-per-click advertising or email marketing), and the particular activity of improving the ‘natural’ or ‘organic’ search rank of a website or webpage, as *search engine optimisation* (SEO). Especially in the case of highly competitive markets where hundreds or thousands of retailers might be offering the same product online, the ‘natural’ search rank is anything but natural and is the outcome of optimising the site so it could be treated as more relevant for given search terms. For an e-commerce website to turn into a *consumer market device* (an instrument for facilitating market transactions by allowing the formation of attachments between retail products and online shoppers), it first needs to be electronically connected to services that function as online marketplaces, through the activities of digital marketing and SEO. In the following I will refer to this type of activity of creating such market instruments (devices for the construction and performance of markets) through the construction of new associations as *marketisation* (after Çalışkan and Callon 2010).

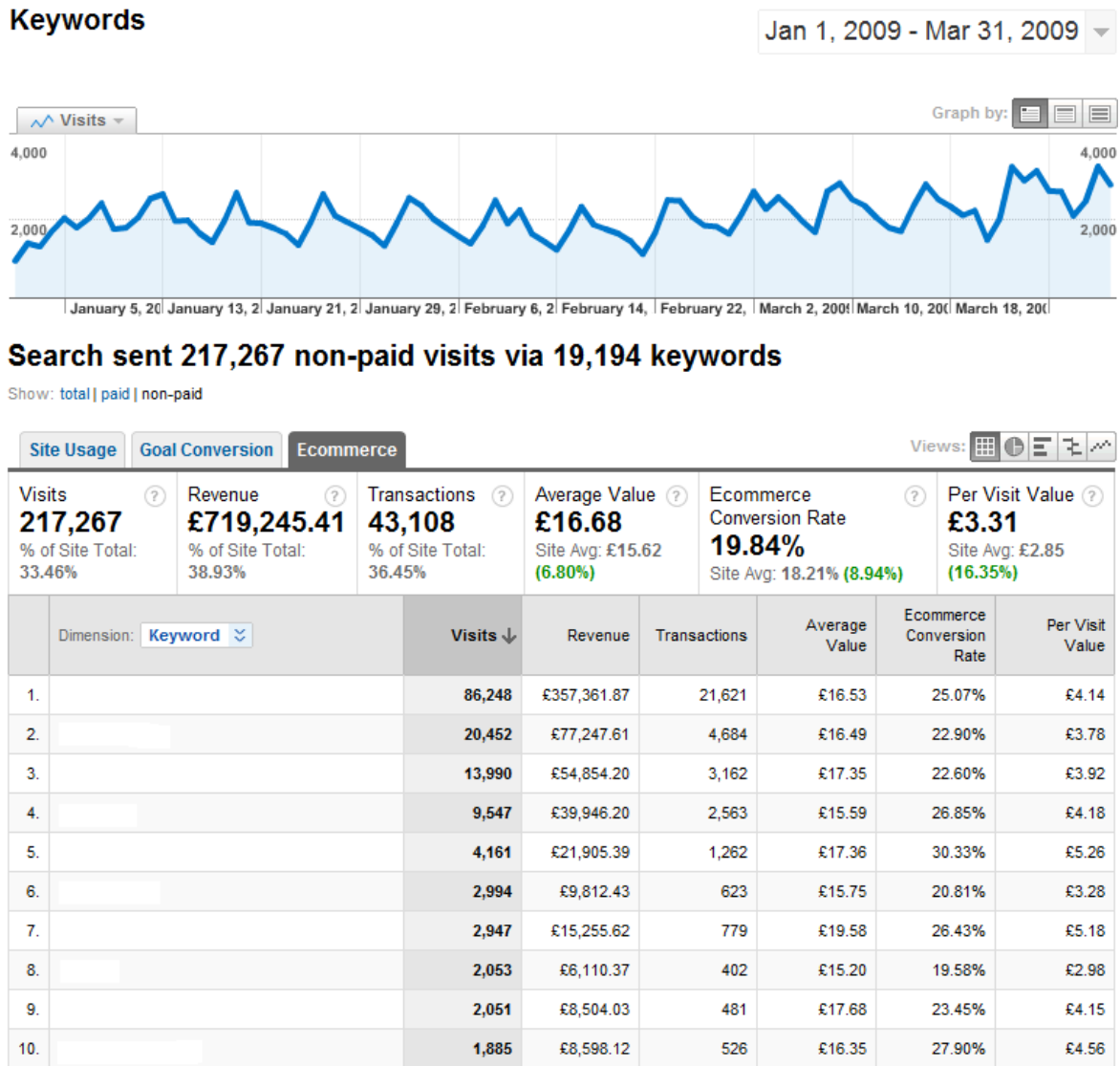
Marketising an e-commerce artefact can be a highly competitive activity. All of Mandoline’s competitors were striving for the same goal, to end up in the top search results, preferably on the first page. The top results ended up being those that Google’s secret search algorithms judged as being the most relevant for the given keyword (Google 2014). (Google became by far the most important search engine for Mandoline, as it ended up accounting for over 75% of search results that produced inbound links, and subsequently brought shoppers to Mandoline’s website.) While some of the factors that helped a link occupy a top position in the Google search have been generally known, others had to be found out through painstaking experimentation over a long period of time (months and years).

As Google (2014) revamps its search algorithms regularly, partly to reduce the chances of manipulation (that would make less relevant results, especially spam, seem more relevant) by those who may have figured out certain key aspects of these algorithms, SEO experts have to be continuously revising their strategies and methods to keep up with all the changes. For all these reasons SEO had emerged as a highly specialised field of knowledge within digital marketing (requiring specialist expertise in e-commerce, marketing, and linguistics, among others), and small online retailers regularly contracted external experts to improve their businesses’ search engine results. In the case of a small firm like Mandoline, achieving the marketisation of its e-commerce artefact had to begin with searching for,

evaluating and contracting appropriate e-commerce business services that could provide it with the required expertise and tools in digital marketing and SEO. An additional related task involved the analysis and evaluation of the reams of statistical data that the Google Analytics tool (Figure 9.18) had allowed its pay-per-click advertisers such as Mandoline to collect.

Figure 9.18: Google Analytics Dashboard example for an online retailer

(Source: <http://www.branded3.com/wp-content/uploads/google-analytics.png>)



Campbell found the task of monitoring, analysing and interpreting such statistical data overwhelming and time-consuming:

I don't want to sit in front of the computer all day analysing graphs and figures. I'm a retailer, I'm not an analyst. If I had to do that to improve the business, I would sooner pay someone else to do it who was much more competent and knowledgeable and experienced at doing that. (30/7/2007)

9.4.2. Trials and errors of finding an SEO provider

Tom Campbell had realised early on that his web developer, WebTech, lacked expertise in the search engine optimisation field. WebTech's staff were primarily programmers and designers, whose expertise was limited mostly to technical and aesthetic aspects of designing, building and maintaining a website. Nevertheless, any prospective SEO provider would have been expected to work closely with WebTech, as the latter's co-operation was needed for making any technical changes to the site to make it more search engine friendly. Therefore, soon after launching the website, the Campbells had embarked on a journey of finding, evaluating and hiring a suitable SEO service. To find a knowledgeable and experienced SEO provider at the right price had proven to be a challenge, as few small EBS providers had mastered the intricacies of this new discipline yet in Southern England around 2004.

Initially the Campbells themselves lacked familiarity with e-commerce, which made it difficult for them to evaluate the e-commerce expertise of others. Moreover, the very nature of SEO work as a service was such that it would only produce results months later, when, after a series of interventions, a website would have either ended up nearer to the top of search engine results or not. The first SEO service Mandoline had contracted was called JumpUP*. Tom found out about them from WebTech, although WebTech did not have prior experience with them either. This hiring quickly turned out to be a disappointment. In Tom's words, "JumpUP took £800 off me: completely daylight robbery. They might have as well held a gun against my head and said 'give me £800 please' because nothing happened! Absolute waste of time" (Ibid.).

Next they hired a company called BestRank* that specialised in the management of pay-per-click advertising. The relationship started off with a direct sales call from BestRank. The Campbells did not have any opportunities outside their own firm to evaluate BestRank's qualities prior to hiring them. This relationship was somewhat more successful than the one with JumpUP and had lasted for about 18 months, until Tom "got fed up with them because they weren't effective. They did a bit of work at first, then sat back and just wanted me to pay them £300 every month for doing nothing" (Ibid.).

Tom's next hire was a freelance consultant called Mark Inglesby*. He first met Mark at a regional e-commerce event organised by Business Link South. Over the years Tom had seen him perform either as a speaker or as a participant at several other Business Link events across the South of England. Although Mark was not an employee of Business Link, people

may very well have developed that impression, as he emerged as one of the most frequent speakers on the topics of SEO and digital marketing at BLS seminars, and the PowerPoint files for his presentations were often posted on the Business Link website. From Tom's perspective, hiring Mark was a more informed decision than the hiring of JumpUP (an untested referral) and BestRank (the result of a cold call). Mark's strong association with Business Link lent him credibility, and his frequent presentations offered proof that he was an established expert in the area of SEO. Mark's expertise, in contrast to those of JumpUP and BestRank, was thus available for public examination and evaluation at the various Business Link events that Tom saw him perform in, and through the documents he made publically available.

Perhaps unsurprisingly (in light of the above pre-qualification), Inglesby had turned out to be the most competent SEO practitioner Mandoline had up until then. According to Tom: "...he did do the first effective search engine optimisation for us. And you could see the difference: we were rising up" (Ibid.). But after some time Mark's attitude to the service relationship started to resemble that of BestRank: "But then his approach was 'Oh, okay, I have done that. Maybe in six months' time we will look at it again and see what else we can do'" (Ibid). However, it became clear to Tom early on that both the online market and the underlying technologies were evolving fast and SEO was something that needed undivided and continuous attention: "...that doesn't sound right to me because things are changing daily. Why leave it for six months?" (Ibid.). Tom had recognised that the stability of a top position in search engine results required perpetual activity on the part of the SEO service:

It is a constant, it is a never-ending thing. You don't just pay your money and then you go away, because if you do, you will dwindle down. It is gravity, isn't it? It will all just go down. Nothing keeps you up there without priming and pumping. (Ibid.)

Soon thereafter Tom had renewed his search for a more proactive SEO provider. After considering but deciding against hiring eVoicePRO*, a large multinational digital marketing firm that he encountered at Internet World (an annual e-commerce industry fair in London), because their service at £4000 per year was unaffordable, Tom turned to Jack Huntley, his web developer, for help once more. Although their first recommendation (the untested referral of JumpUP) led to an unsatisfactory experience, WebTech continued to be an important source of advice for Tom. They had an interest in helping Mandoline find a suitable SEO service, as they depended on them commercially, given their licencing relationship. Mandoline was a showcase client for WebTech: they used them regularly as a case study during their sales pitches, highlighting the commercial success of the websites

they built for Mandoline. Moreover, a new and competent SEO agency could generate new business for WebTech, as they could charge Mandoline extra for any major changes required by the SEO process.

Eventually Jack Huntley recommended one of his own tried and trusted suppliers, FindAs* (Figure 9.19), who provided both SEO and pay-per-click management services to one of his own retail sites and some other WebTech customers. Tom went ahead and hired FindAs in the middle of 2006. FindAs recommended several changes to Mandoline's websites to improve both their recognition by search engines and their integration with specific shopping comparison sites (e.g. Google's Froogle service, later renamed to Shopping (Figure 9.20) and Kelkoo (Figure 9.21)) —and WebTech and Mandoline had carried them out. The SEO included changes to the front-end, for instance adding a site map to each website, which increased the credibility of a site for Google's search algorithms, and also changes to the back-end, for instance integrating the uploading of product information to the Kelkoo shopping comparison site into the W-CAS platform (Figure 9.22).

These changes had led to dramatic improvements in Mandoline's search engine rankings in the following year, accompanied by an increase in sales and a reduction in pay-per-click advertising costs. Figure 9.23 shows a section of a report for the digital marketing activities that FindAs was responsible for in Quarter 3 of 2008. "Non-Campaign" denotes visitors, orders, and revenue that resulted from 'natural' search (71% of all sales), while the other entries stand for the results of pay-per-click advertising campaigns for specific keywords, subscription to price comparison websites, and "other" (which includes customers directly typing the URL into their browsers or using a bookmark).

Tom brought up the example of the first page result on Google for Global Knives (Figure 9.17) as an example of FindAs's effectiveness:

that's an ace result because Global Knives are probably our biggest selling Japanese knives. We used to order about once every six weeks. Now we order every week, a £1000 trade value order. And a lot of that is because we're well-positioned in the search engines, so people are finding us for those items. And it's improving all the time. (30/7/2007)

This turned out to be a successful supplier relationship, and the Campbells had stayed with FindAs until the eventual sale of the Mandoline business in December 2009.

Figure 9.19: Website of FindAs, Mandoline’s digital marketing agency
(as of 9 November 2011)

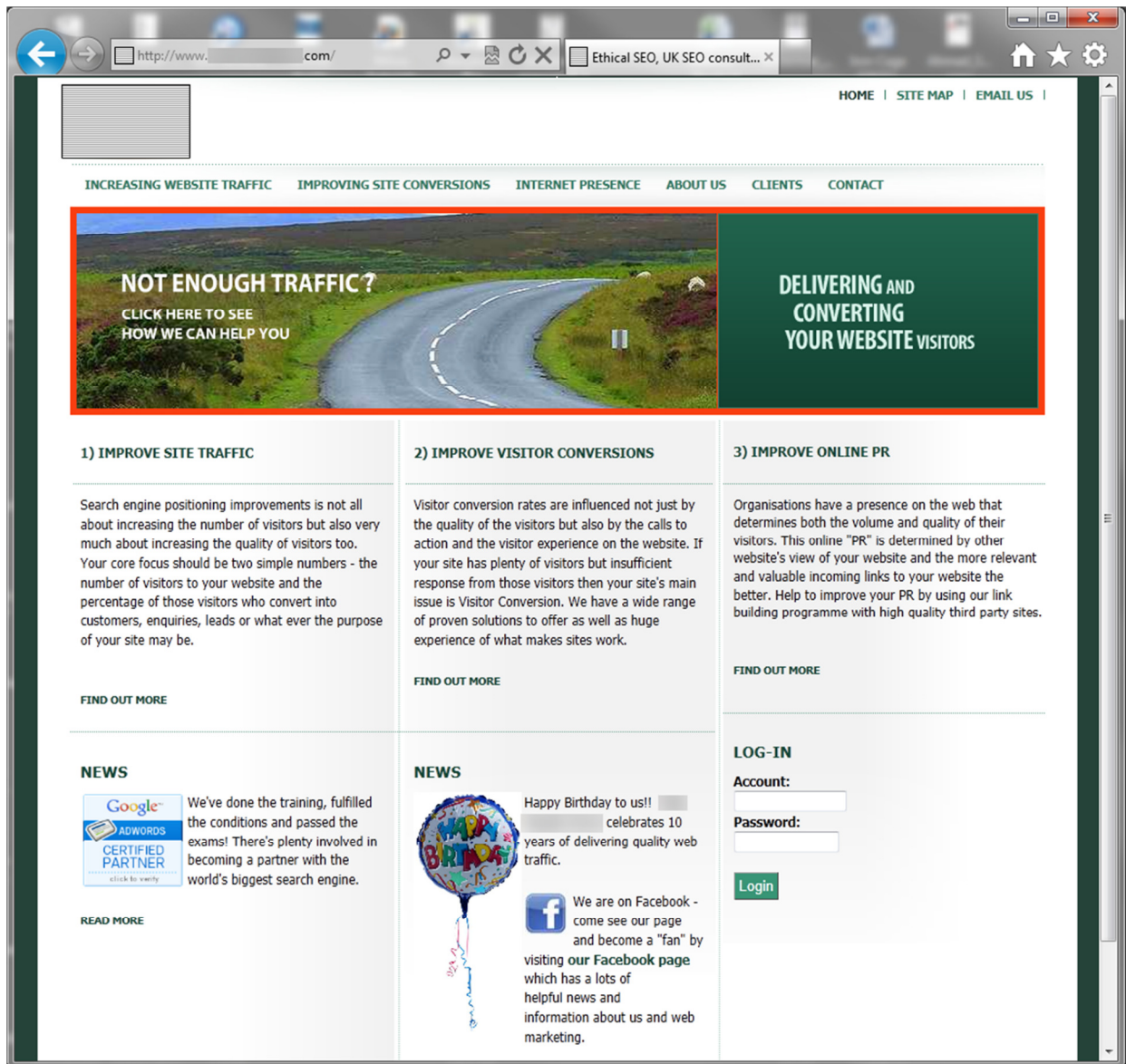


Figure 9.20: Google's Shopping price comparison site (formerly Froogle) (as of 25 February 2012)

+You Search Images Videos Maps News Shopping Gmail More -

Google

Search About 3,900 results (0.30 seconds)

Your location: Southampton - [Change](#) Sort by: Relevance

Everything
Images
Maps
Videos
News
Shopping
More

Show only
 Google Checkout
 Free shipping
 New items

Any category
Kitchen Knives
Knife Blocks & Holders
Spatulas
Knife Sharpeners
Multi-function Tools & Knives

Any price
Up to £100
£100 – £200
£200 – £350
Over £350

£ to
£

Any brand
Global

Any store
Lakeland
John Lewis
Cookware Online
Pots and Pans
Barnitts

Global Knives 50% Off - Plus A Free ceramic sharpener Ads
www.milyskitchenstore.co.uk
 milyskitchenstore.co.uk is rated ★★★★★ 38 reviews
 Free UK Delivery No Minimum Order

Low Cost Global Knives | Iceonline.co.uk
www.iceonline.co.uk/Global_Knives
 Global Knives Now From Just £21.53 Free Delivery On Orders Over £50
 Special Offers - Crookery - Clothing - Cooking Equipment

Discount Global Knives - Cheapest in UK. In stock now.
www.knives.co.uk
 No one can beat our prices.

Global 20cm Cook's Knife
 Global Cook's Knives - 5 sizes available. Global knives are made from Cromova 18 stainless steel. Producing a razor sharp edge that lasts longer ...
 ★★★★★ 2 reviews - [Add to Shopping List](#)

Global Utility Knife - 11cm
 The GS Series The GSF Series is made up of smaller knives with solid handles, perfect for peeling, paring and chopping those smaller food items ...
[Add to Shopping List](#)

Global G-21524: 3 Piece Knife Set
 Global G Series 3 Piece Kitchen Knife Set (G-2, Gsf-15 and Gsf-24)The Global G Series of knives have a longer blade and weighted hollow handles ...
[Add to Shopping List](#)

Global 25th Anniversary 3 Piece Special Offer Knife Set
 Beautifully presented in a gift box, the 3 piece 25th Anniversary Set contains the following: G-55 18cm Chefs Knife, GS-61 16cm Bagel / Sandwich ...
[Add to Shopping List](#)

Global GSF-15: 8cm Peeling Knife - Spearpoint Blade
 The GS Series The GSF Series is made up of smaller knives with solid handles, perfect for peeling, paring and chopping those smaller food items ...
[Add to Shopping List](#)

£68
from 18 stores

£28
from 28 stores

£117
from 12 stores

£150
from 9 stores

£26
from 28 stores

Figure 9.21: Example of a Kelkoo search result (as of 25 February 2012)

Brand: Kitchenaid
 Shop for Kitchenaid UK products online and compare Kitchenaid prices with other brands. Kelkoo: helping you find the best Kitchenaid products at the best price online.

Food Processors Kitchen Mixers Kitchenware Juicers

Switch to Grid REFINED RESULTS

Product	Merchant	Price	Availability
KitchenAid JE Citrus Juicer for the KitchenAid Mixer	amazon.co.uk	£33.68	In stock
KitchenAid 5KFPM775BER Red Artisan KitchenAid Food Processor	amazon.co.uk	£295	In stock
KitchenAid 5kfp775ber	comet	£289	In stock
KitchenAid Citrus Juicer Attachment	electric shopping.com	£43.90	In stock
KitchenAid 5KSM150PBCS cocoa silver mixer	HOUSE OF FRASER	£419	In stock

Only 50p
The Sun will come out tomorrow.
 In Britain The Sun comes out every day.

