A Conceptual Framework for Studying the Successful Outcome of the IS Outsourcing Process from a Relationship Perspective
Linda Bergkvist

A Conceptual Framework for Studying the Successful Outcome of the IS Outsourcing Process from a Relationship Perspective
Linda Bergkvist. *A Conceptual Framework for Studying the Successful Outcome of the IS Outsourcing Process from a Relationship Perspective*

Licentiate thesis

Karlstad University Studies 2008:30
ISSN 1403-8099
ISBN 978-91-7063-189-4

© The author

Distribution:
Karlstad University
Faculty of Economic Sciences, Communication and IT
Information Systems
SE-651 88 Karlstad
SWEDEN
Phone +46 54 700 10 00

www.kau.se

Printed at: Universitetstryckeriet, Karlstad 2008
To my Parents
Abstract

This thesis has its point of departure in the identified knowledge gap, which includes the importance of the information systems (IS) outsourcing relationship for studying the success of IS outsourcing. This research study, therefore, is structured with the belief that the disregard of the client–IS supplier relationship when studying IS outsourcing is paradoxical. Paradoxical since the impact of the relationship on the overall IS outsourcing can make the difference between success, less success and even failure. In contrast to the majority of prior research, which has focused IS outsourcing in its entirety, this research study perceives IS outsourcing as a process. Because prior research shows that the success or failure of IS outsourcing is connected to its implementation, this thesis focuses the post-contract stage of the IS outsourcing process.

The purpose chosen and addressed is to develop a conceptual framework for describing and explaining the degree of successful outcome of the IS outsourcing process using a relationship perspective. To approach this purpose, a literature review study is conducted. The literature review study includes the integration of three theoretical fields: IS, interorganisational business relationships and IS outsourcing. The knowledge domains of particular interest are ‘strategies, approaches and frameworks for the IS life cycle’, ‘the interaction approach’ and ‘IS outsourcing success’.

The purpose is focused through the identification of key conditions, dimensions and interrelations among dimensions. These identified elements, constituting the core elements of the conceptual framework, are a result of the conducted literature review study. The key conditions are identified according to their influence on the degree of successful outcome of the IS outsourcing process from a relationship perspective. Due to the large amount of key conditions identified, they are categorised into nine dimensions: Atmosphere, Behaviour, Contract, Environment, Interaction, IS, Management, Organisation and Outcome. The identified interrelations among these dimensions are fruitful since they provide insights and a favourable point of departure for studying the degree of successful outcome of IS outsourcing processes.

The main contribution of this thesis is the conceptual framework for the IS outsourcing process. The key conditions, dimensions and interrelations constitute the conceptual framework as a result of their potential for describing and
explaining the degree of successful outcome of the IS outsourcing process from a relationship perspective. The application of the conceptual framework provides managers with core elements to be considered during IS outsourcing decision-making and subsequent design of IS outsourcing. Its usage, moreover, is believed to support managers during the operationalisation of the post-contract stage of IS outsourcing processes. Finally, the conceptual framework is a fruitful ‘tool’ for future empirical research. Fruitful in the sense that it can provide useful and important insights into how different key conditions influence the degree of successful outcome of IS outsourcing processes and how these key conditions are interrelated.
Preface

As a researcher I am involved in two research networks. My workplace is at Karlstad University and the Department of Information Systems. It is also at the Department of Information Systems that my supervisors are located. My research colleagues at the Department of Information Systems, thus, constitute one of the research networks that I am part of. The second research network that I am involved in is the Swedish Research School of Management and Information Technology (MIT). This research school is one of 16 national research schools financed by the Swedish Government and consists of ten collaborating universities and university colleges throughout Sweden. One of the expectations of this research school is that the research conducted should contribute to both Management and IT. Because of my participation in two research networks this thesis aims to contribute to knowledge extensions within both Information Systems and MIT.

The selection of a research topic is often influenced by many factors, personal interest being one of them. The research topic of interest in this thesis is information systems (IS) outsourcing. The term IS outsourcing was first introduced to me through an article published in the newspaper Computer Sweden, which focused managers’ experienced problems with outsourcing of IS services. Later on, I was discussing the by me perceived challenging topic of IS outsourcing with one of my friends, who was practicing outsourcing of software construction. She described some of the problems she had experienced during IS outsourcing operationalisation. In this case the counterpart was an Indian IS supplier and many of the problems she described were related to differences in their work methods. This discussion with my friend, together with managers’ reported problems with IS outsourcing, constituted the main drivers for me wanting to know more about IS outsourcing. As a researcher my desires were to contribute to research literature on IS outsourcing and to provide management knowledge to those involved in IS outsourcing. Since problems seemed to be a common issue in IS outsourcing, I found it motivated to emphasise conditions that contribute a successful outcome of IS outsourcing. The scientific journey of mine could now begin.
Acknowledgements

This thesis has been written with the support of many people. From considerations of space I can not mention all these people by name. Instead I address a big Thank you! to all of you who in some way have contributed to this first step of my scientific journey.

To begin with I would like to express my gratitude to two persons who have contributed to the initiation of my scientific journey. Sigi Håkangård, thank you for encouraging me to apply to postgraduate studies. Moreover, I send a thank you to June Eklund for recognizing my potential as a Ph.D. student and for the many dinners during the completion of this thesis.

Of those people to whom I owe immense gratitude for being able to finish this thesis, I first would like to direct a thank you to my supervisor Professor Anders G. Nilsson and co-supervisor Odd Fredriksson for the invaluable scientific guidance. Together you have complemented each other perfectly, providing support whenever I have needed. Your thoughts, suggestions and opinions have contributed to the researcher I am today. I would also like to send a thank you to my research colleagues at the Department of Information Systems at Karlstad University for providing me with valuable comments during the process of writing this thesis.

Further, I am grateful for being part of the research network provided by the Swedish Research School of Management and Information Technology (MIT). This research network contributes with an arena for presenting and discussing my research with research fellows. In particular I would like to send a thank you to Professor Sven Carlsson for the valuable comments provided on earlier drafts of this thesis. Raquel Flodström, Pontus Fryk, Therese Hansen and Marius Mihailescu, thank you for the input I received during the seminar in Gothenburg, February 2008. Thank you also to Stefan Henningsson and Christina Keller for your inspiring research publications and friendly discussions. Moreover, I am thankful for the financial support provided by the Swedish Research School of MIT.

But most importantly, I am tremendously grateful for the encouragement given by my parents, Birgitta and Kenneth. Your love and support in every walk of my life have brought me to where I am today.
Finally, I send a big hug to my dear Per. Thank you for your never-ending support during the process of writing this thesis and for always believing in me. The joy and love that you bring to my life are indispensable.

Lysvik, August 2008

*Linda Bergkvist*
Contents

Abstract ................................................................................................................................. v
Preface ................................................................................................................................. vii
Acknowledgements ............................................................................................................ ix
List of Figures ....................................................................................................................... xiv
List of Tables ......................................................................................................................... xvi
Abbreviations ....................................................................................................................... xviii

1 Introduction of the present research study .................................................................1
1.1 The phenomenon information systems outsourcing .................................................. 1
1.1.1 Previous research on information systems outsourcing ......................................... 2
1.1.2 A retrospective review of the practice of outsourcing ............................................. 4
1.2 Information systems outsourcing as a process .......................................................... 7
1.3 The identified knowledge gap .................................................................................... 9
1.4 Previous research on information systems outsourcing from a relationship perspective ................................................................................................................. 10
1.5 The purpose of this thesis .......................................................................................... 13
1.6 The relevance of a conceptual framework for the information systems outsourcing process .................................................................................................................. 15
1.7 Chosen delimitations of the present research study .................................................... 16
1.8 Bridging two scientific fields: Information Systems and Industrial marketing .......... 17
1.9 Key terms used in this thesis ...................................................................................... 19
1.9.1 Definition of information systems outsourcing process ......................................... 19
1.9.2 Definition of information systems outsourcing relationship .................................. 21
1.9.3 Definition of degree of successful outcome ........................................................ 24
1.9.4 The term conceptual framework ......................................................................... 26
1.10 Disposition of this thesis and use of publications ..................................................... 28

2 Research process and methodology ........................................................................... 31
2.1 Outline of the research process of the doctoral thesis .................................................. 31
2.2 The research approach: conceptual-analytical and process theory ............................. 32
2.3 The qualitative nature of the present research study .................................................... 35
2.4 Three building blocks of the present research study .................................................... 36
2.5 The design of the literature review study ................................................................... 39
2.5.1 Motivations for the choice of theories .................................................................. 41
2.5.2 Comparison among chosen theories ...................................................................... 46
2.5.3 Selection of theoretical data .................................................................................. 46
2.6 Development of the conceptual framework for the information systems outsourcing process .................................................................................................................. 51
2.6.1 Descriptions of the steps of development of the conceptual framework ................. 52
2.6.2 Criteria of the practical and theoretical relevance of the conceptual framework ....... 55
2.7 Summary and contributions of Chapter 2 .................................................................. 57

3 Information systems outsourcing terms ........................................................................ 59
3.1 Motivations for reviewing information systems outsourcing terms ....................... 59
3.2 Interpretation of outsourcing terms used in the information systems outsourcing literature .................................................................................................................. 60
3.3 Discussion on the different information systems outsourcing terms used and proposed definitions ............................................................................................................. 61
3.4 Summary and synthesis of information systems outsourcing terms ....................... 69
3.5 Information systems outsourcing terms and their hierarchical relation ............... 71
3.6 Summary and contributions of Chapter 3 ............................................................ 72

4 Building blocks of the present research study ...................................................... 75
4.1 Research contributions of two frameworks for information systems outsourcing relationships ........................................................................................................... 75
4.2 The relationship perspective as applied in the present research study ............... 78
4.3 Three areas of the client firm and the IS supplier firm ....................................... 82
4.3.1 Strategic management of firm areas ................................................................... 84
4.3.2 Alignment and integration of the information systems outsourcing strategy with firm strategies .......................................................... 85
4.4 The information systems outsourcing process ................................................. 86
4.4.1 Phases of the information systems outsourcing process ................................. 87
4.4.2 Operationalization of the information systems outsourcing process and primary inter-firm interactions ............................................... 89
4.5 Summary and contributions of Chapter 4 .......................................................... 96

5 Strategies, approaches and frameworks for the information systems life cycle .......... 101
5.1 Globalisation and its influence on information systems usage .......................... 101
5.2 The information systems life cycle ................................................................. 102
5.3 Introduction of strategies, approaches and frameworks for the information systems life cycle ............................................................................................................. 103
5.4 Information systems development strategies .................................................. 104
5.4.1 Strategy of in-house development ................................................................. 104
5.4.2 Strategy of standard application packages ................................................... 105
5.4.3 Strategy of component-based development ................................................. 106
5.4.4 Information systems development strategies and influences on the information systems outsourcing process ........................................ 110
5.5 Information systems life cycle approaches ..................................................... 111
5.5.1 The sequential life cycle approach ............................................................... 112
5.5.2 The iterative life cycle approach ................................................................. 113
5.5.3 The standard application package approach .............................................. 118
5.5.4 Information systems life cycle approaches and influences on the information systems outsourcing process ........................................ 122
5.6 Information systems frameworks ................................................................. 124
5.6.1 The method-in-action framework ............................................................... 125
5.6.2 A framework for information systems architecture ................................... 126
5.6.3 Information systems frameworks and influences on the information systems outsourcing process ........................................ 127
5.7 Transformation of the field of information systems development? .................. 128
5.8 Summary and contributions of Chapter 5 ....................................................... 130

6 Interorganisational business relationships ......................................................... 135
6.1 Introducing the interaction approach ............................................................... 135
6.2 The appropriateness of the interaction approach for studying information systems outsourcing relationships ................................................................. 136
6.2.1 Application of the interaction approach in information technology contexts 137
6.2.2 Application of the interaction approach for studying information systems outsourcing relationships ........................................ 138
6.2.3 Limitations of the interaction approach and how they are addressed .......... 140
6.3 A framework for interorganisational business relationships .......................... 142
6.3.1 The interaction approach ............................................................................. 143
6.3.2 Four aspects of client–supplier interactions ............................................... 149
6.3.3 Commitment and trust in interorganisational business relationships .......... 151
6.3.4 The Contract dimension ............................................................................. 153
## List of Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>An example of a business network</td>
<td>17</td>
</tr>
<tr>
<td>1.2</td>
<td>The scientific fields constituting the interdisciplinary nature of the present research study</td>
<td>18</td>
</tr>
<tr>
<td>1.3</td>
<td>Disposition of this thesis</td>
<td>30</td>
</tr>
<tr>
<td>2.1</td>
<td>The research process of the Ph.D. thesis comprised of this research study and the doctoral study</td>
<td>31</td>
</tr>
<tr>
<td>2.2</td>
<td>A taxonomy of research approaches</td>
<td>33</td>
</tr>
<tr>
<td>2.3</td>
<td>The research process of the present research study</td>
<td>37</td>
</tr>
<tr>
<td>2.4</td>
<td>An example of a dependent and an independent variable</td>
<td>38</td>
</tr>
<tr>
<td>2.5</td>
<td>Research parameters that have guided the literature review study</td>
<td>40</td>
</tr>
<tr>
<td>2.6</td>
<td>The different steps of analysis conducted for the development of the conceptual framework for the IS outsourcing process</td>
<td>53</td>
</tr>
<tr>
<td>3.1</td>
<td>The outsourcing, insourcing and back sourcing terms and their difference</td>
<td>69</td>
</tr>
<tr>
<td>3.2</td>
<td>Graphical representation of how different IS supplier locations from the client perspective relate to the proposed definitions of six of the identified IS outsourcing terms</td>
<td>71</td>
</tr>
<tr>
<td>3.3</td>
<td>Graphical representation of how the ten different IS outsourcing terms and their proposed definitions are hierarchically related to each other</td>
<td>73</td>
</tr>
<tr>
<td>4.1</td>
<td>A framework for IS outsourcing relationships</td>
<td>76</td>
</tr>
<tr>
<td>4.2</td>
<td>An IS outsourcing relationship framework</td>
<td>77</td>
</tr>
<tr>
<td>4.3</td>
<td>Distinctive competence achieved by a balance among three firm areas</td>
<td>79</td>
</tr>
<tr>
<td>4.4</td>
<td>The applied relationship perspective: firm areas, key actors and key actors' possible interactions</td>
<td>80</td>
</tr>
<tr>
<td>4.5</td>
<td>Key actors, development focus of each firm area and possible interactions</td>
<td>82</td>
</tr>
<tr>
<td>4.6</td>
<td>Strategic fit and functional integration as part of strategic management activities</td>
<td>84</td>
</tr>
<tr>
<td>4.7</td>
<td>Primary inter-firm interactions during the transition phase and the middle phase of the IS outsourcing process</td>
<td>92</td>
</tr>
<tr>
<td>4.8</td>
<td>Primary inter-firm interactions during the third and fifth activity of the transition phase</td>
<td>93</td>
</tr>
<tr>
<td>5.1</td>
<td>The IS life cycle for in-house development</td>
<td>104</td>
</tr>
<tr>
<td>5.2</td>
<td>Differences and similarities between the IS life cycle for in-house development and standard application package acquisition</td>
<td>106</td>
</tr>
<tr>
<td>5.3</td>
<td>Possible life cycles in a component-based IS</td>
<td>108</td>
</tr>
<tr>
<td>5.4</td>
<td>Life cycle for component-based IS</td>
<td>108</td>
</tr>
<tr>
<td>5.5</td>
<td>IS in its entirety and different parts composing the IS</td>
<td>110</td>
</tr>
<tr>
<td>5.6</td>
<td>The waterfall model</td>
<td>112</td>
</tr>
<tr>
<td>5.7</td>
<td>The main parts of the IS life cycle model</td>
<td>114</td>
</tr>
<tr>
<td>5.8</td>
<td>The iterative IS life cycle approach</td>
<td>115</td>
</tr>
<tr>
<td>5.9</td>
<td>The structure of RUP</td>
<td>116</td>
</tr>
<tr>
<td>5.10</td>
<td>The life cycle of standard application packages</td>
<td>119</td>
</tr>
</tbody>
</table>
Figure 5.11: Operation of standard application packages as the link between development and maintenance management ............................................ 120

Figure 5.12: Framework for IS architecture .......................................................... 127

Figure 5.13: Graphical representation of interrelations among dimensions identified as a result of the conducted literature review .......................... 134

Figure 6.1: The interaction approach .................................................................. 135

Figure 6.2: A framework for interorganisational business relationships when studying IS outsourcing relationships ................................. 142

Figure 6.3: A management framework for geographical dispersed key actors ...... 157

Figure 6.4: Graphical representation of interrelations among dimensions identified as a result of the conducted literature review ................. 165

Figure 7.1: Constraints of project performance summarized in the project triangle ................................................................................................. 179

Figure 7.2: Graphical representation of interrelations among dimensions identified as a result of the conducted literature review .................. 187

Figure 8.1: The elements of the conceptual framework and their derivation to different chapters of this thesis ......................................................... 192

Figure 8.2: Graphical representation of interrelations among dimensions identified as a result of the conducted literature review study .... 219

Figure 8.3: Graphical representation of the conceptual framework for describing and explaining the degree of successful outcome of the IS outsourcing process from a relationship perspective ...... 225

Figure 9.1: IS research framework and its application on this research study and the subsequent doctoral study ................................................. 244

Figure 9.2: A suggested three step procedure for determining the overall successful outcome of the IS outsourcing process .......................... 247
List of Tables

Table 1.1: Publications on frameworks for IS outsourcing relationships and main contributions to the present research study ......................... 12
Table 1.2: A taxonomy of theory types in IS research .............................................. 27
Table 2.1: Characteristics of process theory and application of these characteristics on the research phenomenon of this research study ...... 34
Table 2.2: Phenomenon, unit of analysis, dependent and independent variable applied in the present research study ........................................... 39
Table 2.3: Comparison among chosen theoretical fields included in the literature review study ........................................................................ 48
Table 2.4: Examples of search sessions and number of hits unfolded ............... 50
Table 3.1: The variety of IS outsourcing terms found from the literature review and the author’s interpretations of the definitions being used ....... 62
Table 3.2: Summary of different IS outsourcing terms used in the literature and proposed definitions ...................................................................... 70
Table 4.1: Key actors representing the three different firm areas ..................... 81
Table 4.2: A summary of the phases constituting the IS outsourcing process ....... 88
Table 4.3: Key conditions identified as a result of the presentation on three building blocks of this research study ................................................. 98
Table 5.1: Essential dimensions and key conditions identified as a result of the conducted literature review .................................................................. 132
Table 5.2: Identified interrelations among dimensions as a result of the conducted literature review ................................................................. 133
Table 6.1: Conditions for relationship success in the relationship management phase .................................................................................................. 161
Table 6.2: Essential dimensions and key conditions identified as a result of the conducted literature review .................................................................. 164
Table 6.3: Interrelations among dimensions identified as a result of the conducted literature review ............................................................................. 166
Table 7.1: The key condition of communication and related key conditions ...... 171
Table 7.2: The key condition of control and related key conditions ................. 172
Table 7.3: The key condition of culture and related key conditions .................. 175
Table 7.4: The key condition of geographical location of key actors and related key conditions ................................................................. 176
Table 7.5: The key condition of IS activity and related key conditions .......... 178
Table 7.6: The key condition of project management and related key conditions ........................................................................................................ 180
Table 7.7: The key condition of relationship quality and related key conditions ........................................................................................................ 182
Table 7.8: The key condition of trust and related key conditions ................. 183
Table 7.9: Essential key conditions identified as a result of the conducted literature review .................................................................................. 184
Table 7.10: Unique key conditions identified as a result of the conducted literature review ................................................................................... 185
Table 7.11: Key conditions and their categorisation in dimensions as a result of the conducted literature review ............................................. 186
Table 7.12: Interrelations among dimensions identified as a result of the conducted literature review ......................................................... 188
Table 8.1: Key conditions identified from Chapter 3 and 4 and their categorisation in dimensions ................................................................. 196
Table 8.2: Key conditions that have been categorised in different dimensions as a result of the conducted literature review in Chapter 5 and 6 ................................................................................................................................. 197
Table 8.3: Summary of key conditions categorised in the dimension Atmosphere as a result of the conducted literature review in Chapter 6 and 7 ................................................................................................................................. 199
Table 8.4: Summary of key conditions categorised in the dimension Behaviour as a result of the conducted literature review in Chapter 5 and 7 ................................................................................................................................. 200
Table 8.5: Recategorisation of key conditions in the dimensions Atmosphere and Behaviour as a result of the conducted literature review study ................................................................................................................................. 200
Table 8.6: Summary of essentially identified key conditions and their categorisation in dimensions as a result of the conducted literature review study ................................................................................................................................. 202
Table 8.7: Identified interrelations among dimensions as a result of the conducted literature review study ................................................................................................................................. 220
Table 9.1: Contributions to and implications of the two scientific fields represented in the present research study ................................................................................................................................. 241
Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASP</td>
<td>Application Service Provision</td>
</tr>
<tr>
<td>BAT</td>
<td>Business Action Theory</td>
</tr>
<tr>
<td>BPO</td>
<td>Business Process Outsourcing</td>
</tr>
<tr>
<td>COTS</td>
<td>Components Off The Shelf</td>
</tr>
<tr>
<td>CRM</td>
<td>Customer Relationship Management</td>
</tr>
<tr>
<td>DP</td>
<td>Data Processing</td>
</tr>
<tr>
<td>ECIS</td>
<td>European Conference on Information Systems</td>
</tr>
<tr>
<td>EDS</td>
<td>Electronic Data Systems</td>
</tr>
<tr>
<td>ERP</td>
<td>Enterprise Resource Planning</td>
</tr>
<tr>
<td>IBM</td>
<td>International Business Machines</td>
</tr>
<tr>
<td>IDC</td>
<td>International Data Group</td>
</tr>
<tr>
<td>IMP</td>
<td>Industrial Marketing and Purchasing</td>
</tr>
<tr>
<td>IS</td>
<td>Information Systems</td>
</tr>
<tr>
<td>ISD</td>
<td>Information Systems Development</td>
</tr>
<tr>
<td>IT</td>
<td>Information Technology</td>
</tr>
<tr>
<td>JSD</td>
<td>Jackson System Development</td>
</tr>
<tr>
<td>MIT</td>
<td>Management and Information Technology</td>
</tr>
<tr>
<td>RET</td>
<td>Relationship Exchange Theory</td>
</tr>
<tr>
<td>RFP</td>
<td>Request For Proposal</td>
</tr>
<tr>
<td>RUP</td>
<td>Rational Unified Process</td>
</tr>
<tr>
<td>saas</td>
<td>software as a service</td>
</tr>
<tr>
<td>SASD</td>
<td>Structured Analysis and Structured Design</td>
</tr>
<tr>
<td>SIV</td>
<td>Standardsystem i Verksamheter (in Swedish)</td>
</tr>
<tr>
<td>SOA</td>
<td>Service-Oriented Architecture</td>
</tr>
<tr>
<td>TC</td>
<td>Transaction Cost</td>
</tr>
<tr>
<td>VFS</td>
<td>Välja och Förvalta Standardsystem (in Swedish)</td>
</tr>
</tbody>
</table>
# Introduction of the present research study

The aim of this chapter is to introduce the present research study. Initially, a background of the phenomenon of information systems (IS) outsourcing is presented. The IS outsourcing process is then highlighted as well as how this process is addressed in this research study. Subsequently, there is a description of the knowledge gap to which this research study contributes. The chapter also presents the purpose of this thesis, which includes the development of a conceptual framework for the IS outsourcing process. The delimitations of this research study, key terms and their applied definitions in this thesis are presented. Finally, the disposition of this thesis is offered.

## 1.1 The phenomenon information systems outsourcing

Today, IS outsourcing is a commonly accepted and growing practice that is continually evolving (e.g. Hirschheim, 2006). Through advanced technologies of networking and the accessibility of widespread communication on the Internet, IS services can be managed and provided anywhere and at any time (Shao & David, 2007). The increased global collaboration and improved information technology (IT) capabilities have been drivers of the growth of IS outsourcing (Hirschheim, 2006). The results of a survey conducted by the Gartner firm indicate a growth of the IS outsourcing market in 2008 (Computer Sweden, 2008b) – a growth that is likely to continue (Aubert et al., 2008).

The acceptance of IS outsourcing is reflected in the reasons given for IS outsourcing. IS outsourcing is often the result of an analysis of the current business situation – how is the business currently performing and how does this performance correspond with a future business vision (e.g. Avison & Fitzgerald, 2006)? The decision for IS outsourcing is, thus, related to current firm goals and strategies and is driven by several aspects (Aubert et al., 2008). These aspects range from a desire to decrease costs, focus on the core business, enable rapid business change, secure business flexibility and expansion, to obtaining strategic advantage by keeping up with frequent changes in technology that support business goals (Lacity & Wilcocks, 2001; Mojsilovic et al., 2007; Schniederjans et al., 2007). The desire to decrease costs is often an initial trigger for IS outsourcing, but during its operationalisation, increased quality and shorter development times become important to the parties involved (Davis et al., 2006; Ranganathan et al., 2007). Firms of today have become increasingly dependent on value-added forms of information and knowledge to remain competitive in the face of global competition and constant change (Van den
Consequently, IS outsourcing is shown to be not only a way of decreasing IS costs but also a means for improving overall business performance (Diromualdo & Gurbaxani, 1998; Feeny & Willcocks, 1998). Because of the maturity of the IS outsourcing market, IS outsourcing has become one of the most important management strategies for improving business operations (Schniederjans et al., 2007).

Despite the accepted and growing practice of IS outsourcing, few clients report success (Han et al., 2008). One explanation could be the heterogeneous nature of IS. Compared to the generic notion of outsourcing – making arrangements with an external entity for the provision of goods or services to supplement or replace internal efforts – IS outsourcing is different (Dibbern et al., 2004). IS is not a homogenous function but it influences, in some way, almost all of a firm’s business activities. Research has focused on the conditions influencing the success of IS outsourcing partly because of the low rates of success reported (e.g. Lacity & Willcocks, 1998; Willcocks et al., 2004). The conditions in focus are IS configuration (Cullen et al., 2005b), IS outsourcing contract management (Koh et al., 2004) and knowledge sharing between client and IS supplier (Willcocks et al., 2004). Little research, however, has been conducted on critical success conditions during the implementation stage of IS outsourcing (Pei et al., 2007). Since the implementation stage has been found to play an important role in the success of IS outsourcing, the ambition of this research study is to contribute to the research literature on the implementation of IS outsourcing.

1.1.1 Previous research on information systems outsourcing

Gonzales et al. (2006b) have conducted a literature review study on IS outsourcing inspired by a comparable review by Dibbern (2004). Similar to Dibbern (2004), Gonzales et al. (2006b) found that empirical research approaches are most commonly used for researching the area of IS outsourcing. The literature review conducted by Gonzales et al. (2006b) focused on the topics dealt with in IS outsourcing research. It was found that the topics most researched between 1995 and 2006 were IS outsourcing from the perspective of

- the client,
- the relationship,
- the provider or
- the determinants of IS outsourcing.
These topics have evolved over time. The determinants of IS outsourcing have attracted the most research during the reviewed time period. Theories on the client–IS supplier relationship, transaction costs and offshore outsourcing have been more frequently applied in the later years of the reviewed time period (Gonzales et al., 2006b). Research studies emphasising the client–IS supplier relationship have above all contributed to the research literature on issues related to the contract between the client and the IS supplier (Gonzales et al., 2006b). Other subjects researched in relation to IS outsourcing are the strategic intent with IS outsourcing, advantages and disadvantages of IS outsourcing, consequences of IS outsourcing and selection of IS supplier (Kern, 1997; Kumar & Palvia, 2002; Alborz et al., 2003; Dibbern, 2004).

I conducted a literature review in order to acquire an overview of frequently used theoretical perspectives in IS outsourcing research. I located two studies that presented common theories (Dibbern, 2004; Gurung & Prater, 2006). Their contributions provide a fundamental representation of the theories used in prior IS outsourcing research. The research study conducted by Gurung and Prater (2006) shows that the variable requiring clarification in the majority of studies is the IS outsourcing decision. Their research study also reveals that the most common focus of this variable is the firm. Thus, the firm is the subject that requires comment (Yin, 1989). The theory used to explain the IS outsourcing decision from the perspective of the firm is Transaction Cost (TC) Theory.

To organise the theories applied in prior IS outsourcing research, Dibbern (2004) categorises theories into economic, strategic and social/organisational reference theories. The most common economic reference theories are TC Theory and Agency Theory. Strategic reference theories are used to focus on how firms develop and implement strategies to achieve firm objectives (Dibbern, 2004). The Resource-Based Theory, for example, is used for this focus. Social reference theories concentrate on relationships and dependencies that exist among individuals or groups. The theories focusing on relationships are Innovation Diffusion Theory, Resource-Dependency Theory and Institutional Theory. The study conducted by Dibbern (2004) included 49 research papers. Out of these, 17 research papers have applied TC Theory as the reference theory. The TC Theory is therefore the most common theory in prior IS outsourcing research.
The most relevant contribution of the literature searches presented in Dibbern (2004) and Gurung and Prater (2006) is the finding that few studies have applied the client–IS supplier relationship as the studied subject. This finding motivates the application of the client–IS supplier relationship perspective for studying IS outsourcing in this research study. Furthermore, their studies show that interorganisational business relationship theories are not represented among the most frequently used theories in IS outsourcing research. I believe, therefore, that the descriptions and explanations of IS outsourcing relationships with the use of interorganisational business relationship theories contribute new insights and knowledge to the IS outsourcing literature.

Because the interorganisational business relationship is found to be a critical success condition during the implementation stage of IS outsourcing, the IS outsourcing relationship is a justified perspective to be used in this research study (Pei et al., 2007). The client–IS supplier relationship is important in terms of the success of the IS outsourcing, because the relationship penetrates the entire IS outsourcing process. A successful relationship, therefore, impacts positively on the success of the IS outsourcing process (Koh et al., 2004). The definition of IS outsourcing applied in this research study emphasises the client–IS supplier relationship. “IS outsourcing is a joint decision to sign a contract which stipulates that the IS supplier should perform IS activities for the client over an agreed time period, irrespective of where the IS supplier is located” (Bergkvist & Fredriksson, 2008). Irrespective of where the IS supplier is located denotes that the IS supplier can be located domestically or globally in relation to the client’s location.

1.1.2 A retrospective review of the practice of outsourcing

The concept of outsourcing has been in existence since the Roman Empire. It was practiced in the form of outsourcing tax collection (Hirschheim & Dibbern, 2006). The term IS outsourcing has been in use since the late 1980s. It has, however, undergone several changes during the last decade (Vassiliadis et al., 2006). Based on the research of Gonzales et al. (2006b), articles on IS outsourcing were first published in 1988. At that time, the term facilities management was used instead of the term IS outsourcing (Ives et al., 1980; Owen & Aitchison, 1988). The use of the term IS outsourcing first appeared in IS journal articles in the 1990s (Tayntor, 2001).
The pioneer in applying the term IT outsourcing was Ross Perot when he founded Electronic Data Systems (EDS) in 1963 and signed an agreement with Blue Cross that included the management of data processing services (Erber & Sayed-Ahmed, 2005; Gonzales et al., 2005). Initially, the major drivers of the outsourcing of IT and IS services were sharing of resources and costs of software development, the avoidance of building in-house IT/IS skills and the possible access to specific capabilities and competencies (Reponen, 1993; McFarlan & Nolan, 1995).

The assets outsourced during the period between 1960 and the early 1970s were primarily hardware and data processing services (Fish & Seydel, 2006). The IT outsourcing initiative of EDS is considered to be the starting point for IT outsourcing since large user organisations began to provide and sell IT services shortly thereafter thus becoming outsourcing partners (Reponen, 1993). During the 1970s, the management of IT activities in-house was more important than outsourcing. Because the IT department was kept in-house, the internal IT department was regarded as a valuable asset for any firm until the mid-1980s.

In 1989, the Eastman Kodak Firm outsourced its data centre operations to IBM (International Business Machines), its telecommunications and its data networks to Digital Equipment Corporation and its personal computing to Businessland. This decision is often expressed as 'the wake-up call' for IT/IS outsourcing (Earl, 1991; Loh & Venkatraman, 1992; Richmond et al., 1992; McFarlan & Nolan, 1995; Rottman & Lacity, 2004; Gonzales et al., 2006b; Hirschheim & Dibbern, 2006). Shortly thereafter, IT/IS outsourcing became a strategic 'tool' and an issue for success. The underlying motive behind Kodak's outsourcing decision was a desire to reduce IT operation costs by as much as 50%. Until Kodak's decision to outsource, small and medium-sized firms had dominated the IT/IS outsourcing market. Problematic and low prioritized IT departments often characterised these small and medium-sized firms. When Kodak decided to outsource part of its IT department, however, other medium-sized and large firms then followed such as General Dynamics and Xerox in the US, Lufthansa in Germany and Rolls Royce in Great Britain (Dibbern, 2004).

With the renewed interest in IT/IS outsourcing, the scope of outsourced activities increased (Rottman & Lacity, 2004). The scope evolved from single-system contracts such as payroll and insurance processing, to multiple-systems and the
transfer of assets and staff to an IT supplier\(^1\). The IT supplier was responsible for operating, managing and controlling the outsourced activities. The motive for IT/IS outsourcing was not only about the expectation to reduce costs but also a way to focus on core competencies (Fish & Seydel, 2006).

Cheon et al. (1995, p. 210) and Grover et al. (1996, pp. 90-91) state five dimensions that differentiate IT/IS outsourcing in the 1990s from the 1970s:

1. larger firms were outsourcing,
2. a greater range and depth of IT/IS services were being outsourced,
3. IT suppliers were accepting more responsibility and risk,
4. the nature of the relationship between client and IT supplier were evolving and was in many cases referred to as a partnership, i.e., an inter-organisational win-win relationship aiming to achieve shared goals (Lee & Kim, 1999) and
5. IT intensity and complexity was higher, giving more firms the option of outsourcing in a competitive IT supplier market.

Various factors are believed to have contributed to the growth of IT/IS outsourcing (McFarlan & Nolan, 1995; Rottman & Lacity, 2004): 1) acceptance of strategic alliances, 2) changes in the IT environment, 3) focus on core competencies and 4) lack of understanding of the IT/IS value. Strategic alliance refers to the establishment of long-term relationships between clients and IT suppliers who have complementary sets of skills. The relationships should be a win-win situation. Through the rapid development of IT, outsourcing has become a viable way of obtaining access to skilled IT suppliers who provide the needed IT and IS functions.

Changes in the IT environment refer to how firms have used computers during different time periods such as the ‘Data Processing (DP) era’ (1060-1980), the ‘micro era’ (1980-1995) and the ‘network era’ (1990-?) (McFarlan & Nolan, 1995). Each period has a target market focus in the firm. The DP era focused on transaction processing systems by automating the existing manual systems. The micro era focused on leveraging professional workers by using the computers to do, for example, analytic computations. The network era, overlapping the micro era, is a result of the fusion of computers and telecommuni-

---

\(^1\) In this thesis I differentiate between the terms IT supplier and IS supplier. In my view, an IT supplier is able to manage a broader scope of IT/IS services and activities, including both hardware and software. As a result of my focus on the IS outsourcing process, the term IS supplier refers to the management of activities that are part of the IS life cycle.
cation technologies. Computers are used to change firms’ structures into more efficient forms for competing in a globalised marketplace. The focus on core competencies that make the firm competitive is motivated by the belief in a sustainable competitive advantage. The IT/IS function, when perceived as not valuable for the firm and additionally expensive, becomes the subject for outsourcing. The belief is that other parties will perform the outsourced functions better and at a lower cost.

Because of the current globalisation, global competition increases (Hirschheim & Dibbern, 2006). This trend has spurred firms to look for less-expensive resources available in offshore locations such as India, China, the Philippines and Eastern Europe. The term IS offshoring arose in the 1990s partly as a result of the rapid development of the Internet (Khan et al., 2003; Oshri et al., 2007; Shao & David, 2007). IS offshoring is sometimes perceived as a logical extension of the large-scale IS outsourcing of the late 20th and early 21st centuries (Davis et al., 2006). Initially it was common that firms started affiliates in low-cost countries. As with domestic IS outsourcing, the primary drivers of IS offshoring are the desire to reduce IS costs and to focus on core competencies (Davis et al., 2006). Additionally, the advantages of time differences encourage IS offshoring. When the client and the IS supplier are located in different time zones, the hours of work increase dependent on the level of cooperative relationship2. When the relationship is recognized as cooperative, IS offshoring can result in improved IS productivity and shorter project performances.

The inevitable trend towards IS outsourcing and IS offshoring brings challenges but also possibilities for the parties involved. Today, IS outsourcing includes complex arrangements that involve several key actors from the client and the IS supplier firm (Hirschheim & Dibbern, 2006). Although the outsourcing of IT and IS assets has been available and used by firms since the beginning of the 1960s, the continuous alteration in its performance warrants further research (e.g. Cullen et al., 2005a).

1.2 Information systems outsourcing as a process

As previously mentioned, the ambition of this research study is to contribute to the research literature on the implementation of IS outsourcing. IS outsourcing can be referred to as a process consisting of six phases: scoping phase, eva-

---

2 The characteristics of a cooperative relationship are described in subchapter 1.9.2.
luation phase, negotiation phase, transition phase, middle phase and mature phase (Lacity & Willcocks, 2000). Each phase is characterised by specific activities, key actors and an expected outcome. The implementation of IS outsourcing denotes the post-contract stage of the IS outsourcing process (Kern, 1999), which includes the transition phase, the middle phase and the mature phase.

Prior research studies on IS outsourcing have given little attention to ‘how’ outsourcing can be implemented successfully (Cong & Chau, 2007). The importance of studying the ‘how’ issue is related to failures of IS outsourcing that are mainly connected to the implementation of IS outsourcing (Dibbern et al., 2004). The core problem lies in the management of the client–IS supplier relationship where negotiation, communication and interaction occur.

One of the main reasons for studying the IS outsourcing process in the post-contract stage is the evolution of the relationship that occurs (Willcocks & Kern, 1998). It is during this stage that the parties interact the most (Lacity & Willcocks, 2000). As the aim of this research is to study the IS outsourcing process from the client–IS supplier relationship perspective, it seems appropriate to focus on the implementation of IS outsourcing. Since the success or failure of the IS outsourcing process is determined by the IS outsourcing relationship, according to Kern and Willcocks (2002), the delimitation to the post-contract stage is further justified.

Although there is a delimitation to the post-contract stage, I am aware that activities conducted before this stage can bring consequences, both positive and negative, for subsequent parts of the IS outsourcing process. Poor communication of IS outsourcing intentions, for example, may lead to negative feelings about the IS outsourcing initiative among involved parties, which may influence the performance of the IS outsourcing process (Bergkvist & Johansson, 2007). In addition, a high degree of openness during the decision-making process of IS outsourcing may increase the possibility of reaching a relationship based on trust. The negotiation of the contract is of foremost importance to the performance of the IS outsourcing process. Poor contract negotiations have been found to result in the loss of control, loss of core competencies, resistance to change and a lack of awareness of the IS outsourcing process (Parikh & Gokhale, 2006).
The importance of the IS outsourcing decision must not be neglected. The literature search conducted on IS outsourcing presented earlier showed that the IS outsourcing decision is a commonly researched dimension of IS outsourcing. This research study focuses instead on the ‘how’ issue of IS outsourcing, that is, the implementation of IS outsourcing.

1.3 The identified knowledge gap

“The importance of partnering and relationships in IS outsourcing is widely acknowledged amongst researchers and practitioners alike. However, as far as IS outsourcing is concerned, there has been all too little rigorous analysis of what makes for successful and less successful relationships and the effect this can have on the long-term viability of the contractual arrangements.”

