

# Table of contents

|                             |      |
|-----------------------------|------|
| List of abbreviations ..... | XI   |
| List of figures.....        | XIII |
| List of tables .....        | XVII |

## Chapter I Summary of the research..... 1

|       |                                                                  |    |
|-------|------------------------------------------------------------------|----|
| 1     | Introduction.....                                                | 3  |
| 1.1   | Motivation and purpose .....                                     | 3  |
| 1.2   | Thematical boundaries and definitions .....                      | 7  |
| 1.2.1 | Defining Supply Chain Risk Management .....                      | 8  |
| 1.2.2 | Defining Strategic Technology Partnering .....                   | 9  |
| 1.2.3 | Defining Capabilities.....                                       | 10 |
| 1.3   | Research aims and objectives .....                               | 11 |
| 1.4   | Overview of the research study .....                             | 14 |
| 2     | Theoretical foundations.....                                     | 19 |
| 2.1   | Theoretical background of the research .....                     | 19 |
| 2.2   | The Resource-based view of the firm in SCRM and STP .....        | 20 |
| 2.3   | The Social Capital Theory in the STP and SCRM context .....      | 21 |
| 2.3.1 | Structural dimension of Social Capital .....                     | 22 |
| 2.3.2 | Cognitive dimension of Social Capital .....                      | 23 |
| 2.3.3 | Relational dimension of Social Capital .....                     | 23 |
| 2.4   | Merging RBV and SCT .....                                        | 24 |
| 3     | Methodological approach.....                                     | 27 |
| 3.1   | Methodological issues .....                                      | 27 |
| 3.2   | Bibliometrics and Co-citation Analysis .....                     | 28 |
| 3.3   | Systematic Literature Review .....                               | 30 |
| 3.4   | Conceptual theory development .....                              | 32 |
| 4     | Study findings and results .....                                 | 37 |
| 4.1   | The intellectual structure of Supply Chain Risk Management ..... | 37 |
| 4.1.1 | Findings and results from the Cluster Analysis .....             | 37 |

|       |                                                                    |    |
|-------|--------------------------------------------------------------------|----|
| 4.1.2 | Findings and results from the Factor Analysis .....                | 39 |
| 4.2   | Current research paradigms in Strategic Technology Partnering..... | 41 |
| 4.3   | Supply Chain Risk Management Strategies.....                       | 43 |
| 4.4   | Strategic Technology Partnering Capabilities.....                  | 48 |
| 4.5   | Integrating SCRM and STP .....                                     | 49 |
| 5     | Conclusion and final statement .....                               | 53 |
| 5.1   | Practical implications.....                                        | 55 |
| 5.2   | Limitations and future research .....                              | 58 |

## **Chapter II Investigating current paradigms in supply chain risk management – a bibliometric study ..... 67**

|                                                                                     |     |
|-------------------------------------------------------------------------------------|-----|
| Abstract.....                                                                       | 69  |
| 1 Introduction.....                                                                 | 71  |
| 2 Methodological background of the research .....                                   | 75  |
| 2.1 Bibliometrics .....                                                             | 75  |
| 2.2 Co-citation Analysis.....                                                       | 76  |
| 3 Research methodology and data collection .....                                    | 79  |
| 3.1 Database selection .....                                                        | 81  |
| 3.2 Journal article selection .....                                                 | 81  |
| 3.3 Selection of unit of analysis.....                                              | 83  |
| 3.4 Compiling of co-citation matrix.....                                            | 84  |
| 3.5 Conversion of raw co-citation matrix.....                                       | 85  |
| 3.6 Multivariate statistical analysis.....                                          | 88  |
| 4 Results and discussion of the multivariate analysis .....                         | 91  |
| 4.1 Discussion of the results: Multi-dimensional scaling and cluster analysis ..... | 91  |
| 4.1.1 Putting into graphs the selected articles .....                               | 91  |
| 4.1.2 Identifying relevant clusters .....                                           | 94  |
| 4.2 Discussion of the results: Factor analysis .....                                | 99  |
| 5 Conclusion and implications .....                                                 | 105 |
| 6 Limitations and future research.....                                              | 109 |

### **Chapter III 26 years of strategic technology partnering: Investigating trends, patterns and future prospects in research through frequency analysis ..... 113**

|                                                            |     |
|------------------------------------------------------------|-----|
| Abstract.....                                              | 115 |
| 1 Introduction.....                                        | 117 |
| 2 Methodology and analysis of the reviewed literature..... | 121 |
| 2.1 Data collection.....                                   | 123 |
| 2.2 Data analysis.....                                     | 127 |
| 3 Study findings.....                                      | 129 |
| 4 Discussion.....                                          | 145 |
| 4.1 Geographical issues.....                               | 147 |
| 4.2 Industries considered.....                             | 148 |
| 4.3 Levels of analysis.....                                | 150 |
| 4.4 Partnership types.....                                 | 151 |
| 4.5 Theoretical lenses.....                                | 153 |
| 4.6 Methodological approaches.....                         | 154 |
| 5 Conclusion.....                                          | 157 |
| 6 Theoretical implications and future research.....        | 159 |