SPONSORED LINKS

- Mixer Kitchenaid**
Save a packet! Compare thousands of products from hundreds of merchants
www.dealtime.co.uk/Mixer+KitchenAid
- Mixer KitchenAid Sale**
Save up to 85% on many items. Mixer KitchenAid Bargains on Sale!
www.pricedumper.co.uk/Mixer+KitchenAid
- KitchenAid**
Compare KitchenAid prices. 100's of products available now!
www.moneysupermarket.com/shopping

Figure 9.22: Kelkoo feed options integrated into Mandoline’s back-office (screenshot, as of 30 June 2009)

Summary Sections **Products** Orders Sub-Orders Logs Content Miscellaneous Newsletter Testing Archive

All Products Products to go Live Featured Products Related Products Knife Shop Related Products Related Products

Product Information:

Back Delete Update

Created By:

Item code:

Name:

Price:

Image: [Current image 'image3410.jpg'. \[Thumb\]](#)
[Replace image](#)
[Edit image](#)
[Remove image](#)

PDF Document: No file uploaded
 Replace with:

Kelkoo/Feed Options:

Manufacturer:

Product Options:

Limit Age?: Yes No

P&P exempt?: Yes No

Order:


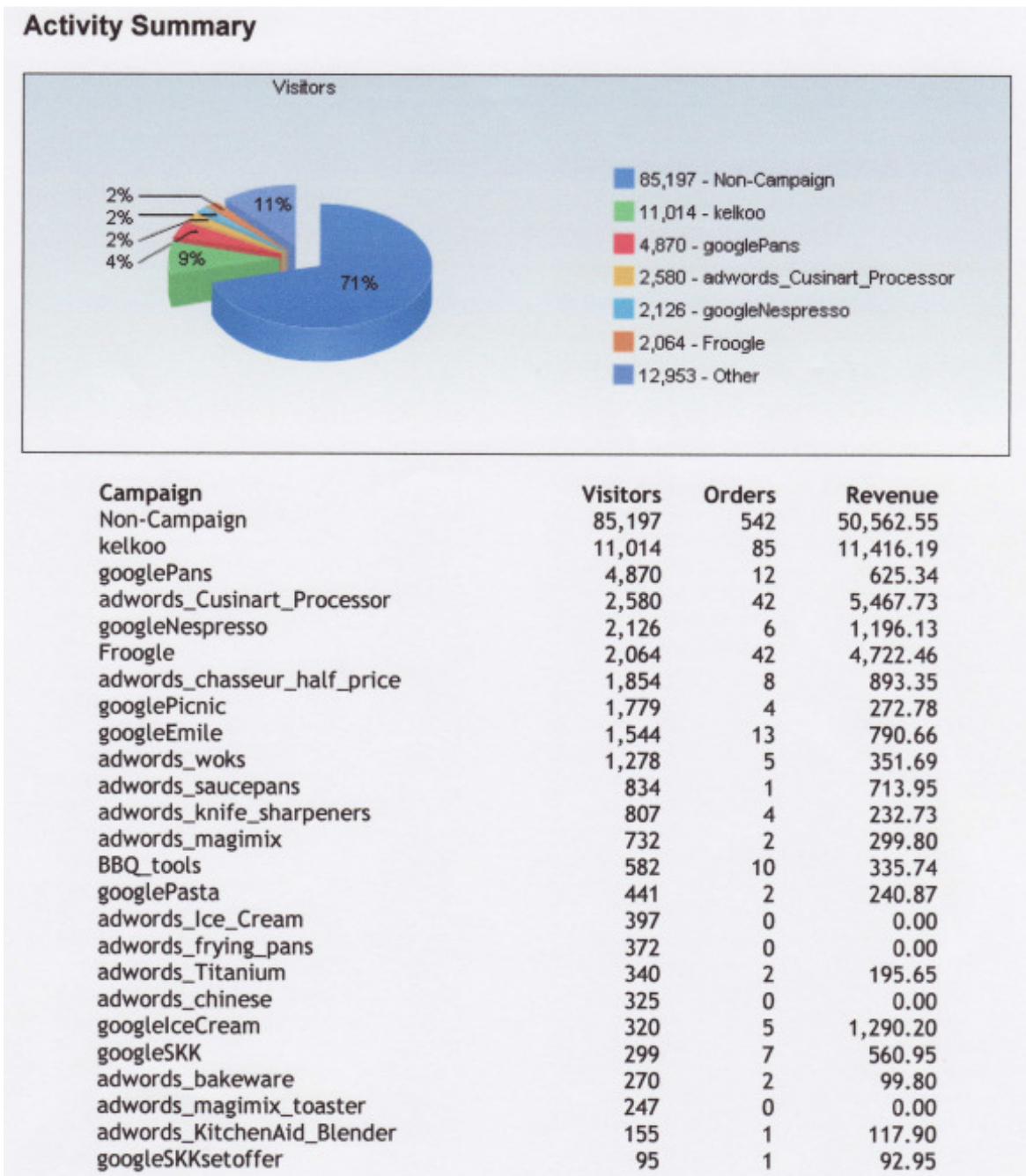


Figure 9.23: A section from FindAs's digital marketing report for Mandoline, Quarter 3, 2008



9.5. Mandoline's marketised e-commerce assemblage

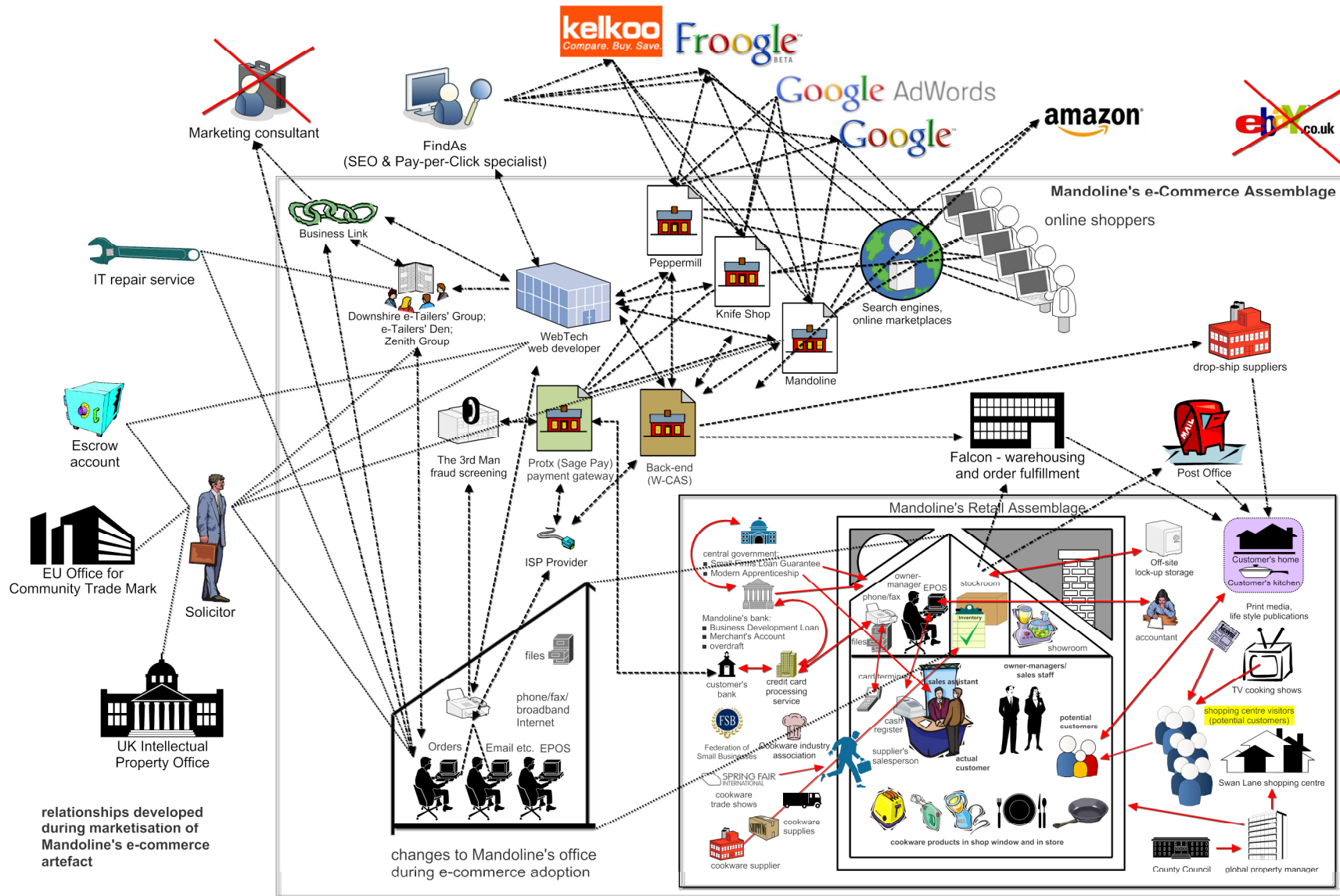
9.5.1. *Stabilising the innovation through marketisation*

The story of Mandoline's search for—and evaluation and acquisition of—an SEO service relationship offers an insight into some of the characteristics of innovation adoption and entrepreneurship, both of which turn out to be intimately connected to market processes. The need for an SEO service shows that Mandoline's e-commerce artefact was not yet fully stabilised and actualised as an innovation until it had become properly connected (by way of electronic linkages) to online marketplaces (search engines and price comparison sites) and thus turned into a functioning *consumer market device*. To stabilise this innovation (the ability to sell online), the Campbells had to acquire a new means of production, the SEO service relationship, and successfully integrate it into their existing assemblage (Figure 9.24 shows Mandoline's e-commerce artefacts as *marketised*, i.e. connected via electronic links to Froogle (Google Shopping), Google AdWords, Google search, and Amazon Marketplace, among others). It was not only the global innovation of e-commerce that was a *new combination of productive means* in the Schumpeterian sense, but so was the now marketised e-commerce assemblage of Mandoline. The Schumpeterian concept of entrepreneurship can be extended all the way down to—and made to include—the process of adoption, as without these rearrangements taking place within the adopting firms there would be no overall Schumpeterian innovation (no e-commerce in this case) to speak of.

9.5.2. *Entrepreneurship and innovation 'diffusion/adoption' as market processes*

At the same time, these simultaneous and overlapping processes of entrepreneurship and innovation diffusion/adoption also had the character of *a market process* all the way until the final act of stabilising the assemblage, which was represented by the managerial decision to retain a competent SEO service as a permanent element (a productive means) of the organisation. On the part of the adopter, this market process of entrepreneurship and innovation diffusion/adoption consisted of the activities of conducting a search for a means of production (e.g. the SEO service), evaluating it, purchasing it, and periodically re-evaluating it to decide whether to retain it, replace it, or abandon it altogether.

Figure 9.24: Mandoline's marketised assemblage



It is important to emphasise that many of the relevant means of production in this case took the form of a long-term supplier relationship, as opposed to a one-off purchase of a piece of capital equipment, which is normally what is meant by the acquisition of productive means in rationalist theories of entrepreneurship. For this reason engaging with the entrepreneurial market for means of production in the e-tail industry is not a singular, foundational act, as these theories would suggest. The complexity, messiness, and intangibility of e-commerce business service relationships (as the productive means of an enterprise) expose the market-related process of acquiring and evaluating them as a fundamentally long-term concern for both the ‘adopters’ of the innovation (the micro-enterprises as EBS buyers) and its ‘diffusers’ (the EBS sellers). The notions of innovation ‘diffusers’ and ‘adopters’ also need to be revised in the case of e-commerce, as there is no ready-made innovation to be diffused and adopted here: the long-term buyer-seller relationship is a co-creative, collaborative process, in the course of which the innovation becomes actualised in the form of a marketised ICT artefact.

The breakdown or underperformance of a service relationship (or any other element of an organisational assemblage for that matter) can trigger the market process of internal qualification and the search for a replacement in the external market any time in the life of a business. In the case of an e-tail start-up or adopter this problem is more acute, due to the novelty of so many of the organisational elements (e.g. the web development service, SEO and other forms of digital marketing services, electronic payment systems, and courier services for physical delivery of goods), which not only have to be effective in themselves but also in combination with each other to sustain the functioning of the e-commerce artefact as a consumer market device.

9.6. Firm as business market device for internal qualification trials

Due to the dearth of organised entrepreneurial marketplaces for EBS services, and the complex nature of the service to be delivered, finding such services and thoroughly evaluating them prior to the purchase decision was challenging to do for a micro-enterprise such as Mandoline. Consequently, most of the evaluation of the various SEO services considered by the Campbells had taken place after the purchase decision, *in situ*, while they were serving parts of Mandoline’s assemblage. In this case Mandoline the firm itself could be considered as fulfilling the function of a *business market device*: a tool (and site) for

evaluating the given SEO service as a B2B market good, and thus contributing to the functioning of the e-commerce business services market. This part of the market process, the on-site evaluation of a newly acquired EBS, could be characterised as an *internal qualification trial*, as it takes place within the firm, as the real-time evaluation of a contracted element of its assemblage. This simultaneously organisational and market process has the character of a trial, ‘a trying out:’ as the longer term retention of a given means of production is dependent on its performance, and it is through this live test that the qualities of the given market good—as well as the qualities of the buyer and the seller, and eventually even of the market device involved—become apparent.

As the subjects of such internal qualification trials, the first two SEO businesses contracted by Mandoline turned out to lack the qualities that were required to suitably marketise its e-commerce artefact, i.e. to associate it persistently with the top end of search engine and price comparison site results. The trial and error process threw up an ‘error’ both times, exposing the given SEO firms as inadequately qualified for the task. The third, this time *external* qualification trial—because it took place outside the firm, at various Business Link events, and prior to it being contracted—was more successful in confirming SEO expertise in the case of Mark Inglesby, but it failed to highlight some other qualities, which, through the subsequent *internal* qualification trial (after the hire), Tom had found unsatisfactory in the end.

FindAs—the SEO service that eventually managed to stabilise Mandoline’s e-commerce assemblage (and its adoption of the innovation) by consistently producing electronic linkages with search engine results that led to an increase in online visitors and customers—was acquired through a *tried and tested and trusted referral*, meaning that its qualities had been thoroughly established through internal trials in Huntley’s own retail business and in the businesses of other WebTech clients, the judgement of whom the Campbells trusted. Mandoline’s own experience with FindAs had further confirmed their qualities and they became a permanent fixture of Mandoline’s e-commerce operation. In this case, it was the commercial network that linked Mandoline to WebTech and its clients that could be said to have acted as a *business market device*, an object that facilitated the functioning of the EBS market. These types of qualified referrals however have been few and far between, which is why Mandoline was left to its own ‘devices’ when it came establishing the qualities of its EBS suppliers.

The internal qualification trials that concerned the acquisition of an SEO service relationship were not the only ones that Tom Campbell as the manager of a retail and e-tail

micro-enterprise had been involved in. On the contrary, Campbell was continuously involved in multiple concurrently running qualification trials, which suggests that managing them was a fundamental task of an e-commerce entrepreneur. Any time the e-commerce assemblage as a whole—or a particular EBS provider—performed below the manager’s expectations, Tom was prompted to engage in the valuation practices that constituted these qualification trials.

The rich picture in Figure 9.24 representing Mandoline’s marketised e-commerce assemblage contains two additional examples of ‘errors’ produced by internal qualification trials that cost Mandoline considerable time and effort and money. One of them was the recruitment of a marketing consultant, who was expected to develop strategies for traditional marketing using off-line media. However, despite charging Mandoline £3500 for his services, he did not produce anything of use for them over a six-month period, and thus the relationship was terminated. Contracting an external partner to run a shop for Mandoline on eBay also turned out to be a loss-making relationship that had to be ended after a single Christmas season. Even the relationship with WebTech had to be re-evaluated from time and again, although having become locked into their proprietary platform created switching costs for Mandoline that eroded the benefits of moving to a competitor. For the above reasons, using one’s own firm as a market device to evaluate services as potential means of production had the distinct disadvantage of being costly both in terms of money and managerial effort, especially in the case of a micro-enterprise or start-up that lacks a large management team to manage such market evaluations. The inadequacy of the micro-enterprise as a business market device for the evaluation of its service supplier relationships through such internal qualification trials can be taken as another possible reason for the market failure that Business Link as a market maker was originally designed to address.

9.7. Conclusion

9.7.1. Typologies of market devices, trials, and referrals

In summary, by following the story of Mandoline’s e-commerce adoption it became possible to identify a variety of objects and activities that connected and constituted the processes of constructing and performing markets, enterprises, and innovations. This description resulted in a typology of these objects, as market devices, and activities, as qualification trials. The marketised e-commerce artefact of Mandoline was an example of a *consumer market device*, geared towards performing an online consumer market in cookware goods. At the same time, Mandoline, the firm, was an example of a *business market device*,

when it was being used to evaluate a business service *in situ* and *in vivo* after contracting it, through an *internal qualification trial*. In contrast, *external qualification trials* were conducted using external sites (other than the evaluating firm) and prior to contracting the service that was being evaluated. In terms of encountering a potential service and a possible subject for internal or external evaluation, Mandoline discovered them either through chance (such as through a cold call) or through referrals by others, which in turn could be either *tried and tested* (and thus prequalified) by a trusted referee or *untested* (lacking information on the quality of the recommended service).

9.7.2. Stages of the e-commerce adoption process

This description has also provided an opportunity to identify the distinct stages of the adoption of e-commerce by a micro-enterprise, which, in turn, can be seen as an extension, actualisation, and fulfilment of the innovation process. The **first stage** of the entrepreneurial process of adopting e-commerce consisted of acquiring an EBS provider relationship for the construction of the requisite e-commerce artefact. In the **second stage** the web developer had constructed the e-commerce artefact with the active co-operation of the retailer, whose business was used as a model for developing not only the e-commerce website but also a platform that could be sold on to other clients. In the case described, the EBS provider (WebTech) was itself adopting e-commerce as an innovation, by the virtue of developing its competence to design such transactional websites. The **next stage** consisted of the retailer searching for, acquiring and evaluating EBS providers for the marketisation of the e-commerce artefact. Marketisation, as the **final stage**, consisted of creating actual electronic linkages between the e-commerce site representing the retail store and online marketplaces provided by search engines and shopping comparison websites. At this point, e-commerce as an innovation could be considered as having been adopted and stabilised as a permanent element of the new combination of productive means that the now multichannel small retailer had become.

9.7.3. The novelty of e-commerce as an innovation

The point here about the marketisation of the e-commerce artefact is that it involves the creation of a new type of association that requires a new type of expertise, and this novelty is an aspect of the innovation. The new type of association and expertise had to do with using the World Wide Web and associated technologies to create linkages between the heterogeneous assemblage that was the small high-street retailer, the online marketplaces

(provided by Internet-based services such as search engines, electronic payment processors, shopping comparison sites), the wholesalers, and the logistics providers, thus enabling new connections with consumers who could reside far beyond the original geographical reach of the aforesaid traditional retailer. The end result of this new gathering is the ability to create new economic value, through the increase of revenues and/or the decrease in costs, thanks to, for instance, increases in competitiveness (e.g. on price), productivity, and return on assets and investment.

The focus of the ANT-led description in this chapter was on how new associations had been created in the course of adopting the innovation of e-commerce by a specific retail micro-enterprise. It transpired from this description that for the entrepreneurial process of creating new associations (what Schumpeter described as the creation of new combinations) to take place, it was necessary for the market participants (Mandoline, as the buyer, and the EBS providers, as sellers) to engage in a series of qualification trials, during which process the firm itself was used as a mechanism for evaluating the EBS services as market goods, which therefore I called a type of *business market device*.

The three iterations of the rich pictures (Figures 9.11, 9.16. and 9.24) provide snapshots of Mandoline's e-commerce adoption process in its various stages, but together they also give a glimpse of how the emergence of this new enterprise (Mandoline as a multichannel retailer) consisted of 1) creating a heterogeneous assemblage and 2) physically (electronically) connecting it to online marketplace providers. I suggested that this particular way of creating these particular types of new associations for the purpose of creating markets (consumer markets for cookware in this case) was an example of *marketisation*. This particular case of marketisation could be referred to as *e-marketisation*, to emphasise that competences relating to the creation of electronic linkages were crucial to this activity, which is what made this a case of innovation adoption.

9.7.4. The preference for external qualification trials

We have seen in this chapter that when formal marketplaces for certain small business services are lacking (which, as we have seen in previous chapters, was one of the main justifications for government intervention in the form of Business Link), a micro-enterprise such as Mandoline resorts to using its own organisation as the market mechanism for evaluating productive means (in this case EBS services). We have also seen that using the firm as a market device can be less than ideal, as internal qualification trials can be an expensive way to identify and weed out incompetent and unsatisfactory service providers.

While acting upon a tried and tested referral from a trusted source (such as Business Link's recommendation of WebTech, or WebTech's recommendation of FindAs) could be a better alternative to hiring an unqualified service and subjecting it to internal qualification trials, such referrals tended to be rare, especially after the government banned Business Link's advisers from making such qualified recommendations.

It would therefore make good business sense for start-ups and micro-enterprises to prefer external qualification trials to internal ones, whenever possible; especially when tried and tested referrals from a trusted source were not available. Indeed, as Mandoline's e-commerce operation grew over the years, Tom Campbell had become increasingly more involved in industry events that offered opportunities to evaluate EBS providers externally, using other venues and organisations as market devices, rather than his own, and prior to the decision to contract them. Tom took every opportunity to attend e-commerce themed Business Link seminars, whether he was actively searching for a new supplier or not. He went along with his web service provider, Jack Huntley, to some of the Internet World expos, where he got to evaluate eVoicePRO. He also joined Huntley in becoming a member of Compass's Downshire e-Tailers' Group in May 2006, and even agreed to be a contestant at the 17th July 2007 e-Tailers' Den heat. These external qualification trials resulted in some significant leads that were later converted to become permanent elements of the Mandoline assemblage. These Compass events, created to address the market failure that Business Link was no longer able to directly deal with, were innovations in their own right, providing marketplaces that served the specific needs of the buyers and sellers of e-commerce business services. I will describe how these peer group meetings and Dragons' Den-like contests functioned as innovative marketplaces for EBS in the next two chapters.

Chapter 10: External qualification trials: e-Tailers' Groups as business market devices

In Chapters 6, 7, and 8 we have seen how public sector bodies and private sector companies had emerged and participated in constructing the various infrastructures necessary for developing and supporting entrepreneurial marketplaces for business services, including EBS. In chapter 9, I had shown—through the history of one particular case of e-commerce adoption, that of the micro-enterprise Mandoline—that individual firms can also serve as devices for the market process of evaluating productive means: by running qualification trials internally. However, we have also seen that such internal qualification trials can be problematic due to the risks and costs they impose on the small firm. Indeed, Mandoline, as well as many other e-tailers observed for this study, had actively sought out industry events that could offer external qualification trials for the evaluation of such capital goods prior to their acquisition. For this reason internal qualification trials are mainly used as the fall-back option in the absence of organised markets for conducting external qualification trials. In this chapter I will follow Mandoline back to the Compass e-Tailers' Group meetings, to examine how this particular type of gathering had functioned as an entrepreneurial marketplace for e-commerce business services (provided by a private sector company this time), and how EBS had themselves become articulated, evaluated and transacted as market goods.

I will also aim to demonstrate that the Compass e-Tailers' Groups served not only as marketplaces for an innovation but were innovations—in market making—in their own right, addressing the specific needs of a business community (the regional e-commerce industry) that could not find answers to their questions anywhere else. By describing the constitution and functioning of this particular type of marketplace, I will continue to develop the typology of market devices and qualification trials that I had begun in the previous chapters. At the same time, by describing the participation of e-tailers and EBS providers in this marketplace, I would also like show that the market processes involved in the acquisition of productive means, and in the associated activities of evaluating, integrating, stabilising, maintaining and replacing them, are fundamental aspects of entrepreneurship that merit a more substantial consideration in entrepreneurship studies than it has been the case to date.

Nevertheless, there is one area of the rationalist economic literature on entrepreneurship that recently had begun to give a much closer attention to the acquisition of

heterogeneous capital goods and to the experimental nature of the entrepreneurial process of evaluating them than the theories of Schumpeter, Kirzner and Burt discussed in Chapter 2 had done. These more recent theories build on Frank Knight's (1921) propositions that it is the *entrepreneur's judgement* that drives entrepreneurship, and this judgement is exercised in a series of experiments in which the qualities of capital goods are discovered and established in the course of the entrepreneurial venture and, more generally, the daily running of any firm (Langlois 2007; Foss and Klein 2012). There are a number of similarities between this argument and the one I have been developing across the previous chapters. However, there are also some significant differences. For Foss and Klein (2012), for instance, the judgement of the entrepreneur (and for them, that means strictly the owner of capital, rather than its manager) is not something that can be delegated to others. This then creates the problem of needing to explain how passive owners exercise entrepreneurial judgement when the capital is managed by others, and how complex decentralised organisations function in the absence of a single decision-making entrepreneur at the centre.

In this chapter I will continue to focus on the case of a single e-tail micro-enterprise (Mandoline) and show that even where the owner and the manager are one and the same person, entrepreneurial judgement about the acquisition of capital goods is often not a singular decision made by an individual but a collective, distributed process that traverses the boundaries of the firm and involves external devices and publics. While the entrepreneurial process can indeed be described as a process of experimentation (as I have already done so in Chapter 9), I will argue that this is not solely an organisational process but simultaneously also a market process, and as such, a social process. The external market devices that I will describe in this (and the next) chapter can be seen to function, by way of the various qualification trials they enable, as socio-technical extensions of an entrepreneurial firm's cognitive mechanisms. The entrepreneurial judgement that results from employing these external cognitive devices is constructed collectively, even if an individual entrepreneur internalises it and makes it his or her own in the end.