Willcocks and Lacity (1998, p. 12)

This quotation from Willcocks and Lacity (1998) indicates the importance of the client–IS supplier relationship for studying the success of IS outsourcing. Although the statement is ten years old, the message is still valid. The actor perspective has dominated prior research on IS outsourcing (e.g. Bhatt et al., 2006; Sako, 2006). This perspective has been seen as inconsistent since outsourcing involves at least two parties – the client and the IS supplier (Kern et al., 2002). The success of client–IS supplier relationships has been argued to be a precondition for reaching a successful IS outsourcing process (Kern, 1997; Lacity & Willcocks, 2000). Additionally, empirical studies of IS outsourcing demonstrate practitioners’ acknowledgement of the importance of the relationship (Kern & Willcocks, 2002). Little research, however, has been directed toward a thorough examination and analysis of IS outsourcing relationships.

The road to successful IS outsourcing is not without peril. This research study is structured in accordance with the research of Kern and Willcocks (2002) who believe that the disregard of the client–IS supplier relationship when studying IS outsourcing is paradoxical. Paradoxical since the impact of the relationship on the overall IS outsourcing process can make the difference between success, less success and even failure. Research indicates that approximately 35% of the total IS outsourcing arrangements up to the year 2000 were classified as a failure, which can be explained in part by the underestimation of the value of the IS outsourcing relationship (Kern & Willcocks, 2000). Consequently, further research emphasising IS outsourcing relationships in relation to the successful outcome of the IS outsourcing process is necessary.
Prior research has to some degree focused on conditions relevant for a successful outcome from IS outsourcing (e.g. Goles & Chin, 2005; Pei et al., 2007). Several literature reviews, however, indicate the lack of research studies that have applied the IS outsourcing relationship as the unit of analysis (Klepper, 1995; Kern, 1997; Kern & Willcocks, 2001; Kumar & Palvia, 2002; Gurung & Prater, 2006).

The majority of prior research on IS outsourcing is found to focus on the phenomenon of IS outsourcing in its entirety (e.g. Koh et al., 2004; Goles & Chin, 2005). This research study follows instead the suggestion made by Alborz et al. (2003) and Lacity and Willcocks (2000) and thus perceives IS outsourcing as a process divided into six phases. The ambition of this research study is to contribute to the implementation stage of the IS outsourcing process because prior research indicates that the success or failure of IS outsourcing is connected to its implementation (Dibbern et al., 2004).

I argue, therefore, that more research is necessary to find out, more specifically, which conditions influence the successful outcome of the implementation of IS outsourcing. I therefore aim to contribute to the existing literature on IS outsourcing processes and IS outsourcing relationships.

1.4 Previous research on information systems outsourcing from a relationship perspective

Most research on IS outsourcing relationships has focused on the characteristics of this relationship such as the goal to reach cost savings. In the late 1990s, only a few studies had explored IS outsourcing from the perspective of the IS outsourcing relationship (e.g. Klepper, 1995; McFarlan & Nolan, 1995; Willcocks & Choi, 1995; Willcocks & Kern, 1998). The study conducted by Kern (1997) constitutes a significant break in IS outsourcing research, which mainly had examined IS outsourcing from the client’s perspective. Kern (1997) focused on the dyadic relationship between client and IS supplier by exploring what this relationship entails in IS outsourcing.

Kern (1997) conducted a thorough literature review study on dyadic relationships. He found that many of the relationship approaches lacked a theoretical base for explaining the characteristics of IS outsourcing relationships. Furthermore, his review indicated that the development of relationships has been given scant attention in the IS literature. The contributions on dyadic relationships are
instead mainly related to theories on social exchanges. The notion of exchange has been found to constitute the formation of business relationships (Håkansson, 1982; Kern, 1997). In IS outsourcing, the exchanges between client and IS supplier are a natural consequence of the contractual agreement.

The literature review study conducted by Kern (1997) needs to be complemented to find publications on the IS outsourcing relationship after 1997. Because this research study aims to contribute to the literature on IS outsourcing relationships, I chose to complement the literature review study conducted by Kern (1997). This complementary literature review focuses on frameworks for IS outsourcing relationships. The motivation for delimitating the search process to frameworks is a result of my belief that frameworks are a fruitful form for describing the core of IS outsourcing relationships (cf. Miles & Huberman, 1994).

The literature on IS outsourcing relationship frameworks was found through searches in the Inspec database. The search commands included were ‘IT outsourcing’, ‘IS outsourcing’, ‘relationship’, ‘model’ and ‘framework’. The searches were conducted without any restrictions to subject, title or abstract. To be included in the review process, the publications had to focus on the IS outsourcing relationship and contribute with a framework or a model on this relationship. The result of the review process was eleven publications, which provided frameworks, models or checklists for studying IS outsourcing relationships. Of the eleven publications, seven are interpreted as contributing to the described knowledge gap, i.e., research on the implementation of the IS outsourcing process from the perspective of the client–IS supplier relationship. The main reasons why the publications are interpreted as valuable for this research study are because they see IS outsourcing as being comprised of steps/phases/stages and/or their focus is on IS outsourcing relationships. These seven publications are presented in Table 1.1 according to their main contributions to this research study and the chapters where these contributions primarily are applied.

Another result of the conducted literature review study on frameworks for the IS outsourcing relationship, is the ambition to contribute a conceptual framework for studying the successful outcome of the IS outsourcing process. This is mainly a result of the research conducted by the two researchers Thomas Kern and Leslie Willcocks (1997; 1998; 2000; 2002; 2002), who are internationally
well-known for their work on IS outsourcing (Gonzales et al., 2006b). Their research studies have contributed frameworks for studying the management of IS outsourcing relationships. The graphical representation of a framework gives an outline of the phenomenon studied and the framework is furthermore found to summarize research findings in a favourable and descriptive way (cf. Miles & Huberman, 1994). The research conducted by Kern and Willcocks has consequently become one of the main sources of inspiration for this research study.

**Table 1.1:** Publications on frameworks for IS outsourcing relationships and main contributions to the present research study

<table>
<thead>
<tr>
<th>Reference</th>
<th>Main contributions to the present research study</th>
<th>Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>McFarlan &amp; Nolan (1995)</td>
<td>A checklist of recommendations for the ongoing management of IS outsourcing relationships. The recommendations are linked to the post-contract stage of the IS outsourcing process.</td>
<td>6</td>
</tr>
<tr>
<td>Kern (1997), Willcocks &amp; Kern (1998), Kern &amp; Willcocks (2000)</td>
<td>The study by Kern (1997) provides a framework for studying IS outsourcing relationships. The two latter studies build on this framework. For each subsequent study the framework has been revised. The result is a framework for the management of IS outsourcing relationships. The framework is not applied in its entirety in this research study but is used to support findings made by other researchers.</td>
<td>4, 6</td>
</tr>
<tr>
<td>Kern &amp; Willcocks (2001)</td>
<td>A conceptual framework that describes IS outsourcing relationships by regarding the importance of several different dimensions such as the contract and interaction.</td>
<td>4, 6</td>
</tr>
<tr>
<td>Alborz et al. (2003)</td>
<td>A framework that defines a set of conditions that need to be considered in relation to success of IS outsourcing relationships. The framework consists of the IS outsourcing process divided into three main stages, six phases and eight groups of conditions that influence the success of IS outsourcing relationships. The framework moreover includes descriptions of the operationalisation of each of the six phases of the IS outsourcing process.</td>
<td>4</td>
</tr>
</tbody>
</table>
1.5 The purpose of this thesis

As was previously introduced, this research study aims to contribute to the existing literature on IS outsourcing processes and IS outsourcing relationships. This will be accomplished by studying the implementation stage of IS outsourcing using the relationship perspective. This perspective has been chosen as a result of the identified need for emphasising IS outsourcing relationships to find out conditions determining the success of the IS outsourcing process (as suggested by Kern & Willcocks, 2002).

From this, the following purpose is chosen and addressed in this thesis:

To develop a conceptual framework for describing and explaining the degree of successful outcome of the IS outsourcing process using a relationship perspective.

This purpose needs to be further explained. Some aspects of the purpose that are subsequently explained are ‘conceptual framework’, ‘description’, ‘explanation’ and ‘degree of successful outcome’. Conceptual framework and degree of successful outcome will only be discussed briefly since a more comprehensive description of these terms is given in subchapter 1.9. A thorough description of the relationship perspective, as applied in this research study, is stated in subchapter 4.2. The relationship perspective can be described as consisting of the client firm with its key actors, and the IS supplier firm with its key actors. The client and IS supplier firm consists of three areas: business, process and IS (Österle, 1995). The intra-firm and inter-firm interactions among the key actors are part of the relationship perspective.

The choice to develop a conceptual framework for the IS outsourcing process is based on its power to illustrate the main elements to be studied such as key conditions, constructs, dimensions and their relations, both graphically and descriptively (Miles & Huberman, 1994). The present research study approaches the purpose by integrating three theoretical fields: IS theories, interorganisational business relationship theories and IS outsourcing theories. Prior research states that the combination of elements from several theories for describing and explaining IS outsourcing is important, which lead to the deci-

---

3 The three areas representing the client firm and the IS supplier firm are described in subchapter 4.3.
4 The conceptual framework developed in this thesis is termed ‘the conceptual framework for the IS outsourcing process’.
5 The three theoretical fields and motivations of their selection are discussed in subchapter 2.5.
sion to include more than one theory in this research study (Klepper, 1995). Through the application of several theories, a more compelling explanation of conditions influencing the degree of successful outcome of the IS outsourcing process can be reached (Klepper, 1995; Kern, 1999).

Description\(^6\) refers to “making complicated things understandable by reducing them to their component parts” (Miles & Huberman, 1994, p. 90). The term explanation means “making complicated things understandable by showing how their component parts fit together according to some rules” (Miles & Huberman, 1994, p. 90). The description and explanation part of the purpose will be highlighted through the identification of conditions that influence the degree of successful outcome of the IS outsourcing process from a relationship perspective. The conditions are identified as a result of the literature review study, composed of the three chosen theoretical fields and are referred to as key conditions in this research study. One criterion for being identified as a key condition is its ability to be ranked according to its influence on the successful outcome of the IS outsourcing process. The ranking procedure of each key condition could, for example, result in a number between 1 and 5, which indicates to what degree the specific key condition influences the successful outcome of the IS outsourcing process (cf. Fabriek et al., 2008). In a 5-point Likert scale, 1 could represent low influence and 5 could represent high influence. Besides the key conditions, the conceptual framework aims to provide descriptions and explanations of how these key conditions are interrelated. The contribution in form of interrelations among identified key conditions is fruitful since they provide insights and a favourable point of departure for studying the degree of successful outcome of the IS outsourcing process from a relationship perspective.

The degree of successful outcome depends mainly on how well client and IS supplier requirements and expectations are met by the actual outcome of the IS outsourcing process (cf. Markus et al., 2000). The focus on the outcome of the IS outsourcing process, rather than on the IS activity outsourced, has been highlighted as meaningful in an earlier study (Ranganathan et al., 2007). Outcome in this research study not only refers to the actual service exchanged, i.e., for example constructed and implemented software, but also to how the outcome is used and how it contributes to improvements in business operations

\(^6\) The ‘describing and explaining’ part of the purpose is in this thesis sometimes abbreviated with the term studying.
(cf. Cronk & Fitzgerald, 1999; Markus et al., 2000). ‘Degree’ indicates that the outcome of the IS outsourcing process does not have to be either successful or unsuccessful. Instead, the outcome can be more or less successful from a relationship perspective.

The purpose and its core parts are mirrored in the title of this thesis: A Conceptual Framework for Studying the Successful Outcome of the IS Outsourcing Process from a Relationship Perspective. This is an intentional choice to highlight the focus of the present research study.

1.6 The relevance of a conceptual framework for the information systems outsourcing process

The choice to develop a conceptual framework in this research study has been explained previously. The practical and theoretical relevance of a conceptual framework for the IS outsourcing process is focused subsequently. This presentation further describes the advantages to developing a conceptual framework in this research study.

The use of the developed conceptual framework in ‘real-world’ settings should provide useful information for the management of IS outsourcing decisions and subsequent design of the post-contract stage of IS outsourcing processes. Furthermore, the information in the form of key conditions and their inter-relations provide managers at the business, process and IS area of the client and IS supplier firm with useful information about the implementation of IS outsourcing. The key conditions explain more precisely what should be considered during the management of IS outsourcing processes in terms of to both the client and the IS supplier. The key conditions, therefore, provide managers with information about management of the single firm, key actors and management of IS outsourcing relationships. The use of the conceptual framework should therefore increase the possibility of reaching a successful outcome of the IS outsourcing process.

From a theoretical point of view, it is believed that the conceptual framework will capture the essence of the IS outsourcing process for receiving a successful outcome from a relationship perspective. As a result, the conceptual framework will be a fruitful ‘tool’ in future empirical research studies: fruitful in the sense that it can provide useful and important insights on how different key condi-
tions influence the degree of successful outcome of the IS outsourcing process and how these key conditions are interrelated.

1.7 Chosen delimitations of the present research study

The delimitations of this research study are closely related to the purpose of this thesis and how it is addressed in this research study (see the previous explanation of the purpose).

As a result of the desire to contribute to the implementation of IS outsourcing processes, the type of outsourced activities that are of interest are those belonging to the IS life cycle. This includes activities related to business and systems analysis (e.g. specification of IS requirements), systems design (e.g. software design), construction (e.g. programming), implementation (e.g. testing), operation and maintenance management (Andersen, 1994). Because of the complexity of IS activities, compared to services such as help desk, it has been recommended that IS outsourcing should be studied separately (Niederman et al., 2006). Consequently, outsourcing of activities such as telecommunication and network services, PC and server management, mainframes, helpdesk and support have not been examined in this study.

In interorganisational business relationship literature, a relationship between a client and a supplier is not shielded from its environment. The relationship is instead an integral part of the embedded context within which the relationship occurs. This is formulated as a business network constructed from the perspective of a focal firm and its partner in a focal relationship, which is connected with other relationships (Anderson et al., 1994). A business network, graphically represented in Figure 1.1, is composed of the focal relationship and the client’s and the supplier’s relationships with other parties. Possible common third parties are also included in the business network.
Interorganisational business relationships can thus be studied as a dyad or as a network. The focus in this thesis is the relationship between the client and the IS supplier, therefore other relationships included in the client’s and the IS supplier’s business network are not considered. This should not, however, be interpreted as a denial of the importance of third parties or other actors in business relationships.

Another delimitation, or perhaps more an intended choice, is the development of a generic conceptual framework for the IS outsourcing process. Since IS outsourcing is found to be the generic term (Bergkvist & Fredriksson, 2008), the conceptual framework may be applied to any special case of IS outsourcing\(^7\). An earlier literature review on IS outsourcing showed that the conditions influencing the IS outsourcing process were independent of the special case of IS outsourcing (Bergkvist, 2007). In my opinion, it is instead the circumstances that accompany the special case of IS outsourcing that influence the degree of successful outcome of the IS outsourcing process. It has been indicated, for example, that circumstances such as cultural differences and problems connected with distanced relationships influence the degree of successful outcome of the IS outsourcing process more than the actual contracting of IS activities (Edwards & Sridhar, 2005; Sakthivel, 2005).

1.8 Bridging two scientific fields: Information Systems and Industrial marketing

This research study applies theories from two scientific fields for studying the IS outsourcing process from a relationship perspective. The scientific fields

\(^7\) The special cases of IS outsourcing are summarized in subchapter 3.4.
constituting the interdisciplinary nature of this research study are Information Systems and Industrial marketing, as illustrated in Figure 1.2.

![Figure 1.2: The scientific fields constituting the interdisciplinary nature of the present research study](image)

From a Scandinavian perspective, the Information Systems discipline has been influenced by Börje Langefors, who believes that IS needs to be considered within a firm context (Langefors, 1995). This research study follows the implication by Langefors as it considers both the IS and the business context. In this study, the business context is represented by the interorganisational business relationship between client and IS supplier. This entails a dyadic approach that does not only consider the client and the IS supplier but also individual inter-firm interactions crossing firm area boundaries.

This research study focuses on the degree of successful outcome of the IS outsourcing process by applying a relationship perspective. To describe and explain the interorganisational business relationship between client and IS supplier the interaction approach is applied in this research study. The interaction approach describes the interaction process between both of these key actors through exchange episodes composed of services, information, finance and social exchanges (Håkansson, 1982). The interactions between the client and the IS supplier in this study are perceived as the result of the service exchanges, i.e., the exchange of IS activities between the client and the IS supplier. The IS development (ISD) strategy, for example in-house development and component-based development, and the IS life cycle approach, for example sequential and iterative, influence the execution of the interaction exchanges. This is a result of the IS development and maintenance activities that appear different depending on the specific strategy and approach used. The ISD strategy and IS life cycle approach applied is mainly an issue for the intra-firm interactions, which also becomes obvious as most of the models and methodologies of IS development and maintenance apply an actor perspective. The interaction approach, on the other hand, focuses on the inter-firm interactions crossing firm area boundaries.

---

* See Chapter 6 for a presentation and a discussion on the interaction approach.
interactions and the interorganisational business relationship. Thus, when applied as in this research study, the scientific fields Information Systems and Industrial marketing complement each other.

1.9 Key terms used in this thesis

This section will provide an overview of key terms and their definitions used in this thesis. The subsequent presentation focuses on the key terms ‘information systems outsourcing process’, ‘information systems outsourcing relationship’, ‘degree of successful outcome’ and ‘conceptual framework’.

1.9.1 Definition of information systems outsourcing process

The main point of interest in this thesis is the IS outsourcing process. The term emanates from the terms IS, IS outsourcing and process. The definition of IS outsourcing was stated in subchapter 1.1.1. Before presenting the definition of the IS outsourcing process used in this thesis, the term IS will be discussed and defined.

Definition of information systems

The term IS is puzzling since it has at least two different meanings in the literature. First, IS refers to a system that provides information (Langefors, 1974). Second, IS refers to a scientific field of study (e.g. Benbasat & Zmud, 2003). In this thesis, the former definition will be used. An IS, aimed at providing information, can exist regardless of whether IT is used or not. This conclusion is based on Langefors’ (1976) infological perspective of IS, which highlights how information can be specified, independent of computers. The infological perspective builds on the distinction between data and information. Data are symbols, which when interpreted by individuals become information. Consequently, people play an important role in information processing. Because interpretation plays a central role in information creation, a definition of IS should include the personal aspect.

Benbasat and Zmud (2003) view the IS as a purely technical system. This view, however, can be criticized. In his research, Langefors (1995) emphasises the people’s needs and how these can be addressed through computer-based solutions. Weber (2003) also views the IS as something more than just a technical system. He discusses it from the point of view of the IS field and states that IS is not built on theories that account for IT but rather on theories that account for IS related phenomena. These views implicate that IT systems and IS are
related to each other. They are not, however, the same. As has been described previously, IS can even exist without IT - composed instead of manual information processes (Langefors, 1976). The relation between IT systems and IS is highlighted in the description of IS provided by Håkangård and Nilsson (2001, p. 8): “IS concerns how people use IT in different business activities.” This description leads furthermore to questioning the value of IT systems on their own when used in a firm. Hedman and Kalling (2003) believe that the value of an IT system is determined by its ability to provide the firm and its users with relevant information. In a similar way, the IS can not process information on its own, but is dependent on its users and the firm context in which is it implemented (Goldkuhl et al., 1982).

In this thesis, IS is seen as a computer-based IS. The main reason for this view is that IT plays a significant role in the performance of IS outsourcing processes. For example, the existence of advanced technologies in the form of networking and digitization, together with the Internet, enable the management and provision of IS activities anywhere and at any time (Shao & David, 2007).

Andersen (1994) provides a definition of IS independent of it being manual or computer-based. The definition embraces the capturing, transmitting, storing, transferring and displaying of information. The definition is, however, imperfect since the critical role of the individual as an interpreter of data is neglected. Iivari and Hirschheim (1996, p. 552) address the personal aspect as they interpret the IS “as a computer-based system which provides a set of people (users) with information on specified topics of interest in a certain organisational context”. The purpose of IS, therefore, is to supply its users with information about a specific topic to support their performance of business activities (Kwon & Zmud, 1987; Fitzgerald et al., 2002; Avison & Fitzgerald, 2006).

Building on these definitions and the discussion about the product IS, some conclusions can be drawn about the definition of IS used in this thesis:

• it should concern the product IS,
• it should include the individuals interpreting the data,
• it should include the support of IT and
• it should include the purpose of the IS.
Drawing on the definitions of Andersen (1994) and Iivari and Hirschheim (1996), an IS in this thesis is defined as:

*An IT-based system whose purpose is to capture, prepare and display information for a group of people, working in a certain organisational context, to support their specific business activities.*

Having stated the definition of both IS and IS outsourcing, the definition of the IS outsourcing process is presented subsequently.

**Definition of information systems outsourcing process used in this thesis**

A process is a structured, measured set of activities designed to produce a specified output (Mårtensson & Steneskog, 1996). From a business view, the process represents how a firm does its work: “the set of activities it pursues to accomplish a particular objective for a particular customer, either internal or external” (Davenport, 2005, p. 102). Examples of business processes are manufacturing, accounting and payroll.

Drawing on the definition of IS and IS outsourcing used in this thesis and the definition of process given by Davenport (2005), the IS outsourcing process in this thesis is regarded as:

*The set of phases to be performed to reach a particular IS-related outcome that support the business activities of both contractually connected parties.*

The purpose of this thesis is to describe and explain the successful outcome of the IS outsourcing process using a relationship perspective. The relationship perspective as applied in this thesis builds on the IS outsourcing relationship. The applied definition of the IS outsourcing relationship is therefore focused on next.

**1.9.2 Definition of information systems outsourcing relationship**

The definition of IS outsourcing used in this thesis states that IS outsourcing is a form of an interorganisational business relationship since the relationship includes at least two separate and distinct firms – the client and the IS supplier – who are contractually connected. According to Håkansson and Snehota (1997), it is difficult to define a relationship. They provide a definition of the relation-
ship, however, as a “mutually oriented interaction between two reciprocally committed parties” (Håkansson & Snehota, 1997, p. 25).

When reviewing the literature, the IS outsourcing relationship is commonly described as a partnership or as a strategic alliance. This finding has also been highlighted by Kern (1999) who found the overuse of the terms partnership and strategic alliance to be confusing. IS outsourcing, where the client transfers at least 80% of the IS budget to the IS supplier, is often referred to as a partnership or an alliance (McFarlan & Nolan, 1995; Willcocks & Choi, 1995). Lacity and Hirschheim (1993a), however, reveal that it is rare that an IS outsourcing relationship can be described as a partnership. This is because the client and the IS supplier seldom share the same profit motive. Because of the misuse and overuse of the terms partnership and strategic alliance, Kern and Willcocks (2001) found it critical to identify the common elements that describe the IS outsourcing relationship. Drawing on a general definition of relationship, they ended up with the following definition for describing the IS outsourcing relationship (Kern & Willcocks, 2001, p. 51): “The state where a client and vendor(s) organisation are connected or related via individual managers for the duration of the contract period of an outsourcing venture.”

Goles and Chin (2005, p. 49) provide a more descriptive definition that highlights the contractual agreement and the interdependence between the client and the IS supplier:

> “An ongoing, long-term linkage between an outsourcing vendor and customer arising from a contractual agreement to provide one or more comprehensive IS activities, processes, or services with the understanding that the benefits attained by each firm are at least in part dependent on the other.”

Drawing on the definitions provided by Håkansson and Snehota (1997) and Goles and Chin (2005), the following criteria should be included in a definition of the IS outsourcing relationship:

- the contracted/committed parties,
- the connection/interaction among the parties,
- the duration of the relationship,
- the exchange of activities, processes or services and
- the mutual dependency among the parties.
As a result, the IS outsourcing relationship is defined in this thesis as the following:

"An ongoing, long-term commitment between a client and an IS supplier, building on a contractual agreement, with the aim to establish mutually dependent exchanges of IS activities that benefit both the client and the IS supplier."

This definition partly coincides with the basic premises of a cooperative relationship (Lacity & Willcocks, 2000). A cooperative relationship is recognised by the complementariness of key actors’ business goals. Goals are often complementary in relationships where each key actor needs something from the other party to succeed. Cooperative relationships promote both the single firm and the relationship between the client and the IS supplier (Han et al., 2008). High levels of information sharing, communication quality and collaborative participation that are significantly related to trust and commitment, are some of the benefits of a collaborative relationship (Han et al., 2008). Trust and commitment have also been found to positively influence IS outsourcing success.

What constitutes a complementary relationship has been reported by Lacity and Willcocks (1998):

- both key actors have something of value to contribute (individual excellence)
- the relationship is important for both key actors’ business strategy (importance)
- both key actors are dependent on each other to succeed (interdependence)
- the key actors invest in each other (investment)
- communication is open (information)
- linkages among key actors are developed for reaching interactive work (integration)
- the relationship builds on interconnections and can not be easily broken (institutionalisation)
- the key actors behave friendly toward each other (integrity)

---

9 Information sharing includes, for example, the client’s and the IS supplier’s sharing of own information and business knowledge of core business processes (Han et al., 2008).
10 Communication quality includes timely, accurate, complete and credible communication between client and IS supplier (Han et al., 2008).
11 Collaborative participation includes, for example, that the client and the IS supplier solve problems together, make decisions together and are interested in each other’s problems (Han et al., 2008).
12 Trust and commitment are described in subchapter 6.3.3.
The establishment of a cooperative/complementary IS outsourcing relationship is therefore relevant since research indicates that it contributes to the achievement of successful IS outsourcing relationships (Han et al., 2008).

1.9.3 Definition of degree of successful outcome

The degree of successful outcome of the IS outsourcing process is described in this thesis from a relationship perspective. This means that the client–IS supplier relationship is used to describe and explain key conditions that influence the degree of successful outcome. The relationship perspective includes the client firm with its key actors, as well as the IS supplier firm with its key actors. In this thesis, the client firm and the IS supplier firm are composed of three areas: business, process and IS (Österle, 1995). As a result, the definition of the term degree of successful outcome includes key actors representing different areas of the firm.

In their article, Markus et al. (2000), address the success of implementing Enterprise Resource Planning (ERP) systems. They found through their research study that success of ERP systems depends on when success is measured, whom you ask and how you ask. Individuals deploy and use ERP systems according to their business activities, thus they have their own experience of ERP usage. In turn, these individuals perceive the success of ERP differently. The conditions influencing the degree of successful outcome change over time and thus cannot be predetermined (Markus et al., 2000). Similarly, each individual key actor reflects on the degree of successful outcome of the IS outsourcing process in different ways. It is important to remember that the key actors may regard the degree of successful outcome differently depending on when during the IS outsourcing process they are asked.

Different ways of assessing successful outcome

In the services relationship marketing literature, the perceptions of the client are used to measure service quality (Parasuraman et al., 1988). The measurement is conducted through a comparison of client’s expectations or desires from a service supplier and their perceptions about the actual service performance. In a similar way Lee and Kim (1999) and Lacity and Willcocks (1998) developed an indicator of IS outsourcing success based on participants’ perceptions of whether or not the outcome of their IS outsourcing decisions met their expectations. Following Dibbern et al. (2004), success of IS outsourcing can be understood either as satisfaction, which includes a positive attitude among the
key actors involved and the realization of objectives, or the performance of activities that are being outsourced. The experienced satisfaction is related to the post-outsourcing evaluation of service quality given pre-outsourcing expectations (Anderson & Sullivan, 1993). The success of IS outsourcing has also been measured as the client’s and the IS supplier’s willingness to recommit to the outsourcing deal (Cunden, 2008).

Another way of reflecting on the degree of successful outcome is in relation to the overall organisational advantage gained from IS outsourcing. This can be translated into the satisfaction or benefits the key actors receive from IS outsourcing (Cong & Chau, 2007). Benefits of IS outsourcing are commonly measured in terms of strategic, economic and technological gains (Gupta & Gupta, 1992; Lee & Kim, 1999; Cong & Chau, 2007; Han et al., 2008).

Because this research study builds on a literature review study, the degree of successful outcome is assessed by using success criteria found in the literature. From the previous description the following criteria are proposed for assessing the degree of successful outcome in this research study:

- to what degree key actors' financial expectations are met,
- key actors' degree of satisfaction with the performance of the IS outsourcing process,
- to what degree key actors' quality expectations concerning the outcome of the IS outsourcing process are met,
- key actors' degree of satisfaction with the IS outsourcing relationship,
- to what degree key actors' expectations of business performance improvement are met and
- key actors' willingness to recommit to the IS outsourcing deal.

These criteria have a broad range but are sufficient for guiding the identification of key conditions that influence the degree of successful outcome of the IS outsourcing process in this thesis.

An example of how the degree of successful outcome could be measured in future research

The inclusion of several key actors, who play different roles in the firm, brings the unavoidable complexity of measuring the degree of successful outcome. One way to measure the degree of successful outcome is to let each key actor rank key conditions that influence the degree of successful outcome (cf. Fabriek
et al., 2008). A 5-point Likert scale could be used, for example, where 1 represents very unsuccessful and 5 very successful. For each key condition, an average score is calculated based on how key actors have reflected on the specific key condition. This average score is then used to indicate if the key condition is classified as successful, unsuccessful or neither. The concluding result of this calculation is a classification of the key conditions in successful, unsuccessful or neither. The overall successful outcome of the IS outsourcing process is the average of the key conditions' calculated degree of success divided by the sum of key conditions.

When the degree of successful outcome is calculated using average scores as presented in the previous example, the outcome of the IS outsourcing process could be successful even though some key conditions are calculated as unsuccessful.

1.9.4 The term conceptual framework

The purpose of this thesis includes the development of a conceptual framework. A conceptual framework is one way of explaining the main things to be studied such as key factors, conditions, constructs, dimensions or variables. The conceptual framework is (often) derived from general objectives in theory and prior empirical research (Miles & Huberman, 1994). Conceptual frameworks are primarily used when the researcher wants to clarify, categorise, evaluate and/or integrate concepts, models and methodologies from prior research (Jayaratna, 1994). The conceptual framework in this thesis describes and explains key conditions related to the degree of successful outcome of the IS outsourcing process by amalgamating contributions from three different theoretical fields.

The term conceptual framework in relation to the terms theory and model

Dubin (1983) describes a ‘theory’ as making sense of observations made in the real world by ordering and relating them to each other. Motives behind building a theory may be that the real world is too complex and needs to be conceptually simplified to understand it and/or that observations made in the real world cannot by themselves reveal ordered relationships among empirically entities (Dubin, 1983).

Gregor (2006) provides a taxonomy of theory types in IS research. The taxonomy consists of five different theory types presented in Table 1.2 together
with distinguishing attributes. In this taxonomy of theory types, this research study is categorised as explanatory. The analytical study is characterised as going beyond basic description by analysing or summarizing attributes of phenomena and their relations. The explanatory study, in turn, also provides explanations but does not aim to predict with any precision (Gregor, 2006). The conceptual framework for this research study aims to describe and explain the degree of successful outcome of the IS outsourcing process using a relationship perspective. Since the conceptual framework is a result of a conducted literature review study the explanation part is based purely on prior research. The explanations provided do not aim to predict with any precision and, thus, correspond with the main characteristics of theory of explanation.

Table 1.2: A taxonomy of theory types in IS research (Gregor, 2006, p. 620)

<table>
<thead>
<tr>
<th>Theory type</th>
<th>Distinguishing attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysis</td>
<td>Says what is. The theory does not extend beyond analysis and description. No causal relationships among phenomena are specified and no predictions are made.</td>
</tr>
<tr>
<td>Explanation</td>
<td>Says what is, how, why, when and where. The theory provides explanations but does not aim to predict with any precision. There are no testable propositions.</td>
</tr>
<tr>
<td>Prediction</td>
<td>Says what is and what will be. The theory provides predictions and has testable propositions but does not have well-developed justificatory causal explanations.</td>
</tr>
<tr>
<td>Explanation and prediction</td>
<td>Says what is, how, why, when, where and what will be. Provides predictions and has both testable propositions and causal explanations.</td>
</tr>
<tr>
<td>Design and action</td>
<td>Says how to do something. The theory gives explicit prescriptions (e.g. methods, techniques, principles of form and function) for constructing an artifact.</td>
</tr>
</tbody>
</table>

In this thesis I use the term conceptual framework to describe the theoretical findings related to the degree of successful outcome of the IS outsourcing process. The term ‘model’ is, however, often used in research to graphically illustrate concepts, conditions and constructs and their relations to each other (e.g. Henderson & Venkatraman, 1999). Sometimes the terms conceptual framework and model are even used synonymously, which indicates the fine line between them (e.g. Henderson & Venkatraman, 1992). When reviewing references that describe and define the term conceptual framework, however, the intended use of this term becomes somewhat clearer. The development of a conceptual
framework includes decision-making about conditions that are important to study about the phenomenon of interest and the relationships that exist among the conditions (Miles & Huberman, 1994). According to Miles and Huberman (1994), a conceptual framework explains the main things to be studied through descriptive and graphical illustrations. This includes the key conditions, constructs or variables and the presumed relationships among them. The description provided by Miles and Huberman (1994) states that the conceptual framework is developed to describe the phenomenon to be studied, and in that way precedes the empirical collection of data. A conceptual framework is consequently not providing any testable propositions, only elements that are useful for explaining the phenomenon studied.

Through studying the descriptions of the different terms conceptual framework, theory and model it becomes clear that they sometimes are used as synonymous. In this thesis, however, I have chosen to use the term conceptual framework for describing and explaining the degree of successful outcome of the IS outsourcing process. Since the main theoretical contribution concerns the combination of different theoretical fields, key conditions and their relations, presented through descriptions, explanations and graphical representations, I believe that the most suitable term to use is conceptual framework. This does not exclude, however, the use of the term theory and the terminology provided by Gregor (2006) for discussing the contributions of this research study.

To conclude this introductory chapter, the disposition of this thesis is presented next.

1.10 Disposition of this thesis and use of publications

The disposition of this thesis is presented in Figure 1.3. This thesis is composed of nine chapters, which are structured into four parts in Figure 1.3: ‘The outset and the framing of the present research study’ (Chapter 1 and Chapter 2), ‘The conducted literature review study and contributions’ (Chapter 3 to Chapter 7), ‘A conceptual framework for the IS outsourcing process’ (Chapter 8) and ‘Contributions of the present research study and future research’ (Chapter 9). The output from each of the four parts frames the subsequent parts of the thesis.
The aim of this chapter is to frame this research study and highlight its relevance and context. Chapter 2 outlines the research process of the Ph.D. thesis, of which this research study is part. The qualitative research methodology and the conducted literature review study are then thoroughly described to provide a transparency of the research conducted.

Chapters 3-7 are devoted to the results of the conducted literature review study. For each chapter, contributions to the development of the conceptual framework for the IS outsourcing process are summarized. Chapter 3 is an extended version of the literature review study presented in Bergkvist and Fredriksson (2008) and focuses on IS outsourcing terms used in the IT/IS outsourcing literature. Chapter 4 presents three building blocks of this research study: (1) prior research on IS outsourcing relationships, (2) the applied relationship perspective and (3) the IS outsourcing process. Chapters 5-7 presents the results and findings from the conducted literature reviews on the three theoretical fields introduced in Chapter 1 and motivated in Chapter 2: IS (Chapter 5), inter-organisational business relationships (Chapter 6) and IS outsourcing (Chapter 7). Chapter 5 and Chapter 7 include findings and contributions of the literature review study published in Bergkvist (2007), which emphasises ISD activities and their suitability for outsourcing.

The contributions of the literature review study are amalgamated in Chapter 8, which is devoted to the development and presentation of the conceptual framework for the IS outsourcing process. This conceptual framework aims to describe and explain the degree of successful outcome of the IS outsourcing process from a relationship perspective.

The conclusion of this research study is discussed in Chapter 9. Chapter 9 provides the practical implications and the theoretical contributions of this research study and proposes directions for future research.

Besides the two previously mentioned publications, parts of earlier versions of this thesis are presented in the conference article with the title “Dimensions for Describing and Explaining the Successful Outcome of the IS Outsourcing Process – Emphasising the Relationship Perspective” (Bergkvist, 2008).
Figure 1.3: Disposition of this thesis
2 Research process and methodology

This chapter describes the research process of the present research study. Initially, this research study is presented as part of a greater research process: the Ph.D. thesis. Thereafter, a description and motivation of the research approach used for addressing the purpose of this thesis follows. The phenomenon studied is presented together with a description of the unit of analysis and the dependent and independent variable. The literature review study, the choice of theoretical fields and the selection of theoretical data are systematically described to create a transparency of the research conducted. This is followed by a description of the analysis, which is represented by the steps conducted during the development of the conceptual framework for the IS outsourcing process. Finally, criteria for reflecting on the practical and theoretical relevance of the conceptual framework are presented.

2.1 Outline of the research process of the doctoral thesis

The research conducted in this thesis is part of a greater research process which finally will result in a Ph.D. thesis. The research process is roughly outlined in Figure 2.1 and comprises the study performed in this thesis, the licentiate study, and the subsequent doctoral study.

![Diagram of research process]

Figure 2.1: The research process of the Ph.D. thesis comprised of this research study and the doctoral study

The main contribution of this research study is the conceptual framework for describing and explaining the degree of successful outcome of the IS outsour-
The conceptual framework, presented in Chapter 8, is a result of the conducted literature review study, which has incorporated three different theoretical fields: IS theories, interorganisational business relationship theories and IS outsourcing theories. The conceptual framework for the IS outsourcing process describes and explains key conditions influencing the degree of successful outcome of the IS outsourcing process, categorisation of key conditions in dimensions and interrelations among these dimensions.

The developed conceptual framework is aimed to be applied in the doctoral study and serve at least two functions. Firstly, the conceptual framework will act as a foundation for the empirical research study and in particular the design of the interviews. Secondly, the conceptual framework will provide an analytical tool for the interpretation of the data collected during the interviews. The analytical tool constitutes the possibility to compare, and categorise, the statements given by the respondents with the theoretical knowledge base of the licentiate study.

As a result of the doctoral study, the conceptual framework will be further developed. The final framework will provide descriptions and explanations of the degree of successful outcome of the IS outsourcing process from a relationship perspective. The contributions of the Ph.D. thesis will be based on the findings from the literature review study conducted in this thesis and the findings from 'real-world' case studies. With a start of departure in the final framework, the desire is furthermore to provide design propositions as a result of the doctoral study. The design propositions will focus the support and facilitation of the management of IS outsourcing processes and IS outsourcing relationships.

2.2 The research approach: conceptual-analytical and process theory

The contributions of the present research study are built on a theoretical study and can thereby be said to be based on ideas, structures and speculations rather than on systematic and direct observations of reality. Another way of explaining a theoretical study is by referring to it as deductive, which means that the study builds on existing theories (Gregor, 2006). In his taxonomy of research approaches (see Figure 2.2), Järvinen (2000) refers this kind of theoretical study as conceptual-analytical.
Conceptual-analytical studies originate from assumptions, premises and axioms and derive a theory, model or framework from these. Moreover, conceptual-analytical studies can be based on assumptions as a result of prior empirical studies. From the theories, models and frameworks identified, logical reasoning is used to integrate them.

In the terminology of theories in IS research (see Table 1.2), provided by Gregor (2006), this study is categorised as explanatory and describes ‘what is, how, why, when and where’, opposed to a study that explains causality and generalisations. The analytical study is characterised as going beyond basic description by analysing or summarizing attributes of phenomena and their relations. The explanatory study, in turn, also provides explanations but does not aim to predict with any precision (Gregor, 2006). The conceptual framework developed in this research study aims both to describe and explain the degree of successful outcome of the IS outsourcing process. Consequently it corresponds with the main characteristics of the explanatory study.