### **Chapter IV The strategies of supply chain risk management – a synthesis and classification ..... 163**

|                                                                   |     |
|-------------------------------------------------------------------|-----|
| Abstract.....                                                     | 165 |
| 1 Introduction.....                                               | 167 |
| 2 Review methodology and data collection.....                     | 171 |
| 2.1 Formulating the research question.....                        | 172 |
| 2.2 Locating studies.....                                         | 173 |
| 2.3 Selecting and evaluating relevant studies.....                | 174 |
| 3 Study findings.....                                             | 179 |
| 3.1 Descriptive features of the reviewed SCRM literature.....     | 179 |
| 3.2 Strategies for an effective Supply Chain Risk Management..... | 190 |
| 3.3 Grouping and synthesis of SCRM Strategies.....                | 193 |

|   |                                   |     |
|---|-----------------------------------|-----|
| 4 | Discussion .....                  | 203 |
| 5 | Managerial implications.....      | 207 |
| 6 | Avenues for future research ..... | 209 |

## **Chapter V Strategic technology partnering capabilities: a systematic review of the empirical evidence over two decades ..... 213**

|                                                                 |     |
|-----------------------------------------------------------------|-----|
| Abstract.....                                                   | 215 |
| 1 Introduction.....                                             | 217 |
| 2 Review methodology and data collection .....                  | 221 |
| 2.1 Research approach.....                                      | 221 |
| 2.2 Time horizon of articles publication .....                  | 223 |
| 2.3 Identification and selection of relevant databases.....     | 223 |
| 2.4 Selection of relevant journals .....                        | 223 |
| 2.5 Identification of relevant articles .....                   | 224 |
| 2.6 Article classifications.....                                | 229 |
| 2.7 Analysis of categories.....                                 | 234 |
| 3 Study findings .....                                          | 235 |
| 3.1 Background of papers .....                                  | 235 |
| 3.1.1 Years of publication .....                                | 235 |
| 3.1.2 Methodological approaches.....                            | 236 |
| 3.1.3 Theory of papers.....                                     | 237 |
| 3.2 Synthesis and categorisation of STP Capabilities.....       | 240 |
| 3.2.1 Complementary Capabilities .....                          | 241 |
| 3.2.2 Learning and exploitation Capabilities .....              | 243 |
| 3.2.3 Organisational Capabilities .....                         | 244 |
| 3.2.4 Network, alliance, and partnership Capabilities .....     | 245 |
| 3.2.5 Technological, innovative, and internal Capabilities..... | 247 |
| 4 Discussion .....                                              | 253 |
| 5 Conclusion .....                                              | 257 |
| 5.1 Managerial implications .....                               | 258 |
| 5.2 Limitations and future research .....                       | 260 |

|                                                                                                                                                         |            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>Chapter VI Bridging the gap between supply chain risk management and strategic technology partnering – insights from two theoretical lenses.....</b> | <b>265</b> |
| Abstract.....                                                                                                                                           | 267        |
| 1 Introduction.....                                                                                                                                     | 269        |
| 2 Background of the research.....                                                                                                                       | 273        |
| 3 Theoretical foundations.....                                                                                                                          | 277        |
| 3.1 Integrating SCRM and STP: The Resource-based View .....                                                                                             | 280        |
| 3.2 Integrating SCRM and STP: The Social Capital Theory .....                                                                                           | 283        |
| 3.2.1 Structural dimension of Social Capital .....                                                                                                      | 283        |
| 3.2.2 Cognitive dimension of Social Capital .....                                                                                                       | 285        |
| 3.2.3 Relational dimension of Social Capital .....                                                                                                      | 287        |
| 4 Discussion and conclusion .....                                                                                                                       | 293        |
| 4.1 Theoretical implications .....                                                                                                                      | 293        |
| 4.2 Managerial implications .....                                                                                                                       | 294        |
| 5 Limitations and future research.....                                                                                                                  | 295        |
| References .....                                                                                                                                        | 299        |
| Appendix I: Set of the 32 most frequently co-cited journal articles listed by number of citations .....                                                 | 365        |
| Appendix II: The applied co-citation matrix .....                                                                                                       | 369        |
| Appendix III: Results of the cluster analysis: Ward's method dendrogram.....                                                                            | 371        |
| Appendix IV: Summary of the journal articles included in the review .....                                                                               | 372        |
| Appendix V: All capabilities as mentioned originally in the 65 selected articles .....                                                                  | 389        |
| Appendix VI: The conjoint SCRM-STP capabilities.....                                                                                                    | 395        |
| Appendix VII: Summary of the research propositions .....                                                                                                | 397        |
| Veröffentlichungen .....                                                                                                                                | 399        |
| Konferenzbeiträge & Vorträge .....                                                                                                                      | 401        |
| Gutachtertätigkeiten.....                                                                                                                               | 403        |