In the previous chapter I followed Tom Campbell and Jack Huntley from the site of a Compass's e-Tailers' Group meeting to the object they had constructed together, Mandoline Cookshop Group's e-commerce artefact (the W-CAS back office with the three website front-ends it supported). The investigation in the previous chapter revealed that the entrepreneurial process of needing to stabilise the adopted innovation of e-commerce (both as a technical artefact and as a *consumer market device*) had led Tom (and other managers of e-tailers like him) back into social gatherings of e-tailers, EBS providers, and market makers. Such

gatherings were provided by a variety of governmental, not-for-profit, and for-profit organisations, such as Business Link, South-Net* (an SME networking organisation run by the University of Walford* in Downshire), and local Chambers of Commerce. In this chapter I will focus on one of the services of one private-sector organisation, Compass Ltd., as it turned out to be the most significant market maker in the regional e-commerce arena in the first decade of the 21st century. I will describe how Compass's e-Tailers' Group meetings had functioned as marketplaces for EBS, by following Campbell back to this site.

I will end the chapter by returning to the figure of Simon Jacobs, the entrepreneur behind the Compass e-Tailers' Group and Den formats (the latter will be described in more detail in the next chapter), in order to trace the origins of the competences (in addition to the database-related competences already identified and discussed in Chapter 8) that were required for developing these particular innovations in market making.

10.1. The Compass e-Tailers' Group meeting format

In May 2006, Tom Campbell had joined the newly launched Downshire e-Tailers' Group (where I met him a year later), then run by Business Link, or rather, as we saw in Chapter 8, by Simon Jacobs under the cloak of Business Link—until he took it private at the start of 2007. This was a monthly meeting taking place in Akenfield, Downshire, only a 30-minute drive from Mandoline's shop and office, offering Tom the opportunity to meet other like-minded e-tail entrepreneurs from the region, as well as EBS providers, who acted as visiting speakers at these meetings. As we saw earlier, the requirements for membership were a) a minimum online sales level of £250,000 per year (to ensure that members represented significant businesses of comparable size and with commensurable experiences to share, as part of the peer learning model), and b) the stipulation that a new member should not be a direct competitor of an existing member (so that their rivalry does not undermine the objective of sharing their experiences with the group).

Membership of EBS providers was not allowed either, due to a negative experience Jacobs had early on with two members (one an e-tailer, the other his EBS supplier) falling out over a business relationship, which had affected the dynamic of the group. Nevertheless, a couple of EBS providers had managed to slip through the net, by representing themselves through e-tail businesses they also ran (such as Jack Huntley of WebTech). Jacobs made it clear to these EBS providers that they were not to use these meetings to openly promote their own services. But Campbell considered it a bonus that Huntley was also a member, as it gave

him an opportunity to catch up with him in person on a regular basis. (Reaching Huntley directly by phone, as MD of WebTech, was not always possible. Account relationships within WebTech were delegated to account managers, whom Campbell had not found as responsive or knowledgeable).

It cost a one-off payment of £150 plus VAT to join a Compass e-Tailers' Group, and then £84 + VAT per month for the 11 meetings a year. There was no meeting in December, as it was the e-tailers' busiest month due to the Christmas sales. When joining, new members were given a one-page statement that defined the purpose of the Compass e-Tailers' Group and outlined the methodology it employed. The group's main purpose was "to assist you to take decisive actions in order to treble the market value of your online business within 2 to 3 years." The statement described the format of a typical event as follows:

The first hour provides the opportunity for group members to discuss their current challenges and to mentor each other. The second hour is a presentation by an expert or exemplar, on one of four major themes: Improving Traffic, Improving Conversion, Improving Measurement or Improving the Business. The final hour provides for members to discuss the topic of the month in more depth, to share their own experiences and to commit to their decisive actions.

As we can see, the proceedings and the content were based entirely on the interaction between peers, which included both buyers and sellers of EBS (the latter, referred to above as 'experts,' were also peers in the sense that they tended to be micro-enterprises). The role of the facilitator (Simon Jacobs for all the e-tailers' groups) was restricted to organising the sessions (sending out the invitations, recruiting guest speakers, and managing the time), facilitating the discussions, and conducting some periodic performance management exercises for the members. Although Jacobs described his business on the Compass website as "an executive education" service (and in an interview as "a bit like an alternative business school for entrepreneurs" (20/10/2008)), the 'educating' was done by way of peers mentoring each other. He deliberately eschewed the traditional model of teacher-student relationship, which he considered inappropriate for this type of audience: "I don't want to push that analogy too far because I don't want people thinking of it as a business school" (Ibid.). Compass's approach to peer-learning could be described as *action learning* using case studies (Leitch and Harrison 1999), where members' businesses served as live, real-life case study organisations.

I attended and observed three meetings of the Downshire group between May 2007 and January 2008, ten meetings of the Midsomer group between October 2007 and November 2008 (until its closure by Compass), and fifteen meetings of the 'Continuation' Midsomer e-

Tailers' Group (the self-managed group after its closure by Jacobs) between December 2008 and July 2010. All of these meetings followed the general format initially put in place by Jacobs. Normally a meeting would begin with a round of introductions, mainly for the benefit of the visiting speaker, but also to introduce any other visitors (prospective members or visiting partners or employees of a member firm) or newly joined members. The first hour would deal with "hot issues" that were occupying or preoccupying members at the time. These issues ranged from making sense of the commercial possibilities of newly emerging technologies such as social media (e.g. Facebook or Twitter) to a member discussing his experience of having had his e-commerce website hacked and asking for advice on preventing future security breaches.

The first half of the second hour would usually be dedicated to the visiting speaker's presentation, and the second half to the question-and-answer period. Most of the time the visiting speaker would be a specialist EBS supplier (most commonly a web designer or SEO consultant, but occasionally a lawyer, an accountant, an HR specialist or even a linguist focusing on an aspect of e-commerce). Sometimes the visiting speaker would be a highly successful e-tailer (an exemplar) sharing tips for doing e-commerce. Some meetings did not have a visiting speaker. In those instances Jacobs would have a performance management activity planned, where members reflected on how they had performed on various aspects of managing their e-commerce business in the course of their Compass membership (Figure 10.1 shows the Downshire e-Tailers' Group in the middle of such an exercise). The purpose statement stipulated that

Every three months, Group members review the progress they have made on their respective issues and especially on the key actions proposed at previous sessions. Every 12 months, Groups review the progress each member is making towards trebling the value of their respective on-line businesses.

Finally, the third hour would be reserved mainly for website reviews, during which a member would volunteer to present an existing or work-in-progress part of their e-commerce site, both to share what Jacobs's email circular (cited in Chapter 9) described as "best practice" and to benefit from other members' feedback (in Figure 10.1 a member's website is displayed on the screen in preparation for such a review). (In the previous chapter I mentioned that Tom Campbell himself had presented his work-in-progress website for the Knife Shop in the meeting where I first met him.)

Figure 10.1: Midsomer e-Tailers’ Group meeting in a classroom at Southern University on 19 March 2008 (Source: Compass Ltd.)⁵



The satisfactory implementation of the format of the meeting required particular specifications for the physical sites where they took place. Firstly, the meetings needed to be near populated areas with good transport connections and with convenient parking arrangements to enable easy access for members travelling from a variety of locations across the given county. As most of the members were managing directors of micro-enterprises, there were lots of demands on their time and attention. Secondly, the meetings required relatively cosy spaces, where a small group of people (normally between 12 to 17) would feel sufficiently safe and comfortable to conduct discussions that needed to be kept confidential: “we get very early on this feeling of safety and that this is a place where I can really bring the things that I cannot discuss anywhere else” (Jacobs, 10/9/2007). The Downshire e-Tailers’ Group met in a meeting room (Figure 10.2) at Enterprise House, a business centre complex in Akenfield; while the Midsomer e-Tailers’ Group, launched in October 2007, met in a Southern University classroom (Figure 10.1) in Walmington.

Figure 10.2: Downshire e-Tailers' Group's meeting room at Enterprise House, Akenfield

(Source: Enterprise House website)

(Permission to use this image has been granted by the copyright holder)



New members were asked to sign a commitment form, agreeing to be “an enthusiastic member” and abide by the “five key ground rules of a Compass Group:”

- Confidentiality
- Respect for each other
- Honesty and openness
- Active participation
- Punctuality and frequency of attendance.

These rules were directed at creating an optimal environment for peer learning to take place, which required that members openly and actively share confidential information (within reason) about their own businesses with each other, which in turn required a small enclosed space to shut out the possibility of eavesdropping by non-members (especially competitors).

Jacobs thus explained the role of these rules:

What I'm trying to create here is a structure that is based on the qualities and talent of entrepreneurs who are all so different and difficult to regiment. How can we take those people who are very talented and lacking in boundaries—but with a desperate desire for autonomy and need for creativity—and arrange things so they can really, really flourish? (10/9/2007)

For Jacobs, the ultimate output, “Compass’s product, ... is energised, ethical, effective entrepreneurs” (20/10/2008).

The temporal features of the life of a Compass e-Tailers’ Group were an integral part of its peer-learning model. The monthly meetings offered a recurring and regular opportunity for reflecting —individually and collectively—about the performance of one’s e-commerce operations. Continuing membership over several years also provided the opportunity to observe the evolution of other members’ firms and their relationships with EBS providers, and compare them with the progress of one’s own. If we overlay the temporal aspects of these meetings with the geographical coordinates and trace each individual e-tailer’s journey from their site to these monthly meetings, then these events can be conceived of as star-shaped formations reminiscent of Latour’s (2005) *oligoptica*, discussed in Chapter 4. In other words, they are *centres of calculation*, except in this case much of the calculation involves making qualitative judgements— or, to use Cochoy’s (2008) expression, *qualculations*— about one’s (and each other’s) e-tail operations, and about the offerings of visiting EBS providers.

A catering service was also required to provide refreshments and snacks for the three-hour meeting. Coffee breaks were an important element of the meeting, as they offered an opportunity for bi- and multi-lateral (informal but often commercially sensitive) exchanges between members, for example to offer referrals for EBS providers, and more generally, to reconfirm personal relationships. Finally, the room needed to be equipped with a computer with Internet connection, a digital projector and a large screen (so that e-commerce websites, the main object of interest for the participants, could be seen in good detail), as well as a whiteboard and a flipchart for any additional writing, drawing and display activities (as in the activity captured in Figure 10.1).

The above decisions about the format of e-tailers’ group meetings were made by Simon Jacobs, as part of Compass’s market-making activities. Where has Jacobs acquired the competences necessary to be able to develop such a format? I will return to address this question at the end of the chapter. Before that I would like to examine another question, the answering of which will eventually take us to the source of Jacobs’s competences: *In what sense can the e-tailers’ group meetings be considered marketplaces?* To demonstrate the market mechanisms at work at these peer group meetings, and to show the ways in which they can be simultaneously considered to be part of the entrepreneurial process of constructing and stabilising a new firm *and* the process of diffusing and adopting an innovation, I will first review the outcomes of Mandoline’s interactions with Compass’s

Downshire e-Tailers' Group.

10.2. The e-Tailers' Group as a marketplace for Mandoline

One way Compass e-Tailers' Group meetings functioned as marketplaces was by serving as sources of new EBS providers for the e-tailer members. Such acquisitions of productive means may have started out as referrals (which were often tried and tested by the *internal qualification trials* of fellow members who used their own firms as market devices), or as subjects of the *external qualification trials* these meetings served as an occasion for, such as presentations by guest speaking EBS providers. Mandoline had engaged in a number of market transactions that were initiated at and facilitated by Compass's services. In Chapter 9, Figure 9.24 offered a summary of the key elements of Mandoline's marketised assemblage. It marks the results of several referrals and qualification trials that had originated either at one of the Compass group meetings (first e-Tailers', then Zenith) or at one of the e-Tailers' Den events Tom Campbell had attended as a contestant or as an audience member.

10.2.1. Direct market exchanges: the eBay experiment

For example, in the winter of 2006, Tom went into partnership with James Wallace*, fellow member of the Downshire e-Tailers' Group, who offered to operate a Mandoline shop front on the shopping website eBay, as an additional online outlet for the Campbells. Wallace had substantial experience in using eBay for his car accessories shop (generating £1.2 million annual turnover) and impressed Tom with his knowledge of e-commerce at the group meetings. In other words, Wallace's contributions to the e-Tailers' Group discussions qualified him in Campbell's eyes as a capable e-tailer and promising EBS supplier (which Wallace had effectively become, after he agreed to operate an eBay shop for Mandoline's retail products). The outcome of the subsequent internal qualification trial (now that Wallace had become part of Mandoline's e-commerce assemblage), nonetheless, had produced a negative outcome, and the relationship was terminated after only one Christmas season, because Wallace turned out to be too slow in processing orders for Mandoline:

We had no control over putting products up and taking them off. He was doing it for us, and he wouldn't work quickly enough, and we had a special offer and we run out of stock. (...) We were still getting orders for things that we haven't got. It was awful! (30/7/2007)

Tom was philosophical about the outcome of this particular qualification trial: "It didn't work out. We lost a bit of money, nothing major. But it was experience, learning experience. It could have worked, but it didn't. Not everything works out" (13/3/2009).

10.2.2. Confirming/disconfirming the value of existing elements

While Compass Group members did occasionally market and cross-sell their own services to each other (such as in the above example), such direct exchanges were rare and more of a by-product than the primary marketplace function of the e-tailers' meetings. Other, more significant market functions occurred in a much more subtle form, which was not necessarily always obvious even to the participants themselves: "I've been only going there for just over a year, but it is important because I get a lot of information. You can't see the importance, nothing on paper to show; but it's all information that is absorbed" (Campbell, 13/8/2007).

Some of this 'important information' had to do with the various opportunities these group meetings offered to members to be able to evaluate the performance of their e-commerce firms. Through these evaluation opportunities they could receive *confirmation* or *disconfirmation* about the quality of their e-commerce assemblages as a whole, as well as of their individual elements, and find out about alternatives to replace those elements (if they were judged to be underperforming), or new types of elements to plug any *gaps* that had been identified. As I have established in the previous chapters, these organisational elements in the case of e-tail micro-enterprises and start-ups consisted of the various ICT artefacts and the EBS providers capable of producing and maintaining them.

A *confirmation* would be the positive outcome of an evaluation of an e-tailer's existing organisational element, for example as part of the website review in the third hour of an e-Tailers' Group meeting, which would reassure the entrepreneur about the quality of the EBS provider supplying that element. For instance, Campbell received confirmation from fellow e-tailer group members that the Knife Shop website (Figure 9.1), newly designed and constructed by WebTech, was fit for purpose, when he presented it to them in the 2nd May 2007 meeting. Similarly, Mandoline's e-payment processing routine, especially their particular use of the Protix fraud detection service (Figure 9.15), was confirmed by the group as a highly effective one: "we are a bit paranoid, yeah. But when I go to my e-tailers' club, and I tell them that I had one bad transaction in three and a half years, they can't believe me" (Campbell, 13/8/2007). As the etymology of the word suggests (*confirmare* means 'make firm, establish', from *con-* 'together' + *firmare* 'strengthen'), *confirmation* is apt for describing a social process of stabilising something, in this case the e-commerce artefact (and consequently the entrepreneurial firm itself) (Oxford Dictionary 2015b). However, it was also possible for the external qualification trial of an e-tailer's assemblage to result in a

disconfirmation of the value of an element or the operation as a whole, thus prompting a search for a new EBS provider and the termination of the relationship with the one that proved to be inadequate.

10.2.3. Exposing gaps in the assemblage and articulating market demand

Other times e-Tailers' Group meetings functioned to *expose gaps* in an e-tailer's organisation, by identifying elements that fellow members considered to be lacking in a given e-commerce artefact or assemblage. For example, during a discussion session in 2007 Campbell found out that his business had a major vulnerability because the source code of his website, and indeed all the content stored on the front-end and the back-end, were held by WebTech, which was itself a micro-enterprise. "I hadn't realised until I've met colleagues in the e-commerce meetings: ... if a meteorite dropped on WebTech, I've got no business" (Campbell 30/7/2007). He then learnt from fellow members that what he needed to do to mitigate this risk was to set up an escrow agreement with WebTech, so that a solicitor could hold the source code on their behalf (digitally on a disk), only giving Campbell access to it if WebTech failed to provide its service during the contractual period due to some sort of a catastrophic event (such as a bankruptcy or a natural disaster). The source code and the copy of the front- and back-ends of the website should allow Mandoline to recreate the websites with the help of a new web developer.

This then resulted in a new service relationship for Mandoline's assemblage (Figure 9.24) in the form of a solicitor, who, besides holding onto the source code, had also implemented another suggestion of the e-Tailers' Group, by registering Mandoline's trademarks in the UK and in the EU, to prevent competitors from exploiting the brand-name, especially as sales from the EU continued to increase. Both of these new elements (the escrow account and the trademark registration) were aimed at stabilising the adopted innovation and the resulting new enterprise, by reducing specific risks that could damage the functioning of Mandoline's e-commerce assemblage. Moreover, they were both the outcome of a collective assessment of Mandoline's operations at the e-Tailers' Group meetings. The market function thus is apparent above in the activities of 1) evaluating the existing elements of an e-tailer (or identifying missing ones) and qualifying the business as a possible buyer (by articulating the organisational need for the new means of production and thus creating market demand for it), and 2) offering tried and tested referrals for possible EBS provider relationships to be acquired for producing the needed new service (and thus mediating market

supply).

10.2.4. Network for producing qualified referrals and mediating market supply

Mandoline had made a number of successful *acquisitions* of means of production (in the form of contracted EBS relationships) via the e-Tailers' Group, both for constructing ICT artefacts and for marketising them, in order to create and stabilise a functioning and productive e-commerce assemblage. Sometimes the prompt for considering the acquisition of a new EBS relationship arose from the convincing performance of an EBS guest speaker at one of the e-Tailers' Group meetings. Other times the e-Tailers' Group meeting could serve as a node in a network of peers for the mediation of tried and tested referrals, in effect by sharing the outcomes of their internal qualification trials with their network members. For instance, it was at an e-Tailers' meeting in the spring of 2007 that Tom ran into Robert Lee*, a WebTech employee, who was attending on behalf of his boss, Jack Huntley, who couldn't make that particular session. Robert mentioned it to Tom that Peppermill (Figure 9.12), a local cookware e-tail competitor of Mandoline, was up for sale. After Tom showed an interest, Robert was able to mediate between the Peppermill owner and Tom, and after some due diligence the Peppermill website was purchased and added to Mandoline's e-commerce portfolio. This transaction had also resulted in new business for WebTech, as they were the obvious and most convenient choice for an EBS provider who would be best suited to integrate Peppermill's front-end with Mandoline's existing W-CAS back-end (which was a proprietary WebTech artefact and service). Campbell referred to this market characteristic of the e-Tailers' Group as "a source of networking" (13/8/2007). In this case this meant that the e-Tailers' Group (as a "network") performed the function of a marketplace, by allowing for the mediation necessary for buyers and sellers to encounter each other, in this case to trade an e-commerce artefact (the Peppermill website), but also sell the EBS service (WebTech) that was necessary for attaching it to the buyer's e-commerce assemblage (the Mandoline front-end and back-end) by technical means.

10.2.5. Acquiring new means of production

The process of *acquisition*, as an outcome of the interactions enabled by peer group meetings such as those of the Compass e-Tailers' Groups, needs to be understood as a complex process that is social, material, and cognitive all at the same time, connecting the site of the firm with the site of the market. It occurs at the overlap of 1) the entrepreneurial

and organisational activities of gathering new elements and integrating them into the firm's assemblage, and 2) the market activities of finding, evaluating and contracting the services that provide these elements, on the other. Indeed, the dictionary definition and etymology of the verb *acquire* already reflects this hybridity and complexity of meaning: "to acquire" has the material connotation of 'buying or obtaining an object' and the cognitive connotation of 'learning or developing a skill or a quality' (Oxford Dictionary 2015a). This duality of meaning helps to get across the fact that the acquisition of EBS I have been describing is simultaneously a process of buying an 'object' (the ICT artefact and the expertise required to produce it) and a process of learning about this 'object' (the EBS as a market good), which refers to the evaluative activities needed for developing the qualities of the seller, the buyer, and the market good involved. We have seen that this learning process is a fundamentally social process, occurring at peer group meetings, seminars and conferences. The Latin root *acquirere* 'get in addition', from *ad-* 'to' + *quaerere* 'seek' also expresses the idea that this process involves searching for something that can be added to an existing entity, in our case the retail or e-tail assemblage that constitutes the firm (Ibid.).

The market processes that produce *confirmation/disconfirmation*, provide *referrals* and facilitate *acquisitions* were not confined to the Compass e-Tailers' Groups. In fact, in some cases they were even more visible in the Compass e-Tailers' Den events. In the next chapter I will follow Campbell to one of the Dens, in order to describe in more detail the mechanics of the qualification trials as market processes, and also to outline the differences between these two types of market devices. While the e-Tailers' Groups facilitated these market functions through the technology of a *semi-private* enclosure (which created the necessary safe haven for confidential reflection and sharing of advice), the e-Tailers' Dens operated on an almost antithetical principle, conducting external qualification trials in a *semi-public* or even entirely *public* space. (Although the event was only available for paying visitors, anybody could buy a ticket to attend, and audio recordings of the proceedings were published on the Internet.)

10.3. Trials and tests: Simon Jacobs's market making competences

Having discussed in this chapter some of the ways in which one of Compass Ltd.'s main services, its entrepreneurial peer groups, had functioned as business market devices for the qualification of buyers, sellers, and the market goods (the EBS service relationship), one

question still remains unanswered: where and how did Simon Jacobs acquire the competences to be able to design and operate such marketplaces? In Chapter 8 I have already discussed how he had come to develop his database and direct marketing related competences for gathering a large number of contacts in the e-commerce industry over time, which in turn had enabled him to develop close relationships with some key players in the region, who later served both as suppliers (guest speakers, panellists, masterclass holders) for his market making activities and also as his business customers.

The story of Jacobs's unique database-related skills, however, still does not explain how he was able to come up with the particular formats of the entrepreneurial peer group and the e-Tailers' Den, which had enabled the Compass organisation (at BLS and afterwards) to become the dominant player in the SME executive education market (and especially in the e-commerce sector) for some years, in a region otherwise well served with university business schools and other industry organisations, such as Chambers of Commerce or the Institute of Directors. To locate the source of competences that allowed Jacobs to design both the peer groups and the Den conferences around the combined mechanisms of collective *entrepreneurial reflection* and *qualification trials* of market participants (buyers, sellers, and the goods), it is necessary to trace Jacobs's personal history with reflection (especially entrepreneurial reflection) and trials (or tests).