The purpose of the current research study is of descriptive and explanatory nature. The description constitutes partly of the presentation of key conditions influencing the degree of successful outcome of the IS outsourcing process. Additionally, this research study explains how these key conditions are related to each other. When relating the purpose to the characteristics of variance theory and process theory the conclusion is that this research study is process theory rather than variance theory. Process theory is especially characterised by the cause-effect argument ‘necessary, but not sufficient’ (Soh & Markus, 1995).
The ‘necessary, but not sufficient’ argument can be explained from this research point of view as the existence of one necessary key condition may perhaps not be sufficient for reaching a high degree of successful outcome of the IS outsourcing process. The logical form of variance theory is ‘if x, then y’ and ‘if more x, then more y’ (Soh & Markus, 1995). The cause-effect argument of variance theory is thus ‘necessary and sufficient’.

The characteristics of process theory are applied to the phenomenon of interest in this research study: the IS outsourcing process. The result is presented in Table 2.1.

**Table 2.1: Characteristics of process theory and application of these characteristics on the research phenomenon of this research study (adaptation of Soh & Markus, 1995, p. 31)**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Process theory</th>
<th>IS outsourcing process</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outcome</strong></td>
<td>A discrete outcome</td>
<td>Degree of successful outcome of the IS outsourcing process from a relationship perspective</td>
</tr>
<tr>
<td><strong>Logical form</strong></td>
<td>In not X (necessary condition), then not Y (outcome); Can not be extended to ‘more X’ or ‘more Y’</td>
<td>If the influencing key conditions are neglected, the IS outsourcing process will presumably not be successful from a relationship perspective</td>
</tr>
<tr>
<td><strong>Assumptions</strong></td>
<td>Outcomes may not occur even when conditions are present unless a particular ‘recipe’, involving external directional forces and probabilistic processes, unfolds</td>
<td>Successful outcome of the IS outsourcing process may not occur even if influencing key conditions are considered because of lack of management and monitoring of these key conditions</td>
</tr>
<tr>
<td><strong>Role of time</strong></td>
<td>Crucial; The time ordering in which necessary conditions combine is significant</td>
<td>Sequential ordering: (1) IS outsourcing decision, (2) identification of influencing key conditions (3) management of influencing key conditions, (4) possible successful outcome of the IS outsourcing process from a relationship perspective</td>
</tr>
</tbody>
</table>

The characteristics of process theory become visible in the present research study from especially two aspects. Firstly, if key conditions influencing the successful outcome of the IS outsourcing process are neglected then a successful outcome of this process can not be expected. Secondly, even if the key con-
ditions are considered during the IS outsourcing process they need to managed properly to achieve a high degree of successful outcome.

An example of a process theory approach is provided in the research study conducted by Markus and Tanis (2000). Their theory explains the success of ERP system implementation through a framework based on a sequence of phases. The output of each phase is an intermediate outcome, which influence the final outcome but does not determine it. Although the research conducted in this research study does not aim to provide a conceptual framework consisting of a set of phases, the research emphasises the IS outsourcing process and the key conditions that influence the degree of successful outcome of this process. As a process theory, the conceptual framework will facilitate for key actors of the client and IS supplier firm to better recognize which key conditions influence the success of IS outsourcing.

2.3 The qualitative nature of the present research study

The purpose is to develop a conceptual framework to describe and explain the degree of successful outcome of the IS outsourcing process using a relationship perspective. The analysis of the reviewed literature is categorised as qualitative because the analysis builds on my interpretations of what other researchers have concluded about successful IS outsourcing and IS outsourcing relationships.

Qualitative research is about the interest in meanings, perspectives and understandings of a particular issue (Woods, 1999). Through a comprehensive investigation of the perspective of interest, the understanding of inconsistencies, ambiguities and contradictions have increased. In this research study the focus has been on the identification of key conditions that relate to the successful outcome of the IS outsourcing process. My role as a researcher has been to discover valuable theories and frameworks that can be related to the description and explanation of the degree of successful outcome of the IS outsourcing process.

This qualitative research study has its origin in three theoretical fields. To enhance the understanding of key conditions influencing the degree of successful outcome of the IS outsourcing process, theories and perspectives have been collected from the field of IS, interorganisational business relationships and IS outsourcing. The domains of knowledge have in particular been strategies, app-
roaches and frameworks for the IS life cycle, the interaction approach developed by the Industrial Marketing and Purchasing (IMP) researcher network and prior research on IS outsourcing success. The combination of contributions given as a result of the conducted literature review study has resulted in a conceptual framework for describing and explaining the degree of successful outcome of the IS outsourcing process from a relationship perspective. The conceptual framework is constituted of three elements: key conditions, dimensions and interrelations among dimensions. These elements are identified as influencing the degree of successful outcome of the IS outsourcing process from a relationship perspective. The contribution of the conducted literature review study furthermore is developed knowledge on IS outsourcing processes and IS outsourcing relationships. The knowledge contributions are presented in form of theoretical contributions and practical implications.

An outline of the research process of this research study is graphically represented in Figure 2.3.

2.4 Three building blocks of the present research study

The terms ‘unit of analysis’, ‘dependent variable’ and ‘independent variable’ are most commonly located in quantitative research (Gerring, 2007). Even if this research study is described as qualitative, I choose to denote three of the building blocks of this thesis as the unit of analysis, the dependent variable and the independent variable. This choice is simply because I find the terms mirroring, in a favourable way, the parts addressed in this subchapter.

The unit of analysis is the subject that is the focal point of the study, i.e., the subject that you want to say something about (Yin, 1989). The unit of analysis is fundamental for research and is related to the way the research question is defined. Patton (2002, p. 229) writes “The key issue in selecting and making decisions for the appropriate unit of analysis is to decide what it is you want to be able to say something about at the end of the study.” Gerring (2007) differentiates between a spatial unit of analysis, for example nations or individuals, and a temporal unit of analysis, for example years or minutes. The unit of analysis depends, according to Gerring (2007), on the research design.

13 The remaining building blocks of the present research study are presented in Chapter 4, among them the phenomenon of interest, i.e., the IS outsourcing process.
Figure 2.3: The research process of the present research study

Theoretical field of IS
Knowledge domain of particular interest: strategies, approaches and frameworks for the IS life cycle
Identification of key conditions, dimensions and interrelations among dimensions as a result of the conducted literature review

Theoretical field of interorganisational business relationships
Knowledge domain of particular interest: the interaction approach
Identification of key conditions, dimensions and interrelations among dimensions as a result of the conducted literature review

Theoretical field of IS outsourcing
Knowledge domain of particular interest: IS outsourcing success
Identification of key conditions, dimensions and interrelations among dimensions as a result of the conducted literature review

Identified elements of the conceptual framework

Key conditions, dimensions and interrelations among dimensions influence the degree of successful outcome of the IS outsourcing process from a relationship perspective

Contributions
- theoretical contributions:
  - conceptual framework
  - practical implications

Further developed knowledge:
The unit of analysis in this study is the client–IS supplier relationship, which counts as a temporal unit of analysis. The main reason for referring the IS outsourcing relationship as a temporal unit of analysis is that this specific relationship commonly is built on an IS outsourcing contract which is valid for a given period of time (Kern & Willecocks, 2001).

A variable describes how specific qualities differ among certain units of analysis (Esaiasson et al., 2007). To be able to describe these differences, dependent and independent variables are used. The dependent variable distinguishes the variations of a specific quality of the unit of analysis that the researcher wishes to explain. The independent variable is on the other hand describing differences in qualities of the unit of analysis and moreover is explaining the variations of the dependent variable, i.e., variations in the independent variable cause or explain the variations of the dependent variable (Esaiasson et al., 2007). The example, given in Figure 2.4, describes that the degree of cultural differences influences the degree of successful outcome of the IS outsourcing process. The hypothetical relation is negative, which means that the more cultural differences the lower the degree of successful outcome will be. The client–IS supplier relationship constitutes the unit of analysis.

![Figure 2.4: An example of a dependent and an independent variable (adaptation of Esaiasson et al., 2007, p. 55)](image)

The phenomenon, the unit of analysis, the dependent and the independent variable in this research study are presented in Table 2.2. The unit of analysis in this thesis is the relationship between client and IS supplier. The intention is to identify key conditions that influence the degree of successful outcome of the IS outsourcing process from a relationship perspective.
Table 2.2: Phenomenon, unit of analysis, dependent and independent variable applied in the present research study

<table>
<thead>
<tr>
<th>Phenomenon</th>
<th>Unit of analysis</th>
<th>Dependent variable</th>
<th>Independent variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS outsourcing process</td>
<td>Client–IS supplier relationship</td>
<td>Degree of successful outcome from a relationship perspective</td>
<td>Key conditions influencing the degree of successful outcome from a relationship perspective</td>
</tr>
</tbody>
</table>

The dependent variable is the ‘degree of successful outcome from a relationship perspective’ and is the key issue in the research conducted and in the conceptual framework developed. Research studies on the IS outsourcing success are found to commonly apply quantitative methods for the collection and analysis of data (e.g. Grover et al., 1996; Koh et al., 2004). The representation of studies using qualitative methods when studying success is not as overwhelming as quantitative studies. However they do exist. For example, Markus et al. (2000) use a qualitative approach to explore users’ experiences of ERP systems. The qualitative approach is applied to enhance problems during ERP system implementation with the aim to reach a successful implementation. Furthermore, Lacity and Willcocks (1998) studied the IS outsourcing success based on participants’ perceptions of whether the outcome of their IS outsourcing decisions met their expectations. The independent variable ‘key conditions influencing the degree of successful outcome from a relationship perspective’, are identified and described as a result of the literature review study.

2.5 The design of the literature review study

When applying a qualitative research methodology, as this research study does, the data are commonly collected from observation, interviews or documents (Miles & Huberman, 1994). Moreover the data can be collected theoretically and/or empirically. While empirical methods emphasise individuals’ previous experiences in a certain context, theoretical methods are used to capture data from documents, scientific work and scientific disciplines.

The realization of this research study builds on a literature review study of prior research. The literature review study creates a firm foundation for advancing knowledge within the area of IS outsourcing and uncovers the knowledge gap where research is needed. Furthermore, it determines the significance of the intended research and facilitates the framing of the research purpose. As Webster and Watson (2002) point out, the performance of a literature review study is primarily related to the situation when a researcher wants to explore a
research area before proceeding with a research project. According to Webster and Watson (2002) two types of literature review studies exist. The first builds on the existence of a mature topic, where an accumulated body of research exists that need to be synthesised and analysed. The researcher conducts a thorough literature review, resulting in the proposal of a conceptual framework that extend the existing research. The second origins in an emerging issue which includes the exposure of theories. The literature review, in the second case, can be shorter but in similarity with the first type of literature review study, the contribution is a conceptual framework.

The literature review study conducted in this thesis is motivated by the desire to investigate what is already researched and known in relation to the success of IS outsourcing processes. The analysis of the literature included in the review study resulted in a conceptual framework, presented in Chapter 8. The conceptual framework extends the knowledge on which key conditions that influence the successful outcome of the IS outsourcing process by applying a relationship perspective.

The literature review study in this thesis has been conducted with the guidance of the parameters summarized in Figure 2.5.

<table>
<thead>
<tr>
<th>Phenomenon studied:</th>
<th>The IS outsourcing process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical fields included:</td>
<td>Information systems</td>
</tr>
<tr>
<td>Unit of analysis:</td>
<td>The client-IS supplier relationship</td>
</tr>
<tr>
<td>Dependent variable:</td>
<td>Degree of successful outcome from a relationship perspective</td>
</tr>
<tr>
<td>Independent variable:</td>
<td>Key conditions influencing the degree of successful outcome from a relationship perspective</td>
</tr>
</tbody>
</table>

**Figure 2.5**: Research parameters that have guided the literature review study

Through the application of several theoretical fields on the phenomenon studied, a more compelling explanation of the key conditions influencing the degree of successful outcome of the IS outsourcing process can be reached (Klepper, 1995; Kern, 1999). Furthermore, as the discipline of IS is denoted as a multidisciplinary scientific field the application of cross-sectional research is
not unusual. Possible risks yet follow an eclectic approach. Willcocks and Lacity (1998) identified three risks through their research study:

- the degree of complexity among theories,
- the appropriateness of the theories for the phenomena studied and
- the adoption of theories without being aware of the critique and controversies surrounding the approach in its own discipline.

The chosen theoretical fields and the particular domains of knowledge included in the literature review study are presented subsequently. The presentation aims to address the risks of using an eclectic approach by motivating the theories' appropriateness for studying the successful outcome of the IS outsourcing process.

### 2.5.1 Motivations for the choice of theories

The choice of the application of the selected theories for developing a conceptual framework for the IS outsourcing process is focused in this subchapter. Additionally, limitations with the theories in relation to the purpose of this thesis are discussed.

#### Information systems theories

The ‘IS’ in IS outsourcing process reveals that the activities of interest are IS activities. IS activities concern, in this research study, activities traceable to the IS life cycle (Andersen, 1994; the author's translation): Change analysis, Business and systems analysis, Systems design, Construction, Implementation, Operation and Maintenance management. Because of the delimitation to IS outsourcing it becomes important to incorporate IS theories to describe and explain key conditions that are found to influence the degree of successful outcome of the IS outsourcing process. The presentation on theories within the field of IS aims to be generic, which is a choice related to the delimitation to IS outsourcing. IS outsourcing is defined as a generic term and moreover is not denoting outsourcing of any particular IS activity. To achieve a generic view of the IS life cycle, the theoretical presentation embraces strategies, approaches and frameworks for the IS life cycle.

A recent article shows on an existing trend towards the use of standard application packages instead of in-house developed applications (Computer Sweden, 2008c). Reasons for the increasing use of standard application packages are the globalisation and the facilitated information exchange, both within the firm,
with affiliated firms and IS suppliers. Although the trend is towards the increasing use of standard application packages the existence of IS combined of in-house developed applications and standard application packages is still present. To address this issue, the presentation in this research study includes different strategies of ISD such as in-house development and component-based development, and how the usage of these development strategies influences IS outsourcing. Besides the current ISD strategies different IS life cycle approaches exist such as the sequential and the iterative. The presentation on IS life cycle approaches does not aim to present every available IS life cycle approach. Instead the aim is to provide a picture of how some IS life cycle approaches differ and how the differences may influence the performance of the IS outsourcing process.

The conducted literature review on IS theories has embraced other models and methodologies of the IS life cycle than the ones presented in this research study. For example, the SASD (Structured Analysis and Structured Design) model and the JSD (Jackson System Development) model have been part of the conducted literature review. However, as the aim is not to provide a picture of every available model and methodology within the theoretical field of IS, some models and methodologies have been excluded from the presentation on the IS life cycle.

The theories on the IS life cycle have been reviewed according to their appropriateness for describing and explaining the degree of successful outcome of the IS outsourcing process. The main weakness of the strategies and approaches is found to be their focus on the single actor for describing the IS life cycle. To compensate for this, I have chosen to include two IS frameworks which are presented and discussed according to their relevance to the IS outsourcing process. The frameworks presented are the method-in-action framework (Fitzgerald et al., 2002) and the IS architecture framework (Zachman, 1987; Sowa & Zachman, 1992). The use of frameworks contribute to the evaluation of a specific situation before IS work begins. The evaluation aims to clarify circumstances such as the specific development context, use of ISD strategy, IS life cycle approach, ISD methodology and specification of key actors’ involvement.
Interorganisational business relationship theories

Several theories have been used to study IS outsourcing and some of the more popular ones are TC Theory (e.g. Cheon et al., 1995; Dibbern, 2004), Agency Theory (e.g. Cheon et al., 1995) and Resource-Based Theory (e.g. Grover et al., 1994; Goles, 2006). The theories include both strengths and shortcomings for describing and explaining the degree of successful outcome of the IS outsourcing process. From the relationship perspective, however, they are perceived by me as too weak to constitute the theoretical frame of the conceptual framework. The TC Theory uses the firm and the exchange of transactions as the units of analysis, whereas this research study is interested in the interorganisational business exchanges between the client and the IS supplier. The TC Theory has furthermore been well applied in the IS outsourcing research to explain the decision for IS outsourcing, which also is the case of Agency Theory and Resource-Based Theory (e.g. Cheon et al., 1995; Dibbern, 2004).

Since this research study builds on the motivation to contribute to the knowledge gap in the IS outsourcing literature, i.e., the use of the relationship perspective to study the successful outcome of the IS outsourcing process, other theories have been found more relevant. Theories such as the Relationship Exchange Theory (RET) and Psychological Contract Theory, which are using the relationship as the unit of analysis, provide more valuable insights for studying the IS outsourcing process (e.g. Koh et al., 2004; Goles & Chin, 2005). Moreover, Industrial marketing and business literature focuses primary on the interorganisational exchange relationship (Dwyer et al., 1987). One of the contributed fields within the Industrial marketing literature is the interaction approach, developed by the IMP researcher network, which includes several contributions for studying IS outsourcing relationships (Kern & Willcocks, 2002). The strength of RET is its focus on the interorganisational relationship and the exchanges that constitute this relationship. One of its weaknesses is that it does not highlight the environment or the context in which the relationship takes place. The environment, incorporating both internal firm characteristics and external market characteristics, has been shown important for describing and explaining the successfulness of the IS outsourcing relationship (Kern & Willcocks, 2001).

The Psychological Contract Theory emphasises the individuals’ beliefs, expectations and mutual obligations in contractual relationships (Koh et al., 2004). Obligations concern the written contract, oral promises and other expressions
of commitment made by the key actors. The Psychological Contract Theory has been questioned according to its suitability to describe and explain IS outsourcing (e.g. Koh et al., 2004). The underlying motive is that the Psychological Contract Theory use the level of individuals as analysis, whereas IS outsourcing is an organisational level phenomenon (Koh et al., 2004).

My belief is that both organisational and individual conditions need to be incorporated in the conceptual framework to increase the knowledge about which key conditions influence the degree of successful outcome of the IS outsourcing process. The result of the review of possible theories for describing and explaining the IS outsourcing relationship is the decision to apply the approach developed by the IMP researcher network, i.e., the interaction approach. The interaction approach is a flexible and general approach for studying inter-organisational relationships (Kern & Willcocks, 2002). With flexible is meant that it incorporates several conditions for describing and explaining interorganisational relationships. The interaction approach embraces the interaction process of exchange episodes, the parties involved in the interactions, the environment (external conditions) within which the interaction process takes place and the atmosphere (conditions concerning the specific relationship) surrounding the interaction process. Thus, the interaction approach highlights both the organisational and individual level to describe and explain the exchanges among involved key actors, which has been found valuable from the perspective of the IS outsourcing relationship (Kern & Willcocks, 2001).

When comparing the general description of the interaction approach described previously with the definition of the IS outsourcing relationship used in this research study¹⁴, similarities are found. Both the interaction approach and the definition used highlight the link among the involved key actors through an agreement that primarily concerns the exchange of, for example, products, activities or services. The agreement is, from an IS outsourcing point of view, described as a contractual agreement, whereas industrial relationship literature uses the term commitment to describe the link among the involved parties (Dwyer et al., 1987). When complementary goals exist, the key actors become more anxious to invest in the relationship, which in turn leads to a higher degree of commitment (Dwyer et al., 1987; Lacity & Willcocks, 2000).

¹⁴ The definition of the IS outsourcing relationship is presented in subchapter 1.9.2.
Although the interaction approach is found to be a valuable approach for emphasising key conditions related to client–IS supplier relationships, it is worth to describe its identified shortcomings and how they have been addressed in the research. For example, the interaction approach views the key actor firms as a whole and consequently does not differ among hierarchical areas of the firms (Kern & Willecocks, 2002). Kern and Willecocks (2002) emphasise the importance of viewing the involved firms as constituting of different areas to be able to focus on the management capabilities that need to present. This weakness has been addressed in the development of the conceptual framework by incorporating three different areas of the client and IS supplier firm: the business area, process area and IS area (Österle, 1995). Finally, since the interaction approach is describing the interorganisational business relationship in general, the approach has to be adjusted for the special case of IS outsourcing. For example, the condition of time, which indicates that a long-term institutionalisation and adaptations create long-term relationships, is important for studying the IS outsourcing relationship (Kern & Willecocks, 2002).

Furthermore, research on successful relationships in general and successful IS outsourcing relationships in particular has been included in the literature review to address key conditions that influence the degree of successful outcome of the IS outsourcing process.

Information systems outsourcing theories

To make sure that the research is accumulative, a review of prior research within IS outsourcing, and in particular within the success of IS outsourcing from a relationship perspective, has been conducted. The review have emphasised the identification of key conditions influencing the degree of successful outcome of the IS outsourcing process. The reason for this is twofold. First, prior research on IS outsourcing contributes findings concerning the performance of the IS outsourcing process and determinants for its success. Second, by reviewing empirical case study research on IS outsourcing, secondary empirical data are considered in this thesis. This is perceived as valuable because this research study does not contribute any empirical data of its own.

The inclusion of theories of IS outsourcing is found necessary and beneficial in relation to the purpose of this thesis. Because the focus is on IS outsourcing, the literature review is delimited from the inclusion of closely related terms
such as IT outsourcing. This delimitation has possibly excluded key conditions that would have been found as influencing the degree of successful outcome of the IS outsourcing process from a relationship perspective.

2.5.2 Comparison among chosen theories

Each of the chosen theories has a unique emphasis that contributes to a broad knowledge base of IS outsourcing processes and key conditions that influence the degree of successful outcome (see Table 2.3). The theoretical field of IS describes the IS life cycle and how it considers the analysis, development, implementation, operation and maintenance management of IS and the key actors working with IS. Interorganisational business relationship theories explain, for example, the relationship between a client and a supplier and finally, the theoretical field of IS outsourcing describes the phenomenon studied from the perspective of its success. When combining the theoretical fields they together contribute a broader base to describe and explain the degree of successful outcome of the IS outsourcing process. The use of several theories also brings the opportunity to compensate for the weaknesses of one theory through the strengths of another theory. For example, ISD strategies and IS life cycle approaches are developed with an emphasis on the single actor, which in this research study is balanced through an interorganisational business relationship approach.

2.5.3 Selection of theoretical data

The theoretical data sources used to capture literature were scientific publications, digital libraries, articles, popular science articles, books and doctor theses. Digital libraries are a common service at university libraries with the purpose to provide scientific publications, for example journals and conference proceedings. The digital libraries used in the literature review study were chosen according to earlier user experiences and in relation to IS and interorganisational relationships. The digital libraries selected were Inspec, Science Direct, Business Source Premier, Emerald and Libris.

The literature search process has focused on the purpose of this research study and in particular the dependent variable ‘the degree of successful outcome from a relationship perspective’. The selection process of theoretical data from the three different theoretical fields is presented subsequently. A comprehensive literature review was done for each theoretical field in the beginning of the research process. However, the results from these literature reviews have been
complemented during the process of writing this thesis. The complemented information has been in the form of scientific publications such as journal articles, but also articles in scientific popular magazines have been included. For example, the literature on strategic management, mainly included in Chapter 4, constitutes literature that has been complemented during the process of writing this thesis. Strategic management literature have been included to address strategic questions of IS outsourcing. The literature on strategic management included in this thesis originates from the field of IS and the literature has mainly been captured as a result of recommendations from research colleagues.

*The selection of data within the theoretical field of information systems*

To be able to identify key conditions influencing the degree of successful outcome of the IS outsourcing process I have chosen to delimit the IS literature included in the literature review. The IS literature included concerns in primary strategies, approaches and frameworks for the IS life cycle. This is a natural choice because the present research study is restricted to only include outsourcing of IS activities belonging to the IS life cycle such as analysis, development, implementation, operation and maintenance. A preliminary selection was done by using the digital library Libris. The literature included on the IS life cycle in this research study, however, is mainly a result of recommendations from research colleagues. The literature chosen is well used in different consolidations such as academic programs, and is written by prominent persons within the IS discipline (cf. Gonzales et al., 2006b).

*The selection of data within the theoretical field of interorganisational business relationships*

Interorganisational business relationship literature has primarily been collected from the research conducted within the IMP researcher network. The research publication by Håkansson (1982), which presents the interaction approach, has been used as the scientific base for describing the interorganisational business relationship. Furthermore, scientific articles have been collected from, for example, the IMP journal. The collection of articles was conducted through a literature search process that included terms such as ‘IS outsourcing’, ‘relationships’, ‘interaction approach’, ‘dyadic relationships’, ‘interorganisational relationships’ and ‘successful relationships’. Furthermore, articles relevant to the purpose of this research study were identified by reviewing references in the captured articles.
Table 2.3: Comparison among chosen theoretical fields included in the literature review study

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Information systems theories</th>
<th>Interorganisational business relationship theories</th>
<th>Information systems outsourcing theories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perspective</td>
<td>The IS life cycle</td>
<td>Interorganisational relationships</td>
<td>Successful IS outsourcing from a relationship perspective</td>
</tr>
<tr>
<td>Unit of analysis</td>
<td>Firm or actor</td>
<td>Dyadic buyer–seller relationship</td>
<td>Client–IS supplier relationship</td>
</tr>
<tr>
<td>Basic assumption</td>
<td>IS analysis, development, implementation, operation and maintenance have to be conducted with the emphasis on the context in which the IS will be used</td>
<td>Interorganisational relationships arise for a number of reasons and entail a number of conditions that need to be considered during different exchange episodes such as service exchanges</td>
<td>Successful IS outsourcing depends on, for example, to what degree key actors’ different expectations of IS outsourcing are met</td>
</tr>
<tr>
<td>Strengths</td>
<td>Provide strategies, approaches and frameworks for analysis, development, implementation, operation and maintenance of IS that highlight the user of the IS</td>
<td>Describe and explain reasons, exchanges, behaviour and interactions of dyadic interorganisational relationship</td>
<td>Explain key conditions that influence the success of IS outsourcing</td>
</tr>
<tr>
<td>Weaknesses</td>
<td>Models and methodologies for the IS life cycle are developed using an actor perspective</td>
<td>Determinants/conditions covered are broad ranging</td>
<td>IS outsourcing success has in majority been explained using an actor perspective, i.e., the client perspective</td>
</tr>
<tr>
<td>Contribution to research study &amp; conceptual framework</td>
<td>Key conditions that need to be enhanced during analysis, development, implementation, operation and maintenance of IS</td>
<td>Key conditions that need to be enhanced when describing and explaining the IS outsourcing process from a relationship perspective</td>
<td>Key conditions that need to be enhanced to reach a high degree of successful outcome of the IS outsourcing process</td>
</tr>
</tbody>
</table>
In addition, research on successful IS outsourcing relationships has been included in the literature review on interorganisational business relationships. This is further described subsequently.

The selection of data within the theoretical field of information systems outsourcing

Literature on IS outsourcing and IS outsourcing relationships have been collected through digital library searches, but also through recommendations from research colleagues and by reviewing references in articles. The researchers Rudy Hirschheim, Thomas Kern, Mary C. Lacity and Leslie P. Willcocks, who are of a good repute and among the ones most published within the field of IS outsourcing (Kern & Willcocks, 2001; Gonzales et al., 2006b), have primarily been part of the conducted literature review.

Firstly, an exploratory search was conducted to discern the patterns of publications on IS outsourcing. This search concentrated on academic work, consulting reports and popular science articles. This was a deliberate choice since the perceptions from different communities are important in order to increase my own understanding of the phenomenon IS outsourcing. It was found through the search that one of the first IS outsourcing decisions was made in the beginning of 1960 (Gonzales et al., 2005). This resulted in that the searches conducted in the digital libraries were limited to show scientific work published between 1960 (when applicable, for example searches in Inspec are restricted to searches from 1969 until present) and 2007. The reason for this range was that I was interested in reviewing the growth of outsourcing and in discovering differences as regards the use of the term outsourcing. The review unfolded that most literature on IS outsourcing has been published after the Kodak decision, i.e., after 1989, which perhaps is a consequence of that this decision has been considered as the ‘wake-up call’ for IS outsourcing.

The search process was inspired by the literature search process explained in Loh and Venkatraman (1992) and the following search commands were used:

\[
\text{outsourcing AND (information OR systems OR development) AND xxx within (wn) Subject/Title/Abstract}
\]

where xxx = relationship(s), relationship perspective, collaboration, activity/activities, process, framework(s), success, successful and successful relationships, respectively, in twelve different search sessions.
First, no limitations were applied besides the use of specific search commands. The searches were then limited to subject, title and abstract to find relevant published material according to the purpose of this thesis. Table 2.4 is presenting some search commands and the number of hits unfolded when using the digital libraries Inspec and Science Direct.

Table 2.4: Examples of search sessions and number of hits unfolded

<table>
<thead>
<tr>
<th>Search commands</th>
<th>Number of hits (journal articles)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(digital library)</td>
</tr>
<tr>
<td>outsourcing AND (information OR systems OR development)</td>
<td>2041 (1497) (Inspec) 307 (287) (Science Direct)</td>
</tr>
<tr>
<td>outsourcing AND (information OR systems OR development) AND relationship</td>
<td>239 (175) (Inspec) 57 (56) (Science Direct)</td>
</tr>
<tr>
<td>outsourcing AND relationship</td>
<td>385 (296) (Inspec) 96 (95) (Science Direct)</td>
</tr>
</tbody>
</table>

The examples given in Table 2.4 are a selection of the search results revealed during the investigation for relevant literature. When going through the literature it was found that some articles did not fit into the purpose of this thesis. Of the remaining literature, the majority of hits were reviewed.

The selection of theoretical data for one minor study

Chapter 3 of this thesis builds on an earlier literature review study on ISD outsourcing terms which resulted in the ECIS 2008 conference article with the title “Outsourcing Terms – A Literature Review from an ISD Perspective” (Bergkvist & Fredriksson, 2008). Chapter 3 consequently is based on the conducted literature review study of this conference article. However, a broader perspective is applied in Chapter 3, i.e., the IS perspective. The literature review study presented in Chapter 3 moreover is complemented with other sources and includes other identified IS outsourcing terms compared with the ones included in the conference article.

The conducted literature review study on IS outsourcing included two steps. Firstly, a literature search study was conducted. The literature collected was found through recommendations, by reviewing references in relevant IS outsourcing articles and through searches in the Inspec database. The following words were used for the searches: ‘outsourcing’, ‘offshoring’, ‘information systems development’, ‘information technology’, ‘information systems’, ‘relationships’, ‘global outsourcing’, ‘outsourcing terms’ and ‘facilities management’.
Thus, these search words were broad. In addition, the literature searches were not delimited to any specific dependent variable/outcome such as ‘outsourcing success’, ‘outsourcing adoption decision’, ‘outsourcing contract issues’, etc. It was not either delimited to any specific industry. The searches were delimited to abstract, title and subject, and the publication time period was delimited to 1997–2007. The latter delimitation is motivated by the fact that many of the IS outsourcing terms used in the IT/IS outsourcing literature are relatively new. To exemplify, the search for ‘Information Systems Development’ and ‘outsourcing’ resulted in 240 hits.

The second step of the literature review study included reading each paper’s abstract, introduction, analysis and conclusions sections. The selection criterion for the articles to be included in the review study was that the article should focus on IS and/or ISD outsourcing. As a result, about 100 of the 240 articles were reviewed. These articles constitute the majority of the articles studied in the literature review. The additional articles included in the literature review presented in Chapter 3 are constituted of articles that have been complemented during the process of writing this thesis. These articles have in primary been collected from digital libraries. Some articles, however, are recommendations from research colleagues. The majority of the included articles explicitly state a definition of IS outsourcing terms. Admittedly, the review process involved some degree of interpretation of the definitions used in the research articles.

The previous presentation on the literature search process, summarized in Chapter 3, is mainly built on the literature review study presented in Bergkvist and Fredriksson (2008). This however is obvious since Chapter 3 is built on that specific conference article.

2.6 Development of the conceptual framework for the information systems outsourcing process

The development of a conceptual framework should focus on the conditions that are most important and the relationships that are likely to be meaningful to study the phenomenon of interest (Miles & Huberman, 1994). The conceptual framework presented in this thesis is theory-driven and addresses the description and explanation of key conditions that influence the degree of successful outcome of the IS outsourcing process. Moreover the conceptual framework includes dimensions, used to categorise the key conditions, and perceived as essential for studying the successful outcome of the IS outsourcing process. To
increase the knowledge about how the different key conditions relate to each other, interrelations among the included dimensions are described and explained. As a result, the core elements of the conceptual framework are as follow:

- key conditions,
- dimensions and
- interrelations among dimensions.

The conceptual framework developed in this thesis is of generic nature, i.e., the conceptual framework is, for example, not restricted to a specific IS activity or to domestic or global IS outsourcing relationships. Hence, the conceptual framework is applicable on any IS outsourcing process. I am aware of the fact that the successful outcome of the IS outsourcing process is influenced by an amount of different key conditions, which also has been indicated as a result of the conducted literature review study. Moreover, I am aware of that the identified key conditions influence the successful outcome dependent on the circumstances surrounding the particular IS outsourcing process. The advantage of developing a generic conceptual framework, however, is that it can be applicable for describing and explaining the IS outsourcing process regardless of, for example, IS activity outsourced and type of industry.

### 2.6.1 Descriptions of the steps of development of the conceptual framework

A conceptual framework should emerge as a result of a gradually conducted analysis of the issue studied. Miles and Huberman (1994, p. 17) use the following expression: “The conceptual framework should emerge from the field in the course of the study.”

The development of the conceptual framework in this research study has been realized through an analysis constituted of several steps, summarized in Figure 2.6. The analysis started with a literature review of each theoretical field included in the literature review study (Chapters 3-7). The review was conducted with the aim of capturing relevant research directly related to the purpose of this thesis. The part of the purpose focusing on the description and explanation of the degree of successful outcome of the IS outsourcing process has been addressed through the identification of key conditions. Thus, the analysis of respective literature review focused on key conditions influencing the degree of successful outcome of the IS outsourcing process.
Chapter 1: Introduction of the present research study
Outcome: Restrictions for the literature review study through the specification of the knowledge gap, purpose and delimitations

Chapter 2: Building blocks of the present research study
Outcome: A structured set of distinct definitions of different IS outsourcing terms from a geographical distance and relationship perspective. Another contribution is one key condition identified as influencing the degree of successful outcome of the IS outsourcing process from a relationship perspective

Chapter 3: Description of IS outsourcing terms used in the IT & IS outsourcing literature and proposal of definitions of IS outsourcing terms from a relationship perspective

Chapter 4: Description of strategies, approaches and frameworks for the information systems life cycle
Outcome: Conducted literature review emphasising the identification of key conditions influencing the degree of successful outcome of the IS outsourcing process from a relationship perspective

Chapter 5: Description of interorganisational business relationships
Outcome: Conducted literature review emphasising the identification of key conditions influencing the degree of successful outcome of the IS outsourcing process from a relationship perspective

Chapter 6: Description of prior research within information systems outsourcing
Outcome: Key conditions, dimensions and interrelations among dimensions

Chapter 7: Description of prior research within information systems outsourcing
Outcome: Key conditions, dimensions and interrelations among dimensions

Chapter 8: Amalgamation of contributions from previous chapters to a conceptual framework for the information systems outsourcing process

1. Key conditions included in the conceptual framework for the IS outsourcing process
   1.1 Categorisation of key conditions and elimination of key condition overlaps
   1.2 Elimination of ambiguity among dimensions
   1.3 Summary of key conditions and their categorisation in dimensions
2. Dimensions included in the conceptual framework for the IS outsourcing process
   2.1 Division of the dimensions in contextual dimensions, relationship-specific dimensions and actor-specific dimensions
3. Interrelations among dimensions included in the conceptual framework for the IS outsourcing process
4. A graphical representation of the conceptual framework for the IS outsourcing process

Contribution: A conceptual framework for describing and explaining the degree of successful outcome of the IS outsourcing process from a relationship perspective
This step was imbued by a critical evaluation of the literature to decide on if it is relevant or not. The evaluation was conducted partly through the use of search commands mirroring the purpose of the study and partly through the identified key condition’s relevance in comparison with the dependent variable ‘the degree of successful outcome from a relationship perspective’. The results of this step of the analysis for each literature review were key conditions found as influencing the degree of successful outcome of the IS outsourcing process from a relationship perspective.

The subsequent stage of the analysis concerned the interrelations among the identified key conditions. This refers to how researchers within the same research field usually think about causes of relation among different conditions (Esaiasson et al., 2007). This part of the analysis was performed through interpretation of reviewed literature and documentation of stipulated interrelations in the literature. Because of the number of key conditions identified, I decided to categorise the key conditions in dimensions, and thereafter describe and explain the key conditions’ interrelations through the application of these dimensions. The dimensions applied to categorise the key conditions are derived as a result of the conducted literature review on two of the three included theoretical fields (IS and interorganisational business relationships) and are referred to as: Atmosphere, Behaviour, Contract, Environment, Interaction, IS, Management, Organisation and Outcome. The identified key conditions are divided in the dimensions according to their characteristics. Because of the amount of key conditions identified they are, for each dimension, structured in groups according to how they are related, which is identified as a result of the conducted literature review study.

The final key conditions included in the conceptual framework are a result of categorising each identified key condition in a dimension and by eliminating identified key condition overlaps and ambiguity among dimensions. Altogether nine dimensions are included in the conceptual framework. In similarity with the interaction approach (Håkansson, 1982) and the framework for the IS outsourcing relationship (Kern & Willcocks, 2001) I have chosen to structure the dimensions in the conceptual framework. The applied structure is constituted of the division of the nine dimensions into contextual dimensions, relationship-specific dimensions and actor-specific dimensions15. This chosen structure

15 The division of the nine dimensions in three different categories is further discussed in subchapter 8.2.2.
builds on the conducted literature review study, the characteristics of the key conditions categorised in each dimension and, in addition, my own interpretation. The contextual dimension is represented by the Environment dimension. Atmosphere, Contract, Interaction, IS, Management and Outcome are categorised as relationship-specific dimensions and the actor-specific dimensions are constituted of the Behaviour dimension and the Organisation dimension. The key conditions of each dimension are structured in groups according to how they are related to each other. Besides the key conditions and the dimensions, the identified interrelations among dimensions are included as part of the conceptual framework.

The conceptual framework for describing and explaining the degree of successful outcome of the IS outsourcing process is graphically represented in Figure 8.3. The conceptual framework includes the key conditions, dimensions and interrelations among dimensions influencing the degree of successful outcome of the IS outsourcing process from a relationship perspective. To provide an overlook of the conceptual framework for the IS outsourcing process I have chosen to exclude the majority of key conditions and the interrelations among the dimensions in the graphical representation of the conceptual framework.

As a result of the conducted steps of analysis outlined in Figure 2.6 the conceptual framework for the IS outsourcing process is presented in Chapter 8. The conceptual framework is believed to provide a sound knowledge base for studying the degree of successful outcome of the IS outsourcing process from a relationship perspective.

2.6.2 Criteria of the practical and theoretical relevance of the conceptual framework

The ambition with the conceptual framework is that it should be of relevance from both a practical and a theoretical point of view. Practical relevance is here referring to the usefulness of the conceptual framework in future empirical case studies together with its degree of operationalisation. The criteria ‘workability’ and ‘realizeability’ will be used to reflect on the developed conceptual framework according to its practical relevance (Nilsson, 1991). The theoretical relevance of the conceptual framework will be reflected on with the use of the criteria ‘logical structure’ and ‘knowledge extension’ (Nilsson, 1991).
• Workability
Workability concerns the useful support the conceptual framework provides in a specific situation (Nilsson, 1991). The conceptual framework developed in this thesis is of descriptive and explanatory nature and is aimed to describe and explain the degree of successful outcome of the IS outsourcing process from a relationship perspective. Its usefulness depends on its support for describing and explaining key conditions that influence the successfulness of the IS outsourcing process in an empirical situation.

• Realizability
The realizability of the conceptual framework concerns the degree of its ability to be operationalised. In this thesis realizability of the conceptual framework will be assessed according to its ability to be used and operationalised in future empirical research.

