

Contents

1	Introduction	1
1.1	Research question	2
1.2	Structure of the work	4
2	E-commerce multichannel retailing	7
2.1	E-commerce business models	9
2.1.1	Classification of e-commerce business models	9
2.1.2	Design of e-commerce business models	12
2.2	Design of distribution channels	13
2.2.1	Market definition, legal form and partnerships	14
2.2.2	Range of goods and services	15
2.2.3	Pricing	15
2.2.4	Communication	16
2.2.5	Distribution, type of operation	16
2.2.6	Organizational structure	18
2.2.7	Internal processes	20
2.3	Coordination of distribution channels and utilization of synergies	20
2.3.1	Market definition, legal form and partnerships	23

2.3.2	Range of goods and services	23
2.3.3	Pricing	24
2.3.4	Communication	25
2.3.5	Distribution, type of operation	25
2.3.6	Organizational structure	27
2.3.7	Internal processes	27
3	Performance measurement	29
3.1	The evolution of performance measurement systems	30
3.2	Requirements in modern performance measurement frameworks	32
3.2.1	Linking operations and strategic goals	33
3.2.2	Provision of a succinct overview of the organization's performance . . .	34
3.2.3	Multi-dimensionality and provision of a balanced picture	34
3.2.4	Integration of different hierarchical levels	35
3.3	State of the art of performance measurement frameworks	36
3.3.1	Balanced Scorecard	36
3.3.2	Performance Prism	38
3.3.3	Performance Pyramid	40
3.3.4	Productivity Measurement and Enhancement System (ProMES)	43
3.4	Success of e-commerce companies	44
3.5	Performance measures for e-commerce multichannel retailers	53
3.5.1	Basic channel migration models	55
3.5.2	Migration models considering customer groups	57
3.5.3	Web-based estimation of channel migration	58

4	Methodology - a structured approach for designing the model	65
4.1	Design science	65
4.2	The ARIS framework	67
4.2.1	Three levels of modeling an information system	67
4.2.2	Five views on the information system	68
4.2.3	Integration of object-oriented modeling and ARIS	70
4.3	Used modeling tools	71
5	Performance measurement model for e-commerce multichannel retailing	75
5.1	General model of the performance measurement system	76
5.1.1	Organization view	78
5.1.2	Data view	80
5.1.3	Function view	88
5.1.4	Control view	92
5.1.5	Output view	97
5.2	Selected performance measures for e-commerce multichannel retailers	102
5.2.1	Organization view	106
5.2.2	Data view	107
5.2.3	Function view	117
5.2.4	Control view	124
5.2.5	Output view	127
6	Demonstration of the performance measurement system model	131
6.1	Customizing the measurement system	132

6.2	Using the system for planning performance	133
6.3	Measuring performance and interpretation of the values	143
7	Summary and discussion of results	153
	Appendix	159
	Bibliography	175