In Chapter 8 I mentioned that Jacobs had gathered and honed his database-related competences in the course of three different careers: in the military, during his entrepreneurial venture, and then as a Business Link adviser. What I did not mention is that the three careers each followed a similar pattern of boom and bust, from very high levels of achievement and recognition (which included being invited to dine with the Queen) to extreme states of dejection and disengagement, which led to the breakup of two marriages, and seven years of being unemployed. At one point he was living on incapacity benefits due to the severity of his depression, and he thought he would never work again. These experiences of extreme cycles of success and failure (which metaphorically speaking could themselves be considered to be a form of being tested, through a series of trials and tribulations) had led Jacobs on a lifelong journey of reflection, looking for the causes of these patterns, so he could prevent them from recurring. In some ways, the techniques of entrepreneurial reflection deployed in the Compass peer groups and den events were a by-product of this personal quest for self-improvement; in other ways, they were also informed by the testing regimes that Jacobs had appealed to—or was subjected to—as part of his search for a new career each time.

The “testing regimes” I am referring to are various forms of psychological assessments and psychometric tests that Jacobs was evaluated with by various institutions. The outcomes of these tests had informed his subsequent decisions, as well as his understanding of himself as an entrepreneur, and of the entrepreneurial type, for which he had developed his own theory of entrepreneurship that he was subsequently able to draw on for designing the Compass peer groups and den events. Moreover, he had some expertise in psychology himself, having received training and worked in the area of Psychological Operations in the armed forces. Already in the army, as his military career and first marriage had started to fall apart when he was 28, he was identified as “an obsessive personality” who worked hard “to relieve his depression and occasional thoughts of suicide” (source: army medical report).

After leaving the army, it was another psychological assessment that nudged him towards a career in business:

the next question was, “Well, what am I going to do?” ... So I went to see an industrial psychologist and he said “I think you should go into production management.” ... I felt physically sick. I remember, after leaving this guy and walking down the streets of London, wanting to vomit! (video of Jacobs’s lecture at Northern University*, July 1999)

Nevertheless, he took the psychologist’s advice and went on to a very successful career as an entrepreneur. During this time he continued to be involved in “entrepreneurial reflection”, by undertaking executive education courses at leading business schools, using his own business as the case study, and by becoming the subject of various tests of organisational and managerial behaviour, such as the Warren Lamb Action Profiling test (Lamb 1985), to improve his own management skills.

This career also ended in disaster 12 years later, with Jacobs abandoning his business and divorcing his second wife, which left him in a state of depression and bankruptcy:

It was similar to the trauma of leaving the army but it was worse. It was even more devastating because by this stage I had been married for seven years. I have three children, I had a house, and I had a business. I had reputation... And, so, for a long time, I was a bit lost and trying to put my life back together again, trying to heal myself. (2/3/2009)

The healing process included a four and a half year period of intense and organised reflection while staying at a New Age community in Scotland:

I did a lot of workshops, but basically it was about me. And most of the New Age kind of stuff is essentially ‘me focused’, it’s about how to be a ‘better me’ and a ‘more peaceful me’ and a ‘nicer me’ and things like that. I got a lot from being there. I am not at all resentful about it. In fact I’m pleased in a way about everything. It’s all been grist for the mill, all been learning. (Ibid.)

These workshops could be taken as an early experience for Jacobs with a format of organised, collective reflection.

During his stay at the New Age community, he also had a religious experience, which allowed him to reconnect with his Catholic faith that he abandoned in his teenage years. As part of the process of re-conversion (set off by a sudden mystical vision and followed by years of intense religious study), Jacobs engaged in further processes of reflection and soul searching that had allowed him to identify both the root of his problems (a childhood experience of abuse) and the self-destructive patterns of behaviour that dealing with this childhood trauma had led him to. He came to acknowledge that he had multiple forms of complex addictions, which he needed help to deal with. (In fact, the recognition of these cycles of self-destruction came to him during another exercise of self-reflection, while he was lecturing about the entrepreneurial personality (using his own entrepreneurial career as a case study) to bankers at an executive education course at Northern University Business School*, where he worked as a visiting lecturer for several years following his stay at the New Age community.)

The help for Jacobs's numerous addictions came in the form of the Twelve-Step Recovery Programme, the original and most well-known of which is the Alcoholics Anonymous (AA) (2001 [1939], 2008 [1952]) fellowship. Addiction recovery methods that follow the 12-step programme share a number of characteristics: they are based on 12 guiding principles, they have a spiritual dimension (that is nonetheless non-denominational), and they require abstinence from the given compulsive behaviour. Every addict is assigned a mentor (called "sponsor"), who is a more experienced recovering addict. Finally, there are regular meetings of local chapters where members get to share their experiences and support each other in a confidential setting. Jacobs joined several such fellowships for his various addictions, and going to chapter meetings and interacting with "sponsors" and "sponsees" (to use Jacobs's term) had become part of his daily routine for the 19 years leading up to this study.

It should now become fairly obvious that the Compass Group model owed a lot to the 12-step programme. They were both based on peer learning that took place in a confidential environment at regular intervals, using a confessional format, whereby members form a circle and take turns to reflect on their experiences, and where individual members can receive focused attention and feedback (mentoring) from the group. As Jacobs confirmed, "yes, Compass groups were very much influenced by 12-step thinking and practice. The whole idea of support groups, therapy groups, having a spiritual basis for things, all of that, tended to

come into my life from the 12 steps” (26/1/2011). Moreover, Jacobs had become convinced that the entrepreneurial personality shares some fundamental features with the personality type of the typical addict: “I recognise that in other entrepreneurs... Most of the people that I can think of from my Compass days, they’ve got some kind of obsessive-compulsive sort of behaviour” (Ibid.). This observation had formed the central tenet of Jacobs’s own entrepreneurship theory (alongside his other observation that entrepreneurs are fundamentally lonely and require each other’s company), which he then used for developing the Compass organisation.

In summary, the core of the Compass business idea was based on Jacobs’s own experiences of being tested and needing to reflect on patterns of behaviour. The Compass model involved building communities of entrepreneurs who can mentor each other, thus serving as devices for collective reflection, support, and construction. These reflexive social devices at the same time also enabled the performance of some market mechanisms. Jacobs actively sought out situations of reflection and public evaluation in practically every aspect of his life. As we saw in Chapter 8, Jacobs set up the Compass groups out of his own initiative, over and above—and even despite—his workplace duties at Business Link. When not at work, he was attending 12-step fellowship meetings four times a week, as well as various church services. In his free time, he also organised mini versions of the e-Tailers’ Den event at his house to help Polish immigrants he met at church improve their job search and interviewing skills. He also made himself and his various businesses readily available for academic research. Northern University had developed and published a Harvard-style case study about Wilderness Essentials, Jacobs’s first business. While I was studying his Compass organisation, he had two other academics (independently from each other) studying various aspects of his business or his personality (in one case resulting in an international conference paper).

Finally, Jacobs continued to be subjected to various personality tests as he kept applying for various jobs over the years, such as a Thomas International personal profile analysis in 1998, an Axium Discus test in 2007, or a Belbin Team Inventory test in 2009, which gave him further opportunities to be assessed. Most of these tests tended to confirm the outcome of Jacobs’s own investigations, namely, the obsessive-compulsive nature of his personality that was better suited for entrepreneurial projects than working in large bureaucratic organisations. Most often than not, he remained unsuccessful in these promotion and job opportunities, which may have been a factor in him deciding to launch Compass Ltd. as his final entrepreneurial project, and leave behind the bureaucratic setting of Business Link

for good. After his retirement from Compass Ltd., Jacobs had dedicated himself to his work with his 12-step fellowships, becoming the global co-ordinator for one of them, which had allowed him to travel frequently and set up local chapters around the world, translating once more the entrepreneurial skills and expertise in reflection (that he had developed in his earlier careers) to yet another domain.

10.4. Conclusion

In this chapter I continued to pursue the overall research question about how entrepreneurial markets for innovations emerge and operate in a developed economy, by following the main actors of the entrepreneurial, innovating, and market-making activities that involved the construction of the regional e-commerce market in Southern England. More precisely, I traced the ways in which one specific e-tail micro-enterprise, Mandoline, had become involved in one of Compass Ltd.'s services, the Downshire e-Tailers' Group, and used it as a *business market device* for *external qualification trials* to evaluate both its own e-commerce assemblage and the offerings of prospective EBS providers (as opposed to using its own firm as a market device for internal qualification trials, which were described in the previous chapter). This tracing then also provided an opportunity to describe the emergence, constitution and functioning of this particular business market device.

Besides demonstrating that the Compass e-Tailers' Group meetings functioned as a type of market device, the other objective of this chapter was to show that this Compass service was an innovation in its own right, in the area of market-making. The development of this market device was partly a response to Business Link's failure to address some of the market-related needs of retail micro-enterprises, as adopters of the innovation of e-commerce that called for new types of competences, which in turn were provided by a new breed of suppliers, who were hard to find and evaluate. Taking Schumpeter's definition of innovation, Compass's services can be described as new combinations of productive means. The e-Tailers' Group combined the features of a range of entities, including those of traditional business clubs, university seminar classes, Business Link seminars with visiting speakers, board of directors' meetings, and the 12-step fellowship format of Alcoholics Anonymous. This idiosyncratic new combination enabled its participants to carry out activities and produce outputs that turned it into a market device for the qualification of the various market participants involved, and for the facilitation of market transactions concerning an innovation, e-commerce.

The description of the Compass e-Tailers' Group meetings in this chapter had allowed for the articulation of the composition of this market device, the qualification trials it enabled, and the outputs it produced, which in turn allows for the development of a typology of market devices, qualification trials and their outcomes, which I will summarise in Chapter 12, the Conclusions chapter. Before that, however, I will continue the tracing of Tom Campbell's journey to one of Compass's e-Tailers' Den events, where he participated as a contestant and underwent yet another type of qualification trial at an external site that served as yet another kind of market device.

Chapter 11: External qualification trials: e-Tailers’ Dens as business market devices

Having joined Compass’s Downshire e-Tailers’ Group in May 2006, Tom Campbell of Mandoline had been an active member for a year by the time Simon Jacobs launched the first e-Tailers’ Den series on 15 May 2007. Campbell attended several of these Den events, and he also agreed to become one of the presenters in Heat 4 on 17 July 2007. In this chapter I will follow Campbell to the site of this particular e-Tailers’ Den event and describe both the nature of his engagement there and the way this event had emerged as a socio-technical device for the performance of a marketplace for e-commerce business services. Just like I had done with the e-Tailers’ Group in the previous chapter, I would like to show that the Compass e-Tailers’ Den was itself an innovation in market making, for the diffusion/adoption of another innovation, that of e-commerce, specifically by start-ups and small firms.

In this chapter I will identify the key constituents of the e-Tailers’ Den as a *business market device*, describe its method of functioning (the *external qualification trials* it was running), and identify its outputs. I will argue that the e-Tailers’ Den served as a social device for assisting the type of entrepreneurial judgement about the acquisition of productive means that Foss and Klein (2012) posit at the heart of the entrepreneurial process. The description of the e-Tailers’ Den as a market device in the following will provide an opportunity for comparing and contrasting it with the make-up, functioning and outputs of the e-Tailers’ Groups, as another type of a market device described in the previous chapter, thus allowing for the development of a number of typologies of these market phenomena.

11.1. The e-Tailers’ Den format

In previous chapters I have already made references to the e-Tailers’ Den events, and in Chapter 8 (Section 8.3.1.1.) I touched upon some of its main characteristics, while discussing the main elements of Compass Ltd. as an entrepreneurial market-making organisation. I mentioned that for Simon Jacobs, the e-Tailers’ Den event was part of a business model that he compared to a “three-layer cake,” where the role of the Den (as the bottom layer of the ‘cake’) was to show off Compass’s services to the e-tailing business community, in order to recruit new members for the e-Tailers’ Groups (which constituted the second layer of the ‘cake’). Before showing how it functions as a marketplace (by describing

the participation of Mandoline and other e-tailers), in this section I will first outline the key elements of the e-Tailers' Den format and the brief history of its emergence.

11.1.1. BBC Two's Dragons' Den: the format and its impact

The name "e-Tailers' Den" is an allusion to the popular BBC Two television series, *Dragons' Den* (Figure 11.1), from which some elements of its format were borrowed. The first episode of *Dragons' Den* was broadcast in January 2005, and by the time of the first e-Tailers' Den heat in May 2007, four series with a total of 26 episodes had been shown in Britain (Wikipedia 2015). Episodes of the 2006 series were among the most watched television programmes on the BBC, viewed by 3.12 million people on average (BARB 2015). The show originated in Japan, and the format is owned by Sony Pictures (PRNewswire 2005).

Figure 11.1: Screenshot of BBC Two's (2014) Dragons' Den programme website



The BBC website describes the show as a "Series in which budding entrepreneurs get three minutes to pitch their business ideas to five multi-millionaires willing to invest their own

cash” (BBC 2015). Figure 11.2 shows the layout in which the presentations take place, with the presenting entrepreneurs standing in front of the five seated ‘dragons,’ as they came to be known. After a presentation, dragons take turns to question the entrepreneurs, and thus a competitive process of evaluating the investment opportunity unfolds, ending with a decision to invest—or not to invest—in the given business, in exchange for a share of equity in the business.

Figure 11.2: The layout of a typical contestant presentation, with the dragons observing (screenshot of Episode 2, Series 8, *Dragons’ Den*, BBC Two)



The popularity and impact of the *Dragons’ Den* programme reached far beyond British viewers’ living rooms. The show had become a cultural point of reference, providing an entertaining view onto the world of innovation and entrepreneurship. Besides becoming household names, its protagonists (especially the dragons, but also many of the presenters) had become frequent visitors at business events across the country. For instance, they came out in force at the 26-27 November 2009 Business Startup Show (an entrepreneurship expo) held at Olympia, London, with both dragons and ex-contestants holding seminars (Doug Richard, Richard Farleigh, Julie Meyer, Rachael Elnough, and Levi Roots), exhibiting (Doug Richard), and filling the Show Guide (2009) with interviews (with a front cover showing perhaps the most famous former contestant Levi Roots holding two bottles of his *Dragons’ Den* winning Reggae Reggae Sauce (Figure 11.3)).

Figure 11.3: Front cover of 2009 *Business Startup Show Guide* with Levi Roots, former Dragons' Den contestant

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Some of the dragons had even gone on to pursue high profile political projects. In 2008, Doug Richard was invited by David Cameron, then Conservative Leader of the Opposition, to chair the Small Business Task Force to review the state of business support in the UK (Richard 2008). The resulting Richard Report was highly critical of the existing arrangements. One of its main recommendations was to shut down Business Link, which provided ammunition for the newly elected Conservative-led government in 2010 to justify its closure (Forte 2011). In 2009, Peter Jones agreed to lead a review into the state of entrepreneurship education for John Denham, Secretary of State for Innovation, Universities and Skills in the Labour government (NCGE 2009). In 2012, the Conservative-led government this time asked Richard again to review the future of apprenticeships (Tobin 2012). Another dragon, James Caan, in 2012 became Chairman of the UK Government's Start Up Loans Scheme, set up "to provide advice, business loans and mentoring to startup businesses," in effect to attempt to fill some of the gaps left by the closure of Business Link (Start Up Loans 2015). A year later he was also appointed "social mobility tsar" by Nick Clegg, Leader of the Liberal Democrats and Deputy Prime Minister (Rigby and Hammond 2013).

However, it wasn't just the individuals that became popularly known as a result of the BBC show. After the first couple of seasons, there was a veritable explosion in Britain in the use of the Dragons' Den type contest for the encouragement and evaluation of innovative and entrepreneurial ideas and projects in a range of settings. The format—combining competition with informative performances in public, and creating opportunities for both tension and entertaining moments—lent itself well to evaluations in a cultural context where contest-based reality television shows had become increasingly popular. In the years that followed, it became almost impossible to turn on the television and not to come across a reality show on one of the channels using some variation of a competition where participants are set tasks and are evaluated by a panel of judges, by each other, and sometimes also by the voting public. For instance, a look at the TV Guide on a randomly selected date (22 October 2011) listed 38 such programmes on the day on freely available terrestrial and digital channels in the UK, including titles such as *Celebrity MasterChef*, *Strictly Come Dancing*, *The Great British Bake Off*, *The X Factor*, *Come Dine with Me*, *Big Brother*, *Football's Next Star*, *Showboaters* (cruise ship entertainers), *Britain's Hardest*, *Great British Hairdresser*, *America's Next Top Model*, *Signed By Katie Price* (glamour models), *The Biggest Loser* (overweight contestants), and of course *Dragons' Den* (TV Guide 2011). In other words, the Great British public had become very familiar with the format of shows involving qualification trials, which likely had

helped the proliferation of Dragons' Den style events outside the television set and viewers' living rooms.

I have collected more examples than there is room to recount here, so let me just list the different settings in which Dragons' Den style competitions had been deployed in subsequent years in the UK, to give an idea of the diversity of this format's uses. The most obvious applications were in the business context, to use it to obtain business angel financing (e.g. at the East Sussex Enterprise Hub (2009)), or for businesses to give back to the community (e.g. MITIE (2011), the outsourcing group, offered equity finance to former public sector workers—whose redundancy it may have caused—to start their businesses), or to promote a business's services (e.g. Prupim asset manager offered “a funding package to open a shop at the Wellgate Shopping Centre in Dundee” (Chesters 2009)). The format was also used for public mentoring of entrepreneurs by Regional Development Agencies (e.g. the “If We Can, You Can” competition to find the “best entrepreneur” in South Tyneside (Hughes 2009)), charities (e.g. the Prince's Trust (Prospects 2009)), and local government (e.g. Cardiff Council (James 2009)).

Educational establishments at almost all levels had taken to the format, especially universities (e.g. FLUX (2009), an annual inter-university student enterprise and employability competition), but also secondary schools (e.g. Oak Farm School pupils from Hampshire at the Head Offices of Sun Microsystems (Donegan 2009)) and primary schools (e.g. Northmuir Primary School pupils raising funds to help build a school in Uganda (Kirriemuir Herald 2009)). It wasn't just students who ended up competing in Dragons' Den style events. Research funding bodies used it to make university researchers compete for research funds (e.g. at the Engineering and Physical Sciences Research Council (EPSRC 2006)). Awards to recognise scientific innovations also used the Dragons' Den format (e.g. the Medical Futures Innovation Awards won by a surgeon from Brighton (BSU 2009)). Some more unusual applications could be found in the charitable sector (e.g. Wigan Rotary Club selecting beneficiaries for charitable donations (Wigan Council 2009)), and in politics (e.g. David Cameron introducing it to select new policy ideas at the Conservative Party conference (Politics.co.uk 2006)).

Besides giving examples for the proliferation of the Dragons' Den format, the above list also helps illustrate the methodological point made in Chapter 4: when one is describing a single concrete case, it is not merely a study of the *specific* but it also already contains elements of the *general*. I am referring to Latour et al.'s (2012) use of Tarde's monadology, whereby a 'monad' (or actor-network, in Latour's language) is not simply a micro unit

contained by the macro: rather, the micro already contains elements of the macro phenomenon that it is constructing. “The small holds the big,” as Latour (2005: 243) put it. In this case, describing a single e-Tailers’ Den as a particular event is simultaneously an act of describing the ‘general’, i.e. the Dragons’ Den schema that had been deployed throughout the UK (and even taken abroad, e.g. by Richard Branson to the Branson School of Entrepreneurship in South Africa (Constantine 2009)), and the type of economic activities it helped engender.

11.1.2. Compass’s adoption of the Dragons’ Den format

Ironically, Jacobs had never seen the television show. He did not own a TV set, as he considered watching television a negative influence on his on-going and long-term recovery from a variety of addictions that he had suffered throughout his life. (As we saw in Chapter 10, Jacobs’s experiences of addiction and recovery played an important role in the development of Compass services). He borrowed the Dragons’ Den idea from a member of his Downshire e-Tailers’ Group, who, together with a colleague and under the aegis of the Downshire Institute of Directors (IoD) (a UK-wide association representing company directors), had organised the first series of Coach Live!* in 2006, a public mentoring event fashioned after the BBC programme. Coach Live! was promoted as a friendlier version of the Dragons’ Den (which was notorious for the harsh critique meted out to presenters deemed to be undeserving), “in that the Mentors are very positive and want to help build the presenting companies” (as one of the Coach Live! mentors’ website stated). This kind of distancing from the negativity of the television version was common to the various adoptions of the Dragons’ Den format.

Jacobs admitted later that his ‘borrowing’ of the format from Coach Live! was not entirely above board: “I stole the idea from them; applying it to e-commerce was my contribution to that. ... [They] were not pleased about that. Oh, well, eggs and omelettes come to mind” (9/6/2009). Having organised the e-Suppliers’ Forum and the e-Fair at Business Link before, Jacobs saw the Coach Live! format as an excellent way of synthesising the two, by bringing EBS providers (the sellers) and e-tailers (the buyers) together in an event that combines business, education, and entertainment: “when I saw Coach Live! being run, they had worked out a lot of the technical problems, so I had the template...” (Ibid.). Coach Live! used a panel of experts (successful entrepreneurs from Downshire); there were business angels looking for investment opportunities, and SME owner-managers presenting with the help of a PowerPoint projector (Figure 11.4). There was also a dinner break that provided

additional networking opportunities (Figure 11.5). (Incidentally, the photo in Figure 11.5 includes Ben Wooldridge of DigitAll Ltd., guest speaker at the 12/12 Business Link event described in Chapters 6 and 7. It was very common for the main EBS providers of the region to regularly turn up and participate in a wide variety of industry events throughout the year across the two neighbouring counties).

Figure 11.4: A presenter at Heat 2 of the 9 July 2008 Coach Live! event, with screen and panel members in the background⁷



Figure 11.5: Dinner break at Heat 2 of the 9 July 2008 Coach Live! event⁷



⁷ Source: Coach Live! website. (Permission to use these photographs has been granted by the copyright holder. Credit: Michel Focard Photography)

While Jacobs's adopted and adapted e-Tailers' Den format did follow the basic Dragons' Den idea of less experienced entrepreneurs presenting to a panel of highly experienced and successful entrepreneurs (Figure 11.2), there were also some significant differences. Firstly, panel members at the e-Tailers' Den were not business angels looking to invest, as was the case with the BBC show (and to some extent even with Coach Live!), but successful EBS and e-tail entrepreneurs or managers at major EBS providers, whose primary task was to mentor the presenting e-tail micro-entrepreneurs. Secondly, the presentations took place in front of a live audience of other e-tail and EBS micro-enterprises from the region who actively participated in the proceedings (e.g. by joining in the mentoring (Figure 11.6) or voting for their favourite presentation (Figure 11.7)), as opposed to the passive role of the television viewer of the BBC version. The panellists and masterclass holders at an e-Tailers' Den provided their services for free. However, they were compensated in kind, by being able to publicise their own services to the assembled audience. The mentored e-tailers were also potential customers of their services. In this sense, the e-Tailers' Den worked as a kind of a marketplace for promoting the panellists' and masterclass holders' own services.