• Logical structure
The logical structure concerns the consistency, stringency and flexibility of the conceptual framework. Consistency refers to the logic among different parts of the conceptual framework and the absence of contradictions. The stringency of the conceptual framework is achieved when it only describes what is should describe, i.e., redundant parts should be excluded. Flexibility includes the possibility to add or adjust parts of the conceptual framework.

• Knowledge extension
The conceptual framework should contribute new knowledge and be developed through the use of existing and relevant research.

The purpose of this research study indicates that the conceptual framework should describe and explain. Therefore the conceptual framework should be reflected on according to criteria assessing ‘theory for analyzing’ and ‘theory for explanation’ (Gregor, 2006). The conceptual framework will not be assessed according to criteria for explanatory theory in this study. The conceptual framework’s ability to explain the degree of successful outcome of the IS outsourcing process from a relationship perspective will first be evaluated after used in empirical research. To be able to assess the conceptual framework as a descriptive theory I use a criteria derived from Gregor (2006), ‘explanatory
Explanatory potential is about the usefulness of the conceptual framework in a specific context. In this research the explanatory potential of the conceptual framework depends on how well it contributes to the explanation of the degree of successful outcome of the IS outsourcing process from a relationship perspective. The criteria can be compared with the criteria of workability described by Nilsson (1991).

The five criteria described in this subchapter are used in Chapter 9 to reflect on the practical and theoretical relevance and the descriptive contribution of the conceptual framework for the IS outsourcing process.

2.7 Summary and contributions of Chapter 2

This chapter contributes an explanation of how the purpose of this thesis is realized and how the present research study has been conducted. However, firstly this research study is described in relation to a greater research process, i.e., the research process of the Ph.D. thesis. The present study constitutes the first study of the research process and aims to contribute a conceptual framework through the accomplishment of a literature review study. This research study and the subsequent doctoral study will compose the Ph.D. thesis.

The literature review study includes the review of three different theoretical fields: IS, interorganisational business relationships and IS outsourcing. In particular, the following knowledge domains have constituted the basis for the development of the conceptual framework for the IS outsourcing process: (1) strategies, approaches and frameworks for the IS life cycle, (2) the interaction approach, and (3) prior research within IS outsourcing success. The literature review study has focused on three building blocks of this research study. The first building block is constituted by the unit of analysis which is constituted of the client–IS supplier relationship. The second and third building blocks are referred to as the dependent and the independent variable of the research study. ‘Degree of successful outcome from a relationship perspective’ denotes the dependent variable while the independent variable is ‘key conditions influencing the degree of successful outcome from a relationship perspective’. These three building blocks have guided the literature search process and the capturing of relevant sources for realizing the purpose of this thesis.

The present research study is of qualitative nature and moreover categorised as a process theory approach. The conducted literature review study has focused
on the identification of key conditions, dimensions and interrelations among
dimensions that influence the degree of successful outcome of the IS outsourc-
ing process. These three elements, constituting the core part of the con-
ceptual framework, have been identified as a result of conducted literature
review study. However, not all of the identified elements have been explicitly
stated as influencing the degree of successful outcome in the literature. Admit-
tedly, the literature review study involved some degree of interpretation. The
process theory approach of this research study becomes acknowledged through
the ‘necessary, but not sufficient’ argument. This argument is explained from
this research point of view as the existence of one necessary key condition may
perhaps not be sufficient for reaching a successful outcome of the IS out-
sourcing process.

This chapter also includes a presentation of why the three chosen theoretical
fields are included in the literature review study. Moreover the performance of
the literature review study is explained as thoroughly as possible to provide a
transparency of the research conducted. This explanation includes, for example,
the development of the conceptual framework through a step by step analysis.
The chapter concludes with a presentation and explanation of the criteria that
are used for reflecting on the developed conceptual framework in the final
chapter of this thesis.

Before presenting the findings from the conducted literature review study on
the three knowledge domains introduced in this chapter, the subsequent two
chapters are devoted to the presentation of the results from one minor study
and the remaining building blocks of this research study respectively. First, the
results of the literature review study on IS outsourcing terms used in the IT/IS
outsourcing literature is presented. Thus, the subsequent chapter presents
identified IS outsourcing terms and their definitions used. Furthermore,
Chapter 3 includes a presentation on proposed definitions of the identified IS
outsourcing terms from a relationship perspective.
3 Information systems outsourcing terms

This chapter is built on a conference article of the 16th European Conference on Information Systems (ECIS 2008). The conference article is built on a literature review on outsourcing terms used in the IT/IS outsourcing literature. The main motive for reviewing IS outsourcing terms is that there exists no common standard definitions of IS outsourcing terms used for denoting the contracting of IS activities between a client and an IS supplier. The chapter presents eleven different IS outsourcing terms identified in the IT/IS outsourcing literature. Furthermore, definitions of the identified IS outsourcing terms are proposed from a relationship perspective. The proposed IS outsourcing definitions provide a structured set of definitions based on both the geographical distance perspective and the relationship perspective. The chapter concludes with a presentation of how the different IS outsourcing terms and their proposed definitions are hierarchically related to each other.

3.1 Motivations for reviewing information systems outsourcing terms

As previously introduced this chapter builds on an earlier literature review study on ISD outsourcing terms which resulted in the conference article with the title “Outsourcing Terms – A Literature Review from an ISD Perspective” (Bergkvist & Fredriksson, 2008). A broader perspective, however, has been applied in this chapter, i.e., the IS perspective. Consequently the outsourcing terms in this chapter are referred to as IS outsourcing terms and not ISD outsourcing terms as in the conference article. The literature review study presented in this chapter is moreover complemented with other sources, which have resulted in the identification of additional IS outsourcing terms. Another contribution of this chapter, compared with the conference article, is the proposed hierarchical relation among the different IS outsourcing terms and their definitions.

The motivation of studying IS outsourcing terms is partly a result of the growth of IS outsourcing (Hirschheim, 2006). The growth of IS outsourcing has resulted in a diversity of IS outsourcing terms used both by practitioners and researchers. To structure the variety of IS outsourcing terms used in the IT/IS outsourcing literature, different categorisation principles are applied. Lacity and Willcocks (1998) apply percentages of the IS budget transferred to an IS supplier to differentiate among total outsourcing, total insourcing and selective outsourcing. Ownership of the outsourced service is another way of categorising different IS outsourcing terms (Dibbern et al., 2004). The ownership can be kept in-house, transferred to the IS supplier or shared between the client and
the IS supplier. Another way of differentiating among different IS outsourcing terms is to focus on the geographical relocation of the production of services (Norwood et al., 2006). Furthermore, research has approached the different IS outsourcing terms used by addressing a chronological retrospective (Dibbern et al., 2004).

An introductory literature review showed that there exist no common standard definitions of IS outsourcing terms used for denoting the contracting of IS activities between a client and an IS supplier. This may lead to confusion. A comprehensive set of distinct definitions of the different IS outsourcing terms used in the IT/IS outsourcing literature is needed, by both researchers and practitioners, in order to evaluate the best outsourcing option for their IS needs. For the purpose of structuring IS outsourcing terms along their differences I have chosen the geographical distance perspective. Along the longitudinal dimension of the globe, the difference in geographical distance commensurate with the time zone difference. This is however not the case along the latitudinal dimension of the globe. The focus on IS outsourcing terms from both a global and domestic perspective motivates the use of the geographical distance dimension in order to discriminate among the different IS outsourcing terms.

### 3.2 Interpretation of outsourcing terms used in the information systems outsourcing literature

Table 3.1 illustrates the different IS outsourcing terms found in the literature reviewed. The purpose of Table 3.1 is to provide an overview of the variety of IS outsourcing terms used and their definitions. Table 3.1 presents definitions of IS outsourcing terms from a geographical distance perspective. The generic IS outsourcing and IS offshoring terms are presented first. Then, the specific IS outsourcing terms follow, starting with the IS outsourcing terms which denote longer distances between the client and the IS supplier. The three first IS outsourcing terms in Table 3.1 – outsourcing, offshoring and offshore outsourcing – are the most frequently used in the literature.

Besides the IS outsourcing terms and their definitions presented in Table 3.1, variations and hybrids of these terms exist. The more unusual terms identified in the IT/IS outsourcing literature are goalsourcing/tasksourcing, fastsourcing, cost sourcing and smart sourcing (Verhoef, 2005). These outsourcing terms have all in common that they are used to clearly specify what the outsourcing arrangement is about. For example, the motive behind goalsourcing/task-
sourcing is that the mix of in-house activities and outsourced activities is driven by a main goal.

Another outsourcing alternative is Application Service Provision (ASP). Similar to BPO, ASP is about outsourcing of specific business and engineering applications such as ERP and Customer Relationship Management (CRM) services. The difference with ASP compared to other cases of IS outsourcing is that the ASP supplier has the possibility to perform and deliver application capabilities to multiple clients through a wide area network (Vassiliadis et al., 2006). The idea builds on the ASP supplier’s performance of applications as a service. The delivering of the service to the client firm is through a remote data center via the Internet or a private network on a rental basis. In this way the client does not have to procure and implement IS applications. The recent challenge to outsourcing is represented by the online delivery of software, sometimes labelled ‘software as a service’ (saas). The basic idea of saas is that the client signs up to use an application, which is hosted by an IS supplier who develops and maintains the software (Dubey & Wagle, 2007). Through saas the client does not have to buy a software license for the application and furthermore does not have to install the software on its in-house computers. According to a survey conducted by the International Data Group (IDC), saas is predicted to grow by 29% a year until 2009 (Computer Sweden, 2007).

3.3 Discussion on the different information systems outsourcing terms used and proposed definitions

Some conclusions can be drawn from the literature review on the variety of IS outsourcing terms used. From the overview of the different IS outsourcing terms and their diverse definitions in Table 3.1 it is obvious that the IS outsourcing terms being used are overlapping. For example, the definitions of offshoring and offshore outsourcing are both including the client’s contracting of IS activities with an IS supplier located in a low-cost country. Furthermore, the synonymously used terms offshore insourcing/quasi-outsourcing/captive offshoring/offshore in-house sourcing and insourcing are IS outsourcing terms used to denote the client’s contracting of IS activities with a foreign affiliate.
<table>
<thead>
<tr>
<th>IS outsourcing term</th>
<th>Definitions</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The client’s contracting of IS activities with a foreign IS supplier located far from the client</td>
<td>Gopal et al. (2002; 2003), Kumar &amp; Palvia (2002), Krishna et al. (2004), Carmel &amp; Tja (2005), Schniederjans et al. (2005), Fish &amp; Seydel (2006), Gonzales et al. (2006a)</td>
</tr>
<tr>
<td></td>
<td>The client’s contracting of IS activities with an IS supplier overseas, irrespective of whether it is affiliated or unaffiliated</td>
<td>Rao (2004), Davis et al. (2006), Sako (2006), Huang &amp; Trauth (2007)</td>
</tr>
<tr>
<td></td>
<td>The client’s contracting of IS activities with an IS supplier located in another country</td>
<td>Rajkumar &amp; Mani (2001), Khan et al. (2003), Prikladnicki et al. (2003), Khan &amp; Fitzgerald (2004), Niederman et al. (2006), Siakas &amp; Balstrup (2006)</td>
</tr>
</tbody>
</table>
Table 3.1 (continuation): The variety of IS outsourcing terms found from the literature review and the author’s interpretations of the definitions being used

<table>
<thead>
<tr>
<th>IS outsourcing term</th>
<th>Definitions</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nearshoring/ Neartsourcing</td>
<td>The client’s contracting of IS activities with an IS supplier located near the client’s country border</td>
<td>Carmel &amp; Agarwal (2002), Erber &amp; Sayed-Ahmed (2005), Schniederjans et al. (2005), Aspray et al. (2005), Davis et al. (2006), Fish &amp; Seydel (2006), Gonzales et al. (2006a)</td>
</tr>
<tr>
<td></td>
<td>The client’s contracting of IS activities with an IS supplier located in the same time zone</td>
<td>Rao (2004)</td>
</tr>
<tr>
<td></td>
<td>The client’s IS activities are provided by foreign lower-wage firms locally/onsite</td>
<td>Carmel &amp; Tjia (2005)</td>
</tr>
<tr>
<td>Multi-sourcing/ Multiple supplier sourcing/ Selective sourcing</td>
<td>The client’s signing of IS contracts with more than one IS supplier</td>
<td>Currie (1998), Schniederjans et al. (2005)</td>
</tr>
<tr>
<td></td>
<td>The client’s signing of short-term contracts with more than one specialized IS supplier for specified IS activities</td>
<td>Lacity et al. (1996), Hirschheim &amp; Lacity (2006)</td>
</tr>
<tr>
<td>Business Process Outsourcing (BPO)</td>
<td>The management of one or more specific IS business processes/functions by an IS supplier, together with the IT that supports the processes/functions</td>
<td>Currie (1998), Wullersweber et al. (2008)</td>
</tr>
<tr>
<td></td>
<td>The delegation of one or more IS intensive business processes to an IS supplier who, in turn, performs the selected processes based on defined and measurable performance metrics</td>
<td>Halvey &amp; Melby (2000), Willcocks et al. (2004), Yang et al. (2007)</td>
</tr>
<tr>
<td>Insourcing</td>
<td>The client’s contracting of IS activities with an affiliated IS supplier located in a foreign country</td>
<td>Carmel &amp; Agarwal (2002), Rao (2004), Banheley &amp; Geyer (2005)</td>
</tr>
<tr>
<td></td>
<td>The client taking IS assets, activities and skills, that were previously outsourced to one or more IS suppliers, back in-house</td>
<td>Reponen (1993), Lacity et al. (1996), Erber &amp; Sayed-Ahmed (2005), Verhoef (2005), Gonzales et al. (2006a)</td>
</tr>
<tr>
<td></td>
<td>The client bringing human resources into the firm</td>
<td>Lacity et al. (1996), Siakas &amp; Baltrup (2006)</td>
</tr>
<tr>
<td></td>
<td>The client’s decision to perform and deliver IS services in-house after evaluating the outsourcing market</td>
<td>Lacity et al. (1996), Hirschheim &amp; Lacity (2006), Veltri Falaleeva &amp; Saunders (2006)</td>
</tr>
<tr>
<td>Onshore insourcing</td>
<td>The client’s in-house IS department is responsible for creating, providing and maintaining IS services</td>
<td>Shao &amp; David (2007)</td>
</tr>
<tr>
<td>Outsourcing</td>
<td>The client taking IS assets, activities and skills, that were previously outsourced to one or more IS suppliers, back in-house</td>
<td>Vining &amp; Globerman (1999), Cullen et al. (2005a), Verhoef (2005), Veltri Falaleeva &amp; Saunders (2006), Whitten &amp; Leidner (2006), Whitten &amp; Wakefield (2006), Guo et al. (2007)</td>
</tr>
</tbody>
</table>
Another conclusion drawn from the review on IT/IS outsourcing literature is that the client perspective is overwhelmingly dominating. The literature review shows that only a minority of the researchers define IS outsourcing terms from a relationship perspective (among these are Kern & Willcocks, 2002; Alborz et al., 2003). IS outsourcing terms defined from a relationship perspective means the consideration of both the client and the IS supplier in the definition. Most researchers are emphasising the importance of applying the outsourcing relationship perspective on IS outsourcing, but they are not themselves applying the relationship as the unit of analysis. This is surprising since the success of IS outsourcing largely depends on how the client–IS supplier relationship is understood and managed (Kern & Willcocks, 2002). Thus, to use the relationship as the unit of analysis increases the knowledge about the successful outcome of the IS outsourcing process. Based on the definitions of IS outsourcing terms used in the literature, I therefore propose definitions for IS outsourcing terms from a relationship perspective. However, as concerns the proposed definitions for the IS insourcing and IS backsourcing terms, a client perspective is applied. The obvious reason is that these terms concern the client’s unilateral decision to perform the IS activities in-house. One important advantage with applying a relationship perspective on definitions of IS outsourcing terms, as compared to applying definitions from the traditional and commonly used actor perspective, is the resulting focus on the client–IS supplier relationship.

There are, as noted, existing overlaps among different IS outsourcing terms, but often the terms are distinguished by one or more specific features. The term outsourcing seems to be a homonym used for two different types of IS outsourcing relationships. Firstly, outsourcing is generically defined as the client’s contracting of IS activities with an IS supplier irrespective of where the IS supplier is located. Secondly, outsourcing is a term also used to specifically indicate the client’s transfer of IS activities to a domestic IS supplier. Lacity and Hirschheim (1993b) was one of the early sources advocating the merits of applying a relationship perspective, which directs attention to, for example, the desire to reach an understanding of each other’s IS outsourcing expectations. Inspired by them, I propose the following definition of the generic IS outsourcing term:

- IS outsourcing is a joint decision to sign a contract which stipulates that the IS supplier should perform IS activities for the client over an agreed time period, irrespective of where the IS supplier is located.
As previously described, the term offshoring is used for defining both the client’s contracting of IS activities with an affiliated or an unaffiliated IS supplier. The offshoring definitions presented in Table 3.1 imply a geographical distance between the client and the IS supplier. When U.K. firms outsource to Indian IS suppliers this exemplifies what is meant by ‘far distant locations’ (Schniederjans et al., 2005). Rao (2004) suggests that by offshoring should be meant that there is a time difference of three time zones or more between the client and the IS supplier (cf. nearshoring/nearsourcing). To consider geographical distance to be synonymous with time zone difference only holds along the longitudinal dimension of the globe. Thus, Rao (2004) neglects the latitudinal dimension when he only discusses the time zone difference. The term global outsourcing is often used synonymously with the term offshoring. However, a difference exists. Global outsourcing is a generic term for the case when the IS supplier is located in another country than the client (Chakrabarty, 2006). Hence, global outsourcing encompasses offshoring, offshore outsourcing, offshore insourcing/quasi-outsourcing/captive offshoring/offshore in-house sourcing and nearshoring/nearsourcing.

The literature review shows that some researchers use the IS offshoring term for denoting outsourcing to low-cost countries. This delimitation used in some of the reviewed articles raises questions considering what constitutes a low-cost country. This is not a static condition. Costs in some low-cost countries may rise substantially over time and will then eventually disqualify them as possible offshoring countries (Norwood et al., 2006). In addition, it is relevant to compare the cost situations between the client and the IS supplier. To capture this cost difference I therefore use the ‘relative cost advantages’ expression, instead of ‘low-cost country’. I propose a broad definition of IS offshoring that encompasses both affiliated and unaffiliated IS suppliers:

- IS offshoring is the special case of IS outsourcing when the two parties are located in far distant countries and when the IS supplier has substantial forecasted relative cost advantages.

The literature review shows that the offshoring and offshore outsourcing terms often are used as synonymous. Offshore outsourcing is in the literature used for denoting the client’s contracting with an unaffiliated IS supplier located in a low-cost country, for example India. As previously mentioned, I argue that the ‘relative cost advantages’ expression is more relevant to use. Accordingly, I propose the following definition:
• IS offshore outsourcing is the special case of IS offshoring when the IS supplier is an unaffiliated firm.

The IS outsourcing terms offshore insourcing, quasi-outsourcing, captive offshoring and offshore in-house sourcing are used to describe the client’s contracting with an affiliated IS supplier located in a foreign country. In order to simplify, I choose the most commonly used term of these synonymous terms, i.e., IS offshore insourcing. I propose the following definition:

• IS offshore insourcing is the special case of IS offshoring when the IS supplier is an affiliated firm.

The synonymous terms nearshoring and nearsourcing are IS outsourcing terms that are similar to offshore outsourcing. Nearshoring/nearsourcing, like offshore outsourcing, is about contracting IS activities to an unaffiliated IS supplier located abroad. The significant difference between nearshoring/nearsourcing and offshore outsourcing is that the term nearshoring/nearsourcing denotes the situation when the IS supplier is located geographically close to the client (e.g. when a U.S. firm outsources to an IS supplier in Canada). Rao (2004) suggests that the dividing line between nearshoring/nearsourcing and offshore outsourcing should be a three time zones difference between the client’s and the IS supplier’s locations. A summary of different nearshoring definitions is provided by Carmel and Abbott (2007, p. 44), which result in the following denotation of nearshoring:

“Nearshoring: sourcing service work to a foreign, lower-wage country that is relatively close in distance or time zone (or both). The customer expects to benefit from one or more of the following constructs of proximity: geographic, temporal, cultural, linguistic, economic, political, and historical linkages.”

I propose that nearshoring/nearsourcing denotes the situation when the IS supplier has a geographical proximity to the client, because face-to-face communication and collaboration advantages typically follow with geographical proximity (Schniederjans et al., 2005). Of the both synonymously used terms, I choose the term nearshoring and propose the following definition:

• IS nearshoring is the special case of IS outsourcing when the two parties are located geographically close, but in different countries.
From the literature review it is found that the IS outsourcing terms outsourcing and the synonymously used terms onshoring, domestic outsourcing and onshore outsourcing are used to denote the client’s contracting of IS activities with a domestic IS supplier. IS outsourcing, however, is a generic term denoting the client–IS supplier relationship irrespective of where the IS supplier is located. In order to simplify, I choose one of these synonymously used terms, IS domestic outsourcing, simply because the term mirrors, in a favourable way, the content of the phenomenon. I propose the following definition:

- IS domestic outsourcing is the special case of IS outsourcing when the both parties are located in the same country.

Multi-sourcing refers to the client’s contracting with more than one IS supplier to obtain flexibility, specific competence and competitive pricing simultaneously (Schniederjans et al., 2005). Currie (1998) labels this special case of outsourcing as multiple supplier sourcing or selective sourcing. Lacity et al. (1996) use the term selective sourcing for denoting the client’s contracting with more than one IS supplier. Lacity et al. (1996), however, add that selective sourcing is distinguished by short-term contracts (less than five years) with more than one specialized IS supplier for specified IS activities. Selective sourcing is also often connected to the strategy of the firm (Fish & Seydel, 2006). The idea behind selective sourcing is to strategically select and outsource the IS functions considering the firm’s overall strategy. According to this it is unwise to outsource IS activities that are central to a firm’s strategy. In contrast to the other IS outsourcing terms found in the literature, the definitions of multi-sourcing, multiple supplier sourcing and selective sourcing do not refer to where the IS supplier is located in relation to the client’s location. As illustrated in Table 3.1, the terms are used as synonymous defining the client’s contracting with more than one IS supplier, i.e., two or more relationships. In order to simplify, I choose one of these synonymously used terms, i.e., IS multi-sourcing, simply because the term mirrors, in a favourable way, the content of the phenomenon. I propose the following definition:

- IS multi-sourcing is IS outsourcing with more than one IS supplier contracted for specific IS activities.

The definitions of BPO are, in similarity with the definitions of multi-sourcing, multiple supplier sourcing and selective sourcing, not referring to where the IS supplier is located in relation to the client’s location. Instead, the focus is on the special IS function or business process outsourced and the assets required to
perform this process and how it should be measured. The following definition is suggested:

- IS Business Process Outsourcing is IS outsourcing including specific IS business processes and supporting IT, contracted on defined and measurable performance metrics.

The term insourcing is puzzling since a variety of definitions exist. As seen in Table 3.1, the most commonly used definitions are the ones regarded as moving IS activities to a foreign affiliate, bringing outsourced IS activities back in-house and the decision to perform and deliver IS services in-house. A finding from the literature review is that the term offshore insourcing also is used for defining the client’s contracting with an affiliated IS supplier located in a foreign country. Another finding is that the term backsourcing is applied to denote the client bringing outsourced IS activities back in-house. According to my perception of the two terms insourcing and offshore insourcing, the term offshore insourcing is most suitable for denoting the client’s contracting of IS activities with a foreign affiliate. The foremost reason for this is the ‘offshore’ part in offshore insourcing, which indicates that the IS supplier is located in a foreign country (compare ‘offshoring’). The description of insourcing used for bringing human resources to perform IS activities into a firm is consistent with what Gonzales et al. (2006a) consider as hiring IT consultants. Similarly the definition of insourcing as the client’s performing and maintaining of IS services in-house is by Shao and David (2007) referred to as the term onshore outsourcing. Veltri Falaleeva and Saunders (2006) argue that the outsourcing and insourcing terms are related to the make-or-buy decision, i.e., whether the IS activity should be deployed and performed in-house or if the IS activity should be performed externally. This indicates that insourcing and outsourcing are related to the outsourcing decision, whereas the term backsourcing is representing the client’s decision to terminate the relationship with the IS supplier. The decision for backsourcing is often done after careful evaluation of the IS outsourcing relationship and is taken at the end of the IS outsourcing process. Figure 3.1 illustrates the difference between the outsourcing, insourcing and backsourcing terms.
As a result from the previous discussion, I propose that the terms insourcing and onshore insourcing should be used as synonymous. I choose the most commonly used term of these synonymous, i.e., IS insourcing, and propose the following definition:

- IS insourcing is the client’s decision to continue to perform and deliver IS activities in-house.

Backsourcing is the term that refers to the client’s decision to bring back previously outsourced in-house IS activities. The decision for backsourcing is often made in conjunction with the renegotiation, the termination or the expiring of the IS outsourcing contract. Causes of backsourcing are among other things the loss of expertise and control of IS activities and that client’s expectations are not met (Veltri Falaleeva & Saunders, 2006; Whitten & Leidner, 2006; Mojsilovic et al., 2007). The following definition is proposed:

- IS backsourcing is the client’s decision to terminate the relationship and to bring the contracted IS activities back in-house.

### 3.4 Summary and synthesis of information systems outsourcing terms

Table 3.2 provides a summary of IS outsourcing terms identified in the IT/IS outsourcing literature and the proposed definitions. The proposed definitions of different IS outsourcing terms provide a structured set of definitions based on both the geographical distance perspective and the relationship perspective. However, the proposed definitions of the terms IS insourcing and IS backsourcing apply an actor perspective. The eleven (synonymous excluded) IS outsourcing terms initially identified and presented in Table 3.1 have been reduced to ten as a result of my interpretation of the IS insourcing and IS on-shore insourcing terms as synonymous.
Table 3.2: Summary of different IS outsourcing terms used in the literature and proposed definitions

<table>
<thead>
<tr>
<th>IS outsourcing term</th>
<th>Proposed definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outsourcing</td>
<td>IS outsourcing is a joint decision to sign a contract which stipulates that the IS supplier should perform IS activities for the client over an agreed time period, irrespective of where the IS supplier is located</td>
</tr>
<tr>
<td>Offshoring</td>
<td>IS offshoring is the special case of IS outsourcing when the two parties are located in far distant countries and when the IS supplier has substantial forecasted relative cost advantages</td>
</tr>
<tr>
<td>Offshore outsourcing</td>
<td>IS offshore outsourcing is the special case of IS offshoring when the IS supplier is an unaffiliated firm</td>
</tr>
<tr>
<td>Offshore insourcing</td>
<td>IS offshore insourcing is the special case of IS offshoring when the IS supplier is an affiliated firm</td>
</tr>
<tr>
<td>Nearshoring</td>
<td>IS nearshoring is the special case of IS outsourcing when the two parties are located geographically close, but in different countries</td>
</tr>
<tr>
<td>Domestic outsourcing</td>
<td>IS domestic outsourcing is the special case of IS outsourcing when the both parties are located in the same country</td>
</tr>
<tr>
<td>Multi-sourcing</td>
<td>IS multi-sourcing is IS outsourcing with more than one IS supplier contracted for specific IS activities</td>
</tr>
<tr>
<td>Business Process Outsourcing</td>
<td>IS Business Process Outsourcing is IS outsourcing including specific IS business processes and supporting IT, contracted on defined and measurable performance metrics</td>
</tr>
<tr>
<td>Insourcing</td>
<td>IS insourcing is the client’s decision to continue to perform and deliver IS activities in-house</td>
</tr>
<tr>
<td>Backsourcing</td>
<td>IS backsourcing is the client’s decision to terminate the relationship and to bring the contracted IS activities back in-house</td>
</tr>
</tbody>
</table>

The graphical representation in Figure 3.2 is a synthesis of six of the ten proposed IS outsourcing terms and their definitions presented in Table 3.2: IS offshoring, IS offshore outsourcing, IS offshore insourcing, IS nearshoring, IS domestic outsourcing and IS backsourcing. Figure 3.2 graphically illustrates how different IS supplier locations (marked with rectangles in the figure) and the client location (marked with a circle in the figure) relate to the definitions of these six IS outsourcing terms. The IS outsourcing terms IS outsourcing, IS multi-sourcing, IS BPO and IS insourcing are not graphically represented in Figure 3.2. The reason for not including the first three of these terms are that they denote outsourcing irrespective of where the IS supplier is located. The
term IS insourcing denotes the special case when the client decides to continue to perform IS activities in-house, thus there is no IS supplier involved.

Figure 3.2: Graphical representation of how different IS supplier locations from the client perspective relate to the proposed definitions of six of the identified IS outsourcing terms (adaptation of Erber & Sayed-Ahmed, 2005, p. 101)

3.5 Information systems outsourcing terms and their hierarchical relation

Figure 3.3 is a graphical representation and proposition of how the ten different IS outsourcing terms and their proposed definitions are hierarchically related to each other. The hierarchy is built on the fundamentals of the object-oriented notion of inheritance with the generic IS outsourcing terms in the top of the hierarchy and special cases of the generic IS outsourcing terms at the lower levels of the hierarchy (in Figure 3.3, the inheritance is symbolized through the arrows among the three levels of hierarchy). The term IS outsourcing is defined as a generic term and is therefore considered as a supertype (cf. object-oriented analysis, see Martin & Odell, 1998). The IS outsourcing terms offshoring, nearshoring, multi-sourcing, domestic outsourcing and BPO, which are special cases of the term IS outsourcing, are then considered as subtypes (Martin & Odell,
Similarly, the IS outsourcing terms offshore outsourcing and offshore insourcing are subtypes as they are special cases of the generic term IS offshoring. This type of relationship hierarchy is in object-oriented analysis referred to as generalization and is a way of specifying the generalization relationship.

Figure 3.3 also describes how the different IS outsourcing terms can be divided according to the phases of the IS life cycle model (Andersen, 1994). Insourcing, denoting the decision for retaining IS activities in-house, is a decision resulting from the phase of Change analysis. The IS back sourcing term, referring to the termination of the IS outsourcing relationship, is most likely believed to become relevant during the phase of Phase out. The other IS outsourcing terms graphically represented in Figure 3.3 are represented during the phases belonging to ISD and the phases of Operation and Maintenance management (positioned between the dotted lines in Figure 3.3).

3.6 Summary and contributions of Chapter 3

The aim of this chapter is to provide a comprehensive set of distinct definitions of the different IS outsourcing terms used in the IT/IS outsourcing literature. This aim is a result of an introductory literature review which showed that there exist no common standard definitions of IS outsourcing terms used for denoting the contracting of IS activities between a client and an IS supplier. For the purpose of structuring IS outsourcing terms along their differences, the geographical distance perspective has been chosen.

The eleven (synonymous excluded) different IS outsourcing terms found in the literature have been analysed and categorised from a geographical distance perspective. Table 3.1 provides a comprehensive overview of the variety of the different IS outsourcing terms used in the IT/IS outsourcing literature. This variety motivates the need for clarity and structure, which is provided by Table 3.1 and Table 3.2.

The review of the IS outsourcing terms used in the IT/IS outsourcing literature shows that the relationship perspective is used in minority when defining IS outsourcing terms. Instead, most of the identified IS outsourcing terms are defined from an actor perspective.

---

16 The IS life cycle model is presented in subchapter 5.5.1.
Figure 3.3: Graphical representation of how the ten different IS outsourcing terms and their proposed definitions are hierarchically related to each other.
I have therefore proposed definitions from a relationship perspective for eight of the IS outsourcing terms identified: IS outsourcing, IS offshoring, IS offshore outsourcing, IS offshore insourcing, IS nearshoring, IS domestic outsourcing, IS multi-sourcing and IS BPO. The proposed IS outsourcing definitions provide a structured set of definitions based on both the geographical distance perspective and the relationship perspective. Figure 3.2 provides a graphical representation of how different IS supplier locations, from the client perspective, relate to the definitions of six of the proposed IS outsourcing terms. The chapter concludes through a presentation of how the different IS outsourcing terms and their proposed definitions are hierarchically related to each other.

The review of IS outsourcing terms used in the IT/IS outsourcing literature has not been devoted to the identification of key conditions that influence the degree of successful outcome of the IS outsourcing process. Yet, one key condition is identified as a result of the conducted literature review. Each of the identified IS outsourcing terms and their proposed definitions are distinguished by one or more specific features. For example, the specific feature of contracting IS activities with an offshore IS supplier is that the client and the IS supplier are located in far distant countries. The specific feature of IS offshoring brings circumstances such as cultural differences, time zone differences and differences in language (Carmel, 1999). These circumstances influence the IS outsourcing relationship and consequently also the IS outsourcing process. Through this it becomes obvious that the special case of IS outsourcing needs to be regarded when studying the successful outcome of the IS outsourcing process. Thus, the key condition identified through the literature review on IS outsourcing terms is as follows (Bergkvist & Fredriksson, 2008):

- The special case of IS outsourcing

The subsequent chapter is devoted to three building blocks of this research study. Prior research on IS outsourcing relationships was introduced in Chapter 1. The first building block of the following chapter continues the discussion on the contributions of prior research on IS outsourcing relationships for this research study. Moreover, the relationship perspective as applied in this research study is presented in more detail as compared with earlier descriptions in this thesis. The third building block is represented by the IS outsourcing process. The presentation of the IS outsourcing process concerns its operationalisation and key actors primary inter-firm interactions.
4 Building blocks of the present research study

This chapter is devoted to the presentation of some of the building blocks of this research study. The main building blocks of the research study were introduced in Chapter 1 and 2 and comprise prior research of IS outsourcing, the phenomenon to be studied, the unit of analysis and the dependent and independent variable. The aim of this chapter is to present the following three additional building blocks of the present research study: (1) contributions of prior research on IS outsourcing relationships, (2) the applied relationship perspective in this research study and (3) the IS outsourcing process. As a result of the conducted literature review presented in this chapter, contributions are provided. The main contributions are constituted of the explanation of the applied relationship perspective and key conditions identified as influencing the degree of successful outcome of the IS outsourcing process.

4.1 Research contributions of two frameworks for information systems outsourcing relationships

The presentation on previous research on IS outsourcing from a relationship perspective in subchapter 1.4 focuses on research that includes frameworks emphasising the IS outsourcing relationship. One finding from the result of the literature review on IS outsourcing frameworks from a relationship perspective is that especially two researchers have contributed to this particular field of research. The researchers I have in mind are Tomas Kern and Leslie P. Willcocks. Their research contributions on the IS outsourcing relationship have been used as inspiration by several researchers such as Alborz et al. (2003).

Several research studies have been conducted by Kern and Willcocks (1998; 2000; 2001; 2002) with the aim to explore the IS outsourcing relationship between client and IS supplier. The research contribution of Kern and Willcocks that mainly has inspired the research conducted in this thesis is their framework on the IS outsourcing relationship (Kern & Willcocks, 2001). Their framework has its theoretical foundation in Interorganisational Relationship Theory, TC Theory and Relational Contract Theory. Through the integration of these theoretical fields with IT/IS outsourcing literature, they have developed a framework that provides, as they put it, a more comprehensive overview of the IS outsourcing relationship. The framework is presented in Figure 4.1.
The framework incorporates the significance of studying relationships longitudinally by integrating the effect of time. The effect of time is essential as a time-line allows an analysis from the origin of the IS outsourcing relationship through to its operationalisation. (Kern & Willcocks, 2001). Through a focus on time the possibility to study the institutionalisation\textsuperscript{17}, for example cultural closeness, shared approaches to problem solving, similar values and personal chemistry, increases.

The framework comprises the following six dimensions for comprehensively studying the IS outsourcing relationship: Behaviour, Contract, Efficiency outcome, Intent, Interactions and Structure. As a result of the application of the framework in several empirical settings, endogenous and exogenous conditions were built into the framework. Endogenous conditions concern each party involved in the relationship and includes conditions such as long-term vision and business strategy. Exogenous conditions concern, on the other hand, environmental conditions such as legislation and market competition. Moreover the empirical studies revealed how the dimensions are related to each other, which are illustrated in the framework through the arrows.

Another framework for the IS outsourcing relationship presented in subchapter 1.4 is the framework provided by Alborz et al. (2003). This framework is found to provide several contributions to the research conducted in this thesis. The

\textsuperscript{17} Institutionalisation of interorganisational business relationships is described in subchapter 6.3.1.
contributions are in form of groups of conditions and their operationalisation in the post-contract stage of the IS outsourcing process.

The framework provided by Alborz et al. (2003), graphically illustrated in Figure 4.2, is an initiative of synthesising earlier research on the IS outsourcing relationship such as research contributions by Klepper (1995), Kern (1997) and Kern & Willcocks (2000). The intention with the framework is to define a set of issues that need to be considered when attempting to understand the success of the IS outsourcing relationship. To be able to measure success, Alborz et al. (2003) include the importance of a multi-key actor perspective. They define success as a multi-dimensional construct that is only meaningful if discussed from the point of view of a given key actor. Their IS outsourcing relationship framework consists of three main stages, six phases and eight groups of conditions that influence the efficacy of an IS outsourcing relationship. By efficacy of the IS outsourcing relationship is meant the degree to which the desired outcome of a relationship between client and IS supplier is met (Alborz et al., 2003).

![Figure 4.2: An IS outsourcing relationship framework (Alborz et al., 2003, p. 1301)](image-url)
The arrows labelled ‘influence’ indicate that the groups of conditions are influencing the efficacy of the relationships, which in turn is believed to have an important influence on the IS outsourcing success, as perceived by various key actors (dotted line in Figure 4.2 since the effect of efficacy on IS outsourcing success has not been explored in their research). The phases and group of conditions that contribute to the development of the conceptual framework in this thesis are the ones included in the post-contract stage: the transition phase, the middle phase and the mature phase (these phases are described in subchapter 4.4.2). The research contributions by Alborz et al. (2003) are applied in this research study to describe the activities to be conducted during each of the three phases. The groups of conditions are, as illustrated in Figure 4.2, related to the management of the IS outsourcing process. Governance, performance management, contract management, working relationship management and knowledge management constitute the groups of conditions. IS governance is closely related to IS management even though there exist authors that choose to make a distinction (e.g. Weill, 2004). IS governance is the framework for decision rights and responsibilities to reach desirable IS usage (Weill, 2004). The specific decisions made is not IS governance but IS management. IS governance should build on the business strategy to manage and use IS in a way that promotes business performance goals. The groups of conditions and their operationalisation are presented in conjunction with the description of the phases that constitute the post-contract stage of the IS outsourcing process.

The contributions of the two frameworks on the IS outsourcing relationship given by Kern and Willcocks (2001) and Alborz et al. (2003) are applied to meet different goals of this research study. The framework by Kern and Willcocks (2001) provides not only important insights into the IS outsourcing relationship but also constitute the main source of inspiration in this research study. The research study and the resulting framework by Alborz et al. (2003) contribute relevant conditions for the development of the conceptual framework in this research study. The research by Alborz et al. (2003) is moreover including activities for the operationalisation of the IS outsourcing process.

4.2 The relationship perspective as applied in the present research study

During the performance of the IS outsourcing process different key actors are involved. The key actors are in general part of the client firm and the IS supplier firm. These both firms and their key actors constitute the IS outsourcing
relationship as perceived in this research study. The client firm and the IS supplier firm are in this research study represented by three different areas: business area, process area and IS area (Österle, 1995; Tolis & Nilsson, 1996). It has been shown that it is important to incorporate all three firm areas when implementing a business change (Kwon & Zmud, 1987; Markus et al., 2000). To achieve successful results, every business change needs to incorporate the business strategy, the processes and the IS of the firm (Nilsson, 2001). Firms that continually focus on and improve the interactions among key actors of these three areas establish a bond with the belief of acquiring distinctive and competitive competence (Rhenman, 1969). A goal should thereby be to create a favourable balance among these three areas in the firm (see Figure 4.3).

