Contents /X

Contents

Lis	List of Figures		
Lis	List of Tables		
List of Abbreviations			
1	Introduction		
	1.1 Context, Research Gap, and Research Approach		
	1.2 Research Questions		
	1.3 Structure of Dissertation		
2	Phenomenological Background		11
	2.1 Lead Markets		
	2.1.1	Research Leading Up to Lead Market Theory	11
	2.1.2	The Formalization of Lead Market Theory: Beise and the System of Lead Market Factors	15
	2.1.3	Application of Lead Market Theory to Product, Service, and Technology Innovations	22
	2.1.4	An Introduction of Lead Market Theory into Policy Making	24
	2.2 Demographic Change and Aging		
		Demographic Change	26
		Aging	30
	2.3 Age-Based Innovations		
	2.3.1	Age-Based Innovations Research	42
	2.3.2	Adoption and Diffusion Research in the Context of Aging	43
	2.3.3	Age-Based Innovations: Theoretical Context and Special Characteristics	46
2	Casa Stu	·	51
J	Case Studies: Early Adoption Patterns and Lead Markets 3.1 Introduction and Methodology		51 51
		Link to Research Questions	5 ⁴
		Case Study Analysis: Rationale and Structure	5 51
		Choice of Product and Service Categories	53
		Information Sources	53
	••••	Case of Stair Lifts	5. 5.
		Stair Lifts as Age-Based Innovations	54 54
	J.Z. I	otan Ente de rige-based innivations	٠.



X Contents

	3.2.2 Timeline of Events: Development, Initial Adoption,	
	and Early Diffusion	54
	3.2.3 Observations	58
	3.2.4 Lead Market Factors	61
	3.3 The Case of Rollators	69
	3.3.1 Rollators as Age-Based Innovations	69
	3.3.2 Timeline of Events: Development, Initial Adoption,	
	and Early Diffusion	70
	3.3.3 Observations	72
	3.4 The Case of Reverse Mortgages	78
	3.4.1 Reverse Mortgages as Age-Based Innovations	78
	3.4.2 Timeline of Events: Development, Initial Adoption,	
	and Early Diffusion	80
	3.4.3 Observations	82
	3.5 The Case of Assistive Social Robots for Eldercare	90
	3.5.1 Assistive Social Robots as Age-Based Innovations	90
	3.5.2 Timeline of Events: Development, Initial Adoption,	
	and Early Diffusion	91
	3.5.3 Observations	92
	3.6 Intermediate Conclusions	95
4	Integrated Analysis of Lead Market Candidates Based on	
	Extant Theory	99
	4.1 Introduction	99
	4.2 Lead Market Location for Age-Based Innovations	101
	4.2.1 Demand Advantage	101
	4.2.2 Price Advantage	105
	4.2.3 Transfer Advantage	110
	4.2.4 Export Advantage	112
	4.2.5 Market Structure Advantage	120
	4.2.6 Conclusions about Lead Market Candidates	121
5	Market Participant Study	125
	5.1 Introduction	125
	5.2 Study Design	125
	5.2.1 Thematic Focus	125

Contents XI

	5.2.2	Study Design Parameters	129
	5.2.3	Study Participants	131
	5.2.4	Study Implementation	132
	5.2.5	Participation	134
	5.3 S	itudy Results	135
	5.3.1	International Diffusion of Innovations and Country-	
	Speci	fic Differences in Demand	136
	5.3.2	Existence and Location of Lead Markets	136
	5.3.3	Factors Contributing to Lead Market Location	138
	5.3.4	The Customers' Role in Innovation	142
	5.3.5	Sales and Distribution	143
	5.3.6	Company Information	145
	5.3.7	Participant Information	145
	5.3.8	Cross Table Analyses	147
	5.3.9	Further Observations	153
	5.4	Discussion and Implications	155
	5.4.1	Lead Market Existence	155
	5.4.2	The Question of Supply Side Challenges	156
	5.4.3	The Customers' Role in Innovation	158
6	Intermed	iate Results	161
	6.1 <i>A</i>	A Typology of Age-Based Innovations	161
	6.1.1	Typology	161
	6.1.2	Sub-Group Classic Market Mechanism (Sub-Group 1) 164	
	6.1.3	Sub-Group Self-Help and Compassion (Sub-Group 2)	165
	6.1.4	Sub-Group Public Intervention (Sub-Group 3)	166
	6.1.5	Mapping of Age-Based Innovations on Typology	
	Matrix	x 167	
	6.1.6	Sub-Group Selection for Further Research	169
	6.2	Age-Specialized Innovations: Stakeholder Structure and	
	Implication	ons	169
		Self-Help and Compassion (Sub-Group 2):	
		tions and Propositions	171
	6.3.1	User Innovation and "Compassionate" Innovation	171

XII Contents

	6.3.2 Country of Invention as Initial Leader in Adoption	172
	6.3.3 Potential Shifts in Lead Market Location	174
	6.3.4 Propositions	175
	6.4 Public Intervention (Sub-Group 3): Observations and	
	Propositions	179
	6.4.1 Public Intervention in the Development and Supply of	
	Age-Based Innovations	179
	6.4.2 Public Intervention in the Demand and Early Adoption	
	of Age-Based Innovations	182
7	Expert Interview Series	185
	7.1 Introduction	185
	7.2 Study Design	185
	7.2.1 Selection of Interviewing as Data Collection Method	185
	7.2.2 Development of Proposition-Based Semi-Structured	
	Interview Guide	188
	7.2.3 Interview Partners	189
	7.2.4 Notes on the Interviewing Process	191
	7.2.5 Data Analysis Methodology	193
	7.3 Study Results	196
	7.3.1 Results for Proposition 1	196
	7.3.2 Results for Proposition 2	202
	7.3.3 Results for Proposition 3	210
	7.3.4 Results for Proposition 4	218
	7.3.5 Results for Proposition 5	222
	7.3.6 Results for Proposition 6	226
	7.3.7 Emerging Theme: Ongoing Changes in the	
	Perception of Age and the Elderly	236
	7.4 Discussion and Conclusions	237
	7.4.1 Proposition 1	237
	7.4.2 Proposition 2	239
	7.4.3 Proposition 3	242
	7.4.4 Propositions 4 and 5	243
	7.4.5 Proposition 6	243
Q	Discussion of Results, Implications, and Limitations	247

Contents XIII

	8.1	D	iscussion of Results	247
	8.2	In	nplications for Research	253
	8.2.	1	Contributions to Research	253
	8.2.	2	Limitations	258
	8.2.	3	Opportunities for Further Research	261
	8.3	R	ecommendations for Managerial Practice	263
	8.3.	1	Diversity of Lead Markets in Age-Based Innovations	263
	8.3.	2	A Differentiated Evaluation of Lead Market Factors	264
	8.3.	3	Business Implications of Supply Side Challenges	265
	8.3.	4	Business Implications of Public Intervention in Age-	
	Bas	sed	Innovation Development	266
	8.4	R	ecommendations for Policy Makers	267
	8.4.	.1	Considering Supply Side Challenges in Policy	267
	8.4.	2	Revisiting Co-financing Schemes for Age-based	
	Inn	ova	ations	269
9	Bibliog	raț	phy	271
10	Appen	dix		305