Figure 11.6: An audience member contributing at a Compass e-Tailers' Den event at Southern University in 2008 (Source: Compass Ltd.)⁵



Figure 11.7: Audience vote for their favourite presentation at a Compass e-Tailers' Den event at Southern University in 2008 (Source: Compass Ltd.)⁵



Thirdly, the e-Tailers' Den series was structured as a competition consisting of four heats, with the winner of each heat going to the fifth event. In the Final, contestants were to demonstrate how they had implemented the advice they received during their heat presentations and under the tutelage of one of the expert panellists, thus incorporating an active model of learning into the format (Leitch and Harrison 1999). The criteria for selecting the winners were somewhat vague and left to the discretion of the judges:

WHO WILL WIN? - The panel will award one prize to "the business with the most potential for development as a web operation" and another to "the business which has made the best use of the advice given to it by the e-Tailers' Den panel". (Compass email, 7/8/2008)

A variety of prizes were handed out to winners at each event (Figure 11.8), sponsored by EBS providers, thus creating another opportunity for them to use the event as a marketplace. In the 2008 series prizes included a £6000 server storage package, £2500 worth of web development work (from SoftStar Media*, the company of one of the panellists), a pay-per-click campaign consultancy worth £1500 (from eBrandCom*, also a panellist's company), and a Compass e-Tailers' Group annual membership worth £1000.

Figure 11.8: Winner of Heat 4 of Series 2 Compass e-Tailers' Den receives prize from sponsor at Southern University on 3 July 2008 (Source: Compass Ltd.)⁵



Each heat, as well as the final, consisted of four e-tailer presentations and feedback sessions respectively over a three-hour period, with a 45-minute dinner break in between. A contestant had five minutes to present with the help of a PowerPoint projector in a large lecture hall (Figure 9.4), which was followed by 15 to 20 minutes of panellist feedback (Figure 11.9), which was then followed by 5 to 10 minutes of audience feedback (Figure 11.6) (with the whole section needing to fit into a 30-minute period). Across the two series there were 40 presentations in total, involving 32 presenters with e-commerce operations that sold products and services ranging from high visibility cycling accessories to bookkeeping software. Most of the presenters were retailers of products, while a minority sold services. Some retailed mostly to consumers, others to businesses. There were also a handful of manufacturers. There was the occasional medium-sized business, but primarily the presenters were micro-enterprises and small firms.

Figure 11.9: Owner-manager of Pool Supplies Ltd. receives panellist feedback at Heat 1 of Series 2 Compass e-Tailers' Den at Southern University on 3 April 2008
(Source: Compass Ltd.)⁵



Each presentation focused on a single question or problem that was posed to the panel and the audience. All the questions shared two essential characteristics: they were about *wanting to acquire something* (customers or productive means), and about *wanting to create new associations* (between the firm and a market or among the elements of one's firm) (or the reverse of these aspirations, i.e. not wanting to lose existing resources and relationships).

Here are some examples:

- “How can we get more customers to sign up for our services?” [a social networking site]
- “How can we improve our conversion rate - turning home page visitors into first-time buyers?” [cycling products retailer]
- “How can I deploy my new website without losing my Google ranking?” [office supplies retailer]

The e-Tailers' Den also differed from the television show in that during the dinner break there were a series of masterclasses (sometimes referred to as “breakout workshops”) on e-commerce related topics held by EBS providers (Figure 11.10 shows two tables with two

different masterclasses at the 15 May 2008 event; the one in the foreground was on “Pay Per Click” advertising by eBrandCom, one of the panellists, and the one in the background was on “Social Media,” held by the ubiquitous DigitAll Ltd.).

Figure 11.10: Masterclasses held in the dinner break at the Compass e-Tailers’ Den at Southern University on 15 May 2008 (Source: Compass Ltd.)⁵



Other masterclass topics in the series included online branding, affiliate marketing, online PR, email and viral marketing, SEO, natural search, visitor conversion (into customers), website usability, webmaster tools, online content management, back-end processes, e-commerce and IT law, photography for the web, and using eBay for business. Seminars provided by EBS providers and marketed as “educational events” were a customary element of major e-commerce trade shows. For instance, the Internet World 2011 expo described itself as “Europe’s leading free educational forum,” with an “Education Programme” offering “seminar sessions for beginners and experts alike” ...”to learn more about doing business online” (Figure 11.11 - also note that Duncan Bannatyne was in attendance, which is another example of the BBC dragons’ prominence and omnipresence at these kinds of events).

Figure 11.11: Screenshot of the “Education Programme” page at the Internet World (2011) trade show website



10-12 may 2011 / earls court / london
settingthedigitalagenda





How Fast is Your Site?
Find out Now! Take a Free Instant Web Performance Test

EUROPE'S LEADING EVENT FOR DIGITAL MARKETING & ONLINE BUSINESS

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There were also some exhibitor stands in the hallway at the e-Tailers' Den event, which made it seem even more like a trade show (Figure 11.12).

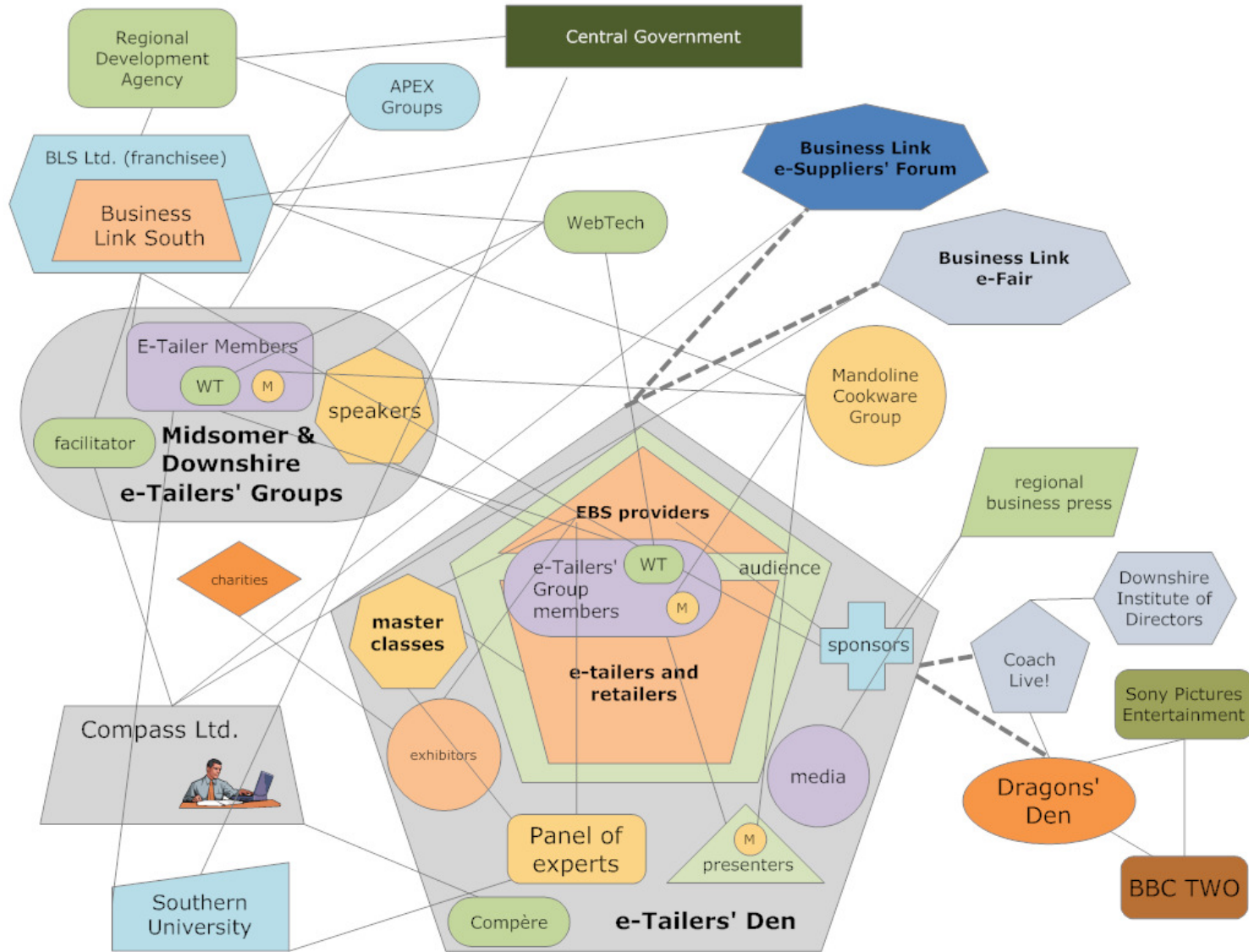
Figure 11.12: Screenshot of local TV broadcast with reporter standing in front of the Business Link stand at Heat 4 of the Compass e-Tailers' Den Series 2 at Southern University on 3 July 2008



11.1.3. The e-Tailers' Den assemblage

I will use the rich picture of the e-Tailers' Den event in Figure 11.13 to summarise its format and its main constituents (which together we could call the e-Tailers' Den assemblage). The large pentagonal shape represents the e-Tailers' Den events, while the other shapes identify the main entities that participated, one way or another, in the construction, performance and subsistence of the event series. In Chapters 6 and 7 I have made a case that the UK central government, through its industrial policy of intervention into the SME services market, by way of the network of Regional Development Agencies (RDAs), Business Link operators, and universities, had provided an infrastructural frame that gave rise to entrepreneurial marketplaces. Direct and indirect evidence of that infrastructure and framing can be seen at the e-Tailers' Den events as well. In fact, the BBC's involvement in popularising the Dragons' Den format can be considered as another element and instance of the public sector's framing of entrepreneurial markets and marketplaces, given the BBC's role as a public service broadcaster funded by license-fee payers.

Figure 11.13: Rich picture of the constituents of Compass Ltd.'s e-Tailers' Den service



As we saw in Chapter 8, Business Link—and the government polices it was implementing—had a lot to do with compelling Jacobs to develop the Compass organisation. Business Link South had contributed to the functioning of e-Tailers’ Dens indirectly, by having supported the regional e-commerce industry through a variety of seminars, workshops conferences and trade shows (many of them organised by Jacobs), and also through the APEX Groups, the peer group format it licensed. Each of these Business Link events helped format the buyers and sellers of EBS (e.g. by training them how to behave as peer group members or tradeshow attendees), so that when they came to an event like the e-Tailers’ Den, they felt comfortable and picked up quickly on how to join in as market participants. But Business Link was also present at the e-Tailers’ Dens more directly as a sponsor, and it had its own stand in the hallway to promote its services (Figure 11.12). The university sector was present directly by way of the Business School’s Dean chairing the panel of judges in the 2007 series, and indirectly, by way of Southern University hiring out the lecture halls, cafeterias, and even the hallway to Compass Ltd. for these events.

The most important participants were the *presenting e-tail micro-entrepreneurs* (about half of whom were Compass members—hence the large size of the oval shape standing for the e-Tailers’ Groups in the picture), the *panel of experts* made up of highly successful EBS providers and e-tailers, the *audience*, consisting of a mix of EBS providers (sellers) and retail and e-tail SMEs, and the odd manufacturer (buyers), and of course the *compere*, Simon Jacobs himself (the market maker). As mentioned earlier, some EBS providers, besides sitting in the audience or on the panel, also offered masterclasses, ran exhibition stands or sponsored the event itself and the prizes. There were a few non-e-commerce related participants, such as *charities* exhibiting and making collections, and representatives of the *local media*, from print journalists to a regional online television station (Figure 11.12). The e-Tailers’ Dens became something of a local media event, covered in nine online TV news reports in 2007 and 2008, and some newspaper column inches.

The connecting lines in the picture are only there to emphasise certain relationships, they are not meant to represent all the existing relationships between the various actors. (Although it would be practically impossible to produce a picture of the complete network of relationships, it is worth noting that it was common for many of the actors to be interrelated in a number of different ways, such as through previous employment, membership in professional and other associations, including church, friendship, and family. For instance, two Midsomer e-Tailers’ Group members, one employed by the other in the past, had started each day with a cycle ride together, raised funds for charity, and socialised frequently, while

also buying each other's products.) The thick dashed lines represent actors that had influenced the format of the event, namely the Business Link e-Suppliers' Forum and e-Fair, of which the e-Tailers' Den was a fusion of sorts (with many of the participants of these earlier events in attendance), and the BBC Dragons' Den format, which was conveyed by the adoption of the Coach Live! model, but also by way of the participants having seen the show on television and having been attracted to the e-Tailers' Den event by its use. The main function of the reference to Dragons' Den was a promotional one: it was the quickest way to get it across to Compass's target audience what to expect from this event (even if in the end its resemblance to the TV show was minimal):

Based on the popular 'dragons' den' concept, this mentoring forum is a superb vehicle for the exchange of up to date e-business know how. At e-Tailers' Den 2 you can enjoy three hours of high-value information and entertainment, breakout workshops and networking over a buffet supper. (BLS sponsor email 27/3/2008)

In other words, it was a business event that was an opportunity to learn about e-commerce and to participate in its market (by way of "networking"), while also being entertained: "e-Tailers' Den is fun, friendly, but above all it is richly informative" (Ibid.). Nevertheless, the market character of the event was underplayed: the focus in the promotional literature was on *infotainment* and *edutainment*, even though, as we will see in the next section, the market function was its main *raison d'être*. The breakout sessions offered by the EBS providers were described as "meet the expert" sessions and masterclasses, with the emphasis being on expertise and mastery, rather than on the fact that these were conducted by EBS sellers. Jacobs's terminology to describe the participants provides a clue for the reasons for this marketing strategy: the e-tailers (buyers) were the 'goldfish' that had to be tempted into the marketplace full of 'piranhas' (the sellers of EBS). Direct talk of selling and marketplaces was likely to scare off the 'goldfish' and make the efforts of the EBS providers (as paying audience members, panellists, masterclass holders, exhibitors, and sponsors) less profitable.

Indeed, at one of the Downshire e-Tailers' Group meetings I observed on 5 September 2007, members reacted angrily to an EBS provider's aggressive sales pitch (he was promoting a multichannel sales management software), with one of the members remarking, "I'm not paying £100 to sit through a sales presentation," even though at other times they happily purchased services from EBS providers they found to be capable. The gist of the complaint was that the speaker was only interested in flogging his own product and signing up new users, rather than imparting some knowledge in a more disinterested and selfless way. The buyers' expectation was to be informed and educated, rather than to be sold to, even if

the “informing and educating” effectively was a form of selling.

I will show in the next section that this dynamic was due to the buyers’ expectation of a genuine qualification trial in a relatively neutral environment (that the quasi-educational setting of the e-Tailers’ Dens and e-Tailers’ Groups could provide, especially when they took place at a university, sometimes even with university representatives involved). A direct and aggressive sales pitch did not provide sufficient opportunities for the buyers to assess the qualities of an EBS provider, and therefore, somewhat ironically, when it occurred, it was an occasion of the marketplace’s failure. The less EBS providers tried to act as sellers and the less an e-commerce industry event looked like a market, the more likely the event was to fulfil a marketplace function.

Finally, in Figure 11.13 I have also highlighted Mandoline, as an individual actor who had acted as an e-Tailers’ Den presenter, and whose participation I will describe in more detail in the following sections.

11.2. The e-Tailers’ Den setup and protocol: Mandoline’s trial

In Chapter 9 I described the ways in which the Campbells had used Mandoline, the firm itself, as a market device for conducting internal qualification trials of EBS providers, in order to evaluate their worth and suitability for serving as productive means for the implementation and stabilisation of e-commerce as an innovation. In Chapter 10 I also described how Campbell had employed the Downshire e-Tailers’ Group as a market device for conducting external qualification trials of prospective EBS providers, and to obtain tried and tested referrals from trusted peers. In this section I will follow Campbell to Heat 4 of the first e-Tailers’ Den series, to show how this particular forum had served as another, different type of external market device, enabling yet another type of qualification trials. My aim is to highlight the ways in which these market processes had participated both in the entrepreneurial construction of a firm, and in the diffusion of an innovation, by allowing for the accessing and evaluation of production means in the form of e-commerce business services.

This event took place at the Walford Conference Centre* in Downshire (Figure 9.4) on 17 July 2007. Campbell agreed to present at the event at the invitation of Simon Jacobs, who was keen to show off his most successful e-Tailers’ Group members, hoping that they would attract new members, in line with the aforementioned ‘three-layered cake’ strategy. Campbell was the fourth and final presenter of the day, following on the heels of an outdoors

equipment retailer, a winter sporting goods retailer, and a manufacturer of bicycle accessories. The title and main question of his presentation was this: “Beyond search engine optimisation—is PR or affiliate marketing the next best way for us to improve online sales?” The panel of four experts (who also acted as judges in selecting the winner who was going to go on to the final) consisted of William Collins*, founder and managing director of SoftStar Media, which he described as a “UK top 20 digital agency,” Laura Scott*, an independent SEO consultant, Clayton Breman*, marketing director of Dextop*, a major UK e-tailer of personal computers, and Hugh Tenley*, CEO of HermoSys*, an e-tail company operating over 200 e-commerce sites. Prof. Michael Bryant*, the recently appointed Dean of Southern University Business School, chaired the panel, and, as always, Simon Jacobs was the compere, while also manning the PC and the projector.

In his five-minute presentation, with the Mandoline website displayed on a large screen and browsed by Jacobs to demonstrate the sections Campbell was referring to, Tom described the evolution of Mandoline Group’s online operations and the associated e-marketing since the website was first launched three and a half years earlier. He revealed that he had been paying for pay-per-click advertising from the start, and that 12 months earlier he had outsourced search engine optimisation to a specialist company. He admitted that he had no experience with affiliate marketing (“My knowledge of it is zero”) and that although the company had benefited from publicity in broadsheets, the coverage was all initiated by the journalists, rather than resulting from any conscious effort on his part. This had prompted the question, whether the next stage of Mandoline’s development would benefit more from an investment into affiliate marketing or public relations. (Affiliate marketing involved sharing the margin from a sale with the affiliate whose website, under the terms of an affiliate agreement, had sent the online visitor to the e-tail site, through the placement of an advertised link.)

As usual, the panel’s responses were started off by the lead mentor assigned to the presenter, in this case William Collins of SoftStar Media (a web development company), who had reviewed the presenter’s website the week before and had consulted with him over the telephone, in order to gain a better understanding of the business. Then followed Clayton Breman of Dextop, Hugh Tenley of HermoSys, and Laura Scott. While they were meant to serve in the capacity of neutral market makers, with the exception of HermoSys (who was a fellow e-tailer), all the panellists were sellers of EBS. Therefore, engaging in this act of public mentoring was also an opportunity for the panellists to demonstrate their own qualities to any potential e-tailer customers sitting in the audience of around 100 people (127 on

average across the two series). The panellists usually started their contributions by first stating their credentials concerning the given business problem. Collins, for instance, started by highlighting his expertise, albeit in a roundabout way:

I am not an expert, although I have been doing affiliate marketing for six or seven years. I am not going to claim to focus on it because I am a bit of a jack-of-all-trades. But my experience on affiliate marketing has been fairly successful.

Breman similarly began by spelling out his credentials: “Affiliate marketing is one of my bread and butter things. (...) I probably managed over 4000 affiliates.” One of the qualification trials running at these events thus concerned the panellists themselves, who did most of the performing in front of the observing public, and thus had ample opportunities to show off their own qualities to the observing public, which consisted of potential customers (the e-tailers) as well as potential employees and suppliers (representatives of competing or complementary EBS providers).

Collins’s advice to Campbell was to get involved with affiliates (“You have to do an affiliate, I think you absolutely have to do it”), by outsourcing their management to a large agency, and allocating a full-time employee within Mandoline to manage the relationship with that agency. In turn, Breman offered some technical advice on managing affiliates, recommending the use of statistical methods to follow each individual customer’s journey, while also keeping an eye on the specific margin of each individual product sold. All the panellists had given Campbell several tips on how to improve the site and how to interact with journalists in order to generate more publicity.

This particular set of interactions had served as an experiment to establish the answers to Campbell’s original question, which concerned the confirmation of a gap he suspected in Mandoline’s assemblage, the addressing of which could necessitate the recruitment of EBS specialists in the areas of affiliate marketing and public relations. This turned out to be a successful trial for Campbell because the panellists’ replies and advice had helped him find an answer to his question. Counterintuitively perhaps, the answer that Campbell had managed to extract from this situation was the opposite suggested by the panellists. Their replies had confirmed it to him that given the nature of his micro-enterprise, becoming involved with affiliates, as well as agencies to manage affiliates and PR, would be beyond the existing competences of the firm and the financial and human resources available to it: “No, that seems complicated and expensive. So I’ve done nothing on that,” confirmed Tom a month later (13/8/2007).

The e-Tailers’ Den panel feedback also produced an answer to another important

question that had constantly preoccupied Campbell: the panellists, leading experts in their fields, had overwhelmingly confirmed the quality of Mandoline's existing e-commerce assemblage, especially what concerned the front-end and its marketisation, i.e. the linkages it had to online marketplaces, especially Google. This outcome was very valuable to Campbell because it had confirmed that his adoption of the e-commerce innovation had been reasonably stabilised and that there were no urgent reasons to replace either of his two most important EBS providers (WebTech, the e-commerce platform provider, and FindAs, the SEO specialist):

Collins: Firstly I just want to congratulate you on what I think is a really nice-looking website. I think that a lot of people can learn from the cleanness of the layout of the website. You have clearly done an excellent job, your traffic levels are very good, I can see myself from my own investigations. (...) By the way, I love the fact that this guy [Campbell] said "I invest in natural search." (...) The words, the niche products and the knives, I loved them. No wonder you are doing well on the natural search.

Tenley: That is a really good example of a nice website, which is the first thing. And I remember seeing this about a year or so ago at one of these e-commerce groups. And it has come a long way. (...) I like what you have done by having multiple sites. A lot of people forget that you can be Coke and Pepsi at the same time, providing you do it right.

Scott: From a natural search point of view this is just brilliant. I don't think I have ever seen a site that ticks all the boxes quite so well, which was very annoying because I struggled to find anything—I think Wedgwood was misspelt. Obviously it has got very good [search engine] visibility. I saw 1170 pages were indexed.

So much positive feedback was rare at the e-Tailers' Den presentations, especially as the panellists—most of them being EBS providers themselves—had an interest in identifying deficiencies and suggesting subtly—or not so subtly—their own firms to attend to them. Tenley's confirmation, as a fellow e-tailer without a commercial interest, was particularly valuable, not the least because he had developed a reputation for being a tough panellist, earning the moniker "the e-Tailers' Den Rottweiler" (Compass website). Moreover, he was able to compare the Mandoline website with an earlier version he saw at Campbell's presentation at a Downshire e-Tailers' Group meeting a year earlier, which made his opinion carry even more weight.