![Figure 4.3: Distinctive competence achieved by a balance among three firm areas (adaptation of Nilsson, 2001, p. 216)](image)

Lacity and Willcocks (1998) found that IS outsourcing success, when measured according to the achievement of expected cost savings, was more likely to be reached when interactions between senior business managers and senior IT managers guided the IS outsourcing decision. The importance of including different firm areas is particularly due to the impact IS outsourcing has on the firm and its performance (Feeny & Willcocks, 1998). Through interactions that involve key actors from the three areas the expectation is to reach mutual understanding and acceptance of IS outsourcing (cf. Kwon & Zmud, 1987).

Through the previous discussion, it becomes motivated to view the firm as constituted of three different areas when studying the client firm and the IS supplier firm and key actors’ interactions. My belief is that it is important to split the firm into different areas, as illustrated in Figure 4.4. Partly, to emphasise the different key actors working in the firm and, partly, to emphasise how key actors are related to conditions influencing the degree of successful outcome of the IS outsourcing process. The two-way arrows in Figure 4.4 illustrate the possible intra-firm and inter-firm interactions in the client–IS supplier
relationship. By viewing the firm as constituted of areas my belief is that the IT department is not viewed on as separated from the rest of the firm. Instead the IT department becomes an integrated part that contributes to the realization of the firms’ business strategy and business processes.

![Diagram](image)

**Figure 4.4**: The applied relationship perspective: firm areas, key actors and key actors’ possible interactions (adaptation of Österle, 1995, p. 30; Tolis & Nilsson, 1996, p. 4)

The involvement of key actors from the different areas of the firm has also been highlighted as important in other research. For example, research on the decision process for IS outsourcing emphasises that the decision should be supported by senior management as well as IT management and IT staff to increase the chances for a high degree of successful outcome (Lacity & Willcocks, 2000; Johansson, 2007).

Key actors of the different firm areas of the client firm and the IS supplier firm are presented in Table 4.1. The information presented in Table 4.1 also includes the key actors’ primary responsibilities during the IS outsourcing process. The primary interactions among the key actors are presented in subchapter 4.4.2. The key actors presented in Table 4.1 are the actors that are mainly involved during the operationalisation of the IS outsourcing process. These key actors have been dedicated a certain degree of authority and responsibility. The key actors and their roles in form of authorities and responsibilities are related to one of the firm areas business, process or IS. Other actors are part of the client firm and the IS supplier firm, however, these are not considered as key actors of the IS outsourcing process in this research study.
### Table 4.1: Key actors representing the three different firm areas (adaptation of Lacity & Willcocks, 2000, p. 362)

<table>
<thead>
<tr>
<th>Key actors of the client firm</th>
<th>Role during the IS outsourcing process</th>
<th>Specific firm area</th>
<th>Key actors of the IS supplier firm</th>
<th>Role during the IS outsourcing process</th>
<th>Specific firm area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior business manager</td>
<td>Responsible for payment and negotiation</td>
<td>Business</td>
<td>Senior manager</td>
<td>Responsible for sales and negotiation</td>
<td>Business</td>
</tr>
<tr>
<td></td>
<td>Focuses on the financial management</td>
<td></td>
<td></td>
<td>Responsible for balancing the clients’ expectations with the generation of organisational profit</td>
<td></td>
</tr>
<tr>
<td>Senior IT manager</td>
<td>Responsible for IT management</td>
<td>Process</td>
<td>Account manager</td>
<td>Responsible for profit earnings</td>
<td>Process</td>
</tr>
<tr>
<td></td>
<td>Involved during negotiation</td>
<td></td>
<td></td>
<td>Involved during negotiation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Responsible for balancing the costs with the services provided</td>
<td></td>
<td></td>
<td>Responsible for customer satisfaction on a given IS outsourcing contract</td>
<td></td>
</tr>
<tr>
<td>IT staff</td>
<td>Responsible for delivering IT/IS services</td>
<td>IS</td>
<td>IT staff</td>
<td>Responsible for delivering IT/IS services</td>
<td>IS</td>
</tr>
</tbody>
</table>

To summarize, the relationship perspective applied in this research study comprises the client firm and its key actors and the IS supplier firm and its key actors. The relationship perspective includes the possible intra-firm and inter-firm interactions among the involved key actors. The relationship perspective is graphically represented in Figure 4.4.

To increase the possibilities of successful IS outsourcing relationships, IS outsourcing should be part of an overall strategy that includes firm objectives related to business strategy, business processes and IS usage (Feeny & Willcocks, 1998). The firm areas business, process and IS are described subsequently.
followed by a discussion on strategic management in relation to these firm areas.

4.3 Three areas of the client firm and the IS supplier firm

Strategic management and firm development are advantageously conducted through the focus on the three different areas of the firm (Henderson & Venkatraman, 1992; Österle, 1995). Figure 4.5 builds on the relationship perspective with the addition of the focus of each firm area.

![Figure 4.5: Key actors, development focus of each firm area and possible interactions](adaptation of Österle, 1995, p. 16; Tolis & Nilsson, 1996, p. 4)

The ‘business area’ of the firm concerns the firm’s position in the market and the firm’s key decisions (Österle, 1995). The business strategy deals with three central questions: business scope, distinctive competence and business governance (Henderson & Venkatraman, 1992). Business scope concerns choices of product-market offerings. Distinctive competence is about those attributes of strategy such as pricing, quality and value-added services, that contribute distinctive comparative advantage compared to other competitors (Rhenman, 1969; Nilsson, 2001). Business governance denotes the mechanisms for organising business operations. For example, IS outsourcing is one way of managing and organising business operations.
Business development focuses on the firm’s relations with different actors such as clients, suppliers and other business partners, in the market environment (Tolis & Nilsson, 1996). The aim of business development is to focus on the business strategy to improve business relations (Henderson & Venkatraman, 1992; Nilsson, 1999). The responsible people of the business strategy such as top management, needs to focus on the interrelationships among the different areas of the firm to be able to achieve balance and distinctive competence (Venkatraman et al., 1993).

The ‘process area’ concerns the implementation of the firm’s business strategy by specifying the firm structure and deriving outputs, flows, computer support and management tools (Österle, 1995). Business process development is about designing new and better workflow among different business processes in the firm. The goal is to achieve more firm-specific comparative advantages and efficient business processes (Henderson & Venkatraman, 1992; Nilsson, 1999). Operating managers and IT and IS managers are in primary responsible for the alignment\(^\text{18}\) between the business strategy and the operational performance (Venkatraman et al., 1993). There need to exist management processes that make sure that there exist a consistency between strategic alignment and the operational domain. The operational domain has the main responsibility for delivering IT products and IS services.

The ‘IS area’ concerns the implementation of the business process design. This is partly conducted by delivering guidelines that emphasise information, data and IS (Österle, 1995). Development of IS focuses on efficient allocation of resources and enablers to achieve professional business processes. The IT strategy is often aimed to allocate resources to best support the existing business strategy (Henderson & Venkatraman, 1992).

IS outsourcing should be part of a business strategy and contribute to the development of the three firm areas described previously. IS outsourcing needs therefore to be realized through a strategic management approach (Willcocks et al., 1995). Strategic management approach concerns both how IS outsourcing fits the firm’s core business and how IS outsourcing can be managed. To highlight the strategic importance of IS outsourcing the following subchapter is

\(^{18}\) Alignment is the continuous process of communication and knowledge sharing between business managers (Martin et al., 2008).
dedicated to strategic management and the alignment and integration of the IS outsourcing strategy with other existing firm strategies.

The issue of strategic management is not explicitly expressed as part of the applied relationship perspective in this research study. However, strategic management is connected to the areas of the client firm and the IS supplier firm, as viewed in this research study, which result in the appropriateness of including the discussion on strategic management of firm areas.

### 4.3.1 Strategic management of firm areas

A firm’s strategies constitute formulations such as decisions related to competitive, product-market choices, and how these choices should be implemented (Henderson & Venkatraman, 1999). Implementation includes the decision for choices that pertain to the structure and capabilities of the firm to execute its product–market choices. Strategic management comprises among all the management of strategic fit and functional integration (Henderson & Venkatraman, 1999). Strategic fit concerns the interrelationship between external and internal domains, whereas functional integration concerns integration between the business area and the IS area of the firm (see Figure 4.6).

![Figure 4.6: Strategic fit and functional integration as part of strategic management activities](image)

The external domain is composed of the marketplace and includes decisions that should differentiate the firm from its competitors. Translated to the IS area, this can be articulated as how the firm is positioned in the IS marketplace.
The internal domain is instead concerned with how critical business processes should be designed and redesigned, and how the acquisition and development of human skills should be conducted to achieve the required competencies. From the view of the IS area the internal domain concerns how the IS infrastructure should be configured and managed. Functional integration enhances the need to integrate the business strategy and the IS strategy by reflecting how choices made in the process area impact those made in the IS area and vice versa.

Strategic management literature stresses the importance of integrating the process area and the IS area through strategic integration (the link between business strategy and IS strategy by reflecting the external components) and operational integration (the link between infrastructure and processes of the process area and IS infrastructure and processes) (Henderson & Venkatraman, 1999). Strategic and operational integration is a necessity to succeed in an increasingly competitive, information-intensive and dynamic market (Luftman et al., 1993).

Strategic management literature stresses the importance of integrating the process area and the IS area through strategic integration (the link between business strategy and IS strategy by reflecting the external components) and operational integration (the link between infrastructure and processes of the process area and IS infrastructure and processes) (Henderson & Venkatraman, 1999). Strategic and operational integration is a necessity to succeed in an increasingly competitive, information-intensive and dynamic market (Luftman et al., 1993).

4.3.2 Alignment and integration of the information systems outsourcing strategy with firm strategies

The rapid advancement in IT during the past 25 years has contributed that most firms realize the strategic role and competitive advantage of IT and IS. The opportunity of saving costs while still maintaining the benefits of IS through outsourcing is then a valuable option (Mojsilovic et al., 2007). When IS is applied as a strategic tool, IS outsourcing must not be done ad hoc. Instead IS outsourcing should be part of an overall strategic framework that includes business, process and IS objectives. The efforts made in IS must support the business strategy (Feeny & Willcocks, 1998). A strategic management approach therefore is motivated (Willcocks et al., 1995). With strategic management app-
roach is meant both how IS outsourcing fits the firm’s core business and how IS outsourcing can be managed. A strategic management approach involves keeping the control and responsibility of information management, IS strategies and business requirements in-house. Further, a strategic management approach involves top managers during design, analysis and determination of the objectives of the firm (Avison & Fitzgerald, 2006).

The strategic management approach is one way of reaching integration and alignment between the IS outsourcing strategy and present firm strategies. When the IS outsourcing process involves business managers from different areas of the firm, the presumably contribution is the strategic alignment of the different areas of the firm.

During IS outsourcing, the IS outsourcing strategy of the client and the IS supplier have to be aligned (Kern & Willcocks, 2001). Alignment ensures that the IS outsourcing relationship provides the expected services, technology and benefits to achieve both short-term and long-term goals. If the alignment is neglected, inflexibility and unpredictable management costs arise.

The subsequent subchapter focuses another building block of this research study: the IS outsourcing process.

4.4 The information systems outsourcing process

IS outsourcing often begins with an intention that includes why outsourcing is of interest for the firm and its key actors. This is referred to as the intent dimension, which main purpose includes the key actors’ clarification of their intent with IS outsourcing (Kern & Willcocks, 2001). The intent dimension is composed of four conditions: necessity, reciprocity, legitimacy and efficiency. Necessity refers to if the IS outsourcing venture is mandated or voluntary, whereas reciprocity concerns anticipated benefits such as technical and financial, of the IS outsourcing relationship. Legitimacy includes the underlying political motivations and efficiency is about the expected cost reductions. The four intent conditions are significant for validating that the IS outsourcing intent is corresponding with the business strategy of the firm (Kern & Willcocks, 2001).

The intent dimension of IS outsourcing is comparable with the prestudy stage of the IS outsourcing process. During this stage of the IS outsourcing process,
problems and opportunities of the firm should be reflected. The client senior business manager needs to involve key actors representing different areas of the firm. The key actors need to inform about present and desired IS solutions, alternative solutions, requirements and the need for change. The outcome of this stage will be a decision to proceed with IS outsourcing or a decision not to proceed. If the final decision includes outsourcing of IS activities, the expectations, anticipated benefits and desired cost savings expressed in the form of an intent, influence the subsequent phases of the IS outsourcing process. In addition, the outcome of the IS outsourcing process will partly be evaluated according to these intentional conditions.

The focus of this research study is on the post-contract stage of the IS outsourcing process. Consequently, the intention of IS outsourcing is not primarily considered when identifying key conditions that influence the degree of successful outcome of the IS outsourcing process.

### 4.4.1 Phases of the information systems outsourcing process

In similarity with the benefits following standardisation of business processes, outsourcing of IS activities should follow a designed set of activities to achieve a high degree of successful outcome from a relationship perspective (Cullen et al., 2005a). The use of a designed process of IS outsourcing has been given some attention in prior research (e.g. Lacity & Willcocks, 2000; Cullen et al., 2005a). The IS outsourcing process developed by Lacity and Willcocks (2000) emphasises the client–IS supplier relationship and different key actors. Furthermore the IS outsourcing process includes phases and activities to be conducted. The phases of the IS outsourcing process are presented in Table 4.2 with primary activities performed, primary key actors involved and main outcome of each phase.

Alborz et al. (2003) split the phases of the IS outsourcing process into three different stages: pre-contract stage, contract stage and post-contract stage (illustrated in Figure 4.2). This research study is primarily focusing on the implementation of the IS outsourcing process. Translated to the stages of the IS outsourcing process, the stage of relevance for this research study is the post-contract stage. The phases of the post-contract stage and their operationalisation are discussed in the following subchapter.
Table 4.2: A summary of the phases constituting the IS outsourcing process (to be continued) (adaptation of Lacity & Willcocks, 2000, p. 369)

<table>
<thead>
<tr>
<th>Phase</th>
<th>Primary activities</th>
<th>Primary key actors involved</th>
<th>Main outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scoping phase</td>
<td>Identify core IS activities</td>
<td>client senior business manager, client senior IT manager</td>
<td>Identification of IT organisation flexibility, and potential IS activities for outsourcing</td>
</tr>
<tr>
<td></td>
<td>Identify IS activities potential for outsourcing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation phase</td>
<td>Measure baseline services and costs</td>
<td>client senior business manager, IS supplier senior manager, client senior IT manager, IS supplier experts, client IT staff</td>
<td>The selection of best and final offer</td>
</tr>
<tr>
<td></td>
<td>Create a request for proposal (RFP)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Develop evaluation criteria</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Invite internal and external bids</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negotiation phase</td>
<td>Conduct due diligence(^\text{19}) to verify RFP</td>
<td>client senior business manager, IS supplier senior manager, client senior IT manager, IS supplier account manager</td>
<td>The signed contract</td>
</tr>
<tr>
<td></td>
<td>Negotiate service level agreements</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Create responsibility manuals</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Negotiate for transfer of employees</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Negotiate mechanisms for contractual change</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^{19}\) A RFP is an invitation for IS suppliers, often through a bidding process, to submit a proposal on a specific commodity or service (cf. Bergkvist & Johansson, 2007).

\(^{20}\) Due diligence can be compared with an inspection of a firm which can be used during negotiations between client and IS supplier (cf. Bergkvist & Johansson, 2007).
Table 4.2 (continuation): A summary of the phases constituting the IS outsourcing process (adaptation of Lacity & Willcocks, 2000, p. 369)

<table>
<thead>
<tr>
<th>Phase</th>
<th>Primary activities</th>
<th>Primary key actors involved</th>
<th>Main outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transition</td>
<td>Interpret and distribute contract</td>
<td>client senior IT manager, IS supplier account manager, IS supplier IT staff, client IT staff</td>
<td>The establishment of operational performance</td>
</tr>
<tr>
<td>phase</td>
<td>Establish post-contract management</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Implement consolidation, rationalisation, and standardisation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Validate service scope, costs, levels and responsibilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Manage additional service requests</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foster realistic expectations of IS supplier performance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle</td>
<td>Benchmark performance</td>
<td>client senior IT manager, IS supplier account manager</td>
<td>The achievement of value-added operational performance</td>
</tr>
<tr>
<td>phase</td>
<td>Realign the contract to reflect changes in technology and business</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Involve the IS supplier in more value-added areas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mature</td>
<td>Determine if the relationship will be terminated or extended</td>
<td>Varies dependent on the specific decision made: termination or extension</td>
<td>No failures in operational performance during final transition</td>
</tr>
<tr>
<td>phase</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.4.2 Operationalisation of the information systems outsourcing process and primary inter-firm interactions

Alborz et al. (2003) build their research on IS outsourcing relationships on the contributions provided by Lacity and Willcocks (2000). The research study by Alborz et al. (2003) emphasises the performance of the IS outsourcing process.
by adding groups of conditions and the operationalisation of each phase of the IS outsourcing process.

Besides the activities to be performed during each phase of the IS outsourcing process, it is important to highlight the primary interactions between client and IS supplier. This is partly a result of that earlier research shows on the importance of interactions during IS implementation processes (Kwon & Zmud, 1987). The interactions among involved key actors are briefly discussed subsequently. This is done in conjunction with the description of the phases constituting the post-contract stage of the IS outsourcing process: the transition phase, the middle phase and the mature phase.

**Transition phase**

With the transition phase the post-contract stage of the IS outsourcing process begins (Alborz et al., 2003). The phase is characterised by governance and performance management.

Sound governance of the IS outsourcing relationship has been found to be a vital condition for relationship success (Kern & Willcocks, 2001). Governance of the relationship is important during the whole IS outsourcing process but especially in the post-contract stage. Alborz et al. (2003) include five governance activities that facilitate the management of the IS outsourcing process: (1) senior management role and support, (2) management structure and teams, (3) management style, (4) management skills and (5) establishment of processes and procedures.

Senior managers should supply with information considering the business strategy as well as they should support management structures in the post-contract management. The support from senior management is expressed as a prerequisite for successful IS outsourcing (Lee & Kim, 1999). Management structure refers to how the organisation of the IS outsourcing relationship is structured and managed (Alborz et al., 2003). The better organised management structure, adjusted to the actual IS outsourcing relationship, the more effective operationalisation of IS outsourcing process activities and contract implementation. The style of management is important to create trustworthy relationships. The management style refers to the patterns of behaviour of individual managers, from senior business managers to managers responsible for daily work (Alborz et al., 2003). The management includes communicative acts and
motivation of key actors working at different areas of the firm to meet the objectives of the IS outsourcing process. To be able to manage the IS outsourcing process, different management skills are required. For instance, the manager has to have the skills to manage the client–IS supplier relationship and moreover be a good communicator to handle a relationship that stretches across firm boundaries.

The condition of performance management, operationalised during the transition phase, includes the measurement of both the client’s and the IS supplier’s performance through monitoring and management (Alborz et al., 2003). Activities of monitoring contribute to the client’s determination of if the objectives stipulated in the contract are met. Moreover, monitoring contributes the possibility for the IS supplier to assess and evaluate client satisfaction and areas for improvement.

The transition phase is split into eight different main activities. Seven of these are presented subsequently. The eighth activity includes promotion of the contract to the general public, which usually is performed by the senior managers of the client and IS supplier firm. The key actors mainly interacting during the transition phase are found to be the client senior IT manager and the IS supplier account manager (Lacity & Willcocks, 2000). These both key actors are involved in the inter-firm interactions during the first, second, fourth, sixth and seventh activity of the transition phase. The primary inter-firm interactions of these activities are graphically illustrated in Figure 4.7 (The primary interactions are graphically illustrated through bold arrows. The dotted arrows symbolize possible intra-firm and inter-firm interactions). The primary inter-firm interactions of the third and fifth activity of the transition phase are graphically illustrated in Figure 4.8 and involve the IT staff at the client and IS supplier firm.

The first activity concerns the distribution of the contract and involves the communication of the content in the contract. The key actors primary involved in the interactions are the client senior IT manager and the IS supplier account manager. The interactions mainly concern problem solving traceable to conflicts among key actors’ goals and their correspondence with the content of the contract. Other actors, besides the client senior IT manager and the IS supplier account manager, mainly involved during the distribution of the contract are the IS users.
The second activity of the transition phase, interpreting the contract, is often charged by the client senior IT manager and the IS supplier account manager. They resolve contract interpretation issues that occur because of each key actor’s protection of its own interests. The key actors involved in the primary interaction during the interpretation of the contract are corresponding with the first activity of the transition phase, i.e., the client senior IT manager and the IS supplier account manager.

During the third activity, establishing post-contract management of infrastructure and processes, client and IS supplier teams are established to facilitate contract monitoring with a focus on financial and strategic management. Also joint client–IS supplier teams are established with responsibility for solving operational problems before presenting the problem to their superiors. The teams are typically composed of client IT staff and IS supplier staff. Through frequent interactions among these key actors, an environment of mutuality is created. The primary key actors involved in inter-firm interactions in the establishment of post-contract management are illustrated in Figure 4.8.
Implementation of consolidation, rationalisation and standardisation, constitutes the *fourth activity* of the transition phase. During this activity the data centers are consolidated, software and hardware platforms are standardised and IT staff is centralised. This is primary interacted and agreed on by the client senior IT manager and the IS supplier account manager.

The *fifth activity* incorporates the validation of baseline service scope, costs and responsibilities. Client IT staff and IS supplier staff is charged with the performance of these tasks. The primary interactions and key actors involved are consequently coinciding with the third activity of the transition phase.

Additional service requests, not included in the contract, are often solved by the client senior IT manager and the IS supplier account manager. However, their goals can be conflicting. The client senior IT manager is usually charged with keeping excess fees to a minimum, whereas the IS supplier account manager typically has the resources and financial motivation to meet any volume of demand. The primary interactions occurring during the *sixth activity*, managing additional service requests beyond baseline, are involving the client senior IT manager and the IS supplier account manager.

To foster realistic client expectations of IS supplier performance, the *seventh activity* of the transition phase, both the client senior IT manager and the IS supplier account manager should share the goal of communicating contractual
obligations to IS users. Reasons for involving IS users are the possibility to avoid IS users’ requirements of higher level of service, disappointment on contract management and unfairly criticism of the IS supplier. The key actors primary interacting during the fostering of client’s expectations of IS supplier performance are the client senior IT manager and the IS supplier account manager.

As a result of the description of the operationalisation of the transition phase it becomes clear that the primary key actors interacting during this phase are client senior IT managers and IS supplier accounting managers. Subsequently, the middle phase and its operationalisation are focused.

Middle phase

The condition of contract management, included in the framework by Alborz et al. (2003), is interpreted by me as most likely to occur during the middle phase of the IS outsourcing process. This is a result of that it is during the middle phase that the contract really becomes operationalised, and contract and relationship management becomes crucial (Alborz et al., 2003). The establishment of a relationship management process facilitates the management of the contract. Relationship management, when characterised as communicative, promotes contract management.

Working relationship management is another condition of the middle phase. The working relationship should be a combination of key actors’ interactions and behaviours to influence the outcome of the IS outsourcing process in a positive way (Alborz et al., 2003). The working relationship is of complex art, mainly because it encompasses relational, social and human characteristics. Individuals bring different background, experience, style and culture, which influence the IS outsourcing relationship. To manage the working relationship between client and IS supplier knowledge about influential conditions is necessary. The influential conditions expressed in the literature are trust, commitment, conflict, communication, cooperation, satisfaction and dependency (Alborz et al., 2003).

The major activities conducted in the middle phase are benchmarking performance, realignment of the contract and the involvement of the IS supplier in value-added areas (Lacity & Willcocks, 2000). The key actors interacting during the middle phase are primary the client senior IT manager and the IS supplier
account manager (Lacity & Willcocks, 2000). These inter-firm interactions are graphically illustrated in Figure 4.7.

First, benchmarking performance, i.e., the practice of comparing a client's IS performance against a reference group of a similar organisation, is performed by the client senior IT manager and the IS supplier account manager (Lacity & Willcocks, 2000). In the IS outsourcing process, benchmarking is used to ensure that the IS supplier's costs and services are among the best of breed.

Second, realignment of the contract is conducted. This activity is a result of that the original contract becomes obsolete, which is a consequence of advancements in technology, changes in business requirements and illumination of false assumptions (Lacity & Willcocks, 2000). In similarity with the benchmarking activity, realignment of the contract foremost includes interactions between the client senior IT manager and the IS supplier account manager.

Third, as the operational performance has been established, key actors of the client firm and the IS supplier firm seek to extend the relationship into more value-added areas. Value-added areas include, for example, the IS supplier's participation in steering committees to include an IT perspective on client's business initiatives and business strategy. The search for value-added areas occurs on every area of the firm and therefore no distinctive primary interactions appear during this third activity of the middle phase.

In similarity with the transition phase, the client senior IT manager and the IS supplier account manager are the key actors interacting primary during the middle phase. Subsequently, the last phase of the IS outsourcing process, the mature phase, is focused.

Mature phase

It is primarily during the mature phase that the key actors really reflect on the structure and the management of the IS outsourcing process and the IS outsourcing relationship. The notion of knowledge sharing and transfer, and the ongoing exchange of knowledge and expertise between client and IS supplier are trademarks for successful IS outsourcing. Thus, the last condition of operationalisation of the IS outsourcing process is knowledge management (Alborz et al., 2003). The degree of knowledge sharing depends on its support by senior business managers and is a result of the management strategy. IS out-
sourcing, however, may result in knowledge loss since sometimes employees are transferred to the other party of the relationship.

During the mature phase the main activity is for the key actors to decide if the relationship should continue or not. Three possible options are available: (1) extend the contract, (2) switch partner, or (3) terminate the relationship and bring the outsourced IS activity back in-house (Lacity & Willcocks, 2000). The choice depends on the strategic concerns of the client and IS supplier firm, the nature of the current and future market competition, the strength of the relationship and the value of the IS outsourcing contract. Dependent on the choice made, the primary interactions that take place during the mature phase vary.

To summarize, the operationalisation of the post-contract stage of the IS outsourcing process involves at least twelve activities divided into three phases. The key actors that are primary involved in inter-firm interactions in the post-contract stage are found to be the senior IT manager at the client firm and the account manager at the IS supplier firm. These both key actors are located in the process area of the firms.

4.5 Summary and contributions of Chapter 4

The aim of this chapter is to present the following three building blocks of this research study: (1) contributions of prior research on IS outsourcing relationships, (2) the relationship perspective as applied in this research study and (3) the IS outsourcing process.

The contributions of prior research on IS outsourcing relationships have focused two research studies, the one by Kern and Willcocks (2001) and the one by Alborz et al. (2003). These research studies are found to be relevant for this research study from two perspectives. First, they provide frameworks for studying IS outsourcing relationships and second, they contribute with descriptions of conditions influencing the degree of successful outcome of the IS outsourcing process.

The IS outsourcing relationship, as perceived in this research study, includes the client and IS supplier firm and key actors located at three different firm areas: business, process and IS. Besides the identification of key actors involved during the IS outsourcing process, my perception is that it is important to describe the possible intra-firm and inter-firm interactions among these key
actors. The applied relationship perspective in this research study can be summarized as including:

- the client firm and the IS supplier firm,
- key actors working at the business, process and IS area of the client firm and the IS supplier firm and
- intra-firm and inter-firm interactions among the key actors of the client and IS supplier firm.

IS outsourcing and IS outsourcing relationships have to be concerned from the view of strategic management (Willcocks et al., 1995). The alignment of the client’s and the IS supplier’s IS outsourcing strategy is crucial. Part of the explanation is that the alignment of IS outsourcing strategies is necessary to avoid inflexibility of the IS outsourcing process and unpredictable management costs. Besides the importance of the alignment of key actors’ IS outsourcing strategy, each firm’s development activities need to be integrated and aligned to achieve benefits of IS outsourcing.

The presentation of the IS outsourcing process has focused on the operationalisation of the post-contract stage, which comprises the transition phase, the middle phase and the mature phase. The choice to present the post-contract stage is a result of the delimitation of this research study. The primary interactions between client and IS supplier are important to include in the description of the phases of the post-contract stage to increase the knowledge about the client–IS supplier relationship. Previous research shows that the client senior IT manager and the IS supplier account manager are the key actors primary interacting during the performance of the activities that are part of the operationalisation of the post-contract stage (Lacity & Willcocks, 2000).

As a result of the presentation of three building blocks of this research study, key conditions have been identified. The key conditions identified are interpreted as influencing the degree of successful outcome of the IS outsourcing process from a relationship perspective. The key conditions are presented in Table 4.3 together with a short description of their relevance for being included as key conditions in this research study. The key conditions in Table 4.3 are presented and grouped according to their common theoretical base.
Table 4.3: Key conditions identified as a result of the presentation on three building blocks of this research study (to be continued)

<table>
<thead>
<tr>
<th>Key conditions</th>
<th>Descriptions</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Balance among firm areas</td>
<td>The key conditions balance among firm areas and key actors are a result of the theoretical description of the key actors involved during the IS outsourcing process. Through the application of the relationship perspective for studying the degree of successful outcome of the IS outsourcing process the key actors become obviously significant. The key actors of the client and IS supplier firm are also the ones that implement and realize the stipulated agreements of the IS outsourcing contract. Balance among firm areas concerns the single firm. However, the distinctive competence, resulting from the balance, benefits both the client and the IS supplier. This is a result of that the balance contributes to firm strategies’ alignment and facilitates implementation of business change such as the realization of IS outsourcing.</td>
<td></td>
</tr>
<tr>
<td>• Firm strategies’ alignment</td>
<td>From the theoretical presentation on three areas of firm development four key conditions are identified. Firm strategies’ alignment and integration concern the client’s and the IS supplier’s different firm strategies. Although the activities of alignment and integration are a responsibility of each firm, the balance and harmony of each firm’s strategies contribute to a more harmonized IS outsourcing relationship (see also the discussion on balance among firm areas). IS outsourcing strategies’ alignment concerns the alignment of the client’s and the IS supplier IS outsourcing strategy. With alignment is here referring to that the client’s and the IS supplier’s intentions and expectations of IS outsourcing is communicated and clarified. The aim of IS outsourcing strategies’ alignment is to avoid, or at least minimize, the possibility for unexpected expectations to unfold during the operationalisation of the IS outsourcing process. Strategic management comprises for example the activities of strategic fit and functional integration. Strategic fit and functional integration contribute to the ability to compete in the marketplace and a correspondence of choices made at different areas of the firm.</td>
<td></td>
</tr>
<tr>
<td>• Firm strategies’ integration</td>
<td></td>
<td>Henderson &amp; Venkatraman (1999), Kern &amp; Willcocks (2001)</td>
</tr>
<tr>
<td>• IS outsourcing strategies’ alignment</td>
<td></td>
<td>-------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>• Strategic management</td>
<td></td>
<td>-------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
Table 4.3 (continuation): Key conditions identified as a result of the presentation on three building blocks of this research study

<table>
<thead>
<tr>
<th>Key conditions</th>
<th>Descriptions</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Contract management</td>
<td>The key conditions presented in the left column is emphasised in previous research as groups of conditions during the operationalisation of the post-contract stage of the IS outsourcing process. The key conditions all concern the management of the IS outsourcing process. The groups of conditions include themselves management activities which, when performed professionally, are assumed to contribute to a high degree of successful outcome of the IS outsourcing process. The key condition of interaction denotes the interactions taking place between client and IS supplier during the operationalisation of the IS outsourcing process.</td>
<td>Lacity &amp; Willcocks (2000), Alborz et al. (2003)</td>
</tr>
<tr>
<td>• Governance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Knowledge management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Performance management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Working relationship management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Interaction</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The key conditions in Table 4.3 are related to the applied relationship perspective, strategic management of firm areas and the IS outsourcing process. The key conditions identified are not categorised in dimensions, which results from the relative few key conditions identified. In addition the literature review in this chapter did not reveal any relevant and essential dimensions for studying the degree of successful outcome of the IS outsourcing process.

The forthcoming three chapters, Chapters 5-7, are devoted to the theoretical fields of IS, interorganisational business relationships and IS outsourcing. These theoretical fields have been chosen with the motivation to describe and explain the degree of successful outcome of the IS outsourcing process from a relationship perspective. First theories related to strategies, approaches and frameworks for the IS life cycle are presented and discussed.
5 Strategies, approaches and frameworks for the information systems life cycle

This chapter aims to present different key conditions related to outsourcing of IS life cycle activities. The realization of this aim contributes to the description and explanation of the successful outcome of the IS outsourcing process. To address the aim, ISD strategies, IS life cycle approaches and IS frameworks are presented. The theoretical presentations are complemented with discussions that emphasize the influence different strategies, approaches and frameworks have on the IS outsourcing process. Finally, the contributions of the theoretical field of IS are presented. The contributions are in form of key conditions, dimensions and their interrelations. The results and findings of this chapter contribute to the development of the conceptual framework for the IS outsourcing process.

5.1 Globalisation and its influence on information systems usage

There is an existing trend towards the settlement of in-house developed applications for instead applying standard application packages (Computer Sweden, 2008c). Reasons for the increasing use of standard application packages are the globalisation and the facilitated information exchange in business relationships. Global competition and constant change have resulted in that firms have become increasingly dependent on information and knowledge to remain competitive (Van den Hoven, 2004). In situations like this, standardised IS provide the framework for sharing data between IS within the firm and between the firm and its business partners. The standardisation of IS and software applications is also desirable from the point of view of outsourcing. Standardisation provides interchangeability, facilitates communication and reduces the risks of outsourcing such as unexpected costs and unrealized expectations (Wüllenweber et al., 2008). Furthermore, standardisation of business processes reduces costs by decreasing process errors and brings the possibility to define clear and precise outputs that should be met by the IS supplier. From the perspective of the IS supplier, standardisation is a prerequisite to reach economies of scale (Wüllenweber et al., 2008). Standardisation makes it possible for the IS supplier to provide similar business process solutions to different clients.

Although the trend is towards the increasing use of standard application packages for treatment of information within and among firms, the existence of joint-venture systems, i.e., the IS is constituted of a combination of in-house and standard application package parts (Brandt et al., 1998), is still present. Dependent on the mixture of ISD strategies and the portfolio of software app-
lications, the management and performance of IS outsourcing processes are influenced (McFarlan & Nolan, 1995).

5.2 The information systems life cycle

The outsourced IS activities that are considered for the development of the conceptual framework for the IS outsourcing process are the ones that are performed as part of the IS life cycle. IS activities such as business and systems analysis, construction, implementation and maintenance management, thus, are regarded (Andersen, 1994). As IS assets are important for the individual firm’s daily performance of its business activities, also the IS outsourcing process is demanded to contribute a successful outcome.

The IS life cycle has the following basic structure and phases (Andersen, 1994; Avison & Fitzgerald, 2006):

- **Feasibility study** – includes the evaluation of the presently used IS, the requirements it was intended to solve, new requirements that have to be met and investigation of alternative solutions. The decision point during this phase concerns if the IS work should proceed or not. This phase is also labelled Change analysis.

- **Systems investigation** – a detailed fact-finding phase in which the requirements of the existing IS and the new IS are focused on. This phase also is labelled Business analysis.

- **Systems analysis** – questions as ‘why do the problems exist?’, ‘why were certain methods of work adopted?’, ‘are there alternative methods?’, constitute the basis of this phase. The attempt is to understand all aspects of the presently used IS to find out the requirements that the new IS should meet.

- **Systems design** – involves the design of both the technical and manual parts of the IS.

- **Implementation** – includes the activities of designing, constructing and testing software applications. Furthermore, the implemented IS should be integrated with presently used IS. Quality controls, education and training of user staff, documentation of operation and user manuals, and testing of security procedures are conducted during this phase.
• **Operation and maintenance** – involves, for example, correction of errors found during IS usage, IS improvements and a review of if the IS complies with the requirements expressed during the feasibility study phase.

• **Phase out** – the phase of the IS life cycle when it is decided to terminate the use of the implemented IS (in part or as a whole) and take care of the information used in the IS.

The phases between the two dotted lines represent ISD.

The IS outsourcing literature indicates that maintenance management activities are part of the activities that are most commonly and perhaps most obviously outsourced with consideration to their structuredness and well defined outputs (McFarlan & Nolan, 1995; Hirschheim, 2006; Shao & David, 2007). The research presented by Fish and Seydel (2006), however, indicates that IS activities belonging to ISD are more commonly outsourced than IS maintenance management activities. The results from these research studies indicate the importance of including not just ISD activities but the complete IS life cycle to be able to fully relate and understand the IS outsourcing process.

5.3 **Introduction of strategies, approaches and frameworks for the information systems life cycle**

IS used for collecting, storing, processing and distributing information are commonly composed of a mixture of different software applications such as accounting, payroll and manufacturing. The different software applications constituting the IS are commonly developed in-house (tailor-built software) or purchased as a standard application package. A third possibility is that the IS is a joint-venture system. ISD literature emphasises also component-based development, which could be described as a middle path of in-house development and standard application package development (Szyperski, 2002).

Different life cycle approaches exist for the development of IS (Christiansson, 2000). Life cycle approaches for IS, for example, are iterative development and sequential development. The different IS life cycle approaches available influence the performance of the ISD process and consequently require different competencies of the system developers.

It is noticed that IS commonly is an in-house solution, a standard application package solution or a component-based solution developed with the application
of one of the available IS life cycle approaches. When the IS is comprised of software applications, which are not easily integrated because of different applied ISD strategies, this can be facilitated through the use of Service-Oriented Architecture (SOA). SOA is a term used with several meanings. SOA is sometimes referred to as a type of software, sometimes as an architectural design and sometimes as a solution for IS integration (Henningsson, 2008). Erl (2005) refers to SOA as a form of framework that enables the alignment of business design and IS innovations to create effective business and IS solutions.

Besides the present strategies and approaches, frameworks are used to guide the performance of IS life cycle activities. In this chapter two frameworks are presented and discussed according to their relevance to the IS outsourcing process. The frameworks presented are the method-in-action framework (Fitzgerald et al., 2002) and the IS architecture framework (Zachman, 1987; Sowa & Zachman, 1992).

The different strategies, approaches and frameworks for the IS life cycle, introduced in this subchapter, are further discussed in the subsequent subchapters.

5.4 Information systems development strategies

ISD can be divided into two ideal types: in-house development and standard application package development (Andersen, 1994; Szyperski, 2002). Besides these ideal types a third strategy for ISD is presented, the component-based strategy.

5.4.1 Strategy of in-house development

In-house development is applied when the IS should be tailor-built according to the firm’s requirements. The IS is then a solution for the actual firm’s needs and can not easily be implemented in another firm context. During in-house development the IS life cycle for tailor-built IS (see Figure 5.1) is used to guide the development process (Andersen, 1994).

Figure 5.1: The IS life cycle for in-house development (Andersen, 1994, p. 367)
Tailor-built ISD is often associated with problems. For example, unexpected costs due to the costs and efforts required during the ISD process do not compensate for the experienced advantages with the IS. Other difficulties concern the integration of and communication between the tailor-built IS and other IS, both within the firm and with business partners (Szyperski, 2002). The IS possibilities to communicate with other IS therefore should be considered during the development of tailor-built IS.

5.4.2 Strategy of standard application packages

A standard application package is a software package that can be plugged-in directly into the business operations of a firm, opposed to an in-house developed system, which has to be built up from scratch (Nilsson, 2008). Normally, certain adaptations of both the standard application package and the client’s business are required to obtain a working IS solution.