Besides the panellists' overall confirmation of the quality of Mandoline's web design and SEO, their feedback had also confirmed the value of specific elements, as it can be seen from the following exchange between Collins and Campbell.

Collins: Two things I forgot to mention with affiliates. A price comparison site is Kelkoo. Create the feeds out to Pricerunner, Kelkoo, feed in your data

and... I actually typed in a couple of your products and they didn't appear in Kelkoo.

Campbell: In Kelkoo? In fact we have used Kelkoo in the past and we are actually just about to start using them again.

This had confirmed to Campbell that the suggestion of his recently hired SEO specialist, FindAs, to get listed on Kelkoo (Figure 9.21) again, was a sound one, thus implicitly also validating his decision to hire FindAs. Before contracting FindAs, Mandoline only used Kelkoo during the Christmas sales season; however, FindAs's visitor traffic analysis had established that it would be worthwhile for Mandoline to integrate Kelkoo into its assemblage permanently. Collins's feedback at the e-Tailers' Den provided an additional push for Campbell to ask WebTech to integrate the Kelkoo feed upload feature into his back office on the W-CAS platform, which a couple of months later they had completed (Figure 9.22). Kelkoo had remained a permanent element of the Mandoline assemblage, as Campbell kept confirming in subsequent years: "our sales are going up, we are on Kelkoo" (21/7/2008). "Kelkoo works very well, it's very successful for us" (9/10/2008). "Kelkoo is pretty productive for us" (5/6/2009).

Finally, this e-Tailers' Den had also worked as a more traditional marketplace, in the sense of connecting Mandoline, a prospective buyer, with potential sellers of B2B services. During the audience feedback, there were several service providers that had openly declared an interest in connecting with Mandoline. Mariella Champlin*, manager of a PR company, at the end of her contribution said: "I am sorry you have had a bad experience with PR agencies. You should talk to me!" Marco MacLeod*, marketing consultant, started his comment by saying: "I have got a note to give you a call next week about this kind of stuff," referring to affiliate marketing. He suggested that Campbell should also consider email and database marketing, a suggestion that Collins from the panel seconded as "good advice."

These kinds of contacts were created not only in the course of the audience segment but throughout the event, during the dinner break, at the masterclasses, and even after the event. E-Tailers' Den presenters could expect to be contacted by EBS providers—who saw them perform there—for several weeks afterwards. ("Consultants, on the phone, constantly wanted to sell us their consultancy services. [e-Tailers' Den] made us visible for people who wanted to sell things," recounted Michelle Sullivan* of Pool Supplies Ltd., contestant in Heat 3 of e-Tailers' Den 2 (28/6/2011)). Following his presentation, Campbell was approached by Rey Anderson*, managing director of an IT maintenance company, who gave him his business card. (Incidentally, Anderson was also a regular panellist at the Coach Live! events,

where Jacobs copied the Dragons' Den format from, thus he was very familiar with how to make the most out of these kinds of events). Six months later, when the Campbells were let down by their existing IT maintenance service provider during the busy Christmas period, Tom remembered Anderson, got in touch with him, and eventually hired his company instead. Reliable functioning of IT equipment was naturally an important aspect of an e-commerce operation, and Anderson's business became yet another element (Figure 9.24) that had contributed to stabilising Mandoline's adopted innovation.

Even SoftStar Media, the web design company of panellist William Collins, had turned into one of the EBS that Campbell had decided to evaluate a year later, as a possible replacement for WebTech, after he 'graduated' to one of Compass's Zenith Groups, where Collins gave a presentation as a visiting speaker. Although after that particular evaluation episode Campbell had decided to stick with WebTech, the two Compass events served as marketplaces in the sense that they allowed Mandoline, as a potential buyer, and SoftStar, as a prospective seller, to encounter each other and also to assess each other's qualities in the presentations and interactions that both took part in. Campbell described the "encountering" function of these market devices in terms of serendipity: "It's just useful in making contacts. And you learn stuff. And things just happen that wouldn't otherwise have happened" (5/6/2009).

11.3. Creating a neutral space for a marketplace

Campbell's above observation is reminiscent of scientific experiments, where 1) entities are made to encounter each other in an artificial situation (the laboratory), 2) they (the participants, including the scientists) acquire unexpected information from—and about—each other (through the experimental protocol in place, in this case the e-Tailers' Den format), and 3) go on to form new associations and entities together (in this case e-commerce artefacts and businesses). As I had already shown in Section 10.4 in the previous chapter, there were indeed some types of scientific (and not so scientific) tests that Jacobs had extensive experiences with, and which he was able to translate into the format of the e-Tailers' Dens and Group meetings. However, not all market-like features of these events were consciously and deliberately developed and put in practice by Jacobs himself. Some of the marketplace functionalities of the e-Tailers' Den series had emerged organically, as it were, from the social interactions that were made possible by the format of the event and the particular nature of the participants, being the unique mix of e-tailers and EBS providers that it was.

I mentioned in Section 11.2.3. above that e-Tailers' Group members had reacted negatively to EBS providers' attempts of direct selling, as such attempts disrupted the quasi-neutral space that was required for the social process of qualification (of the given EBS provider) to unfold. In the case of the e-Tailers' Den, there was also a possibility (and the temptation) for participating EBS providers (especially those in the privileged position of serving on the panel or delivering masterclasses) to engage in direct selling of their services, rather than facilitate the qualification process of themselves and of the given e-tailer's e-commerce assemblage, so that the qualities of each could be identified and evaluated in a relatively neutral, unbiased way, for the benefit of the e-tailer and the assembled public. The e-Tailers' Den series had developed a mechanism to check the inclination of EBS panellists for excessive self-promotion at the expense of unbiased advice. This mechanism was mainly provided by the audience contributions. E-tailers and EBS providers (often direct competitors to the panellists) in the audience were able to intervene directly when such bias was detected, which in turn had trained the EBS panellists to moderate their behaviour over the course of the series.

One such episode occurred during Heat 1 of e-Tailers' Den series 2 on 3 April 2008, held at Southern University. The third presenter of the day, Michelle Sullivan (owner-manager of Pool Supplies Ltd., e-tailer of swimming pool accessories) asked this question of the panel and the audience: "Should we build e-commerce skills in-house, and if so, how do we do it?" In his response, panellist William Collins of SoftStar Media had made what came off as a direct sales pitch, employing the following strategy. First, he criticised the current quality of the website, which was designed in-house by Sullivan herself: "your site looks like it's been built by a programmer." Then he presented his credentials, as well as the strengths of his company: "back in 1999, in my mum's shed, I was the person who first built websites in my company." (...) I've done this a lot because I've had clients who started with nothing and have grown to £3 million turnover."

Next he discussed how he would approach the brief if he got the contract: "For me that £25,000 retainer would be spread across people who are experts in usability and accessibility in search, in every different area of the business, and you can switch that resource as and when you need it." Then he floated the possible rewards of choosing his company, suggesting that with them Pool Supplies could double their turnover in a year from the current £600,000, and soon thereafter could grow even bigger: "But if you do your budget for next year for £1.2 million, because that's where you want to get to...;" (...) "I think you need to start looking for the future—in your mind, visualise this £3 million turnover website."

Then he suddenly switched to a tactic to induce fear in the prospective buyer, suggesting that if Pool Supplies continues to develop its website in-house, it might lose future business: “I hear horror stories every day about guys who have gone out of business because they’re one-man bands or because they ended up just going on holiday.” Finally, he issued a direct threat, suggesting that she does not have sustainable competitive advantage (“I know people in my team who probably within two or three days could probably know as much as anybody else about your products, because they’re smart people and they have a very fast learning curve.”) and therefore even he could become her competitor: “if I had launched a site today to compete with you, I would overtake you in 12 to 18 months, if I did it personally.” Finally, he tried to use humour to end on a friendlier tone, but even the joke was about bidding for her business: “hopefully I’ve ruined your chances now of trying to take someone else on. But you need to stop doing your website.”

This direct, sophisticated, and in some ways aggressive sales pitch was undermined by an audience intervention, by one of SoftStar Media’s smaller regional competitors. Vic Bold*, a respected member of the local e-commerce community (who was a founder of WebTech and a series of other e-commerce enterprises and community projects before becoming an independent consultant and taking up non-executive director seats on the boards of several regional EBS providers), had pointed out very clearly and openly, in front of the 100-plus strong audience and the presenter, the conflict of interest in Collins’s contribution. Addressing Michelle directly, he said, “I don’t envy the decision you have to make. I thought that William’s pitch was extremely convincing;” at which point the audience erupted in laughter. He went on to spell out Michelle’s dilemma, interpreting the panel’s advice for her:

the other agency[’s advice] was..., use an agency. Hugh, as an independent, naturally said, go independent. And they’re all very convincing arguments. It seems to me that the best suggestion was, perhaps from Lyndsey* [panel member], which was “talk to people and go in hard and make them work for what they’re getting.”

Eventually, Collins tried to make light of the situation, admitting to the sales pitch and saying, this time seemingly in jest, “I can take this site to £3 million. And you would trust me to spend your money, because I’d look after you,” which elicited more audience laughter. There was further audience discussion of the various options, and Hugh Tenley, the e-tailer panellist, reiterated his objection to Collins’s advice:

get someone in-house. You have done too much yourself that you will not be able to work with an external third party. You will be going “Move this here, put that there; change that bit of text.” And before you know it, you’re the woman who’s a pain in the arse on the phone every day. [Audience laughter]

This dynamic between dissenting panel members and audience members (who were a mix of e-tailers and competing EBS providers) had ensured that a sufficiently neutral environment was maintained for the market mechanism to unfold, by allowing for the qualification of a buyer's existing e-commerce assemblage and their needs, as well the qualification of the participating EBS providers who could address those needs. The proof that Vic Bold's intervention had contributed to a more balanced and neutral assessment process was in the fact that such a discussion had indeed ensued, that Sullivan did not fall for Collins's sales pitch, and she spent the following year trying out all the options offered by the panel and the audience and eventually settling on hiring an in-house developer; and most importantly, that at the following e-Tailers' Den Collins had made a reference to this episode and went out of his way to try to show that he was not going to make such direct sales pitches again: "I'll be impartial, I promise." Then, in response to the presenter's question (Karl Doyen* of Gift Box Ltd.), "How do I go about choosing a new website provider and a new back office system?" he said:

I'm going to surprise everyone tonight because I'm going to challenge the question. I'm not convinced that you do [need to]. And I'm sure my panel will agree with me. (...) So overall, I would personally say, do me one favour. Don't outsource the website, but recruit someone to come in as your e-commerce manager. (Heat 2, e-Tailers' Den series 2, 15 May 2008)

Collins's response appears to be an effort to rectify his earlier error of breaking the "neutrality" of the marketplace as an assessment mechanism, even if it may have come at the expense of offering this particular contestant disingenuous advice this time. Nevertheless, the other panellists disagreed with Collins's recommendation anyway, suggesting to Doyen that he replace his existing EBS provider, which in the end he did, 19 months later, with this event being only one of the many assessment exercises (in addition to numerous other discussions at Downshire e-Tailers' Group meetings) that he went through to come to that decision.

11.4. Conclusion

In this chapter I traced the emergence of the e-Tailers' Den event as a market device, by describing its composition, as well as the brief history and impact of the BBC's Dragons' Den format that inspired it. It transpired that this type of contest had become very popular and influential at the time, having been adopted in a variety of scenarios and purposes in business life, education, entertainment, and politics, which helped Compass communicate the nature of the e-Tailers' Den event to its target customers, who were both attracted and accustomed to it by then. I also detailed the functioning of this market device, by following

Tom Campbell's interactions with the e-Tailers' Den and describing how he used it for the assessment of the existing elements of his e-commerce operations, as well as for the external qualification trials of prospective EBS providers.

Similarly to Compass's e-Tailers' Groups, the e-Tailers' Den turned out to be an innovation in the Schumpeterian sense, on account of being a unique combination of some features of a courtroom trial, a television show (the Dragons' Den format), a trade show, an industry conference, and a networking event. Moreover, just like the e-Tailers' Groups, the proceedings of the e-Tailers' Dens lent themselves to a characterisation in terms of qualification trials, aimed at articulating the qualities of a variety of market participants and facilitating market encounters and transactions between them.

This description and analysis had resulted in the identification of a number of characteristics concerning the particular types of arrangements, protocols, and outcomes that the e-Tailers' Den consisted of and contributed to, as a market device. In the next chapter I will undertake a comparison and contrast of the various market devices, qualification trials, and their outputs that have been identified in this and the previous chapters.

Chapter 12: Conclusions: reassembling the digital economy

The guiding research question for this study asked: *How did a regional entrepreneurial market for e-commerce emerge and operate in two Southern English counties in the first decade of the 21st century?* This question can be taken as a specified version of a broader one: *How do entrepreneurial markets for innovations emerge and operate in a developed economy like the United Kingdom?* While pursuing an answer to these questions by way of an empirical description with the help of actor-network theory, I was also aiming to shed light on the nature of the relationships between the economic activities that constitute entrepreneurship, innovation, and markets, given the controversies and knowledge gaps that had emerged from my review of the rationalist and empiricist literatures concerning their nexus.

In this chapter I will summarise my findings concerning the above questions, by reviewing the conclusions that had emerged from the empirical descriptions in Chapters 6 to 11, and from my particular implementation of ANT. I will use my specification of the Latourian version of ANT presented in Chapter 4 to guide the discussion in this chapter. In Section 4.2.2., I presented my interpretation of the final movement of the Latourian ANT procedure—**composition**—as a process of connecting and synthesising the outcomes of the previous two steps in a textual account, which concerned the identification of actors involved in the empirical situation under study, and the networks by which these actors had stabilised the controversies they were involved in (Steps 1.1.5, 1.2.3 and 2 in Figure 4.1).

In Section 4.2.2, I have also listed the key measures by which the quality of an ANT account should be judged according to Latour. Firstly, there was the criterion of fallibility, which required that an ANT study should be set up as an experiment, with clear specifications about the experimental protocol according to which it can be judged as having succeeded or failed. I have laid out my "experimental protocol" in Chapters 4 and 5, by specifying the tools that were going to be used and the conditions under which the study had been conducted. The second criterion concerned the consistency by which the binarisms representing a set of metaphysical and sociological controversies have been flattened (as specified in Sections 4.2.1.1. and 4.2.1.2.). The third criterion anticipated a multiplication of actors as mediators involved in translating actions and force, as an outcome of the tracing

allowed by the aforementioned flattening. The fourth criterion referred to the quality of the thus identified multiple actors, asking for them—as well as the *translations* they were involved in—to be specific, rather than general.

The fifth criterion called for the empirical description to use the actors' own metaphysics (interpretations of the world) by way of explanations of their actions, whenever possible. Having more specific actors speaking for themselves would increase the objectivity of the account, especially if objects (i.e. nonhumans) were also included as actors, which was yet another criterion. Finally, a good ANT account would also be expected to trace the emergence and individuation of entities, as a way of capturing the active actualisation of virtualities, as opposed to explaining reality in terms of a passive unfolding of pre-existing potentials.

In the following I will use the above measures to evaluate my endeavour, while recounting how this empirical description constitutes *composition* in the Latourian sense, as an act of political epistemology, through reassembling the *social*, i.e. the actors and networks that have been found to constitute the 'social world' (or what Latour calls "the collective") of this study. This process of evaluation will also allow for the identification of specific contributions of this research to relevant debates in the reviewed literatures, as well as its limitations, and the development of recommendations for future research and to practitioners and policy makers.

12.1. Composition: recounting translations

One way to identify the answer to the central research question, "How did a regional entrepreneurial market for e-commerce emerge and operate in Southern England?" would be to point to the empirical description in Chapters 6 to 11 and say that they constitute the answer in their specificity. As explanation had been conducted by way of an ethnographic description of specific actors in specific settings in specific situations (from the 12/12 seminar to Jacobs's own articulation of the elements of Compass Ltd. and his entrepreneurship theory, to Mandoline's qualification trials at the firm, the e-Tailers' Group and the Den), the description should stand as its own best explanation. At the same time, for the purposes of identifying how this description constituted *empirical metaphysics* and *political epistemology*, another round of abstraction is necessary. Nevertheless, this abstraction is not done by departing from the empirical material but, on the contrary, by extracting and recounting its salient moments, movements, and protagonists, in order to

highlight the ways in which their specific stories already carry and constitute what is general about them (and we could substitute 'general' with its synonyms such as 'universal,' 'global,' or 'social'). In the following I will summarise the main characteristics of the "world" that has emerged as *reassembled* through my account.

12.1.1. Disruptions breeding innovations for stability

While I will be doing that, I will also pinpoint the ways in which the fulfilment of the criteria of a good ANT account à la Latour had been attempted. The first flattening operation of the Latourian method (1.1.1. in Figure 4.1) concerned the stability/change binarism when describing the emergence and nature of groups. The result of this flattened perspective was a heightened awareness of actors' relationships to stabilisation and disruption in the course of their activities. One commonality that unites all the stories of the various actors pursued in this study is that they all began with actors' responding to situations of instability caused by some form of disruption, upheaval or breakdown.

The 12/12 BLS seminar was convened to help SMEs address the disruption to their established ways of doing business caused by the emergence of e-commerce and e-marketing. The Major Government set up the national Business Link network to respond to threats to the competitiveness of the UK economy posed by a new world order marked by the end of the Cold War and the emergence of new competitors and new technologies. Jacobs sought employment with Business Link as part of his search for stability after cycles of extreme successes and breakdowns throughout his life, the causes of which he traced back to yet another upheaval, childhood abuse. The Campbells decided to adopt e-commerce and join seminars, peer group meetings and conferences on e-tailing as a response to the realisation that their newly acquired bricks-and-mortar retail shop was not a viable concern. The search for stability in situations of disruption was thus one common theme shared by the actors that participated, one way or another, in the emergence of entrepreneurial markets for the innovation of e-commerce.

Another commonality shared by all of them was the fact that their response to instability was to engage in activities that can be characterised as entrepreneurship and innovation in the Schumpeterian sense. The Major Government's creation of the national Business Link network was an act of innovation on a grand scale, to encourage and support entrepreneurship and the adoption of innovations by small businesses through the creation of entrepreneurial markets for them. When the Labour Government's IDB model disrupted this innovation and the entrepreneurial markets it gave rise to, Business Link Operators needed to

find new, innovative ways to fulfil their mission in light of the imposed restrictions, by developing new types of marketplaces in the forms of seminars like the 12/12 event, peer groups such as the APEX Groups, and various fairs and conferences. Jacobs's Compass Ltd. as a new venture with innovations in entrepreneurial market making through its e-Tailers' Group meetings and e-Tailers' Dens was itself a creative response to the need for stabilisation on the part of micro-enterprises that was left unfulfilled by Business Link.

It is worth pausing for a moment to appreciate what a radical and unlikely an innovation Business Link had been, introduced by a post-Thatcherite Conservative Government that normally would be expected to be diametrically opposed on ideological grounds to such large-scale interventionism (and as we saw in Section 6.3.2., there was significant resistance to it within the Conservative Party at the time), especially in a business market, targeting the management practices of individual SME owner-managers in the style of what Conservative politicians like to call derogatively a 'nanny state'. While much smaller in scale (in terms of budgets, resources and the people involved), there are a number of parallels with that other Great British innovation introduced by a Labour Government after World War II, the National Health Service.

Just like the NHS aims to provide universal health care to everyone, so was the aim of Business Link to reach every single SME in the country. Personal Business Advisors, not unlike General Practitioners, provided diagnostic services and handed out 'medical advice' in the form of consultancy, and referrals to tried and tested specialists (third-party suppliers) for further 'medical treatment' (services required). The Labour Government's IDB reform had effectively downgraded PBAs from 'GPs' to lower grade 'medical practitioners' only allowed to provide diagnostics and refer 'patients' to a database that would only supply them with a random selection of three poorly vetted specialists for whose quality of service PBAs (or Business Link) would offer no guarantees and would not take any responsibility for. As we saw across the six empirical chapters, the various actions of successive governments on the structure and functioning of Business Link had a host of intended and unintended consequences, many of which caused further controversies and instability, which then spurred on the likes of Business Link South and Simon Jacobs to come up with innovations of their own in entrepreneurial market making, to stabilise them.

12.1.1.1. Schumpeterian vs. Kirznerian entrepreneurship and the role of markets

The above observation about the sequence of "disruption → innovation →

stabilisation" provides some opportunities to address and resolve some disagreements between the Schumpeterian and Kirznerian conceptualisations of entrepreneurship, which Kirzner (1999, 2009) himself had repeatedly tried to reconcile. Kirzner challenged the status of the Schumpeterian entrepreneur as the originator of innovation and creator of disruption by suggesting that prior to a Schumpeterian recombination there is always an arbitrageur-entrepreneur who spots price differences in an unstable (disequibrated) market (thanks to his cognitive gift of alertness) and then proceeds to exploit them through an entrepreneurial venture, which is when the brawn of the bold Schumpeterian innovator-entrepreneur is called for, eventually leading to stability (equilibrium) in the market.

My empirical data had confirmed Kirzner's proposition that acts of entrepreneurship are responses to instability. However, there was also evidence that a disruptive innovation (such as e-commerce was in this case) can set off a chain reaction of further disruptions, which then necessitate the creation of further innovations (such as the various entrepreneurial marketplaces Business Link South and Jacobs had gone on to construct), before any semblance of stability can be achieved in the given market. Indeed, in light of the empirical data examined in this study it becomes questionable whether it is even possible to talk about a single, general market in which these Kirznerian arbitrageur-entrepreneurs could conceivably operate in. One of the key contributions of this study is to show that the very markets needed for a new enterprise to be built and an innovation to spread through have to be themselves constructed, and in many cases they constitute innovations in themselves and are the outcomes of entrepreneurial action (whether by the state, as in the case of Business Link's entrepreneurial markets, or by individuals, as in the case of Simon Jacobs).

Arbitrage, as a metaphor taken from the world of financial markets, presumes the existence of a market where differences in prices can be spotted by the alert arbitrageur. Therefore, Kirzner's theory would be much better suited to explain the behaviour of adopters of disruptive innovations, once the markets for the stabilisation of those innovations had been constructed. In the present study, the retail micro-enterprise of Mandoline adopting e-commerce could be considered as such an arbitrageur-entrepreneur, acting at the tail end of stabilising a global chain of disruptive Schumpeterian innovation. Schumpeter of course excluded adopters from his definition of innovation, considering them to be mere repeaters.

In this sense, the Kirznerian model would allow for the recognition of the role of adopters in recreating and stabilising the innovation (which they would welcome, as they very much considered themselves to be entrepreneurs when asked in the course of my study). My findings suggests that while Kirzner was right about the role of instability in triggering

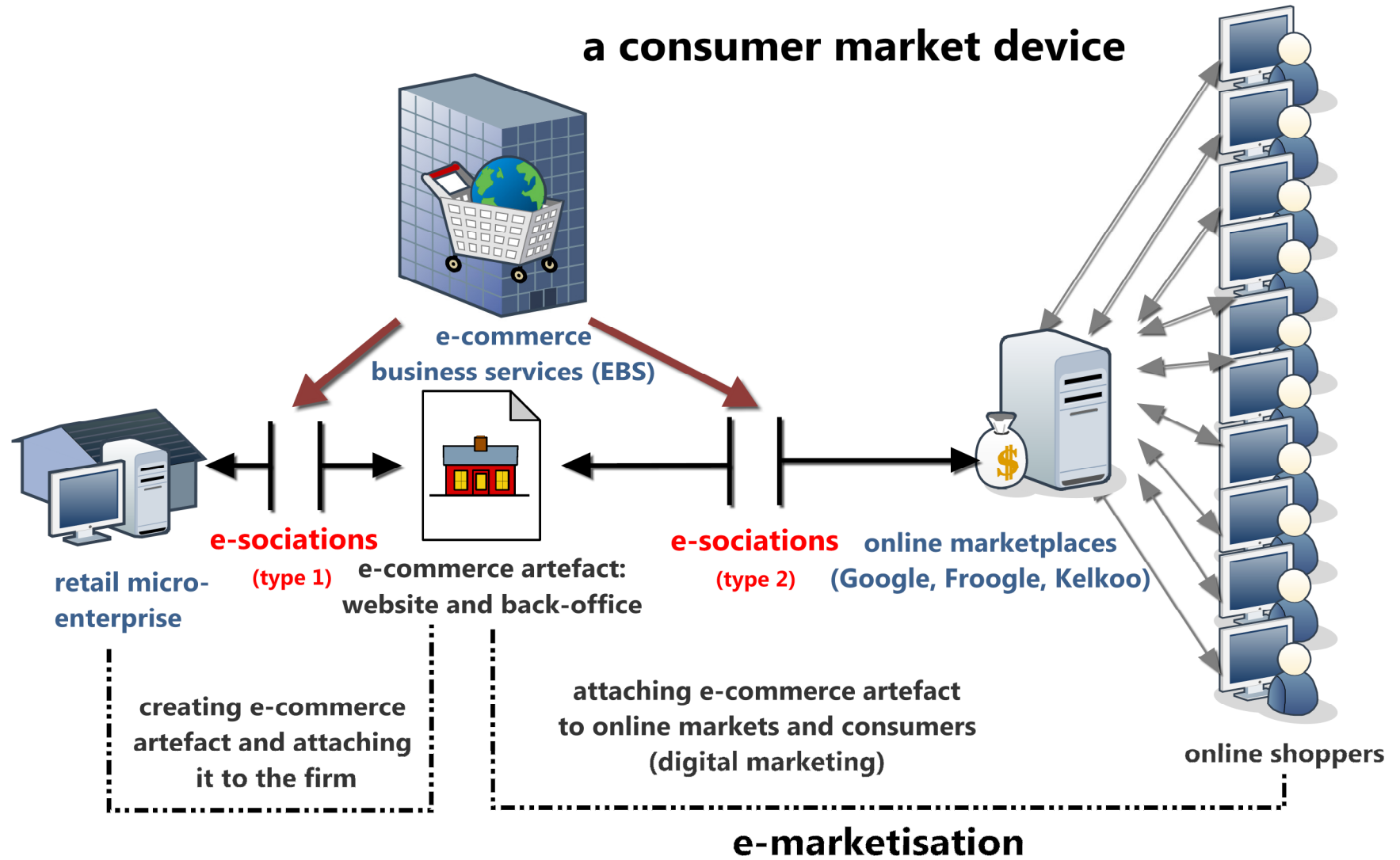
entrepreneurial behaviour, he was going the wrong way round about trying to reconcile his theory with that of Schumpeter, effectively putting the cart before the horse. Instead, it is Kirzner's entrepreneurship theory that complements and completes Schumpeter's conceptualisation, by showing how Schumpeterian disruptive innovations (which, according to the evidence presented in this study, include the construction of appropriate markets for them) are eventually stabilised by the help of the Kirznerian arbitrageur-entrepreneur.

12.1.2. e-sociations: new types of economic associations

The second and third flattening operation in the Latourian ANT procedure (steps 1.1.2. and 1.1.3 in Figure 4.1) are both concerned with helping the analyst pursue the fundamental task of sociology, i.e. to *follow how new associations are created* between actors during a period of emergence, without making an a priori judgement about the nature of these actors and the sources of their agency. My pursuit of the creation of new associations in the course of the emergence of e-commerce in Southern England has revealed that the new associations that were being created were also *new types of associations*, made by a *new way of making* economic associations, and two of the main preoccupations of the actors involved was to acquire the resources necessary to be able to carry out these new types of associations, and make the resulting attachments durable and economically productive.

I will explain this point further with the help of the illustration in Figure 12.1, which can be taken as an abstraction of one aspect of the e-commerce adoption process described in Chapter 9, focusing on the associations that need to be created in order for a bricks-and-mortar retail micro-enterprise to become an e-tailer. As we saw in the case of Mandoline, there were two new types of associations that needed to be created for it to be able to conduct e-commerce. Firstly, an e-commerce artefact had to be created (Mandoline's front- and back-end websites), by developing a set of ICT artefacts and then attaching them to the retail firm itself. The minutia of the attaching process required the creation of digital representations of Mandoline's retail goods (thousands of items of cookware), organisational resources and processes.

Figure 12.1: Constructing a consumer market device for e-commerce



Besides being a new type of association between heterogeneous resources (one that requires expertise and tools to associate humans, 'offline' objects and online digital artefacts), it was also one that produced further *novelty*, by requiring the invention of new organisational processes and rearranging existing ones to make the newly created e-commerce assemblage (Figure 9.16) operationally viable and compatible with the offline operations that existed before. In other words, the adoption of the Schumpeterian disruptive innovation of e-commerce by a user (Mandoline) required the production of a series of further inventions to actualise it, by re-creating the innovation anew. It is difficult to see this adoption process as a 'mere repetition' (as Schumpeter would have treated it), considering that there was not anything ready-made to repeat, and, for the innovation to come into existence, it had to be specifically created in a new and unique way, even if in the end it was imitating the functionality of former implementations elsewhere.

The second new type of association that emerged from the Mandoline case study, as required for the adoption of e-commerce, was the attachment of the aforementioned e-commerce artefacts to online marketplaces (such as Google or Kelkoo), and through them, to online consumers. As we saw in Chapter 9, the creation of such electronic linkages (this time between digital artefacts residing on the World Wide Web on various servers) called for a different type of expertise than in the first type of association discussed above. In the early days of e-commerce in Southern England, the first type of associations tended to be produced by web design firms, while the creation of the second type needed a motley crew of consultants specialising in various forms of what came to be called "digital marketing," which included search engine optimisation, affiliate marketing, email marketing, and the like. (Later on, as the industry matured, forward and backward vertical integration between providers of the two types of associating had become common, nevertheless the distinction between the types and the skills required to perform them remain).

In Chapter 9 I referred to the activities involved in creating the second type of attachment creation as a form of *marketisation*, to emphasise that their main objective is to create and perform consumer markets for the given retail service and goods (which, in the case of Mandoline, was the online consumer market for its retailed cookware products). It is in this sense that the thus connected—or marketised—e-commerce assemblage (e.g. that of Mandoline in Figure 9.24) can be considered a *consumer market device*. It is a device because it is a socio-technical assemblage specifically created to enable and perform the functioning of an online consumer market for a category of retailed goods. Without such market devices the online consumer market simply would not exist.

What was specific about this form of marketisation, in contrast to other types of market making efforts, is that it required the creation of electronic links between digital artefacts (in 'cyberspace', if you like); therefore, I propose to call the activities aimed at creating this second type of association *e-marketisation*. However, the creation of electronic linkages was the main distinguishing characteristic of both of the new types of associations discussed here, therefore I would group them under the umbrella term "electronic associations," or **e-sociations** for short, also to emphasise the fact that their production was a fundamental part of the adoption of e-commerce as an innovation. Indeed, the ultimate aim of both of the above types of e-sociations was to enable yet another type of e-sociation: attaching retail customers to retail goods in a new way, using an e-commerce website.

12.1.3. Business market devices and qualification trials

However, as we have seen in Chapter 9, micro-enterprises such as Mandoline lacked the resources and competences to produce the required e-sociations by themselves, in-house. As already suggested in Figure 12.1, it fell to third-party e-commerce business services to produce both type 1 and type 2 associations. Therefore, the process of e-commerce adoption does not begin with the construction of e-sociations and the consumer market device but with an engagement with the business markets for EBS providers, which, as I have argued, is simultaneously an entrepreneurial and a market process.

It is an entrepreneurial process in the Schumpeterian sense because it involves micro-enterprises and start-ups acquiring productive means for the creation of a new combination, the output of which will be an innovation itself, the provision of online retailing. The productive means to be acquired and recombined are not simply the e-commerce artefacts as capital equipment. As we saw in Chapter 9, the adoption of e-commerce on the part of a retail micro-enterprise meant entering into long-term service agreements with several EBS suppliers for the provision of services not only to create but also to maintain the required type 1 and type 2 e-sociations. In the case of Mandoline, the type 1 association was created by WebTech, while the type 2 association was eventually stabilised by FindAs.

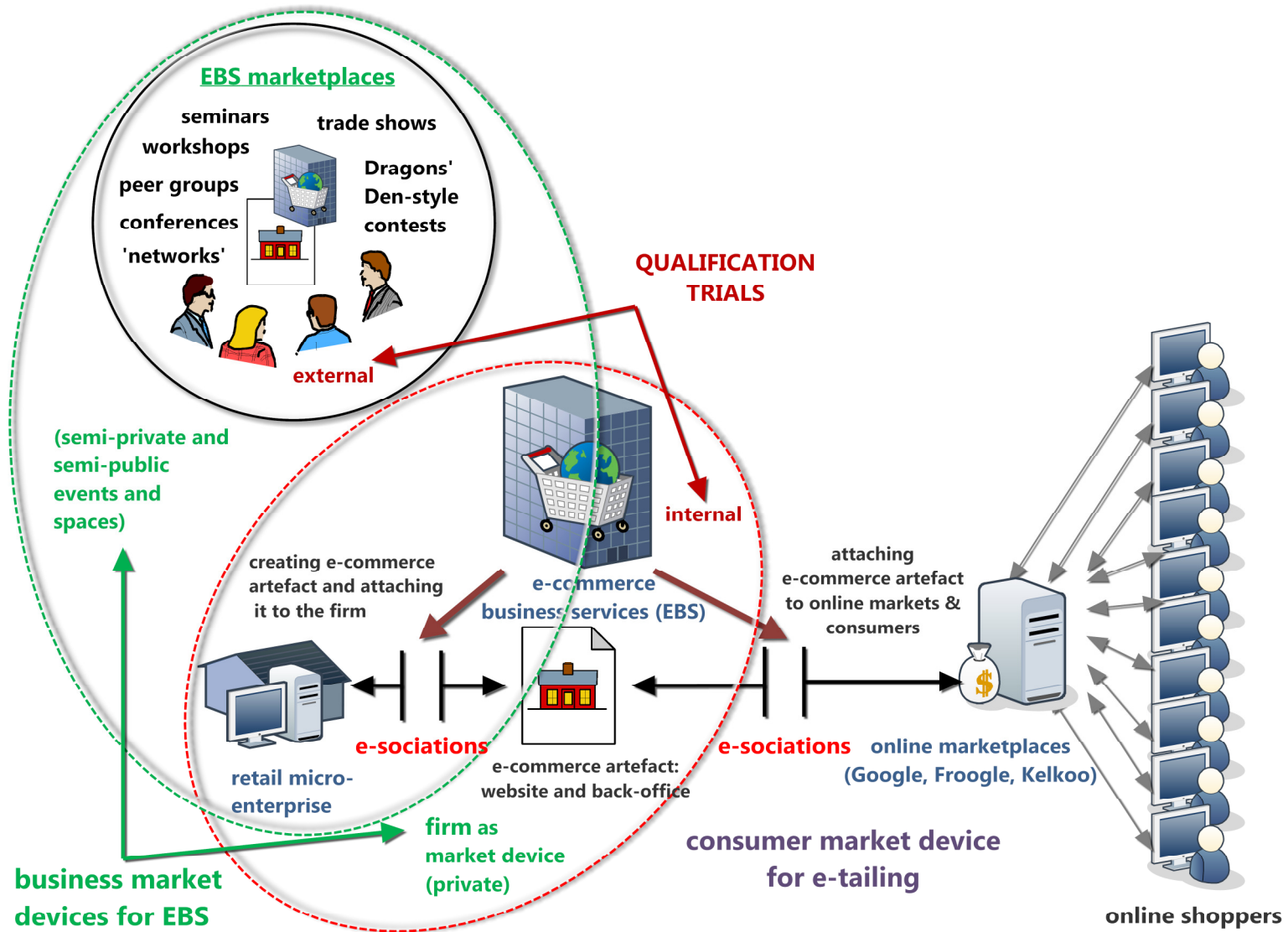
At the same time, the acquisition of these productive means is a market process, as it requires the adopting organisation to search for, evaluate, contract, and periodically review and replace the said EBS suppliers. To access the markets for EBS, e-tail micro-enterprises needed to engage with specific *business market devices*, which provided them with various market services. In contrast to the aforementioned consumer market device (Mandoline's marketised e-commerce assemblage) that was aimed at facilitating business-to-consumer

transactions, business market devices were concerned about performing business-to-business market transactions. I have called the particular type of markets that start-ups and micro-enterprises go to shop for their productive means *entrepreneurial markets*, to emphasise the fact that the products sold at these markets are capital goods specifically aimed at entrepreneurs. Moreover, in the case of e-tailers, these capital goods, the EBS, also constituted an innovation in the Schumpeterian sense, disrupting the retail industry, therefore the markets purveying them were a special case: *entrepreneurial markets for an innovation*.

To complete the model of e-commerce adoption that has emerged from my empirical description (Figure 12.1), therefore it is also necessary to add the adopting organisation's engagement with business market devices for the evaluation of prospective and existing EBS providers that are needed for the creation and maintenance of the e-commerce artefact, and for its marketisation. Figure 12.2 incorporates in the original illustration the two main types of business market devices that were found to be used by e-tail micro-enterprises and which were distinguished by the different types of valuation processes—or qualification trials—they enabled. As we saw in Chapter 9, one option that is always available to a micro-enterprise is to use their own firm as a market device for conducting *internal qualification trials*, i.e. to evaluate EBS suppliers after having contracted them and incorporated them into the e-commerce assemblage.

The other option is to evaluate prospective EBS suppliers (productive means) prior to the purchase decision, by using external qualification trials involving various publics at sites other than the firm. In the case of Mandoline such external business market devices included peer group meetings, networks of business contacts, Dragons' Den style contests, Business Link seminars and trade shows, some of which we can also describe as *marketplaces*. In summary, before a retail micro-enterprise or start-up could begin to undertake the construction of the required new associations (e-sociations) for the adoption of e-commerce, it was necessary first to participate in various industry associations (gatherings of relevant publics) that could serve as business market devices for the acquisition of either the expertise or the services (or both) necessary for the construction of the aforesaid e-sociations.

Figure 12.2: Business market devices for EBS: internal vs. external qualification trials



12.2. Typology of market devices, qualification trials, and their outputs

One benefit of deploying the ANT method for my empirical description was that the pursuit of the imperative of specificity had resulted in the identification and delineation of multiple market devices, qualification trials, and their outputs, which allow for developing a typology of these findings. The typology and the examples of market devices that I am going to present in the following, highlight the significance of the specific design and composition of each market device, which in turn determine the particular types of qualification trials and other interactions that they enable. The different types of market devices are composed of and engage different types of publics, and the different market interactions and processes that each make possible address and perform different aspects and stages of the entrepreneurship and innovation adoption processes. Before I present my typology, I will first compare and contrast the two main market devices of Compass Ltd. to illustrate how the specificity of design in each case resulted in different types of interactions and outputs.

12.2.1. Comparing and contrasting Compass Ltd.'s market devices

The Compass e-Tailers' Groups, for instance, consisted almost exclusively of e-tail micro-entrepreneurs (buyers of EBS), and they were accessible to sellers of EBS only in a highly controlled manner, individually, as visiting speakers. The particular protocol of an e-Tailers' Group meeting focused on the collective construction and evaluation (qualification) of the e-commerce operations of individual members, as well as the collective evaluation of the individual EBS presenters. As a result, the e-Tailers' Group primarily served as a market device for facilitating the articulation of buyers' needs and equipping them with the skills to undertake evaluation of prospective EBS providers. These peer group meetings were also useful for examining and evaluating the existing e-commerce assemblage of a retail micro-enterprise as a whole, in order to identify any gaps (such as organisational processes that need to be routinised, or risks that need to be mitigated), which would then lead to the development of a need (i.e. market demand) to initiate the search for a new EBS provider.

The Compass e-Tailers' Den, on the other hand, consisted, on average, of 127 participants, roughly half of whom were EBS sellers, while the other half were buyers. EBS providers had a lot more freedom and scope to approach prospective buyers, and the panel appearances, audience contributions, masterclasses, and exhibition stands offered

opportunities to demonstrate their expertise and other qualities to them. In turn, the attending e-tailers could also choose their manner of engagement with the assembled sellers, by making themselves highly visible through the presentations as contestants, by approaching particular types of EBS providers on the basis of their expertise as manifested in the masterclass topics or at the exhibition stands, or discovering them more randomly, by engaging in casual conversation in the dinner break, e.g. by taking an interesting audience contribution of an EBS attendee as a prompt.

My study had confirmed Foss and Klein's (2012) proposition that the exercising of entrepreneurial judgement about the acquisition of productive means takes the form of experimentation. My contribution to that proposition is to highlight that such an experimentation takes place with the involvement of collectives that may be external to the firm, and which can be conceived of as socio-technical instruments. i.e. market devices, for the facilitation of making qualitative judgements about the acquisition of productive means, which is simultaneously an entrepreneurial and a market process.

Both the e-Tailers' Group meetings and the e-Tailers' Den mentoring sessions could be described as following an experimental protocol, the successful execution of which results in a finding. Latour and Woolgar's (1986) characterisation of a laboratory as an *inscription device*, i.e. a toolchain that—as a result of an experiment—outputs an answer to a research question, may be an appropriate analogy here. In this sense these two Compass services functioned as a sort of a laboratory with an experimental protocol, which facilitated the construction of an answer to a question about the nature of one's e-commerce operations.

A number of different types of outcomes were possible. An external qualification trial at one of these venues could result in a *confirmation*—or *disconfirmation*—of the quality of one's e-commerce assemblage as a whole or one of its elements (and the EBS service provider associated with it). These market devices could also result in an *encounter* with a prospective seller and an *acquisition* of this new means of production, which would be an instance of a market transaction. Finally, these events could also produce referrals by other users, which might have been tried and tested by peers who are trusted to various degrees. Tried and tested referrals are effectively the outcomes of the internal or external qualification trials of peers. *Encounters* and *referrals* are the result of what colloquially is referred to as *networking*. However, as it should become apparent from this study, for such 'networking' to produce valuable results, there needs to be a great deal of prior work on the part of the market makers to construct market devices and develop protocols for qualification trials.

The qualification of the specific offering of an EBS provider at one of these events

can itself be considered an instance of its *individuation as a market good*, and possibly even an individuation of the ICT artefact that is going to result from contracting the service, even if the full details of the service relationship and the resulting technology are more likely to be worked out over a longer period of time, after these marketplace encounters. Finally, if nothing else, attending and actively participating in the market event such as the e-Tailers' Den can at least result in making a buyer or seller visible in the marketplace, thus producing some familiarity that can prompt market encounters at similar future events.

12.2.2. Classification of market devices, interactions, and outcomes

The typology presented in the following is not meant as an exhaustive categorisation of all possible forms of these objects, processes, and outcomes. It is simply a recognition of some patterns in the actors and actions empirically detected in this research. Table 12.1 offers one possible organisation of this typology. The columns contain categories of the classification, while the rows contain the identified types, sometimes with additional dimensions to further specify their main characteristics. The first column in Table 12.1 lists the ten types of market devices that were identified during the research, by a descriptive name, and then specifies, in the case of business market devices, whether or not they were formally designated as market devices (formal or informal), and if so, the degree to which they were articulated as market devices (unformatted, weakly formatted, or formatted).

Another dimension in this classification concerned the differing degrees of openness (enforced by the format and the physical surroundings of the marketplace event), which resulted in different compositions of participants, and led to different types of interactions (described in the fourth column) and outputs and outcomes (described in the fifth column). The various degrees of openness ranged from private to semi-private and semi-public.

The second column identifies whether the given market device is for performing a business-to-consumer market or a business-to-business market. The third column provides a specific example of each from the empirical description. The distinction between *external* and *internal* in the fourth column identifies whether the qualification trial of a market good is taking place before or after it has been purchased and incorporated into the buyer's assemblage (the e-tail firm). Row colouring is used to group the various market devices according to the organisations that had constructed them.

Table 12.1: Classification of market devices, qualification trials, and outputs and outcomes

Market devices	Market	Market device example	Types of interactions	Types of outputs & outcomes
marketised e-commerce assemblage (<i>private</i>)	consumer	Mandoline's e-commerce operations	<ul style="list-style-type: none"> external qualification of online shoppers 	<ul style="list-style-type: none"> attracted shoppers approved customers rejected shoppers (fraud)
the firm as unformatted or formatted (<i>private</i>)	business	Mandoline Cookshop Group	<ul style="list-style-type: none"> internal/external qualification trials self-diagnostics 	<ul style="list-style-type: none"> confirmation/disconfirmation articulation of buyer's need articulation of market goods
informal, unformatted network (<i>semi-private</i>)	business	Mandoline's relationships with peers and suppliers	<ul style="list-style-type: none"> shared internal qualification trials 	<ul style="list-style-type: none"> tried and tested referrals untried and untested referrals
formal, weakly formatted network (<i>semi-private</i>)	business	Business Link's IDB model with supplier matching service	<ul style="list-style-type: none"> diagnostics mediated internal qualification trials 	<ul style="list-style-type: none"> confirmation/disconfirmation articulation of buyer's need untried and untested referrals weakly qualified referrals
formal, formatted network (<i>semi-private</i>)	business	Business Link's PBA-led "intensive assistance" service (prior to IDB)	<ul style="list-style-type: none"> diagnostics mediated internal qualification trials 	<ul style="list-style-type: none"> confirmation/disconfirmation articulation of buyer's need tried and tested referrals
formal, formatted supplier training (<i>semi-private</i>)	business	Business Link e-Suppliers' Forum	<ul style="list-style-type: none"> shared internal qualification trials 	<ul style="list-style-type: none"> marketing/selling skills articulation of market goods
formal, formatted trade show (<i>semi-public</i>)	business	Business Link e-Fair	<ul style="list-style-type: none"> external qualification trials 	<ul style="list-style-type: none"> encounters and transactions articulation of market goods
formal, formatted seminar and workshop (<i>semi-public</i>)	business	Business Link's 12/12/2006 "Growth Through Innovation: e-Marketing Workshop"	<ul style="list-style-type: none"> diagnostics external qualification trials 	<ul style="list-style-type: none"> encounters articulation of buyer's need articulation of market goods
formal and formatted peer group meeting (<i>semi-private</i>)	business	Compass e-Tailers' Groups	<ul style="list-style-type: none"> diagnostics external qualification trials 	<ul style="list-style-type: none"> encounters articulation of buyer's need articulation of market goods
formal and formatted trade show contest (<i>semi-public</i>)	business	Compass e-Tailers' Dens	<ul style="list-style-type: none"> diagnostics external qualification trials 	<ul style="list-style-type: none"> encounters articulation of buyer's need articulation of market goods

The first row contains the only type of *consumer market device* identified in the research, the **marketised e-commerce assemblage** of an e-tail firm, such as Mandoline's e-commerce operations. This market device performs its function through the external qualification of online shoppers, by attracting them through its particular way of marketisation (linkages to online marketplaces), and establishing whether they are bona fide customers or potential fraudsters (Figure 9.15), and approving or rejecting them accordingly.