The IS communication problems distinguished by tailor-built IS are not experienced in the same extension when implementing standard application packages. This is due to that standard package applications are developed with the aim to meet the requirements of several different clients (Nilsson, 2008). The standard application packages consequently are more generally developed, both according to its use and communication with other IS (Brandt et al., 1998). A significant potential of standard application packages is the fact that experience and skills are built into the system as a result of previous installations. Another advantage with standard application packages is the possibility of scale economy benefits since a large number of firms use the same package. The fundamental idea of standard application packages is that several firms should acquire a common package to avoid ‘re-inventing the wheel’ (Nilsson, 2008). As a result, time, cost and efforts can be divided among several client firms.

When choosing to acquire a standard application package the IS life cycle takes a different form compared with in-house development (see Figure 5.2). A standard application package brings implications of the systems analysis and systems design. Instead of analysing the needs of the firm and designing an IS that meet these requirements, the life cycle for standard application packages includes the selection of an appropriate package and adaptations of this package to the firm’s business activities (Anveskog et al., 1984). As shown in Figure 5.2
the life cycle of standard application packages also includes similarities with in-house development.

![Life cycle for in-house development and standard application package acquisition](image)

**Figure 5.2:** Differences and similarities between the IS life cycle for in-house development and standard application package acquisition (Andersen, 1994, p. 367)

Some of the disadvantages with the acquisition of standard application packages are listed subsequently (Brandt et al., 1998; Christiansson, 2000):

- may be difficult to adjust to the firm’s business,
- could require undesired changes of the business,
- small or no competitiveness due to its use in several firms,
- dependency on the standard application package supplier,
- the standard application package supplier has little or no knowledge about the firm,
- requirements of adaptations are underestimated and
- cost of operation will be high if the firm only uses some of the applications provided by the standard application package.

### 5.4.3 Strategy of component-based development

Christiansson (2000) argues that the both ideal types for ISD previously presented are not representing how the normal ISD process is performed, but rather symbolize the scope of traditional ISD. The work of ISD is instead adjusted to the particular situation and can include a mix of tailor-built applications and standard application packages. As a result, a third ideal type of performing ISD is applied, i.e., component-based development. Through a literature review on definitions of the software component, Christiansson (2000) concludes that a software component is an independent and reusable unit that offers a specific functionality through a specified interface. ‘Independent’ refers to that the software component is clearly defined and separable from other
applications constituting the IS (Waguespack & Schiano, 2004). Furthermore, the software component can influence or be influenced by other software components and can be implemented independent of programming language and operating system.

Component-based ISD provides the possibility of obtaining the advantages of both in-house development and standard application packages (Szyperski, 2002). Although each component is standardised, with all the advantages this brings, the process of component combination allows the opportunity of customisation. Other positive outcomes with component-based development are flexibility, adaptability and shorter time of delivery (e.g. Szyperski, 2002). In similarity with the disadvantage of acquiring a standard application package, installation of component-based IS may result in IS supplier dependency.

A component-based IS is composed of software components, which collaborate to perform the services the IS is intended to supply. The component architecture enables the collaboration and communication among the software components constituting the IS. Unlike the IS life cycle of in-house and standard application packages, system developers have to consider multiple life cycles when performing component-based development. Besides the life cycle of the IS, the life cycle of the component architecture and the life cycle of the single software component have to be considered. The component architecture and the single software components can be either developed in-house or acquired as a standardised solution. Standardised software components are referred to as ‘Components Off The Shelf’ (COTS). COTS, just like standard application packages, are packaged, documented and tested solutions and, in addition, cheaper compared to software development from scratch (Waguespack & Schiano, 2004). The multiple life cycles, illustrated in Figure 5.3, result in a very complex structure of the component-based IS in its entirety. Especially since the life cycles of in-house developed and standardised software components are different. This brings consequences for the knowledge and competence that the system developers have to possess.
Component-based ISD involves the possibility to acquire and apply IS composed of standardised software components. When using standardised software components their life cycle ought to have similarities with the life cycle of a standard application package. Likewise, the development and acquisition of a standardised software component ought to be similar with the development and acquisition of a standard application package. For example, the requirements that the software component meets should represent common needs and requirements of several possible clients. Christiansson et al. (2002) have proposed a life cycle of the component-based IS, including the seven different phases represented in Figure 5.4.

Developing IS using a component-based strategy requires ‘component awareness’ (Waguespack & Schiano, 2004). With this is meant an organisational approach that emphasises the use of software components rather than development from scratch. In special two activities need to be addressed during each phase of the IS life cycle. Firstly, recurring requirements suitable for component solutions should be identified. Secondly, to make component use efficient software processes need to be streamlined.

The different phases are presented subsequently with an emphasis on the specific activities to be performed due to the use of the component-based strategy (Christiansson et al., 2002).

---

**Figure 5.3:** Possible life cycles in a component-based IS (Christiansson, 2000, p. 65)

**Figure 5.4:** Life cycle for component-based IS (adaptation of Christiansson et al., 2002, p. 80)
<table>
<thead>
<tr>
<th>Requirement Area</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requirements analysis &amp; Definition</td>
<td>identify and describe the requirements to be satisfied by the IS. This involves three activities: (1) capture IS requirements and define IS boundaries, (2) define the system architecture for component collaboration, (3) define component requirements for the selection or development of required components.</td>
</tr>
<tr>
<td>Component selection &amp; Evaluation</td>
<td>specify standardised components to be able to search for suitable components. The evaluation of the components includes both technical and non-technical aspects. Technical aspects include integration, validation and verification. Non-technical aspects include marketing position of the component supplier, maintenance support provided and alternative solutions.</td>
</tr>
<tr>
<td>System design</td>
<td>adaptation or development of the chosen components according to the requirements and the chosen component architecture.</td>
</tr>
<tr>
<td>System implementation</td>
<td>the software components are constructed to the IS specified in earlier phases.</td>
</tr>
<tr>
<td>System integration</td>
<td>composition of the implemented and selected components to constitute the IS. The implementation should furthermore be adjusted to presently used IS. The components are integrated through the component architecture.</td>
</tr>
<tr>
<td>Verification &amp; Validation</td>
<td>verification is performed by testing if the specified requirements are met. The validation process is performed to ensure that client expectations are met. The verification and validation processes both include the IS and the selected components.</td>
</tr>
<tr>
<td>System operation support &amp; Maintenance</td>
<td>activities aim to improve and maintain the IS by updating components or by adding new components. Problems that may occur concern compatible problems. The component can be compatible with one component, but not with another.</td>
</tr>
</tbody>
</table>
The use of software components streamlines the IS but at the same time also increases the complexity of the ISD process (Waguespack & Schiano, 2004). From the perspective of the client, the ‘component awareness’ needs to be adopted during ISD processes. From the perspective of the IS supplier, the development of software components has to secure repeatedly usage and realization of several clients’ requirements.

5.4.4 Information systems development strategies and influences on the information systems outsourcing process

The different strategies of ISD bring dissimilar ways of performing ISD, which results in differently composed IS. The IS can be an in-house solution, a standard application solution, a component-based solution or a mix of these (as illustrated in Figure 5.5).

![Figure 5.5: IS in its entirety and different parts composing the IS](image)

Since different ISD strategies bring different performance of the IS life cycle, different skills in form of knowledge and competence are required. Development of in-house parts requires, for example, more knowledge about the particular firm and its business strategy compared to standard application package parts. Standard application package parts are, on the contrary, developed to fit the requirements of several different firms. Dependent on the ISD strategy selected it will have consequences for the IS outsourcing process. The less standardised the outsourced IS activities are the more resources will have to be put on the client–IS supplier relationship (Wüllenweber et al., 2008). For example, frequent communication will be a necessity. Consequently, questions concerning the ISD strategy have to be considered during the IS outsourcing process.
5.5 Information systems life cycle approaches

IS outsourcing requires different competencies dependent on the ISD strategy and the IS life cycle approach applied. The main differences among life cycle approaches for IS are the performance of phases and corresponding activities. The life cycle approaches presented in this subchapter are chosen with the motivation of providing a picture of how the IS life cycles differ and how the differences may influence the performance of the IS outsourcing process. Thus, not all available IS life cycle approaches will be presented in detail. The ones presented are the life cycle approach for sequential, iterative and standard application package development. The sequential approach is not that commonly used today because of its shortcomings, for example it disregards the risks during the ISD process (Kruchten, 2002). The approach, however, is important since it provides a basic template which other life cycle approaches are mainly built upon (Christiansson, 2000).

The different life cycle approaches entail specific IS life cycles and ISD processes, which in turn demand necessary qualifications of the system developers. Different models and methodologies for ISD have been developed to facilitate and guide the systems developers during the ISD process. The pioneer of research on ISD methodologies was Börje Langefors (e.g. 1974; 1995), who especially emphasised the human and social aspects of ISD (Nilsson, 1995). The contributions on ISD methodologies by Langefors have had a great impact on subsequent development of ISD methodologies.

The concept ‘methodology’ is defined by adopting the definition provided by Avison and Fitzgerald (2006, p. 24):

“A collection of procedures, techniques, tools and documentation aids which will help the systems developers in their efforts to implement a new information system. A methodology will consist of phases, themselves consisting of subphases, which will guide the systems developers in their choice of the techniques that might be appropriate at each stage of the project and also help them plan, manage, control and evaluate information systems projects.”

---

21 ISD model is in this thesis referred to as an overview of the ISD process and belonging activities (Andersen, 1994).
Rationales behind the use of an ISD methodology are to balance technical aspects with behavioural, to reach a better end product, a better development process and a standardised process (Avison & Fitzgerald, 2006).

### 5.5.1 The sequential life cycle approach

Although the sequential IS life cycle approach is the oldest used, and has many strengths (e.g. it is well tried and tested), one of its main weaknesses is the application of the ISD as a step-by-step or top-down process. This is portrayed in Figure 5.6 in the form of the waterfall model (Hoffer et al., 2005; Avison & Fitzgerald, 2006). The waterfall model focuses on the outcome of each phase and builds on the notion that each phase are completed before the following begins (Andersen, 1994). This notion results in that all the IS requirements have to be specified beforehand or at least in the beginning of the ISD process. Requirements can, in other words, not be added later during the ISD process. This mode of procedure has been criticized since the requirements of the IS surely will be changed during the ISD process (Allen & Frost, 1998). This is a result of the fact that it is difficult for the client to state all its requirements explicitly in the beginning of the ISD process. Applying the sequential approach can therefore be difficult and furthermore is likely to be unsatisfactory.

![Figure 5.6: The waterfall model (Hoffer et al., 2005, p. 17)](image-url)
One example of a sequential approach is the IS life cycle model provided by Andersen (1994). The IS life cycle model is a contribution to in-house development and consists of eight different phases (the author’s translation): Change analysis, Business and systems analysis, Systems design, Construction, Implementation, Operation, Maintenance management and Phase out. The phases of Business and systems analysis, Systems design, Construction and Implementation constitute ISD. Furthermore, Business and systems analysis and Systems design are divided in two subphases. Business and systems analysis is divided in ‘Business analysis’ and ‘Systems analysis’ and Systems design in ‘Design of technical solution’ and ‘Design of adaptation of technical solution’. These four subphases represent systems engineering. Systems engineering thus is included in the work of ISD. Systems engineering represents the work of IS planning, i.e., activities of IS analysis and IS design (Andersen, 1994).

Besides the parts of the IS life cycle model presented in Figure 5.7, Andersen (1994) adds information about each phase in form of material foundation for task completion and participants (for more information see Andersen, 1994, p. 41). The IS life cycle model emphasises the description of systems engineering, and in particular the business and systems analysis, and the work accomplished during this part of the IS life cycle model.

5.5.2 The iterative life cycle approach

The main difference with the iterative life cycle approach in comparison with the sequential approach is the possibility of returning to previous phases (illustrated in Figure 5.8 through the ‘iteration arrows’). One of the advantages with repetitive stages is that each iteration addresses the IS in its entirety and increases the functionality of the IS (Christiansson et al., 2002). Furthermore, the iterative approach permits refinement of IS requirements, feedback from the client during the ISD process and early identification of contradictions among requirements, design and implementation (Kruchten, 2002). A disadvantage is the difficulty to determine the exact number of iterations beforehand which influences the coordination of the ISD process.

The iterative approach because of its iterations considered as a learning process (Christiansson, 2000). Each iteration results in that the system developers know more about the IS and can consequently improve earlier versions of the IS.

RUP is graphically represented in Figure 5.9.
Figure 5.7: The main parts of the IS life cycle model (adaptation of Andersen, 1994, pp. 41-47)

<table>
<thead>
<tr>
<th>IS phase</th>
<th>Change analysis</th>
<th>Business and systems analysis</th>
<th>Systems design</th>
<th>Construction</th>
<th>Implementation</th>
<th>Operation &amp; Maintenance management</th>
<th>Phase out</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem</td>
<td>Problems and opportunities of the firm</td>
<td>IS support to firm</td>
<td>Content of IS</td>
<td>Choice of technical solution</td>
<td>Adjust technical solution to existing solutions</td>
<td>Coding of IS</td>
<td>Start using IS</td>
</tr>
<tr>
<td>Activities to be performed</td>
<td>Describe and present desired situation</td>
<td>Business analysis</td>
<td>Examine how the IS can facilitate firm work</td>
<td>Judge and decide upon the content of the IS</td>
<td>Judge and decide upon technical solution</td>
<td>Choose equipment and judge and decide upon practical solution</td>
<td>Develop software programs and new manual routines</td>
</tr>
<tr>
<td>Output</td>
<td>Chosen actions for development</td>
<td>Specification of requirements</td>
<td>Practicable IS</td>
<td>Finished IS</td>
<td>Implemented IS</td>
<td>Operated and maintained IS</td>
<td>Expired IS</td>
</tr>
</tbody>
</table>
RUP is an acronym for Rational Unified Process and is a software development approach that assigns activities and responsibilities within a development organisation. The goal with RUP is to ensure high-quality software within a given schedule and budget (Kruchten, 2002). RUP builds on the use of the iterative approach and component-based development.

The process is organised according to two dimensions, phases and disciplines, which are described along two axis (Lunell, 2003). The horizontal axis represents time and the dynamic aspect of the process through cycles, phases and iterations (Kruchten, 2002). Each cycle constitutes of four phases and result in a new version of the software. The four phases constituting the cycle of development are inception, elaboration, construction and transition.

The vertical axis represents on the other hand the static aspect of the process through workers (who), activities (how), artifacts (what) and workflows (when) (Kruchten, 2002). The worker defines responsibilities of an individual or a team of individuals. An activity is a unit of work delegated to an individual. For example, ‘plan an iteration’ is an activity performed by the worker project manager. The tangible products of the process such as a model, document and
source code constitute the artifacts. To achieve a process the worker, activity and artifact need to work together. This is referred to as workflow which represents the sequences of activities that result in an observable result. There exist nine core workflows in RUP, which divide workers and activities into logical groupings. The workflows are divided in process and supporting workflows. The process workflows are business modelling, requirements, analysis and design, implementation, test and deployment. Configuration and change management, project management and environment constitute the supporting workflows.

In Figure 5.9 the horizontal axis is representing the organisation along time and the vertical axis is representing the organisation along content. Every phase is accomplished through a couple of iterations. The number of iterations depends on the actual project and the development process. Every phase terminates with an evaluation of the development process to be able to judge if the aim of the performed phase has been accomplished. In RUP these decision points are referred to as milestones (Lunell, 2003).

![Figure 5.9: The structure of RUP (Avison & Fitzgerald, 2006, p. 464)](image)

The purpose of the phase of *inception* is that involved key actors (e.g. end-users, project managers, system developers, investors and project owner) should agree on a development result (Lunell, 2003). ‘What is the purpose of the project?’ and ‘What is the intended result?’ need to be discussed and agreed upon.

116
Elaboration is about designing the basis of the project. This involves requirement specification, building prototypes for testing of the architecture, performing risk analysis, establishing the environment for development and redefining the project plan (Lunell, 2003). The elaboration phase is the most critical one.

During the phase of construction the activities are performed and the plans are realized (Kruchten, 2002). As the implementation is done, i.e., the requirements have been implemented and tests have been conducted, the software can be delivered.

The goal during the transition phase is to install the software at the client firm and to educate the users of the new or modified IS (Kruchten, 2002).

The four phases described constitute a cycle of development. The first time the phases are conducted the cycle is referred to as the initial development cycle. The following cycles are referred to as elaboration cycles.

As stated earlier, RUP also includes nine workflows. During business modeling the purpose is to conduct firm analysis and consider how the firm can be affected by the new or modified software. The goal of the requirements workflow is to describe what the system should do by eliciting, organising and documenting required functionality and constraints. The aim of analysis and design is to produce a description of the system which should be used as a basis for the work of realization and implementation. According to the result of the analysis and design workflow, the programming is performed during implementation. The implementation constitutes of activities concerning development and implementation of software components. The activities done during the workflow of test are aimed to verify the interaction among and integration of software components and to realize users’ expectations about a correct, secure and reliable product. During deployment, activities such as beta tests, delivery, installation and education are accomplished.

The main purpose of the supporting workflows, configuration and change management, project management and environment, are to provide the infrastructural settings that every project needs to run smoothly.
5.5.3 The standard application package approach

Previously the life cycle for the acquisition of standard application packages was presented and compared with the life cycle of in-house development (see Figure 5.2). Beside the differences in the life cycle between these two ISD strategies, Nilsson (1991) argues that standard application packages bring two different types of life cycles, which are connected to each other. One life cycle for the client of the standard application package and another life cycle for the supplier of the standard application package (see Figure 5.10).

From the perspective of the client, the standard application package life cycle has great correspondence with the basic structure of the IS life cycle. The main difference is that the phases constituting the ISD process are replaced with a phase for acquisition of the standard application package (Nilsson, 1991). Roughly this phase can be explained as including the client’s selection and purchase of a suitable standard application package. The actual development of the standard application package is done at the IS supplier. The maintenance of the standard application package is normally managed by the IS supplier. Another possibility is that the responsibility of maintenance management is split between the client and the IS supplier. In the case of shared maintenance management, both the client and the IS supplier provide resources and competencies.

From the perspective of the IS supplier, the life cycle of the standard application package is equal with the basic structure of the IS life cycle except for the following additional phases (Christiansson, 2000):

- **Marketing, sale**: the standard application package ought to be introduced on the market with the aim to be sold to prospective clients.
- **Service, support**: the IS supplier is fully or partly responsible for the operation and maintenance management of the standard application package implemented at the client firm.

Maintenance management of standard application packages

The IS outsourcing literature indicates that IS maintenance management activities are among the most commonly outsourced activities of the IS life cycle (e.g. Hirschheim, 2006). Moreover, IS outsourcing research shows that outsourcing of standardised and less complex IS business activities is positively associated with IS outsourcing success (Wüllenweber et al., 2008).
Since maintenance management activities are perceived as less complex compared to ISD activities (Sakthivel, 2005), this motivates an emphasis on maintenance management of standard application packages in this research study.

Brandt et al. (1998) provide the VFS methodology (acronym for ‘Välja och Förvalta Standardsystem’, in Swedish) which is a methodology that focuses on acquisition and maintenance management of standard application packages from the perspective of the client. The methodology builds on the link between development and maintenance management, which has been identified as the operation of the standard application package. This link between development and maintenance management is illustrated in Figure 5.11. The goal with development of a new standard application package is to get the package running and used. Maintenance management builds instead on the purpose of supporting an already running standard application package.
Figure 5.11: Operation of standard application packages as the link between development and maintenance management (Brandt et al., 1998, p. 22, translated from Swedish)

The ‘development arrow’ in Figure 5.11 builds on the phases of the methodology of SIV (acronym for ‘Standardsystem i Verksamheter’, in Swedish): Selection of standard application package, Adaptation of standard application package and Implementation of standard application package (Nilsson, 1991). These three phases constitute the acquisition of the standard application package (Brandt et al., 1998). During the step of selecting a standard application package, the SIV methodology emphasises the need for descriptions of the firm’s goals and different available standard application solutions (Anveskog et al., 1984). Thereafter a comparison of these two descriptions should be conducted which should result in the selection of the best suitable standard application package for the firm. Before the standard application package is implemented, possible adaptations should be done to reach the best solution. Adaptations of the standard application package should be done first but it may also be necessary to adjust the firm’s performance of work (for more information about the phases included in SIV, see Nilsson, 1991). Additional phases included during the development are Usage and operation, Review and Phase out. The development life cycle in VFS, thus, has several similarities with the life cycle of standard application packages from the view of the client.
The maintenance management of standard application packages involves the following steps and phases (the dotted lines split the steps into phases) (Brandt et al., 1998):

**Initiation** – the first step of the phase *Preparations*. This step focuses the collecting of requirements on the implemented standard application package.

**Prestudy of maintenance management** – the second step of the phase *Preparations*. The step includes an unprejudiced analysis of the usage of the standard application package in the actual firm.

**Preparation** – the third step of the phase of *Preparations* with the purpose of collecting more information before the last step of the preparation phase.

**Planning** – this step is the last of the *Preparations* phase and starts as a result of the decision for the need for a change. The client and the IS supplier, who will perform the changes, discuss the possible actions for improvement.

**Realization** – the first step of the phase *Actions for improvements*. The realization is commonly accomplished by the IS supplier but can also be divided between the client and the IS supplier.

**Delivery** – the second and last step of the phase *Actions for improvements*. The greater change the more important this step becomes. The client reviews the change and approves or disapproves it.

**Usage and operation** – these activities constitute both a step and a phase. The step/phase aims at managing small changes in the form of maintaining the running standard application package.

**Follow-up** – is the first step in the last phase of the maintenance management life cycle, i.e., the phase of *measurement*. The follow-up is commonly a result of the new implemented change but can also be a separate step. The follow-up step includes verification of that the intended changes are conducted and that they work satisfactory.

**Phase-out** – the step is not a result of the previous presented steps but occurs instead as a one-time occurrence (the step, however, is included in the phase of *measurement*). The step is preceded by the steps of prestudy, preparation and planning, which result in the decision for settling the standard application package or not.
As can be noticed the life cycle for development of standard application packages is somewhat different from the life cycle for maintenance management. The main difference from the client’s perspective is that during maintenance management a standard application package is already implemented and in use, which result in that activities related to acquisition becomes irrelevant (unless the client decides to settle the standard application package). Maintenance management mainly concerns the client’s experienced problems with the standard application package and possible solutions to these problems. The development and acquisition of a standard application package are conducted with the involvement of the client acquiring the package and the IS supplier who has developed the package. These activities are therefore most likely not outsourced. In the case of standard application packages is it more expected that the maintenance management of the standard application package is outsourced. This is the case when the client and the IS supplier agree on that the IS supplier should have the responsibility of maintenance management. The client then outsourced the activities of maintenance management to the IS supplier. However, the involvement of the client during the work of maintaining the package is of great importance since the client is the only one who has knowledge about the experienced problems.

5.5.4 Information systems life cycle approaches and influences on the information systems outsourcing process

Independent on the ISD strategy (in-house, standard application package, component-based) applied, outsourcing of IS activities have consequences for the IS outsourcing process compared to outsourcing of activities such as support and help desk. For instance, the process of developing an IS from scratch is complex and involves several different phases and steps. The performance of the phases and activities depends on the IS life cycle approach used. An iterative approach includes for instance performance differences compared to a sequential approach. Consequently the client and the IS supplier need to be aware of the actual ISD strategy and IS life cycle approach to reach a mutual understanding about how the cooperation should be designed and activities performed during the IS outsourcing process.

IS may be developed with in-house parts, standard application package parts or component-based parts or a mix of these. When outsourcing IS the actual strategy (or strategies) applied influences the IS outsourcing process. Outsourcing of tailor-built IS demands knowledge about the firm in which the IS solution
should be or are implemented. Knowledge about the firm's business and IS strategy is obliged to be able to create a tailor-built solution adjusted for a particular firm. During maintenance management of standard application packages it becomes crucial to access competence for testing the systems compatibility with different platforms. This is a result of the goal of developing generic and innovative IS solutions, and for designing of easy-to-learn and easy-to-use interfaces. Consequently, ISD represents a particularly complex work domain which in turn will influence the performance of the IS outsourcing process.

A recommendation is that activities of the standard application package life cycle are preferable to outsource in comparison with activities belonging to tailor-built IS. This is further discussed subsequently.

**Outsourcing of standard application packages**

Research on IS outsourcing from the perspective of different ISD strategies and IS life cycle approaches is rather limited. On the other hand, research on standardised IS applications and processes have been given more attention in the IS outsourcing literature (e.g. Wüllenweber et al., 2008).

In an earlier literature review study (Bergkvist, 2007), focusing on the suitability of ISD activities for outsourcing, one of the findings was that the ISD activities that can be structured into individual modules and/or are considered as routine work are the ones most suitable for outsourcing. From the literature review it was also found that ISD activities related to construction, operation and maintenance management often satisfy these requirements. Additionally, it was found that the more unstructured the ISD activities are the more important the use of an ISD methodology during outsourcing becomes. Lee et al. (1999) state that the degree of activity structuredness, i.e., degree of standardisation, specification, simplicity and concreteness, influences the success of ISD outsourcing. Similar results have been pointed out by Wüllenweber et al. (2008). Standardisation is in their study referred to as a prerequisite for IS outsourcing, which is a result of that their research shows that standardisation contributes several advantages. For example, standardisation of IS business processes contributes decreased process errors, communication facilitation, mutual understanding and coordination about business processes and improvements (Wüllenweber et al., 2008).
Challenging IS activities for outsourcing primary include activities performed during the ISD process. This is a result of that this type of activities are characterised as less structured, knowledge-intensive and complex (Sakthivel, 2005; Avison & Fitzgerald, 2006). Outsourcing of these IS activities was also found to influence the degree of management of the IS outsourcing process (Bergkvist, 2007). Structured IS activities were shown to require less management. IS activities that are not perceived as routine work and are dependent on knowledge about the firm require on the other hand more resources to be put into the management of IS outsourcing processes.

From the results of the literature review the suggestion is that standardised and clearly defined IS activities such as programming, can be outsourced and conducted by the IS supplier with minimal involvement of the client (Bergkvist, 2007). Besides activities of construction it is recommended that outsourcing of ISD activities advantageously are performed when the client and the IS supplier are part of a cooperative/complementary relationship. This also counts for outsourcing of activities of maintenance management and operation.

5.6 Information systems frameworks

The majority of the IS life cycle approaches presented address the actor perspective, i.e., they describe the IS life cycle from the perspective of the client. Of the presented IS life cycle approaches only Nilsson (1991) includes both the client and the IS supplier when describing the standard application package life cycle. The focus on a single actor in the ISD process is perceived as a shortcoming, especially since the research conducted in this thesis is focusing on the relationship between the client and the IS supplier. To address the relationship perspective during the development and maintenance of IS the use of frameworks could constitute the start of departure. A framework incorporates the conditions, constructs or variables for clarifying, categorising, evaluating and/or integrating concepts, models and methodologies (Jayaratna, 1994; Miles & Huberman, 1994). The use of frameworks makes it possible to evaluate the specific situation before the development or the maintenance of the IS begins. The evaluation aims to clarify circumstances such as the specific development context, use of ISD strategy, IS life cycle approach and ISD methodology and specification of involvement of key actors. Two frameworks have been identified that address different circumstances during development and main-

---

22 Characteristics of complementary/cooperative relationships are presented in subchapter 1.9.2.
5.6.1 The method-in-action framework

Fitzgerald et al. (2002) point out that the different ISD methodologies available rarely are applied in their entirety. Instead the methodologies often are used as guidance for developing and maintaining IS. Different developers in addition are likely to interpret and use the methodologies in diverse ways dependent on the context and the experienced significance of the methodology. Fitzgerald et al. (2002) have proposed a framework, which they refer to as method-in-action. The method-in-action framework considers different aspects that influence the use of an ISD methodology. The aspects are ‘formalised method’, ‘roles of method’, ‘development context’, ‘developers’ and ‘IS’. These aspects influence each other in different ways and altogether they influence the use of an ISD methodology in practice.

**Formalised method** refers to formally documented ISD methodologies, which include both in-house developed and commercially available methodologies.

The **roles of method** consider the roles a formalised ISD methodology can play during the ISD process. The roles are categorised in rational roles and political roles (Fitzgerald et al., 2002). Rational roles concern the conceptual basis of the methodology and the rationales of its use. Through the use of a formalised methodology the ISD process becomes standardised and facilitates knowledge and experience interchange among developers. The political roles of a formalised methodology play the roles of a ‘comfort factor’ and ‘legitimacy factor’. The comfort factor refers to that the methodology in use provides guarantee of that proper practice is being followed and that decisions are systematically made. The legitimacy factor concerns the claim of the use of a formalised methodology to win contracts and for illustrating a professional way of performing ISD.

Every ISD process takes place in a unique **development context**, meaning that every single development activity has to be analysed by the **developers** according to the unique preconditions of that context, including for example user requirements. The characteristics of the specific development context are crucial to reach an ISD process that suits the actual firm and its users. This implies that the formalised methodology must not be used in its entirety, but instead adjusted to
the actual context (Fitzgerald et al., 2002). With the possibility to buy standard application package solutions or outsource ISD, fewer firms rely on in-house development. Consequently, users construct their own IS by integrating IS modules and software applications that address their unique needs. This promotes the use of method-in-action, since most existing formalised methodologies do not comprise these contexts of development (Fitzgerald et al., 2002).

From being a technique-focused discipline, IS is nowadays a socio-technical discipline, meaning that both the technical and social issues of IS are significant. The social issues concern the IS users and their experiences of IS usage and IS requirements. On the other hand, the technical issues address the work of realizing these requirements. IS may differ according to their purpose such as entertainment, administration, education, accounting, logistics, or their complexity. The purpose and the degree of complexity have in turn consequences for the performance of the ISD, which has to be understood when using a formalised methodology.

My belief is, similarly with the philosophy behind method-in-action, that when ISD is performed, including a client–IS supplier relationship, the use and role of a formalised methodology, the development context, the developers and the IS become important conditions to reach expected outcomes.

5.6.2 A framework for information systems architecture

The framework for IS architecture was firstly developed in 1987 and included the three first columns in Figure 5.12: Data, Function and Network (Zachman, 1987). When Zachman (1987) developed the IS architecture there existed no clear specification of architecture and he was then inspired by the architect’s deliverables produced in the process of constructing a building. The IS architecture therefore is perceived as a metaphor that compares the construction of an IS with the construction of a house (Sowa & Zachman, 1992).

The motivation for developing a framework for IS architecture was to provide a frame for various architectural concepts and specifications in order to contribute a way of viewing an IS from many different perspectives and showing how they are related (Zachman, 1987; Sowa & Zachman, 1992). The extended framework for the IS architecture provides a frame for explaining how data (what entities are involved), function (how the entities are processed), network (where the entities are located), people (who works with the system), time
(when events occur) and motivation (why are these events occurring) relate to each other. Furthermore, it provides a way to relate concepts in the real world with concepts that describe an IS and its implementation (Sowa & Zachman, 1992).

The intention is not to describe the framework for the IS architecture and its usage in detail but to provide an alternative framework for addressing activities related to the IS life cycle during IS outsourcing processes.

### 5.6.3 Information systems frameworks and influences on the information systems outsourcing process

Both the method-in-action framework and the framework for IS architecture provide relevant aspects that need to be considered before and during the IS outsourcing process. The development context, in particular, becomes mani-

---

**Figure 5.12:** Framework for IS architecture (Sowa & Zachman, 1992, p. 600)
fested during the IS outsourcing process. With development context is meant both the place where the developed IS will be implemented and used and the environment within which the development process will take place (Fitzgerald et al., 2002). In this thesis, the development context is of most interest since the developers will be working in different geographical locations. Whether the development team is located domestically, globally or both, organisational and national cultures follow that need to be considered. A culture influences what is and what is not possible to do in a specific context and need to be understood to reach success in IS outsourcing (Fitzgerald et al., 2002). The context is never static but differs from one development situation to another and consequently influences all the other aspects in the method-in-action framework.

The IS architecture framework is perceived as contributing to the understanding of the IS outsourcing process. This is a result of the framework’s focus on both technical and human aspects, for example, during development and implementation of IS. Consequently, the framework is perceived to provide a relevant basis to focus the circumstances that will influence the IS outsourcing process from a relationship perspective.

5.7 Transformation of the field of information systems development?

Two of the most recent trends or buzzwords within the field of IS are ‘SOA’ and the ‘agile approach’ (Lindstrom & Jeffries, 2004; Bieberstein et al., 2005; Lager, 2005; Panian, 2006). These two ways of managing IS are not completely separated but are in a way aligned and support each other. For example, a successful implementation of SOA contributes to a flexible environment that will support the agility that modern organisations need (Panian, 2006). From the view of ISD, SOA makes it easier to integrate in-house developed parts with standard application package parts and component-based developed parts to an IS in entirety. Expressed benefits with SOA, besides improved business agility, are the reuse of software components, the possibility of conducting incremental development and reduced IS costs (Knorr & Rist, 2005). Moreover SOA does not bring these mistakenly attributed benefits: technology independence, IS supplier independence and an ultimate architecture (Yefim, 2003).

SOA is commonly understood as consisting of a collection of functional elements, referred to as services. The services represent reusable business functions and consist of software modules with specific interfaces. The specific
interfaces make the services accessible in a request-reply mode (Yefim, 2003). SOA contributes in this way with flexibility of business processes and standardisation (Lager, 2005). SOA could moreover be described as a framework which incorporates the entire firm and its way of performing business. The SOA framework comprises the IT/IS infrastructure, the organisational structure and behavioural practices (Bieberstein et al., 2005). SOA development builds on a service view of the world, in which services are assembled and reused, facilitating the firm’s adaptation to new business needs (Cox & Kreger, 2005). The firm’s services in form of business processes and IS are used to identify functions, resources and skills that should be able to be reused and combined according to current requirements.

Agile development is based on four values: simplicity, communication, feedback and courage (Lindstrom & Jeffries, 2004). These values are specified through the ‘Agile Manifesto’ which includes principles such as (Lindstrom & Jeffries, 2004; Gustavsson, 2007):

- the people and their teamwork before methodologies and techniques,
- deliver software frequently before heavy documentation,
- relationship before contract negotiations and
- change of requirements before following a determined plan.

These principles represent the Agile Manifesto roughly23. Extreme programming is one method for agile development. However, the agile approach is not only used within software development but also, for example, within project management (Gustavsson, 2007). Gustavsson (2007) presents three arguments for the agile approach during project management:

- What is considered as most important is conducted first. Through frequently deliveries of the most useful parts, the client has the possibility to change the requirements.
- The work is flexible and changes are welcomed. Each delivery includes the client’s possibility to give feedback, which may result in that the work has to be redone.
- Through daily evaluations, the work is recognized with clarity.

Through the fast-paced global economy, firms are required to meet the demands of agility and flexibility (Bieberstein et al., 2005). One way for firms to

---

23 The complete Agile Manifesto can be read in Lindstrom and Jeffries (2004, p. 44).
become agile is to align IS by adopting SOA, which is perceived by many IT firms as the core for creating a flexible organisation (Cox & Kreger, 2005). Adopting SOA, however, does not only influence the IS but also requires organisational and behavioural transformation to maximize the benefits of SOA. The organisational structure has to be transformed to exploit the SOA framework. For example, the new organisational structure has to meet business agility needs, streamline tasks and communication, and provide result-oriented outcomes (Bieberstein et al., 2005). The organisational changes impact the work of the individuals in the firm. In primary the work will change from dealing with specific issues related to a transition to on demand operations. The on demand business is not only a consequence of SOA but mainly a result of firms’ increasing pressure to increase revenue and respond quickly to changes in the market (Cherbakov et al., 2005). Changes of the individuals’ work due to the implementation of SOA have to be proceeded by careful design to reach a successful use of SOA.

5.8 Summary and contributions of Chapter 5

The aim of this chapter is to present different circumstances following outsourcing of IS life cycle activities. The realization of the aim contributes to the description and explanation of the successful outcome of the IS outsourcing process. To address the aim, ISD strategies have been presented and discussed according to their main influence on the ISD process and their influence on the IS outsourcing process. The ISD strategies presented are in-house development, standard application package acquisition and component-based development. It is found that the ISD strategies bring different IS life cycles and consequently different performance of ISD. Another issue highlighted is that IS often are based on a combination of in-house, standard application package and component-based parts. When outsourcing, for example, includes maintenance of these IS it will give consequences for the degree of complexity and for the competence and knowledge required. In-house developed parts, for example, require knowledge about the firm and the contributions the IS aims to meet.

The circumstances following outsourcing of IS are also influenced by the IS life cycle approach applied. The sequential, iterative and standard application package approach has been presented in more detail. The main finding from this part of the chapter is that different life cycle approaches require diverse involvement by the client. For example, the iterative approach builds on frequent communication with the client and its users, whereas the sequential
approach emphasises the performance of IS activities. When outsourcing IS activities the need for communication and face-to-face meetings will become more manifested, which also is a consequence of the unstructuredness of this type of activities. The client and the IS supplier need to be aware of the actual ISD strategy and IS life cycle approach to reach a mutual understanding about how the cooperation should be designed and activities performed during the IS outsourcing process.

To address the circumstances of IS usage an overall picture is desired before outsourcing different IS activities. To achieve this overall picture, IS frameworks can be used. These should address both technical and human aspects in relation to IS usage. Two frameworks are presented that are perceived as addressing IS circumstances when outsourcing IS activities: the method-in-action framework and Zachman’s framework for IS architecture. The frameworks are not suggested to be adopted in detail but instead proposed to constitute the frame during the design of IS outsourcing. The frameworks are in a way a reminder of that IS is not only concerning technical issues but also organisational and behavioural aspects. This is important both from the perspective of the firm and from the client–IS supplier relationship since the IS outsourcing initiative influences different parts of the firm and the individuals working in the firm.

SOA and the agile approach represent the recent trends within the IS field. SOA and agility could be compared with frameworks or approaches which when adopted influence the complete firm: the IT/IS infrastructure, the organisational structure and the behavioural structure. This will give consequences for ISD in large and moreover also the IS outsourcing process.

The key conditions identified and essential to incorporate in the conceptual framework for describing and explaining the degree of successful outcome of the IS outsourcing process are presented in Table 5.1. The key conditions are grouped in three dimensions, Behaviour, IS and Organisation, which are a result of the conducted literature review on IS theories. Together these dimensions constitute the essential IS domains when studying the successful outcome of the IS outsourcing process. The dimensions can be compared to the definition of the IS field referred to as the ‘Karlstad University Approach’: “Information Systems is the scientific discipline studying human interaction
with IS in different business operations” (Håkangård & Nilsson, 2001, p. 17).
The three dimensions are all mirrored in this definition.

Table 5.1: Essential dimensions and key conditions identified as a result of the conducted literature review

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Key conditions</th>
<th>References</th>
</tr>
</thead>
</table>
| Behaviour | • Communication  
• Key actors  
• Management strategy | Andersen (1994), Sakthivel (2005), Wüllenweber et al. (2008) |
| IS        | • IS activity  
• ISD strategy  
• IS life cycle approach  
• IS framework | Lee et al. (1999), Fitzgerald et al. (2002), Hirschheim (2006), Wüllenweber et al. (2008) |
| Organisation | • Agility  
• Flexibility | Lindstrom & Jeffries (2004), Bieberstein et al. (2005), Cox & Kreger (2005) |

The key conditions of the behaviour dimension need to be further explained according to why they are perceived as key conditions. Communication is found to be important in one way or another when performing IS life cycle activities. Communication is key to reach mutual understanding about how the relationship should be designed and activities performed during the IS outsourcing process. The less standardised and/or unstructured the outsourced IS activity is the more effort needs to be put on the strategy of managing the IS outsourcing process. Management strategy also includes the responsibility of informing different key actors affected by the IS outsourcing process. The key actors of the firm are part of the ones responsible for implementing the ideas behind technical solutions such as SOA and the agile approach. The other key conditions in Table 5.1 I found motivated as a result of their earlier presentations in the chapter.

Besides key conditions and dimensions, the conducted literature review contributes interrelations among the identified key conditions. Conditions do rarely exist in a vacuum but instead they are interrelated in some way. The interrelations are described with the use of the dimensions and summarized in Table 5.2. The interrelations are focusing on two dimensions at a time and their mutual dependencies. The dimensions and their interrelations are graphically represented in Figure 5.13.
Table 5.2: Identified interrelations among dimensions as a result of the conducted literature review

<table>
<thead>
<tr>
<th>Dimensional interrelation</th>
<th>Descriptions</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behaviour – IS</td>
<td>The amount of required communication and management is dependent on the degree of structure and standardisation of the outsourced IS activity. Furthermore, some IS life cycle approaches include steps and phases that naturally involve a high degree of communication through frequent face-to-face meetings.</td>
<td>Kruchten (2002), Sakthivel, (2005), Avison &amp; Fitzgerald (2006), Bergkvist (2007)</td>
</tr>
<tr>
<td>Behaviour – Organisation</td>
<td>The flexibility and agility of a firm do not only concern technical issues but also the individuals performing the business activities. The key actors of a firm are responsible for the firm’s quick adaptation to changing requirements.</td>
<td>Bieberstein et al. (2005), Cherbakov et al. (2005)</td>
</tr>
<tr>
<td>IS – Organisation</td>
<td>IS facilitates the realization of the business activities. If the firm’s goal is to be flexible and meet the demands of an agile approach, the IS infrastructure has to be adjusted to fit these requirements. The appropriate selection of, for example, ISD strategy and frameworks can facilitate the fulfilment of these requirements.</td>
<td>Sowa &amp; Zachman (1992), Cox &amp; Kreger (2005), Panian (2006)</td>
</tr>
</tbody>
</table>

The identified interrelations among the dimensions Behaviour, IS and Organisation show on the significance of IS from the perspective of the firm. The implementation of IS in a firm concerns not only the establishment of the IT/IS infrastructure but also the individuals that use IS to perform daily work activities. Furthermore, the implementation of IS influences business operations in one way or another. IS could, for example, be viewed as an enabler that influences firms ability to meet the requirements of a fast-paced global economy. On the opposite, IS could be perceived by the users as an obstacle to the performance of business activities. This is mainly a result of that the implementation of IS requires organisational changes which in turn impact the work of individuals (Bieberstein et al., 2005).
This chapter has been devoted to the theoretical field of IS and highlighted key conditions related to IS life cycle activities. So far IS outsourcing and the client–IS supplier relationship have not been given primary focus. The subsequent chapter, however, are assigned to the interorganisational business relationship and how it contributes to the description and explanation of the successful outcome of the IS outsourcing process.
6 Interorganisational business relationships

This chapter presents a framework for the interorganisational business relationship for studying IS outsourcing relationships. This framework is applied in this research study for the identification of key conditions related to interorganisational business relationships. The interaction approach and its contributions constitute the start of departure of the conducted literature review in this chapter. This is a result of the appropriateness of the interaction approach for studying interorganisational business relationships. The identified shortcomings of the interaction approach are compensated for by including research on, for example, IS outsourcing relationships. The concluding result of this completion is the presentation of a framework for studying interorganisational business relationships in IS outsourcing contexts. Another result of the conducted literature review is the identified key conditions, which are categorised in dimensions. The interrelations among the dimensions are moreover described, which also terminates this chapter.

6.1 Introducing the interaction approach

The literature review on interorganisational business relationships exposed that interorganisational business relationships has been a primary research focus of the IMP researcher network. The IMP researcher network has particularly contributed insights into client–supplier relationships and business interaction. One of the greatest contributions of the IMP network is the interaction approach, which contributes broad and deep knowledge on business interaction. The interaction approach is graphically represented in Figure 6.1 and a short summary of it is provided subsequently. The interaction approach is described in more detail in 6.3.1.

![Figure 6.1: The interaction approach (Håkansson, 1982, p. 24)](https://example.com/figure6.1.png)
The interaction approach focuses the interaction process between client and supplier. The interactions are described in terms of short-term exchange episodes and long-term processes (Håkansson, 1982). The short-term exchanges consist of four exchange episodes: (1) product/service exchange, (2) information exchange, (3) financial exchange and (4) social exchange. The long-term exchange process is characterised by institutionalisation and adaptation of processes and procedures as part of long-term relationships. The long-term exchanges are a result of interactions that have occurred between the client and the supplier over a long time period and have become institutionalised. Institutionalisation contributes non-questionable expectations of either party and the existence of contact patterns (Håkansson, 1982). The other aspect of the long-term relationship is the adaptations (Håkansson, 1982). Adaptations refer to changes or investments accomplished by the parties involved in the specific relationship to facilitate the specific client–supplier collaboration (Van der Valk et al., 2008).

The interaction process is influenced by two contextual dimensions: the environment and the atmosphere (Håkansson, 1982). The environment is defined in terms of for example market dynamism, market structure and internalisation of the market. Atmosphere denotes the power/dependence, the degree of conflict/cooperation, closeness and commitment between client and supplier.

The focus of the interaction approach is generally on dyadic interorganisational business relationships (Håkansson, 1982). However, the interaction approach can also be applied to study relationship networks. The interaction approach is used as a starting point for describing and explaining the interorganisational business relationship in this research study. This is a result of its value for studying both the firms and the individuals of the IS outsourcing relationship (Kern & Willcocks, 2002). This approach emphasises that both the client and the supplier should be seen as active parties and should therefore be given equal attention. Moreover exchanges and interactions are argued to be the focal events in an IS outsourcing relationship, which coincides with the basic ideas of the interaction approach (Kern & Willcocks, 2000).

6.2 The appropriateness of the interaction approach for studying information systems outsourcing relationships

The interaction approach has proved robust enough to be applied to a wide range of different interorganisational business relationships and has enriched
the Industrial marketing and business literature with useful insights (Ford, 1990). Although the interaction approach was developed in 1982 it is still a well used approach for studying client–supplier relationships (e.g. Leek et al., 2000; Kern & Willcocks, 2002; Ekman, 2006; Cunden, 2008). In the research study conducted by Leek et al. (2000), the interaction approach was used for exploring interorganisational relationships from the perspective of IT contexts. Their study revealed that the interaction approach provides valuable insights for studying client–supplier relationship existing in IT intensive contexts. Furthermore, Kern and Willcocks (2002) have applied the interaction approach as a guiding framework to describe the client–IS supplier relationship.

6.2.1 Application of the interaction approach in information technology contexts

Leek et al. (2000) conducted a reassessment of the interaction approach in IT contexts to find out whether the approach is still viable for exploring interorganisational business relationships in the 21st century. The growth of IT techniques for communication has altered the form of social exchange, meaning that relationship concerns are managed through the use of digital techniques rather than through face-to-face meetings.

Leek et al. (2000) conclude that the fundamental service exchanges in business relationships have remained the same since the development of the interaction approach. IT, however, has altered how the exchanges are performed. The number of available technological solutions for communication has resulted in less frequent face-to-face interactions. The less face-to-face communication, the more effort has to be put on maintaining business relationships (Leek et al., 2000). This can be explained by that the movement from face-to-face communication to digital forms of communication brings communication characterised as depersonalised, less spontaneous and less collaborative (Naudé et al., 2003). Naudé et al. (2003) conclude moreover that IT has reduced the need for personal visits. One way of facilitating the maintenance of business relationships, when interactions primary are carried out through IT based solutions, is through greater formalisation of agreements and contracts.

The research studies reported on by Leek et al. (2000) and Naudé et al. (2003) show that the interaction approach is a suitable approach for studying interorganisational business relationship. This is counted for despite the more frequently usage of IT for the performance of interaction processes. Different
available technological solutions, however, have altered the applied forms of communication between client and supplier. This situation needs to be regarded when studying client–supplier relationships.

6.2.2 Application of the interaction approach for studying information systems outsourcing relationships

The interaction approach has been applied by Kern and Willcocks (2002) for exploring the IS outsourcing relationship. Through their research, they found that this approach has both potentials and limitations for explaining the IS outsourcing relationship. For example, they found that information exchanges and social exchanges were valuable for exploring the IS outsourcing relationship. Information exchanges define a key operational effectiveness measure in IS outsourcing relationships, whereas social exchanges are shown to be related to each party’s investment in the specific relationship (Anderson & Weitz, 1992).

Kern and Willcocks (2002) identified a number of limitations with the interaction approach for studying the IS outsourcing relationship. One of the limitations was that the interaction approach does not differentiate among the different types of data characterising the client and the IS supplier. To be able to adequately describe the both parties, unique descriptors for both the client and the IS supplier firm need to be identified. The interaction approach describes the individuals of the interacting firms as bringing varied personalities, experience and motivations (Håkansson, 1982). As a result, these individual characteristics will influence the social exchanges and therefore are suggested to be further described in the interaction approach to emphasise the management capabilities that need to present (Kern & Willcocks, 2002). Moreover, their study showed that the individual dimension in the interaction approach could not be applied since no single individual person is responsible for the relationship. Instead, there are numerous managers involved at different areas of the both firms.

Besides the characteristics of the atmosphere given in the interaction approach, commitment, conflict and trust are also found to be integrated in the IS outsourcing relationship atmosphere (Kern & Willcocks, 2002). Their study showed moreover that conflicts often arose because of that services were not delivered to expected levels of quality, and commitment was found to be a result of the contract. Trust was perceived as critical, but it was difficult to distinguish what managers meant with trust. Commitment and trust are regar-
In summary, the interaction approach was found vital and useful for exploring the interaction process and the atmosphere of the IS outsourcing relationship (Kern & Willcocks, 2002). However, the interaction approach is not specific enough for studying the IS outsourcing relationship. Firstly, it was perceived as too general and consequently has to be adapted for each specific IS outsourcing arrangement. The following improvements were suggested to be incorporated in the interaction approach (Kern & Willcocks, 2002):

1. the critically of the contract,
2. the management of the IS outsourcing relationship,
3. the hidden management costs in IS outsourcing relationships and
4. the institutionalisation of operations and processes.

The contract in the IS outsourcing relationship is perceived as the foundation for the relationship and needs therefore careful consideration (Kern, 1999). The importance of the contract have been emphasised in previous IS outsourcing research (e.g. Lacity & Willcocks, 1998). However, research about the management of the IS outsourcing contract needs to be further studied.

Furthermore, it is a misperception that the client does not have to be involved after transferring the IS activity to the IS supplier, who is expected to take over and deliver the IS activity (Kern & Willcocks, 2002). It is found that post-contract management is largely spent on managing relations, indicating two aspects that need to be integrated into the interaction approach. Firstly, a skilled management infrastructure needs to be established prior to IS outsourcing, which later can be implemented in post-contract management. Secondly, the client and IS supplier team need to be aware of whose their counterpart is. The management structure for both teams should be part of the overall contract structure.

Three hidden management costs were found to receive little attention at the outset of IS outsourcing (Kern & Willcocks, 2002). Firstly, costs to manage and maintain the IS outsourcing relationships are higher than anticipated, which indicate that costs for post-contract management need to be prepared for. Secondly, the ongoing management costs are generally not considered. Thirdly,
costs for renegotiation and update needs to be included in the management costs.

Finally, by standardising operations, the IS outsourcing relationship can quicker reach, what is called, the state of embeddedness (Kern & Willcocks, 2002). In Industrial marketing literature the state of embeddedness is referred to as the institutionalisation of the client–supplier relationship (Håkansson, 1982). In summary, the state of embeddedness denotes the case when the client and the IS supplier have reached, for example, standardisation of interactions and routine operations (Kern & Willcocks, 2002). Some refer the state of embeddedness of the client–supplier relationship as a win-win situation in which both parties benefit (Uzzi, 1997).

Out of the four suggested areas of improvements of the interaction approach, the critically of the contract and the management structure are believed to be of most importance. The suggested improvement of considering the hidden management costs is interpreted as belonging to the overall management strategy of the IS outsourcing relationship. Issues related to management, like hidden management costs, are therefore recommended to be categorised in a dimension referred to as the management dimension. The institutionalisation of processes and procedures is believed by me to be addressed sufficiently in the interaction approach. The benefits of reaching institutionalised relationships quickly are perhaps not sufficiently addressed, but its relevance is incorporated in the interaction approach.

The reported limitations of the interaction approach and how I have chosen to address them in the present research study is further described subsequently.

6.2.3 Limitations of the interaction approach and how they are addressed

The limitations of the interaction approach are related to its shortcomings for studying the IS outsourcing relationship. The shortcomings presented in this subchapter are mainly a result of the findings provided by Kern and Willcocks (2002), which previously were summarized in subchapter 6.2.2.

One of the limitations of the interaction approach for studying the IS outsourcing relationship is that the interaction approach does not differentiate among the different types of data characterising the client and the IS supplier
(Kern & Willcocks, 2002). Moreover, the individual dimension in the interaction approach does not explicitly regard the numerous key actors that participate in business interactions. The limitation is resolved in this research study by viewing the IS outsourcing relationship as constituted of:

- the client and the IS supplier,
- key actors working at three different areas of the client and IS supplier firm and
- interactions occurring within and between the client and IS supplier.

Commitment and trust are two key conditions in interorganisational business relationships. This has become evident through research both within industrial marketing relationships and IS outsourcing relationships (Morgan & Hunt, 1994; Kern & Willcocks, 2002; Han et al., 2008). The relevance of these both conditions is not explicitly expressed in the interaction approach as they are interwoven with the exchanges of services. Since research shows on the importance of commitment and trust to reach successful interorganisational relationships, the need for further emphasis on these both conditions is motivated (Han et al., 2008).

The limitations of the interaction approach that relate to the significance of the contract and the management of IS outsourcing relationships are addressed by incorporating research contributions provided by Kern and Willcocks (2001). In their research, Kern and Willcocks (2001) aimed at comprehensively delineate the IS outsourcing relationship by addressing “what constitutes a conceptual framework that adequately describes and supports a detailed and comprehensive analysis of an IT outsourcing relationship” (Kern & Willcocks, 2001, p. 52). Their framework considers dimensions related to interorganisational relationships. It complements the interaction approach through the inclusion of the importance of the contract and the management of the relationship. Besides the importance of the contract and management aspects, Kern and Willcocks (2001) emphasise the outcome of the IS outsourcing relationship. They summarize the aspects related to the IS outsourcing outcome in an Outcome dimension. The aspects included in the Outcome dimension are related to how the term ‘degree of successful outcome’ is assessed in this research study (see subchapter 1.9.3). Consequently, the Outcome dimension is found to be a relevant complement to the interaction approach.
To summarize, the following aspects of improvements are suggested to be incorporated in the interaction approach:

- the client firm and the IS supplier firm as constituted of three different areas, i.e., the business area, the process area and the IS area,
- the conditions commitment and trust and
- the dimensions Contract, Management and Outcome.

### 6.3 A framework for interorganisational business relationships

The result of complementing the interaction approach with the presented aspects of improvement is an adequate guiding structure for studying IS outsourcing relationships during IS outsourcing processes. This guiding structure composes a framework for interorganisational business relationship when studying IS outsourcing relationships. The framework is graphically represented in Figure 6.2 and is based on the interaction approach (see Figure 6.1).

**Figure 6.2:** A framework for interorganisational business relationships when studying IS outsourcing relationships (adaptation of Håkansson, 1982, p. 24)

The aspects of improvement are formatted in bold in Figure 6.2 to highlight the changes compared with the original model of the interaction approach. The client and IS supplier firm are both viewed as being comprised of three areas (Österle, 1995; Tolis & Nilsson, 1996). Figure 6.2 shows possible intra-firm interactions among key actors of these three areas. The interaction process constitutes the inter-firm interactions among key actors working at the business, process and IS area of the client and IS supplier firm.

The conditions commitment and trust are categorised as conditions related to the atmosphere of the specific client–IS supplier relationship. This is a result of
that earlier research shows that the both conditions are integrated in the IS outsourcing relationship atmosphere (Kern & Willecocks, 2002). Moreover, the conditions are expressed as mutually related to each other, i.e., commitment contributes trust and vice versa, which motivates their categorisation into the same dimension.

The positions of the dimensions Contract, Management and Outcome are not intended to meet any specific purpose. The dimensions concern the client–IS supplier relationship and are therefore positioned between the client and the IS supplier. The Contract and Management dimensions are positioned below the arrow of the interaction process, which is a result of the significance of the contract and management issues to reach long-term relationships (Cullen et al., 2005a; Parikh & Gokhale, 2006). The Outcome dimension is positioned below the atmosphere dimension to symbolize that the outcome, similarly with the atmosphere, is a result of the specific client–IS supplier relationship (Kern & Willecocks, 2001).

The different elements of the framework for the interorganisational business relationship are presented and discussed in more detail subsequently. The point of departure for the presentation is the interaction approach. Aspects of inter-firm interactions are introduced to complement the presentation on the interaction process provided by the interaction approach. Subsequent parts are devoted to the conditions commitment and trust and the dimensions Contract, Management and Outcome.

6.3.1 The interaction approach

The interaction approach is broad ranging in the sense that it includes several aspects for studying the interorganisational business relationship. The interactions between the client and the supplier underpin the relationship and are of great importance in the interaction approach (Håkansson, 1982; Kern & Willecocks, 2001). Business interaction is about exchanges between client and supplier (Håkansson & Snehota, 1997). Interaction is a term used to illustrate that the business is carried out as a two-way communication between firms (Håkansson, 1982). The interactions are of neutral, negative or positive tone and influence the key actors’ behaviour toward each other. Four main groups of variables describe and influence the interactions between the client and the supplier:

- the elements of the interaction process,
• the actors involved, both as organisations and individuals,
• the environment in which the interaction takes place and
• the atmosphere that influences on, and is influenced by, the interaction.

These groups of variables are described subsequently.

**Exchange episodes in the interaction process**

The interaction process considers the exchange episodes that occur among the involved parties and the relationship. The core part of the model are four exchange episodes (Håkansson, 1982):

• product/service exchange,
• information exchange,
• financial exchange and
• social exchange.

The *product/service exchange* is often expressed as the core of the interaction process. The characteristics of a service have been found significantly influencing the relationship as a whole (Håkansson, 1982). Dependent on the complexity of the service it may entail a number of risks. The complexity of the service is often dependent on the degree of requirement uncertainty. The exchange episodes will be quite different depending on whether the service is able to meet a client need that is easy to identify or not, and for whom the characteristics is easy to identify. In similarity, the IS activity included in the contractual agreement between client and IS supplier has been found to influence the IS outsourcing relationship. The tendency is that structured IS activities, often in form of maintenance, construction and testing, are to a high degree contracted with both domestically and globally located IS suppliers whilst knowledge intensive work is kept in-house (Hirschheim, 2006). The degree of structuredness of IS activities determines the suitability for outsourcing and furthermore outlines how the client–IS supplier relationship and the IS outsourcing process have to be managed (Cullen et al., 2005b).

The *information exchange* concerns the content of the information. The content of the information is characterised by the degree of technical, economical or organisational questions. Furthermore, the media of communication and the degree of formality constitute the information exchange. The degree of formalised information exchange depends on firm characteristics, which in turn can
affect the interaction process and the client–supplier relationship as a whole (Håkansson, 1982).

The financial exchange, and especially the quantity of money exchange, is an indicator of the economic importance of the relationship (Håkansson, 1982). Social exchange helps to reduce the uncertainties among the parties, particularly when there exists spatial or cultural distance and when the experiences of the two parties are limited. The social exchange episodes contribute the avoidance of short term difficulties among the parties and the maintenance of the relationship between exchanges. However, what is perceived as the most important function of the social exchanges is that the exchanges during long-term processes interlock the two firms with each other (Håkansson, 1982). The client–supplier relationship could be said to be a product of long-term exchange episodes when the relationship is based on mutual trust rather than on formalised agreements. The achievement of a trustworthy relationship requires time, experience and successful execution of service, information and financial exchanges. Thus, social exchanges contribute the establishment of long-term relationships, which are distinguished by trust, understanding, flexibility and integrity (Kern & Willcocks, 2002).

Relationships in the interaction process

Out of the four exchange episodes, social exchange is the one that contributes the most to building a long-term relationship (Håkansson, 1982). Through routinization of the social exchange episodes, expectations of each party become clear and eventually institutionalised. Institutionalisation of social exchange episodes is a result of long-term relationships in which ongoing communication and information exchanges are common (Håkansson, 1982; Van der Valk et al., 2008). Institutionalisation contributes non-questionable expectations of either party and the existence of contact patterns, i.e., individuals are filling different roles by nature (Håkansson, 1982). For example, conscious decision-making may be substituted by routine behaviour. Moving quickly to the institutionalisation of operations and processes has been found important in the IS outsourcing relationship (Kern & Willcocks, 2002). In the IS outsourcing relationship, institutionalisation concerns cultural closeness, shared approaches to problem solving, similar values and close personal chemistry.

Another aspect of the long-term relationship is the adaptations, for example, in financial arrangements, information routines and social relations (Håkansson,
Adaptations refer to changes or investments accomplished by the parties involved in the specific relationship (Van der Valk et al., 2008). The aim of these changes and investments is to facilitate the specific client-supplier collaboration. The adaptations can be unilateral, i.e., one of the involved parties makes a change or investment without the other party making a reciprocal modification, or mutual. Mutual denotes the case when both parties make reciprocal modifications in form of changes or investments. Benefits of adaptations are related to cost reduction and increased revenue. Some of these adaptations can be of advantage for other firms involved in the firm’s business network, whereas other adaptations are focusing on a single business relationship. The adaptation is then referred to as an idiosyncratic investment, which is an investment that can not be used in other business relationships and consequently is only related to a specific client or supplier (Anderson & Weitz, 1992). Idiosyncratic investments are considered as ‘glue’ that ties the parties together. The more institutionalised the exchange episodes become and the higher degree of relationship adaptation, the more likely it is that the service exchanges involve more complex and knowledge-demanded services.

**Interacting parties in the interaction process**

The process of interaction depends not only on the exchange episodes of the interaction but obviously also on the characteristics of the interacting parties (Håkansson, 1982). The interacting parties includes both the client firm and the supplier firm and the individuals (in this research study referred to as key actors) representing the client and the supplier. A number of characteristics of these parties influence the interaction process. Firstly, technology determines not only how parties might interact but also defines the product and manufacturing process of both parties, which in effect ties the two parties together. The technological usage and expertise of the both firms influence, in one way or another, the interaction process. The more technological alike the two parties are the more it contributes to the achievement of adaptations, mutual trust and contact patterns (Håkansson, 1982). Secondly, organisational size, structure and strategy determine the power the involved parties have during interactions. For example, a large firm has a greater possibility to dominate interactions in comparison with a small firm. The structure of each firm, in form of centralisation, specialisation and formalisation influence the interaction process in several ways. For example, the procedure of exchanges, the communication media used and the formalisation of the exchange, are influenced by the present structure of the firm.
The firm strategies of the interacting parties are of most importance. IS outsourcing should be part of an overall strategic framework that includes business, process and IS objectives (Feeny & Willcocks, 1998). The present firm strategies and activities of development need to be aligned, which in turn stimulates interactions among key actors at different areas of the firms (Henderson & Venkatraman, 1999). To benefit from IS outsourcing, there need to be continuous interactions among these different areas of the firm.

The firm’s experience of similar relationships will contribute knowledge about the management of the specific relationship. Experiences also influence the individuals perceived level of importance of a relationship and, in turn, the firm’s commitment to that relationship (Håkansson, 1982). At least two individuals, one from each firm, will shape the interface among the involved parties. However, more common is that several individuals, positioned at different areas of each firm, are involved in inter-firm interactions (Håkansson, 1982; Kern & Willcocks, 2002). The behaviour of these individuals depends on their personalities, experiences and motivations, which altogether influence the social exchanges they take part in. As interactions contribute to the development of the relationship and the building of strong social bonds, the individual exchange episodes and how they are experienced by both parties are of most importance. For example, the experience of a single exchange episode can influence the attitudes and behaviour towards the client and/or supplier, which may be present over a long time period.

Environmental aspects in the interaction process

The interaction approach highlights, in similarity with theories within the field of IS and IS outsourcing (Kern & Willcocks, 2001; Fitzgerald et al., 2002), the need to consider the environment surrounding the interorganisational business relationship. The interaction process can not be analysed in isolation but has to be considered in a wider context, including several environmental aspects such as market structure, dynamism, internalisation, social system and position in the manufacturing channel (Håkansson, 1982).

The market structure indicates the market that the relationship is occurring in, whether it is national or international. The market structure also determines the rate of change, the concentration of suppliers and clients and the number of alternative relationships available. The degree of dynamism influences, among other things, the parties’ ability to anticipate and predict changes in the market,
which eventually will affect the relationship. Internalisation of the market may influence the firms’ inspiration to join international relationships. Internalisation may in fact affect the firm’s structure, sales arrangements, technological know-how required, language and trade legislation. The social system, surrounding the particular relationship, has to be considered since it may bring obstacles for interactions. Aspects such as protocols, procedures, experiences, technical infrastructure and ways of behaving influence the interacting parties. One aspect of the social system is the ‘language’ of the interacting parties. ‘Language’ refers in this case to the language of, for example, a specific industry. For instance, a supplier who has not previously delivered to a client in the automobile industry has to learn the ‘language’ before it will be accepted in that industry. Finally, the individual firm has to consider its position in the manufacturing channel, from primary producer to final consumer. As a result, the firm can increase the understanding of how other relationships in its business network influence the focal relationship.

Environmental aspects have also been found relevant in the exploration of the IS outsourcing relationship (Kern & Willcocks, 2001). Examples of environmental aspects in IS outsourcing relationships are technical infrastructure, legislation, competition, market dynamism and economy. These aspects have been found to influence business operations, the involved firms and the IS outsourcing process.

Aspects of atmosphere in the interaction process

The working atmosphere influences the interorganisational relationship and its operations. The atmosphere can be described in aspects of dependence, power, conflict, cooperation and trust (Kern & Willcocks, 2001). The dependency aspect means to which degree participants depend on each other to achieve their own objectives. The more committed and trustworthy the relationship are the more mutually dependent the key actors become (Morgan & Hunt, 1994). The aspect of power is the perceived degree of control and influence, while conflict concerns negative perceptions about the exchange relationship. Effective communication and exchanges, leading to satisfactory outcomes, are together with the undertaking of complementary activities forming the cooperation element. Trust is defined as the client’s belief that the supplier will perform the required contractual exchanges and actions, which then will result in beneficial outcomes. Trust can be evaluated by performance of obligations and commit-
ments, perceived benefits, satisfaction and motivation to continue the relationship.

The aspects of the atmosphere are often intertwined, which is a result of the specific relationship (Håkansson, 1982): the power-dependence relationship among the involved firms, the state of conflict or cooperation, overall closeness or distance of the relationship and firms’ mutual expectations and trust. Specific exchange episodes and long-term exchange experiences contribute to the evolvement of the atmosphere.

The description of inter-firm interactions in the interaction approach is complemented with research on client–supplier interactions provided by Ford et al. (1990). This is focused in the subsequent subchapter.

6.3.2 Four aspects of client–supplier interactions

Inter-firm interactions are basically ambiguous rather than clear cut (Ford, 1990). Interactions between a client firm and a supplier firm commonly take the form of words, but also involve other forms of action such as purchases, deliveries and payments. The interactions can be frequent or infrequent, regular or irregular, explicit or implicit, conscious or unconscious. Each individual interaction contributes both to the comprehensive picture of the firm and to the reasons for its existence (Ford et al., 1990).

One of the main reasons for interactions is individual intentions. Each interaction is intended and furthermore interactions create interpretations of the interaction and of the counterpart’s intentions (Giddens, 1975). Thus, each interaction is based on at least two parties’ intentions and interpreted by the corresponding party. During the IS outsourcing process several key actors are involved from different areas of the firms, which result in several intentions and interpretations. Moreover it is found that the roles the key actors play in the firm strongly influence the interactions taking place (Kern & Blois, 2002). The interactions become of more value when the counterpart of both firms are comprised of key actors of similar roles and designations such as interactions between the client senior IT manager and the IS supplier account manager. To manage the complexity of inter-firm interactions each party needs to understand its own intentions as well as the intentions of its counterpart (Ford, 1990). Unfortunately, the capacities of each party are often too limited to act and to interpret the acts of the counterpart. Every new interaction therefore becomes a
learning situation about each other. Through repeated questions and answers the both parties become familiar. As a result, the activities and capabilities of each party are adjusted to the particular relationship.

The features of client–supplier interactions previously described have been suggested by Ford et al. (1990) to be analysed from four aspects of interaction: capability, inconsistency, mutuality and particularity. Capability and mutuality concern the effects of interaction whereas particularity and inconsistency are more related to the implementation of interaction. However, all of the four aspects are closely related to each other.

The capability aspect can be summarised in terms of what the two parties can do for each other and the functions that they contribute. Interactions among firms are primarily motivated by that each party seeks to gain from the other and from their association with each other (Ford et al., 1990). Interactions must therefore contribute something meaningful and each party needs to experience benefits as a result of the interactions. Consequently, interactions involve continuous questioning such as: ‘What can you do for me?’ ‘What can I do for you?’. Through the interactions, the resources of a firm become translated to accessible capabilities. Examples of such capabilities are low price of service development and speed of delivery.

Inconsistency refers to the ambiguity and/or lack of clarity in the interaction (Ford et al., 1990). The inconstancy of messages influences the counterpart’s interpretation of the wishes and intentions of the interacting party. Inconsistency can be part of interactions over time and/or with the same partner as interactions are undertaken by different key actors. It is important to reflect on that the single firm is constituted of individuals and subgroups. Each of these individuals makes their own expectations and interpretations during interactions with the firm’s counterparts. Consequently, a firm can never present a wholly unified approach in its interactions. Inconsistency has been found influencing the other three aspects of inter-firm interactions and is one of the most difficult aspects to manage. This is a consequence of that inconsistency contributes both ambiguity and lack of clarity. Ford et al. (1990) state that the management of inconsistency is central for inter-firm interactions.

Mutuality, the third aspect of interaction, focuses on the social relations among the parties. The mutuality aspect is based on the assumption that the two
parties share common goals and/or interests (Ford et al., 1990). The degree of mutuality depends on to what degree a firm is prepared to offer its own goals and intentions in order to increase positive outcomes of others. The result of these offerings should be an increase of its own ultimate well-being. Mutuality involves a view of the interacting parties as a social entity and deals with the mutual interdependence among them. Mutuality is the mirror of commitment and trust. Commitment and trust contribute to well-established relationships in which mutuality is taken for granted. At the same time as mutuality is the opposite to conflict, the existence of many conflicts requires a minimum of mutuality. For example, this is the case when the two parties have an overall idea of mutual interest whilst simultaneously are in conflict over what each party should contribute.

The fourth aspect of interaction, *particularity*, denotes the direction and uniqueness of the interaction (Ford et al., 1990). High degree of particularity exists when the interaction is solely directed towards the interacting parties. The opposite is when the interaction has no particular counterpart. The counterpart is instead constituted of a group and the interaction takes a standard form. This is the case when a large supplier addresses its many small clients through standard interactions. Consequently the aspect of particularity does not consider the single client–supplier relationship but the complete network of interactions in which a firm exists. Interactions with one counterpart may thus also influence others included in the network. This is for example the case for standard application package suppliers. Through their interactions their goal is to attract a network of clients, not a single client. Particularity is often related to costs in the sense that each party formulates a special approach of interaction that will pay off over time.

Finally, the four aspects of inter-firm interactions make up the interactions in total. The interorganisational business relationship is defined in terms of the existing and previous pattern of interactions. Each interaction in itself contributes and influences the context for subsequent interactions. Consequently, no single exchange episode can be considered in isolation.

### 6.3.3 Commitment and trust in interorganisational business relationships

In exchange relationships, trust and commitment are two key conditions (Morgan & Hunt, 1994). The conditions are expressed as mutually related to
each other, i.e., commitment contributes trust and vice versa. Trust is the belief that a party’s word or promise is reliable and that a party will realize the obligations in an exchange relationship (Dwyer et al., 1987). The perceived outcome of trust includes the belief that the parties of the exchange relationship will perform actions that will result in positive outcomes for the single firms. Furthermore, it is expected that the parties will avoid actions that may result in negative outcomes (Morgan & Hunt, 1994). Trust and its importance is also stressed in the IS outsourcing literature and is found to be dependent on the personal chemistry among the key actors that constitute the interface between the client and the IS supplier (Wilcocks & Kern, 1998).

Commitment concerns the parties’ shared values and governance structures, and their joint investments in the exchange relationship. The more committed the parties are to each other, the higher degree of interdependence (Dwyer et al., 1987). Shared values promote both trust and commitment. The condition of shared values refers to the extent to which the parties share their beliefs about behaviours, goals and policies and whether these are important or unimportant, appropriate or inappropriate and right or wrong. When both commitment and trust are present the exchange relationship becomes cooperative, which promotes efficiency, productivity and effectiveness (Morgan & Hunt, 1994). Cooperative relationships refer to situations in which the parties work together to achieve mutual goals, which has been found to promote the success of the interorganisational business relationship. To be successful, both the client and the IS supplier need to invest time, knowledge and resources in the relationship (Wilcocks & Kern, 1998). In a recent study, information sharing, communication quality and collaborative participation were found to be significantly related to trust and commitment (Han et al., 2008). Trust and commitment were, in turn, shown as positively influencing IS outsourcing success.

Håkansson (1982) does not explicitly use the terms commitment and trust to describe the exchange relationships in the interaction approach. Instead commitment and trust are woven together with service and technology exchange (Hadjikhaniani & Thilenius, 2006). According to Håkansson (1982) and Ford (1990) commitment is the parties’ investments in services and technology and adaptations in, and for, the relationship. In IS outsourcing literature the condition of commitment is represented through the establishment of the contractual agreement. The exchanges are contract based initially, but can evolve to be voluntary or caused by mutual dependency (Kern & Wilcocks, 2000).
The Contract dimension

The contract is often expressed as the foundation of IS outsourcing and the IS outsourcing relationship (Kern, 1999). The operational definition of a contract is a promise or a set of promises that are legally enforceable and binding for the duration of the contractual relationship (Kern & Willcocks, 2001). The contract dimension comprises (Kern & Willcocks, 2001; Fisher et al., 2008):

- the definition of expected and required exchanges in the relationship (promise),
- the degree of contractual completeness, i.e., clarity of the content of the contract to avoid misinterpretations and consideration of key actors’ expectations and
- the degree to which future requirements are imbedded in the present contract.

An IS outsourcing contract provides thus a bound that specifies each key actor’s rights, duties and responsibilities. Moreover, the goals, policies and strategies underlying IS outsourcing are articulated in the contract (Gottschalk & Solli-Sæther, 2006). Furthermore, the contract stipulates service levels, financial exchanges and control mechanisms and is often considered as fundamental to reach a successful IS outsourcing process (Kern & Willcocks, 2001; Goles & Chin, 2005). The aim of the contract is to facilitate exchange and cooperation to reach better performance (Gottschalk & Solli-Sæther, 2006). Consequently, it has been stipulated that any relationship framework, used in an IS outsourcing context, needs to integrate the relevance of the contract (Kern, 1999). The significance of the contract is illustrated through the following quotations:

“It is important to have a sound base contract. It is important because that’s how operating trust is built.”

Lacity and Willcocks (2000, p. 372)

“No matter how much trust the parties believe they have in working together, this should never be an excuse for not formulating comprehensive contracts.”

Kern (1999, p. 32)

To reach a successful contract it is recommended that it should be as descriptive as possible (Fisher et al., 2008). The description of the contract should include clauses that refer to evolution, reversibility, termination and penali-
sation. Further, the flexibility of the contract is important in order to reflect evolution of technology, firm needs, relationship development and the emergence of new competitive services. To be able to judge if expectations are met, variables of measurement are significant to include in the contract (Kumar & Palvia, 2002). However, it is difficult to define services in quantifiable terms. For example, the quality of a system design report, user-friendliness across applications and the maintainability of the IS are all examples of IS outputs that are difficult to measure quantitatively (Richmond et al., 1992). A well-developed contract greatly influences the efficacy of the IS outsourcing relationship and is a critical condition of success (Alborz et al., 2003).

The relevance of the contract and its structure have been recurrently highlighted in IS outsourcing research (Gonzales et al., 2005). The contract is an agreement among two or more key actors and it is has been stated “You live or die by the contract.” The expression is built on the fact that the contract is the only way to ensure that expectations are realized and contributes to the success of the IS outsourcing relationship (Parikh & Gokhale, 2006). The contract furthermore promotes decisions and monitoring of the IS outsourcing process according to the agreement (Kautz & Nielsen, 2006). Even though the statement “You live or die by the contract”, research shows that the contract in itself can not guarantee a successful IS outsourcing relationship (Gonzales et al., 2005). Their study contributes the finding that the contract is perceived as one of the least valued success conditions among IS managers, especially among small sized firms.

The literature review shows that there exist differences in the perceptions of the importance of the contract in IS outsourcing. While some researchers (e.g. Kern, 1999) refer to the contract as the fundament of the IS outsourcing relationship, others mean that the contract in itself is not enough for achieving successful IS outsourcing relationships (Gonzales et al., 2005). My own perceptions of the importance of the contract in IS outsourcing is that the contract should include a detailed description of the agreement. The agreement should comprise the expected and required exchanges, both parties’ expectations and a description of how future requirements will be considered (Kern & Willcocks, 2001). The establishment of the contract should thus be done with the aim to achieve mutual profitability (Kumar & Palvia, 2002).
In addition the content of the contract should be described with clarity to avoid misinterpretations (Fisher et al., 2008). The contract constitutes in this way the fundament of the IS outsourcing relationship. However, in similarity with what prior research has pointed out, this is not believed by me to be enough for reaching a successful IS outsourcing relationship. To contribute to the success of the relationship a relatively intimate relationship should be established between the client and the IS supplier (Kern & Blois, 2002). The existence of such a client–IS supplier relationship reduces the need for detailed monitoring of the performance of each party. Long-term relationships and on-going communication promote the institutionalisation of the relationship, which in turn brings a state of condition recognized by that the client and the IS supplier are comfortable with each other (Solli-Sæther & Gottschalk, 2008). Consequently, the contract in itself is not a guarantee for achieving a successful outcome of the IS outsourcing process. Besides a thoroughly developed and well described outsourcing contract, the establishment of an intimate and cooperative long-term IS outsourcing relationship is believed by me to be crucial for reaching a successful outcome of the IS outsourcing process.

**Complete and incomplete contracts**

The difference between complete and incomplete contracts is to which degree possible circumstances are specified. In a complete contract all known circumstances are specified. The complete contract specifies the actions and payoffs for each key actor. However, complete contracts are difficult to use for complex and unstructured IS activities since the likelihood that the circumstances will change during the IS outsourcing process is high. In fact most business contracts are incomplete, i.e., not all requirements are specified in detail because of the difficulty of foreseeing both technical and business requirements (Lacity & Willcocks, 1998). When using incomplete contracts, unforeseen circumstances are resolved first when they arise (Richmond et al., 1992). The incomplete contracts thus are more flexible in nature.

**6.3.5 The Management dimension**

Aspects such as size, stability and complexity are all related to the management of the IS outsourcing relationship. Kern and Willcocks (2001) categorise these conditions as structural aspects of the IS outsourcing relationship. Size concerns the number of firms contracted to provide IS services and the actual size of the client firm. Stability has to do with the continuity of the relationship in form of length of contract and frequency of changes in individual relationships.
The variety of services and number of exchanges constitute the aspect of complexity.

The management before and after the contract has been signed has great influence on the outcome of the IS outsourcing process. Without effective management the greater the risks for loss of control, high contract management costs and back-sourcing (Cullen et al., 2005a). The importance of the management of the IS outsourcing process can be explained by, for example, the complexity of IS and the rapid evolution of the IT field (e.g. Prikladnicki et al., 2003).