The remaining nine types of market devices are all *business market devices*. The second market device type on the list is the **firm**. As we saw in the case of Mandoline, it is possible to use one's firm as a private, unformatted device for the evaluation of suppliers through internal qualification trials, i.e. after having contracted them. This may result in the confirmation or disconfirmation of the value of the given supplier, in the self-diagnosis and clearer articulation of the buying micro-enterprise's needs, and in the articulation of the supplier's service (the purchased market good). As we have seen in Chapter 9, using the firm for internal qualification trials was a costly and risky way to go about evaluating suppliers and their offerings. One alternative suggested by an e-Tailers' Den panellist was to use the firm as a formatted market device for external qualification trials, i.e. putting in place a protocol (hence the formatting) to evaluate a supplier prior to contracting them (and without the obligation to do so), which some of the e-tailers of the Midsomer e-Tailers' Group did practice.

The third type of a business market device identified in this research is what is commonly referred to as a firm's "network," its relationships with its suppliers, peers, and other stakeholders. Such a network is an **informal and unformatted network**, as it performs its occasional function as a market device without formally designed protocols and settings. In contrast to the previously discussed private market devices, it is semi-private, in the sense that it can occur in more open environments and involving more participants than the former, e.g. at a dinner meeting of peers, where exchanges of information can occur. Networks as market devices serve for the sharing of the outcomes of internal qualification trials with others, as tried and tested referrals for suppliers, or, in the absence of such trials, of untried and untested referrals. In the case of Mandoline, its supplier relationship with WebTech produced such tested and untested referrals, e.g. the SEO providers JumpUP and FindAs discussed in Chapter 9. The coffee breaks at e-Tailers' Group meetings and the dinner breaks at e-Tailers' Dens also served as occasions to deploy networks as market devices to pass on qualified and unqualified recommendations.

The next five types of business market devices were all provided by various Business

Link services; hence they are grouped together and highlighted in green. The first two of these are further variations of the "network" type mentioned earlier. However, in contrast to the firm's network that was informal and unformatted, these two types are formal networks that are deliberately formatted to work as market devices. The first of these is the **formal, weakly formatted network**, performed in a semi-private setting. Business Link's IDB model was an example of this. The network consisted of the Personal Business Advisor and his or her diagnostic services, and the regional supplier matching service, as the source for weakly qualified (and effectively untried and untested) referrals based on the internal qualification trials of the client references provided by the suppliers themselves. The second **formal** type was a more **strongly formatted network**, such as Business Link's "intensive assistance" service prior to the IDB model, delivered by PBAs with the use of their own databases of tried and tested suppliers (based on outcomes of the shared internal qualification trials of the PBAs' former SME clients).

The sixth type of a market device focused helping suppliers (as sellers) to articulate their market goods. Business Link South's e-Suppliers' Forum was such a **supplier training event**. It was a semi-private event in the sense that it only included sellers, who were able to share their marketing strategies with each other in confidence. In contrast, the seventh type, **formal and formatted trade shows** were semi-public events because they were open to both buyers and sellers, even if some restrictions to limit the numbers or pre-qualify the participants would normally apply. Business Link South's e-Fair event was one such trade show. This type shared one characteristic with the remaining three types on the list, namely that in addition to some of the outputs already mentioned earlier it had also allowed for direct encounters between buyers and sellers, thus resembling more closely what is commonly understood by a marketplace.

The eighth business market device type is the **formal and formatted seminar and workshop**, a semi-public event such as the BLS 12/12 seminar described in Chapters 6 and 7 was. The ninth and tenth types on the list in purple are exemplified by the two Compass Ltd. services described in Chapters 10 and 11 respectively. The e-Tailers' Groups were an example of semi-private **formal and formatted peer group meetings**, where buyers could articulate their needs by helping to 'diagnose' each other, and conduct external qualification trials of prospective suppliers in a highly controlled environment that was focused on developing the assessment skills of buyers. In contrast, the tenth type, **formal and formatted tradeshow contests** such as the e-Tailers' Dens, were semi-public events, where encounters between buyers and sellers occurred in a less constricted environment, while also allowing

for the Dragons' Den style contests to mutually articulate the buyers' needs and the sellers' goods.

12.2.3. Market devices as judgment devices

In contribution to Foss and Klein's (2012) Knightian proposition about the theory of the firm boiling down to entrepreneurial judgement about the acquisition of capital resources, I have shown that such judgement is often distributed over time and across heterogeneous media involving a variety of publics. In other words, entrepreneurial judgement requires the use of complex social entities that could be called "judgement devices," which in the case of Mandoline, for instance, took the shape of peer group meetings and Dragons' Den style events. However, I would like to argue that these "judgement devices" are better described as *market devices* because at the heart of the entrepreneurial judgement there lie activities and decisions that concern the evaluation of existing and prospective relationships with providers of productive means (capital goods). Market devices are required for creating the appropriate social environment for marketplace situations to occur, the results of which can inform or indeed stand for entrepreneurial judgement.

12.3. Market neutrality and gift giving

In Chapters 10 and 11 we have seen that for a Compass e-Tailers' Group or Den to work as a marketplace, there needs to be a perception of neutrality on the part of the buyers for the qualification trials to work as evaluation events. This sense of neutrality is established when for instance a seller offers a sample of its service freely as a **gift** to the buyers to evaluate, without any obligation to buy. Indeed, the term "free trial period" is commonly used in the sense of a "gift" for the evaluation of products like software and electronic services. Aggressive sales pressure would disrupt the state of neutrality required for the assessment of the market good, and undermine the gift-like nature of the qualification trial. The gift-giving also goes the other way: a buyer, by agreeing to participate in a trial, also offers itself up to be evaluated, especially in the kind of scenarios I have described in this study.

For example, the two Compass services, due to their design and protocols, were able to create an environment where the qualification process of buyers, sellers and the market good was allowed to unfold mutually in a relatively (or sufficiently) neutral space. This gift-giving aspect of the qualification trial can even be found in the case when the firm is being used as a business market device. If we conceive of the e-Tailers' Groups and Dens as external market devices where sellers were given the opportunity to demonstrate their

qualities by providing the gift of a sample to the assembled buyers, then in the case of using the firm as a market device it is the buyer who is giving the gift of a trial to the seller, considering that the qualification trial is being run at the expense of the buyer.

Market devices such as the two Compass services thus could also be described as platforms for the exchange of gifts, where the ritual of mutual gift giving allows sellers and buyers to engage in interactions that result in the mutual establishment and recognition of each other's qualities, either preparing the ground for market transactions or preventing them from happening. Indeed, the outcomes of qualification trials need not always be positive for the participants. Having the opportunity to be publicly assessed and be made visible can also have negative consequences: for example, it can establish a participant as incompetent or greedy. We saw that William Collins of SoftStar Media was exposed as an aggressive seller at one of the e-Tailers' Dens. Collective evaluation at e-Tailers' Group meetings could also produce harsh criticisms, with one e-tailer once remarking after her presentation: "we are going to go home and cry." However, the fallibility of actors, just like the requirement for neutrality and gift-giving, was a necessary aspect of a qualification trial, without which it would not have been able to function as a credible market process resulting in credible outputs.

12.4. An economy of e-sociations, market devices, tests, and gifts

We are now in a position to return to and assess how the methodological objectives of the final movement of actor-network theory, *composition*, had been achieved in the present study. First, I will address this question: in what ways can this piece of text be considered to constitute empirical (or practical) metaphysics? In what ways has this work 'reassembled the social' (to use Latour's expression)? What are the outputs of this particular social science experiment, of this particular 'inscription device' (to use another of Latour's terms)?

I would like to argue that the use of ANT as a research method allowed me to proceed along the path defined in Latour's (1993c) *We Have Never Been Modern* book, where he argues that the strict separation between Nature and Society had only ever existed in the discourse of Modernity, and instead the last couple of centuries have presided over a proliferation of hybrids, complex heterogeneous assemblages that need to be described by the social sciences to be able to grasp their contribution to the construction of reality. Latour (Latour, Harman et al. 2011) suggests that to carry out such a social science description is

like dipping a bucket into the 'plasma of unformatted social knowledge', in order to identify the 'social glue' that holds the social world together.

These connectors often turn out to be nonhuman actors, the "missing masses" whose silent work in the background goes unrecorded (Latour 1992). This is why "free association" and "generalised symmetry" (Callon 1986b) have become such important elements of ANT's toolbox, as a material-semiotic method of description: not only to be able to identify the contributions of nonhumans, but also to be able to describe the construction and functioning of hybrids. "To reassemble the social" means to show what society looks like and how it works, once the work of the "missing masses" had also been accounted for.

It should be clear by now that the hybrids that have emerged from my description included the various market devices that were necessary for the construction of the heterogeneous assemblages that e-tail micro-enterprises and their e-commerce artefacts themselves were. The makers of market devices also emerged as complex hybrid entities, whether we consider the labyrinthine organisational structure and strategic partners (central and local governments, universities, Chambers of Commerce and so on) that supported the national Business Link network or the leaner but sophisticated assemblage of regional stakeholders that Simon Jacobs's Compass Ltd. had created.

The world that has been reassembled through this particular empirical description is that of a *digital economy* (I would have liked to call it an 'e-economy', if it did not sound so awkward). The construction of this new type of economy required the production of new types of economic associations, which I labelled *e-sociations*, in order to emphasise that what uniquely held this new economy together were electronic attachments. The innovation of e-commerce itself was about enabling the creation of e-sociations between retail shoppers and retail goods. However, as we saw, the adoption of this innovation was itself predicated on the availability of competence to create e-sociations between firms and e-commerce artefacts, and then again between those digital artefacts and online marketplaces. I called the latter type of e-sociation *e-marketisation*, to highlight the fact that the adoption of e-commerce involved the active construction of online markets by turning the e-commerce artefact into a *consumer market device*, through the creation of electronic links to online marketplaces. To paraphrase Latour, this study was about reassembling the 'e-social', the economy that functions through the making of e-sociations.

This work could also be characterised as an exercise in "re-description", which is another Latourian (Latour, Harman et al. 2011) term to characterise what happens in an ANT study. The type of economy that had emerged in Western nations such as the UK in the past

couple of decades had been described as a knowledge-based economy, learning economy or a technological economy, while remaining a type of capitalist market economy. My study then could be seen a re-description of these categories, specifying the ways in which this economy of knowledge, learning, technology and markets is an *economy of e-sociations*, which are forged in qualification trials using a variety of market devices. In this sense the British (or at least Southern English) market economy is a *market-device-based economy*, which at the same time is also a *test-based* and *gift-based economy*, as the knowledge, learning and technologies are produced and performed through series of qualification trials that are predicated on the availability of a neutral learning environment and gift-giving behaviour.

12.5. Political epistemology

The final remaining question arising from the Latourian enterprise that needs to be answered in relation to this work is this: in what sense is the empirical description in this study a form of political epistemology? For Latour, actor-network theory is a method for practicing political epistemology exactly through the aforementioned process of empirical metaphysics, i.e. by giving representation to the silent masses that have been found to contribute to the stability of the empirical situation under consideration. So, who or what has this work given representation to, and how were they recomposed into one common world (i.e. without splitting it into Nature and Society)?

Perhaps the most significant silent actors that have received representations from this work were the various business market devices that had been identified as performing the entrepreneurial markets and marketplaces necessary for the productive means that are in turn needed for the construction of consumer market devices such as marketised e-commerce websites. As we have seen, it came down to the specific designs of business market devices whether small business entrepreneurship and innovation were being performed or not. Simultaneously, this study has also shown the resources and effort that were necessary to construct and provide such market devices, thus highlighting the role of *market making organisations*, whether they were public sector or private sector providers. One key learning point arising from these representations is that the abstract markets of rationalist theories (in which for instance the Kirznerian entrepreneur conducts its arbitrage, or which the Schumpeterian entrepreneur mediates between) in the empirical world need to be constructed and performed every time, using specific market devices, which, as we have seen, take considerable expertise, resources, and effort on the part of market makers that are innovators

and entrepreneurs in their own right.

Start-ups and micro-enterprises, whether e-tailers, EBS providers, or market makers, are the other relatively silent community that has received representation through this study. While they do have organisations—such as Chambers of Commerce, the Federation of Small Businesses, or the Institute of Directors—through which they can attempt to gain representation (and if nothing else works, their local Member of Parliament or the news media), very small firms can still find it difficult to have their voices heard, especially in situations of economic and political upheaval, such as the 2008 financial crisis was, when their credit lines were the first to be cut, or when the newly elected Conservative-led government had abolished Business Link in its entirety by October 2012, depriving micro-enterprises of an important source of entrepreneurial marketplaces and innovations. My study has highlighted the specific ways in which entrepreneurship and innovation adoption take place as market processes through which individual firms and their adopted technological artefacts become collectively constructed by a variety of publics.

This suggests that there very well may be a positive relationship between the availability of sophisticated, well-designed business market devices for entrepreneurial markets, and the rates of enterprise formation and innovation adoption by entrepreneurs that engage with such markets. It would be the task of future research to ascertain that. Also, whether Business Links were good value for taxpayer money and an effective source of entrepreneurial market making services is probably an impossible question to answer in hindsight, partly because the performances and outputs of the various business market devices—and the resulting benefits for the SME users—were not quantified and measured (as we saw in Chapter 7, PBAs were busy chasing other targets). Another contribution of this study therefore is the articulation of multiple parameters of business market devices (such as the outputs identified in Table 12.1), which could serve as a basis for developing measures for the performances of similar market making services elsewhere. It would also fall to future research to examine whether the vacuum left behind by the disappearance of Business Link's market devices was filled by private sector market makers, and whether these changes had any impact on the rate of new venture formation, innovation adoption by SMEs, and start-up and small business survival rates in the UK.

The present study's primary aim was to explore the overlapping and interlocking areas of the practices of entrepreneurship, innovation, and markets, by drawing on the STS tradition of empiricist enquiry and using ANT for a method. At the same time, I was hoping to make a contribution, by way of a close examination of market devices, to STS-inspired

market and valuation studies, in particular to the marketisation research programme set out by Çalışkan and Callon (2010). Meanwhile I also wanted to build bridges between market, entrepreneurship and innovation studies, by showing that an empirical study of market practices can offer some answers to some of the intractable disputes between competing theories of entrepreneurship and serve as an empirical test for some of their propositions. In particular, I have offered a solution for the reconciliation of Schumpeter's and Kirzner's respective concepts of entrepreneurship, and I have also suggested a way of incorporating the adopter of an innovation into the Schumpeterian model of entrepreneurship. I have provided empirical proof to Kirzner's proposition that entrepreneurs use markets as testing grounds by learning from experimental engagements with them. Similarly, I have shown how a Schumpeterian disruptive innovation, e-commerce, is actually implemented on the ground.

As for Burt's theory of entrepreneurship, I have demonstrated that while entrepreneurs may indeed engage in Burtian networking to bridge structural holes, a "network for making contacts" was just one form of a business market device that entrepreneurs made use of, and it was not necessarily the most useful or sophisticated one. Moreover, engaging with these network-like business market devices was never simply about accessing new information, but was part of a complex construction effort to build heterogeneous assemblages with new types of ties (in this case e-sociations), which involved building long-term relationships with multiple partners. This is also the point where my work can make a contribution to the entrepreneurial learning literature (Rae and Wang 2015), by showing that the various entrepreneurial learning situations and reflexive practices were always embroiled in the object-orientated tasks of acquiring productive means for recombination, which were simultaneously market practices of evaluation. Table 12.2 provides an overview of my thesis, summarising the answers to the research questions and the main contributions to the relevant theoretical and methodological debates.

Table 12.2: Thesis overview: summary of research questions, answers, literatures, method and contributions

Thesis: Entrepreneurship is a market process using social devices experimentally to acquire productive means and attach their service to customer markets.			
QUESTIONS	ANSWERS	LITERATURES	CONTRIBUTIONS
<p>WHAT IS IT? A social study of the nexus of entrepreneurship, innovation and markets, using ethnographic methods and ANT as a research approach.</p> <ul style="list-style-type: none"> • Empirical description • Qualitative research • Following actors • Tracing trajectories <p>Empirical questions [SPECIFIC, NARROWER] :</p> <ol style="list-style-type: none"> 1. How did e-commerce entrepreneurship emerge in Southern England? <ul style="list-style-type: none"> o emergence of entrepreneurship o diffusion/adoption of e-commerce o regional focus <p>Empirical questions [GENERAL, BROADER] :</p> <ol style="list-style-type: none"> 2. How do entrepreneurial markets for an innovation emerge and operate in a developed economy such as UK? <ul style="list-style-type: none"> o nature of the 'knowledge-based economy' as a social and policy context <p>Theoretical questions:</p> <ol style="list-style-type: none"> 3. What is nature of entrepreneurship, innovation, and markets, and relationships between them? 4. What is nature of this type of economic and political order (British capitalism) and change (globalisation and technological change)? 	<p>Entrepreneurship</p> <ol style="list-style-type: none"> 1. Entrepreneurship is a <i>market process</i> using <i>social devices</i> experimentally to acquire productive means and attach their service to customer markets. <p>Innovation</p> <ol style="list-style-type: none"> 2. Entrepreneurship is needed both to create an innovation and to adopt and stabilise it (by turning it into a repetition), using market devices. <p>E-commerce entrepreneurship</p> <ol style="list-style-type: none"> 3. E-commerce entrepreneurship requires creation of <i>e-sociations</i> between firm and ICTs, ICTs and online markets, and goods and online consumers. 4. <i>E-marketisation</i> is a type of e-sociation required for attaching e-commerce artefacts to online marketplaces to create <i>consumer market devices</i>. <p>Entrepreneurial market(place)s</p> <ol style="list-style-type: none"> 5. Availability, composition, design and operating procedure of market devices affect quality and utility of outputs of entrepreneurial markets. <p>Market devices</p> <ol style="list-style-type: none"> 6. Outcomes of market devices differ according to types of constituents and interactions, and extent of formalisation, formatting and openness. <p>Knowledge-based economy</p> <ol style="list-style-type: none"> 7. Digital economy is a market-device-, trial-, and gift-based economy, requiring entrepreneurial markets for B2B services to create <i>e-sociations</i>. 	<p>RATIONALIST THEORIES</p> <p>Entrepreneurship-innovation-market:</p> <ol style="list-style-type: none"> 1. Schumpeter: construction, mediation, disruption (disequilibrium), implementation 2. Kirzner: arbitrage, stabilisation (equilibrium), testing, learning 3. Burt: networking (mediation + arbitrage) 4. Knight: entrepreneurial judgement about capital goods <p>GAPS/OPPORTUNITIES:</p> <ol style="list-style-type: none"> 1. Entrepreneurship is market process 2. Acquisition of productive means 3. Entrepreneurship vs. innovation 4. Entrepreneurial agency/opportunity 5. Methodological individualism 6. Social theory dilemmas 7. Emergence, contingency 8. Network and networking 9. Experimentation 10. Normativity <p>EMPIRICIST THEORIES/METHOD</p> <ol style="list-style-type: none"> 1. Entrepreneurship as heterogeneous assembling 2. Translation - construction effort 3. Innovation as a network of translations 4. Markets as calculative social devices: <ol style="list-style-type: none"> a. socio-technical agencements 5. Network as method: ANT 6. Network as metaphor: <ol style="list-style-type: none"> a. markets as networks 7. Entrepreneurial <i>Homo Economicus</i> as a market outcome ('calculative' agency) 8. Markets as sites of experimentation 9. Qualification/qualculation as a market process of <ol style="list-style-type: none"> a. Articulation b. Individuation 10. Economisation and marketisation 11. Emp. metaphysics, pol. epistemology 12. Experimental approach, experimental device 	<p>Entrepreneurship/innovation studies</p> <ol style="list-style-type: none"> 1. Market aspects <ul style="list-style-type: none"> • social and material aspects • acquisition of productive means <ul style="list-style-type: none"> o material form of entrepreneurial learning • entrepreneurial judgement: social and material process requiring market (judgement) devices 2. Addressing social theory dilemmas, ANT method 3. Focus on emergence & contingency (in vivo) 4. Focus on start-ups and micro-enterprises 5. Entrepreneurial market(place)s for an innovation <ul style="list-style-type: none"> • business market devices • consumer market devices 6. Role of State via Business Link (innovation) 7. Construction of enterprises, entrepreneurs, markets and marketplaces 8. E-commerce diffusion/adoption: history, emergence/y, novelty, creation, stabilisation <ul style="list-style-type: none"> • <i>e-sociations: e-marketisation</i> 9. Networks and networking: <ul style="list-style-type: none"> • Burtian networks and networking: only one type of market device and practice 10. Relationship between entrepreneurship/innovation: <ul style="list-style-type: none"> • equilibration/disequilibration • confirmation of Kirzner's thesis • reversal of Kirzner's solution <p>Market/valuation studies</p> <ol style="list-style-type: none"> 1. Typology of market devices, qualification trials, outcomes, and new associations 2. Market devices as entrepreneurial reflexivity and judgement devices 3. Seminars, peer groups, conferences, trade shows, Dragons' Den style contests as B2B marketplaces 4. Linking market and organisational practices 5. Focus on entrepreneurial markets for innovations 6. Reasons for market/marketplace success & failure 7. Role of neutrality and 'bias' in markets 8. Role of gift giving in entrepreneurial markets 9. State's role in construction of 'market economy' 10. Nature of 'knowledge economy' as digital economy based on trials and market devices

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