McFarlan and Nolan (1995) have developed a checklist of conditions for the management of the IS outsourcing relationship in the post-contract stage of the IS outsourcing process. Firstly, they point out the need for a well thought-out management structure. Management structure refers to the way a team or a firm is organised and how management is perceived, whether it is decentralized or centralized and whether it emphasises line or staff (Kern & Willcocks, 2001). A management structure that is well-designed increases the chances for a successful IS outsourcing relationship. Secondly they promote the existence of a shared management approach for reaching long-term relationship success. A shared management approach contributes to successful performance of problem solving, similar values and favourable personal chemistry among key actors. McFarlan and Nolan (1995) use the term management fit for denoting the case when the client and the IS supplier share management approach.

To manage the IS outsourcing relationship, support from senior business management is required (Kern & Willcocks, 2001). The support should be expressed through the initiation of change, explanation of reasons for IS outsourcing and the promotion of appropriate management structures and resources. The management structure needs to be adjusted to suit the requirements of the actual case of IS outsourcing. To meet these requirements, the engagement of both the client and the IS supplier plays a significant role.

Management skills required during the IS outsourcing process are especially related to communication (Alborz et al., 2003). Communication is a significant ‘tool’ that makes it possible to influence, and most importantly, negotiate across organisational boundaries, within both the client and the IS supplier firm (Alborz et al., 2003). The style of management used is important to avoid mis-
communication and promote trust. The management style should be characterised by the responsibility of day-to-day operations and the ability to motivate employees at all areas of the firm to reach business goals.

A management framework for geographical dispersed key actors

Because of the lack of research on management of global relationships, Kumar and Palvia (2002) developed a framework to gain a better understanding of global relationship management. Furthermore, they wanted to highlight the different aspects involved during management of an IS outsourcing relationship. Their framework is presented in Figure 6.3. The framework is composed of four major parts. The ‘influence conditions’ represent the issues and problems that influence the relationship management. Elements of relationship management such as control, contract specificity and communication, constitute the ‘management strategies’. The ‘moderating conditions’ are highly context dependent and influence the management style. The ‘performance implications’ are the dimensions agreed on by the client and the IS supplier to judge the success of the relationship.

![Figure 6.3: A management framework for geographical dispersed key actors (Kumar & Palvia, 2002, p. 59)](image)

The management framework by Kumar and Palvia (2002) for global relationships is a favourable basis for IS outsourcing management. Even if the framework is developed for the management of global relationships, the framework is believed to be applicable to any IS outsourcing relationship. The aspects mentioned, however, influence in varying degrees dependent on the special case of IS outsourcing (e.g. Winkler et al., 2006). For example, when the client and
the IS supplier are located in far distant countries, cultural barriers in form of communication problems and differences in organisational cultures increase in comparison with domestic IS outsourcing.

The more geographical dispersed the key actors are, the more difficult the task of management becomes. To increase the success of management, a management strategy should be applied. This management strategy should provide guidelines for the following moderating conditions (Kumar & Palvia, 2002):

- **Control mechanisms** – can be formal and/or informal and the mechanisms preferable to choose depend on the cultural differences between the client and the IS supplier and the actual IS activity outsourced.
- **Interorganisational coordination** – refers to the degree of integration between the client firm and the IS supplier firm, which depends on the type of IS activity outsourced.
- **Contract specificity** – the contract is one of the basic requirements of an IS outsourcing relationship. In global relationship, flexible contracts are a prerequisite to manage future situations.
- **Collaborative communication** – the intensity of communication among involved key actors is captured through the frequency, informality, openness and density of communication. With density is meant the number of key actors who interact across firm boundaries.
- **Conflict management** – conflicts in team work are not unusual and in global relationships it is inevitable that certain conflicts will arise due to different national cultures. Conflict resolution strategies depend on situational conditions like the nature of the conflict, cultural background of the conflicting key actors and the level of conflict.

Besides the moderating conditions presented by Kumar and Palvia (2002), routines for knowledge management such as knowledge transfer and sharing, are suggested to be included in the management strategy (Pei et al., 2007; Blumenberg et al., 2008). Routines for knowledge management include patterns of inter-firm interactions that permit transfer and creation of knowledge. For example, knowledge sharing includes the client’s and the IS supplier’s knowledge about each other’s core business processes, business design and environmental information (Cong & Chau, 2007). Environmental information includes information about economy and politics.
The conditions referred to as influential in the IS outsourcing management framework are made up by the following conditions (Kumar & Palvia, 2002):

- the IS activity, i.e., if it is a core activity or not,
- technological uncertainty, concerning both the uncertainty of the infrastructure and the IS activity,
- the complexity of the outsourced IS activity and
- the degree to which the IS activity can be defined, which depends on the requirement ambiguity and degree of standardisation of the IS activity.

Besides the importance of the outsourced IS activity, Kumar and Palvia (2002) found that cultural differences and the degree of interdependency between client and IS supplier constitute influential conditions during management of global IS outsourcing relationships.

Huang and Trauth (2007) add that effective management is critical for overcoming the challenges with cultural diversity such as barriers in communication and knowledge sharing. However, they highlight that the relative influence of culture depends on the specific context and the IS activity outsourced.

One conclusion drawn from the previous presentation on management aspects of the IS outsourcing process seems to be that one structure of management strategy do not fit every IS outsourcing process. Dependent on the special case of IS outsourcing, different aspects of the management strategy become more or less important (cf. Cullen et al., 2005b).

6.3.6 The Outcome dimension

Efficiency outcomes are the perceived performance of the IS outsourcing relationship. Transaction costs, uncertainty reduction, customisation and satisfaction are aspects of the Outcome dimension (Kern & Willcocks, 2001). Transaction costs are dealing with the costs of setting up and managing the IS outsourcing relationship. The client’s perception about change and ambiguity in the environment, the execution of IS activities and the relationship with the IS supplier constitute the uncertainty element. Customisation concerns to what degree services, applications, organisational structures and processes are made specific for the client. Finally, satisfaction concerns the degree of satisfaction with the relationship and the performance of IS outsourcing.
So far the interorganisational business relationship and key conditions related to this relationship have been focused on. As a complement, the following subchapter addresses conditions that primary have been found related to the achievement of successful interorganisational business relationships.

6.4 Conditions of success in interorganisational business relationships

Previous research has made efforts to find out what makes interorganisational business relationships successful. According to an earlier research study, immaterial aspects such as trust among key actors, communication and commitment, influence what makes a relationship successful (Kinnula & Juntunen, 2005). However, conditions of success are highly dependent on what is defined to be the outcome of a successful relationship. In this research study, degree of successful outcome\(^2\) is assessed according to different criteria such as the degree of realization of key actors’ expectations and key actors’ degree of satisfaction.

Kinnula and Juntunen (2005) focus on the IS outsourcing relationship to describe conditions that influence the success of interorganisational business relationships. From prior research they report on conditions of success structured into the relationship dimension. The relationship conditions found as influencing the success of the interorganisational business relationship are commitment, honesty, reliability, fairness, win-win mentality, support from top management, mutual dependency and trust (e.g. Kern & Willcocks, 2000; Zhu et al., 2001).

In their research study, Kinnula and Juntunen (2005) studied conditions of success related to two phases of the IS outsourcing relationship: the relationship formation phase and the relationship management phase. During the relationship formation phase the importance of personnel-related issues were emphasised because of their influence on the successful start of the IS outsourcing relationship. Personnel-related issues are described as the significance of remembering all key actors that are affected by and involved in the IS outsourcing process. Four conditions of relationship success constituted their findings on the relationship management phase: sense of responsibility, openness, trust and flexibility. These four conditions are explained in Table 6.1.

\(^2\) See subchapter 1.9.3 for a more detailed discussion on the term ‘degree of successful outcome’ and how it is defined in this research study.
Table 6.1: Conditions for relationship success in the relationship management phase
(Kinnula & Juntunen, 2005, p. 7)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sense of responsibility</td>
<td>Both firms feel that it is their responsibility to contribute to a successful relationship</td>
</tr>
<tr>
<td>Openness</td>
<td>Open discussions on difficult issues at all firm areas</td>
</tr>
<tr>
<td></td>
<td>Conflict-resolving techniques</td>
</tr>
<tr>
<td></td>
<td>Openness in business plans and visions</td>
</tr>
<tr>
<td>Trust</td>
<td>Understand how dependent the firms are on each other</td>
</tr>
<tr>
<td>Flexibility</td>
<td>Adhere to the spirit, not the letter, of the agreement</td>
</tr>
</tbody>
</table>

The contributions on relationship success conditions support findings from previous research, but also bring forth some new ideas on the kind of conditions that are necessary to consider during management of IS outsourcing relationships (Kinnula & Juntunen, 2005). The study by Kinnula and Juntunen (2005) provides useful insights into conditions influencing the success of the IS outsourcing relationship. Hence, their findings are found to constitute a valuable complement to the research previously reported on in this chapter.

6.5 Summary and contributions of Chapter 6

The conducted literature review of this chapter aims to contribute to the identification of key conditions for describing and explaining the degree of successful outcome of the IS outsourcing process. To emphasise key conditions from a relationship perspective a framework for interorganisational business relationships is proposed.

References to research within the field of Industrial marketing and business literature, and in particular contributions by the IMP researcher network, dominate this chapter. The interaction approach developed by the IMP researcher network, contributes broad and deep knowledge on business interaction. The interaction approach has proved robust enough to be applied to a wide range of different interorganisational business relationships such as interorganisational relationships working in IT and IS outsourcing contexts. The interaction process and the exchange episodes (product/service exchange, financial exchange, information exchange and social exchange) among the interacting parties constitute the core part of the interaction approach. The different exchanges, and especially, the information and social exchanges have been found valuable for studying the IS outsourcing relationship. Information exchanges contribute to the effectiveness of the operational performance,
whereas social exchanges promote long-term relationships through institutionalisation. Adaptation such as routines for information exchange and social relationships is part of the social exchanges and contributes to long-term relationships.

The interaction approach includes the importance of environmental aspects and aspects related to the working atmosphere. The importance of the environment, surrounding the client–supplier relationship, is also stressed in IS literature and IS outsourcing relationship literature (Kern & Willcocks, 2001; Fitzgerald et al., 2002). Trust is a condition that recurrently has been given attention in interorganisational business relationship literature and is found to influence the establishment of long-term relationships. The presence of trust in interorganisational business relationships contributes to the achievement of committed relationships. Trust and commitment are mutually related to each other and their presence contributes to long-term relationships. The atmosphere of the interorganisational business relationship includes condition such as trust, power, conflict and cooperation. These conditions are also emphasised by Kern and Willcocks (2001), who announced the relevance of the conditions as a result of their study on the IS outsourcing relationship.

The interaction approach includes several contributions for studying the IS outsourcing relationship. Yet, it has some shortcomings. In summary the identified shortcomings are related to that the interaction approach does not:

- differentiate among the different types of data characterising the client and the IS supplier,
- explicitly express the relevance of the conditions commitment and trust and
- include the significance of the contract and the management of the interorganisational business relationship.

As a result of the identified shortcomings the following aspects of improvements are suggested to be incorporated in the interaction approach:

- the client firm and the IS supplier firm as constituted of three different areas: the business area, the process area and the IS area,
- the conditions commitment and trust and
- the dimensions Contract, Management and Outcome.
The result of complementing the interaction approach with the previously presented aspects of improvement is an adequate guiding structure for studying IS outsourcing relationships during IS outsourcing processes. This guiding structure composes the framework applied in this research study to emphasise key conditions related to interorganisational business relationships. The framework is graphically represented in Figure 6.2.

The identification of key conditions related to interorganisational business relationships is a result of the conducted literature review. Research on interorganisational business relationships and IS outsourcing relationships has constituted the literature for the identification of key conditions. The key conditions identified are presented in Table 6.2. These key conditions are found to be essential to incorporate in the conceptual framework for describing and explaining the degree of successful outcome of the IS outsourcing process from a relationship perspective. The key conditions are categorised in six dimensions: Atmosphere, Contract, Environment, Interaction, Management and Outcome. These dimensions are a result of the conducted literature review on interorganisational business relationships. Together these dimensions constitute the essential dimensions regarding the domain of interorganisational business relationships for studying the successful outcome of the IS outsourcing process from a relationship perspective.

Due to the amount of key conditions identified they are, for each dimension, structured in groups according to how they are related, which is identified as a result of the literature review. Each group of key conditions ends with an underlined key condition.

The description and explanation part of the purpose of this thesis is partly addressed by describing the interrelations among the identified key conditions. Many of the identified key conditions are related to each other, which have resulted in multiple interrelations among the dimensions. The interrelations are summarized and described in Table 6.3 and graphically represented in Figure 6.4. The interrelations are focusing on two dimensions at a time and their mutual dependencies.
Table 6.2: Essential dimensions and key conditions identified as a result of the conducted literature review

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Key conditions</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atmosphere</td>
<td>• Conflict • Cooperation • Mutual dependency • Power • Firm size • Honesty • Openness • Reliability • Trust • Commitment • Win-win mentality</td>
<td>Håkansson (1982), Morgan &amp; Hunt (1994), Kern &amp; Willcocks (2001), Zhu et al. (2001), Kinnula &amp; Juntunen (2005)</td>
</tr>
<tr>
<td>Contract</td>
<td>• Built-in flexibility • Exchanges • Expectations • Requirements • Firm strategies • IS activity • Legally bound promises • Variables of measurement</td>
<td>Kern &amp; Willcocks (2001), Fisher et al. (2008)</td>
</tr>
<tr>
<td>Environment</td>
<td>• Firm competition • Market structure • Position in the manufacturing channel • Market dynamism • Market internalisation • Legislation • Social system • Technical infrastructure</td>
<td>Håkansson (1982), Kern &amp; Willcocks (2001)</td>
</tr>
<tr>
<td>Interaction</td>
<td>• Adaptation • Institutionalisation • Capability • Inconsistency • Mutuality • Particularity • Financial exchange • Information exchange • Service exchange • Social exchange • Communication</td>
<td>Håkansson (1982), Ford et al. (1990), Kern &amp; Willcocks (2002), Van der Valk et al. (2008)</td>
</tr>
<tr>
<td>Management</td>
<td>• Complexity • Stability • Control • Firm strategies’ alignment • Management fit • Management strategy • Knowledge management • Support from top management • The special case of IS outsourcing</td>
<td>McFarlan &amp; Nolan (1995), Kern &amp; Willcocks (2001), Cullen et al. (2005b), Blumenberg et al. (2008)</td>
</tr>
<tr>
<td>Outcome</td>
<td>• Customisation • Uncertainty reduction • Performance • Satisfaction • Transaction cost</td>
<td>Kern &amp; Willcocks (2001)</td>
</tr>
</tbody>
</table>
The identified interrelations among the dimensions are mainly a result of the inclusion of the interaction approach and dimensions from the framework for the IS outsourcing relationship (Kern & Willcocks, 2001). The elements of these both frameworks are regarded in this research study and consequently also the described interrelations among these elements. However, the research studies included as a complement to these both frameworks contributed to the identification of other interrelations among dimensions. Moreover, these research studies confirmed some of the identified interrelations among dimensions that are a result of the descriptions of the interaction approach and the IS outsourcing relationship framework.

![Graphical representation of interrelations among dimensions identified as a result of the conducted literature review](image)

**Figure 6.4:** Graphical representation of interrelations among dimensions identified as a result of the conducted literature review

So far key conditions from the theoretical fields of IS (Chapter 5) and inter-organisational business relationships (this chapter) have been identified and presented according to their categorisation into dimensions. The subsequent chapter are devoted to research within the field of IS outsourcing and the identification of key conditions for studying the successful outcome of the IS outsourcing process from a relationship perspective.
<table>
<thead>
<tr>
<th>Dimensional interrelation</th>
<th>Descriptions</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atmosphere – Interaction</td>
<td>Of the exchange episodes, it is the social exchanges that primary contribute an atmosphere of trust, commitment and long-term relationships. The degree of institutionalisation of operations and adaptation of social relations influence the long-term relationship. Effective communication and exchanges leading to satisfactory outcomes, with the undertaking of complementary activities, form the cooperation element of the atmosphere. Exchange episodes and long-term exchange experiences contribute to the evolvement of the atmosphere.</td>
<td>Håkansson (1982), Morgan &amp; Hunt (1994)</td>
</tr>
<tr>
<td>Atmosphere – Management</td>
<td>The management strategy, for example, should include descriptions for managing conflicts and retaining control. Management fit between client and IS supplier contributes shared approaches for the performance of IS activities. Shared values and mutual dependency lead to a win-win mentality. The style of management used is important to prevent miscommunication, promote trust and overcome challenges with cultural diversity. Moreover, management is connected to the actual size of the firm.</td>
<td>McFarlan &amp; Nolan (1995), Kern and Wilcocks (2001), Alborz et al. (2003)</td>
</tr>
<tr>
<td>Atmosphere – Outcome</td>
<td>The degree of outcome satisfaction of the relationship does not only concern stipulations of the contract but also the experienced contributions of the specific client–IS supplier relationship, such as degree of trust and commitment. Trust can be evaluated by performance of obligations and commitments, perceived benefits, outcome satisfaction and motivation to continue the relationship.</td>
<td>Håkansson (1982), Kern &amp; Wilcocks (2001)</td>
</tr>
<tr>
<td>Contract – Environment</td>
<td>The contract must consider environmental aspects, such as evolution of technical infrastructure, market structure, geographical location of key actors and emergence of new competitive firms, and should therefore have flexibility built-in.</td>
<td>Fisher et al. (2008)</td>
</tr>
<tr>
<td>Contract – Interaction</td>
<td>The contract specifies the exchange episodes that need to be present to reach the expected outcomes formulated by the involved key actors. The aim of the contract is to facilitate exchange episodes to reach better performance.</td>
<td>Gottschalk &amp; Solli-Sæther (2006)</td>
</tr>
<tr>
<td>Dimensional interrelation</td>
<td>Descriptions</td>
<td>References</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Contract – Management</td>
<td>The contract should consider the firms’ different strategies and managers’ needs to ensure that the IS outsourcing strategy contributes to the firm strategies. The management strategy partly builds on the stipulated agreements in the contract. The complexity of the outsourced IS activity partly influences the strategy of management.</td>
<td>Kumar &amp; Palvia (2002)</td>
</tr>
<tr>
<td>Contract – Outcome</td>
<td>Both key actors’ expectations and performance instructions/restrictions are included in the contract. The resulting outcome should be satisfied key actors through the fulfilment of expectations and performance metrics.</td>
<td>Lee &amp; Kim (1999), Gottschalk &amp; Solli-Sæther (2006), Parikh &amp; Gokhale (2006)</td>
</tr>
<tr>
<td>Environment – Interaction</td>
<td>Environmental aspects such as market structure, market dynamism, market internalisation, social system and technical infrastructure influence the performance of the interaction process and present exchange episodes.</td>
<td>Håkansson (1982)</td>
</tr>
<tr>
<td>Environment – Management</td>
<td>The more geographically dispersed the key actors in the interorganisational business relationship are, the more difficult the task of management becomes. To increase the success of management, an overall management strategy should be applied. Different cultures and technological uncertainty influence the degree of required management of control mechanisms, coordination and conflict management.</td>
<td>Kumar &amp; Palvia (2002), Huang &amp; Trauth (2007)</td>
</tr>
<tr>
<td>Interaction – Management</td>
<td>Communication is significant and makes it possible to influence, and most importantly, negotiate across organisational boundaries within both the client and the IS supplier firm. Management performance influences the intensity of communication, such as communication frequency, informality and openness. Inconsistency of interactions is furthermore found to be one of the most difficult aspects of interaction to manage.</td>
<td>Ford et al. (1990), Kumar &amp; Palvia (2002), Alborz et al. (2003)</td>
</tr>
<tr>
<td>Outcome – Management</td>
<td>Variables of measurement stipulated in the contract constitute guidelines of management. Transaction costs, as a result of the relationship management, must meet the expectations in order to realize requirements of satisfaction. Hidden management costs, therefore, need to be considered in the contract.</td>
<td>Kern &amp; Willcocks (2001), Kern &amp; Palvia (2002)</td>
</tr>
</tbody>
</table>
7 A review of information systems outsourcing literature – identification of key conditions and their relations

The identification of key conditions from the IS and interorganisational business relationship literature has been emphasised in the two previous chapters. The aim of this chapter is to present key conditions that influence the degree of successful outcome of the IS outsourcing process from an IS outsourcing perspective. The presentation of the identified key conditions includes descriptions of how they are related to each other. As a result of the literature review, several key conditions are identified. These key conditions are categorised according to the dimensions identified in Chapter 5 and 6. Finally, the interrelations among the dimensions are presented. These interrelations build upon the relations among the identified key conditions. The results of this chapter in form of key conditions and interrelations among dimensions contribute to the description and explanation of the degree of successful outcome of the IS outsourcing process.

7.1 Key conditions identified in the information systems outsourcing literature

The review of the IS outsourcing literature has focused on the identification of key conditions that influence the degree of successful outcome of the IS outsourcing process from a relationship perspective. The key conditions identified are formatted in italic in the following subchapters.

A finding from the literature review is that the identified key conditions are commonly described through their relations to each other. The literature review conducted on IS outsourcing therefore contributes not only with key conditions but also how these key conditions are related to each other. In Table 7.1–Table 7.8, these identified relations are described in the ‘description column’.

The subsequent presentation of key conditions emanates from the ones that were most frequently described as influencing the degree of successful outcome of the IS outsourcing process in the IS outsourcing literature.

7.1.1 The key condition communication

Communication can broadly be defined as the formal and informal sharing or exchange of meaningful and timely information among firms (Morgan & Hunt, 1994). Formal communication includes information transmitted to key actors through, for example, official meetings and documents (Blumenberg et al., 2008). Communication among key actors that occur spontaneously without
rules such as during the coffee break, is considered as informal communication (Blumenberg et al., 2008).

Communication is found to be one of the most important conditions during ISD, which is a consequence of that ISD activities often are recognized as problematic activities (Cramton & Webber, 2005). Through frequent communication among key actors, the possibility of successful IS usage increases (Lundeberg et al., 1978). It is even expressed that the degree of communication among involved key actors determines the type of IS activity to be undertaken. A management strategy that promotes frequent communication among key actors contributes to the possibility of outsourcing unstructured IS activities.

It has been found that success of IS outsourcing is related to the fostering of a strong, interactive client–IS supplier relationship that is based on trust, communication, satisfaction and cooperation (Grover et al., 1996). Frequent communication between client and IS supplier is mentioned in the IS outsourcing literature as one of the success conditions during the IS outsourcing process (Gonzales et al., 2005). Communication and frequent face-to-face interactions contribute to the establishment of confidence, trust and cooperative relationships, which eventually lead to a comfortable working atmosphere. A cooperative relationship is the spirit of working together to perform complementary activities with the objective of achieving mutual benefits (Anderson & Narus, 1984). A cooperative relationship is essential for IS outsourcing success. The time offered for the creation of interactions will increase the understanding of involved key actors’ styles, standards and cultures (Gonzales et al., 2005).

Karolak (1998) states that communication is one of the risky areas during IS offshore outsourcing, which is a result of that the key actors are located far distant from each other. The geographical distance in IS offshore outsourcing brings differences in for example time and culture. These differences influence in turn the parameters for reaching successful communication, i.e., communication should be complete and unambiguous (Fabriek et al., 2008). The area of communication is particularly related to the technical infrastructure, which the key actors are dependent on for communication. Risks resulting from deficient technical infrastructure include misinterpretations and limitation of ways of communication (Karolak, 1998; Huang & Trauth, 2007). Additionally, communication through channels such as e-mail and telephone lack the information of voice, pauses in speech, body language and gesturing, which increase the
possibility for misunderstanding (Carmel & Tjia, 2005). Finally, communication ambiguity influences knowledge exchange negatively, which in the end has a negative impact on the IS outsourcing process.

The key condition of communication and its relation to other key conditions identified in this subchapter is presented in Table 7.1.

Table 7.1: The key condition of communication and related key conditions

<table>
<thead>
<tr>
<th>Key condition</th>
<th>Related key conditions</th>
<th>Descriptions</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>• Confidence • Cooperation • Trust • IS activity • Technical infrastructure</td>
<td>Frequent communication among key actors promotes the achievement of a relationship atmosphere that is recognized by cooperation and trust. Furthermore, a communicative relationship increases the possibility of forming a relationship recognized by confidence. The more communicative the relationship is recognized as, the more easy the performance of unstructured IS activities is. When the key actors are located geographically distant from each other the communication possibilities are dependent on the present technical infrastructure.</td>
<td>Karolak (1998), Cramton &amp; Webber (2005), Gonzales et al. (2005), Huang &amp; Trauth (2007)</td>
</tr>
</tbody>
</table>

7.1.2 The key condition control

With control is meant to ensure that members of a firm act in a manner that is consistent with the goals and objectives of the firm (Kirsch, 1997). Control, consequently, is one way to improve performance in relation to certain firm goals. Control influences the performance of the IS activities and is influenced by rules and procedures, meetings, reports, IS life cycle approaches and standards. Rules, procedures, meetings, reports and standards depend on the present management strategy.

In IS outsourcing, control can be inhibited by differences in firm strategies and culture, and the geographical distance among key actors (Sabherwal & Choudhury, 2006). One way to decrease the impact of culture on control is to use a com-
mon IS life cycle approach and a compatible technical infrastructure (Krishna et al., 2004). This also contributes to the facilitation of the management of the client–IS supplier relationship, which is of key importance.

The key condition of control and its relation to other key conditions identified in this subchapter is presented in Table 7.2.

Table 7.2: The key condition of control and related key conditions

<table>
<thead>
<tr>
<th>Key condition</th>
<th>Related key conditions</th>
<th>Descriptions</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>• Culture</td>
<td>Firm strategies' alignment promotes control whereas differences in culture and geographical distance between client and IS supplier counteract the establishment of control. Through the use of a common IS life cycle approach and the presence of a compatible technical infrastructure problems related to culture can be less influential. Control of the IS outsourcing process is one way to improve performance of IS activities in relation to certain firm goals. Control is in turn influenced by the present management strategy.</td>
<td>Kirsch (1997), Krishna et al. (2004), Sabherwal &amp; Choudhury (2006)</td>
</tr>
<tr>
<td></td>
<td>• Geographical location of key actors</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• IS activity</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• IS life cycle approach</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Technical infrastructure</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Management strategy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Firm strategies' alignment</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Performance</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7.1.3 The key condition culture

Culture is the sum of interactions, the use of symbols, knowledge, information and communication (Ellis et al., 2006). Culture can be conceived as a network of ideas and symbols formed through language. The individuals that participate in the network are the only ones that can interpret the present culture.

National culture is often deeply embedded and early programmed in individuals' way of manifestation (Carmel & Tjia, 2005). Values and beliefs, patterns of thinking and communication are a result of the national culture. Clients have expressed a preference to geographical close located IS suppliers since geographical proximity increases the possibility for similarities in mindset and language (Krishna et al., 2004). Cultural compatibility refers to the closeness of behaviour patterns, values and norms within the client–IS supplier relationship.
High degree of cultural compatibility influences the atmosphere of the client–IS supplier relationship positively. Consequently, the role of culture can not be neglected when exploring interorganisational business relationships (Ellis et al., 2006).

The national and the organisational culture have been found to primarily influence the degree of successful outcome of the IS outsourcing process. The national culture has been defined as a “system of values and norms that are shared among a group of individuals and constitutes a design for living” (Gurung & Prater, 2006, p. 37). Organisational culture, on the other hand, defines the behaviour and attitudes of the members of an organisation. The differences in organisational cultures commonly become apparent through dissimilar ways of communicating, work ethics and approaches to perform business processes (Gurung & Prater, 2006). The organisational culture is primarily manifested during domestic IS outsourcing, because the national culture is common for the involved key actors.

Research on interorganisational business relationships indicates the importance of considering cultural differences in relationships (Naude et al., 2003; Nadin et al., 2004; Ellis et al., 2006). Intercultural communication is important for negotiation, the development of common understanding and for the creation of mutual trust (Nadin et al., 2004).

The role of culture, in particular, becomes important to consider when the key actors are far distant. Different organisational styles, due to national culture, are often a reason of misunderstanding and, in many cases, failure (Nadin et al., 2004). For example, Nadin et al. (2004) studied the cooperation between an Italian firm and a Chinese firm from a cultural point of view and found that the Italian society has a shorter level of hierarchy than the Chinese society. This implies that the bottom and middle level of management among Italian firms have more decisional power than the counterpart in China. The aim of their research was to increase the knowledge about the success of interorganisational business relationships by studying the effect of cultural disparity. As a result of their findings in differences between cultural settings, Nadin et al. (2004) conclude that main success conditions for international business relationships are as follow:

- choose a partner that can meet the requirements of cultural compatibility,
• the creation of trust,
• maintain flexibility in order to understand different national and organisational cultures,
• pay attention to fable messages and
• search for mutual benefit.

Krishna et al. (2004) add the importance of choosing an appropriate IS activity for the international relationship. With appropriate they refer to IS activities that are culturally neutral, i.e., activities that are less dependent on cross-cultural understanding. The importance of the IS activity outsourced has been highlighted before and it seems that the more standardised the IS activity are, the better from a cultural point of view (Erber & Sayed-Ahmed, 2005). Finally, the management of the IS outsourcing process is crucial (Khan et al., 2003). The management needs to regard business operations, contracts, relationships and cultural diversity. If this can not be obtained, it is recommended to terminate the relationship.

The key condition of culture and its relation to other key conditions identified in this subchapter is presented in Table 7.3.

7.1.4 The key condition geographical location of key actors

The environment in which the IS outsourcing process is performed includes the geographical location of the key actors. The literature on geographical location of key actors concerns conditions related to the distance among key actors, which primarily has been addressed in IS offshore outsourcing literature. However, the findings presented in IS offshore outsourcing literature concerning the geographical location of the key actors are also applicable within IS outsourcing. This is a result of that IS outsourcing is defined as a generic term and denotes client–IS supplier relationships irrespective of where the IS supplier is located (Bergkvist & Fredriksson, 2008).

In comparison with domestic IS outsourcing, IS offshore outsourcing poses additional challenges (Rottman & Lacity, 2008). Challenging conditions include, for example, time zone differences, cultural differences and difficulties in managing dispersed teams.
Table 7.3: The key condition of culture and related key conditions

<table>
<thead>
<tr>
<th>Key condition</th>
<th>Related key conditions</th>
<th>Descriptions</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture</td>
<td>• Communication</td>
<td>Communication is of most importance when different cultures are present.</td>
<td>Khan et al. (2003), Krishna et al. (2004), Nadin et al. (2004), Ellis et al. (2006)</td>
</tr>
<tr>
<td></td>
<td>• Cultural compatibility</td>
<td>Frequent communication facilitates negotiation, development of common understanding and creation of mutual trust. High degree of cultural compatibility such as closeness of behaviour patterns, values and norms, influences the atmosphere of the client–IS supplier relationship positively. Conditions of flexibility, mutual benefit, trust and cultural compatibility have been found to significantly contribute to the success of inter-organisational client–IS supplier relationships. The IS activity outsourced to an offshore IS supplier should be culturally neutral, i.e., IS activities that are less dependent on cross-cultural understanding. The management of differences in national and organisational culture needs to be incorporated in the management strategy.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Flexibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Mutual benefit</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Trust</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• IS activity</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Management strategy</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A finding from the literature review on IS outsourcing is that the greater the geographical dispersion among the key actors is, the greater the loss of communication richness, coordination and ‘teamness’ become (Carmel, 1999). To manage geographical distance, the technical infrastructure is crucial. Furthermore, the use of collaborative techniques and a common IS life cycle approach together with the promoting of team building are significant (Carmel, 1999). These issues should be considered as part of the management strategy.

If the client and the IS supplier, due to geographical distance, can not meet face-to-face it is recommended that the outsourced IS activity is a non-core activity of the firm (Fisher et al., 2008). Moreover, standards and guidelines for the IS life cycle and the IS outsourcing process should be included in the management of the IS outsourcing relationship (Prikладникі et al., 2003).
The key condition of geographical location of key actors and its relation to other key conditions identified in this subchapter is presented in Table 7.4.

Table 7.4: The key condition of geographical location of key actors and related key conditions

<table>
<thead>
<tr>
<th>Key condition</th>
<th>Related key conditions</th>
<th>Descriptions</th>
<th>References</th>
</tr>
</thead>
</table>
| Geographical location of key actors | • Communication  
• Team building  
• Culture  
• Time zone differences  
• IS activity  
• IS life cycle approach  
• Technical infrastructure  
• Management strategy | The greater the geographical distance among the key actors is, the more influenced the related key conditions are. Communication richness decreases, cultural differences increases, the importance of a management strategy and team building increase and the technical infrastructure becomes important to manage daily activities of information sharing. The IS activity to be outsourced should be carefully evaluated with regard to the geographical distance between key actors. The more distanced the key actors are the more significant the use of a common IS life cycle approach becomes. | Carmel (1999), Fisher et al. (2008) |

7.1.5 The key condition information systems activity

One way of contributing to the knowledge about what makes the IS outsourcing process successful is by studying the significance of the outsourced IS activity. Careful selection of the IS activity to be outsourced is expressed in earlier research as a condition that commonly contributes to a high degree of successful outcome of IS outsourcing (Fisher et al., 2008). The recommendation concerns for an IS activity to be successfully outsourced it should be routinely performed and part of the non-core business activities.

In an earlier literature review study (Bengkvist, 2007) it was found that the geographical distance between client and IS supplier influences the client’s decision for the type of IS activity to be outsourced. The literature review study revealed that there are differences among IS activities that remain in-house or is outsourced to a domestic IS supplier, in comparison with the IS activities outsourced to a geographically far distant IS supplier. The tendency seems to be that construction activities such as software coding and software tests, and
maintenance management activities are commonly contracted with far distant IS suppliers. This can probably be explained by the structuredness of this type of IS activities (Hirschheim, 2006). Research shows that routine IS activities with clearly defined requirements, work processes and that require less face-to-face interaction are and will continue to be outsourced to offshore IS suppliers (e.g. Sakthivel, 2005; Shao & David, 2007).

On the contrary, it was found as a result of the literature review study that the more dependent the performance of the IS activity is on face-to-face interaction and firm knowledge the more important it is to remain the IS activity in-house or within geographical proximity (e.g. Cullen et al., 2005b; Shao & David, 2007). Requirement analysis, IS interface design and IS testing are example of specific IS activities that are expressed as important to be performed through close cooperation. These IS activities are less structured, business knowledge-intensive and complex and consequently a challenge for IS outsourcing (Avison & Fitzgerald, 2006). Further, standard application packages are preferable to outsource compared with in-house developed IS, since standard application packages can easily be separated into individual modules and often are well specified (Davey & Allgood, 2002; Gonzales et al., 2005).

A conducted research study shows that the more unstructured the IS activity is, the more important it becomes that the client and the IS supplier have control over the IS outsourcing process (Lee et al., 1999). Ways to establish control are as follow:

- the specification of requirements,
- frequent reports and deliveries during the IS outsourcing process,
- periodic meetings and
- contracts that encourage shared goals, frequent interaction, shared beliefs and values.

Frequent controls at the start of the IS outsourcing process contribute less problems midway through the process. Further, the use of a common IS life cycle approach is stated as one of the most significant success conditions of the IS outsourcing process (Prikладници et al., 2003). The use of standards, methodologies and rules for communication have been found to decrease problems related to time overlay, cultural diversity and financial, technical and legal issues (Niederman et al., 2006).
A contribution of the conducted literature review study on IS activities and their influence on the IS outsourcing process is that the outsourced IS activity actually influence how the IS outsourcing process needs to be conducted and managed (Bergkvist, 2007). Moreover, two recommendations related to the IS life cycle are put forward. Firstly, the phases that include IS activities not dependent on frequent interaction between client and IS supplier are the most suitable for IS outsourcing. Secondly, the phases that involve structured and specified IS activities are suitable for IS outsourcing. The literature review showed that the phases of the IS life cycle model most likely to meet these recommendations are construction, operation and maintenance management (Bergkvist, 2007).

The key condition of IS activity and its relation to other key conditions identified in this subchapter is presented in Table 7.5.

Table 7.5: The key condition of IS activity and related key conditions

<table>
<thead>
<tr>
<th>Key condition</th>
<th>Related key conditions</th>
<th>Descriptions</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS activity</td>
<td>• Control • Management strategy • Geographical location of key actors • IS life cycle approach</td>
<td>The more unstructured the outsourced IS activity is, the higher degree of performance control of the IS outsourcing process is required. The geographical distance between client and IS supplier influences which IS activity to be outsourced. The more geographically distanced the client and the IS supplier is, the more structured the outsourced IS activity should be. The use of a common IS life cycle approach during IS outsourcing is expressed as one way of contributing to a successful outcome. Irrespective of the degree of structuredness of the IS activity outsourced, the management strategy needs to be adjusted to the specific outsourced IS activity.</td>
<td>Lee et al. (1999), Prikladnicki et al. (2003), Bergkvist (2007), Shao &amp; David (2007)</td>
</tr>
</tbody>
</table>

7.1.6 The key condition project management

IS outsourcing, and in particular ISD outsourcing, is conducted in the form of a project. Project and Project Management Theory have been debated in several editorials in the International journal of Project Management. One of the
contributions of these editorials is a definition of what project management includes: “Project management is the means by which the work of the resources assigned to the temporary organisation is managed and controlled to deliver the beneficial change desired by the owner” (Turner, 2006, p. 93).

IS projects, which also incorporates IS outsourcing projects, are mainly performed within given constraints of time, cost, resource and quality (Cadle & Yeates, 2001). The project manager should manage aspects related to these constraints. Quality is often measured according to the perceived quality of the contributions and/or the result of project performance. To be successful, the project should deliver an expected service that meet the requirements, has at least the expected quality, is completed on time and does not exceed the budgeted costs (Fabricik et al., 2008). An unsuccessful project is on the opposite defined as a cancelled project or when a project fails on one of the four success aspects. For example, if the delivered service does not meet the expected quality the project is defined as unsuccessful.

The constraints of project performance are by Jansson and Ljung (2004) summarized in the project triangle, illustrated in Figure 7.1. In general, one of the constraints is more significant than the others and consequently is more influential during project planning. A project should for instance be completed on time, in the first place, which bring the case that out-of-budget is less important than out-of-time (Fabricik et al., 2008).

![Figure 7.1: Constraints of project performance summarized in the project triangle](image)

The criticality of financial management during project work is due to the present budget. During IS outsourcing it becomes important to incorporate and manage all costs. ‘All costs’ refer to the identification of those IS outsourcing costs that often are hidden (Fisher et al., 2008). Hidden costs are in particular
related to the management of the IS outsourcing contract, which often is not anticipated during project planning.

The key condition of project management and its relation to other key conditions identified in this subchapter is presented in Table 7.6.

Table 7.6: The key condition of project management and related key conditions

<table>
<thead>
<tr>
<th>Key condition</th>
<th>Related key conditions</th>
<th>Descriptions</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project management</td>
<td>• Financial management&lt;br&gt;• Resource management&lt;br&gt;• Time management&lt;br&gt;• Quality management</td>
<td>Several management responsibilities are included in project management. However, research indicates that financial management, resource management, time management and quality management are the most significant project management responsibilities and together they summarize the project constraints.</td>
<td>Cadle &amp; Yeates (2001), Jansson &amp; Ljung (2004), Fabrick et al. (2008)</td>
</tr>
</tbody>
</table>

7.1.7 The key condition relationship quality

Lee and Kim (1999) have examined the relation between relationship quality and IS outsourcing success. They define IS outsourcing success as the perceived fit between the client’s requirements and the actual outcomes of the IS outsourcing process.

Relationship quality is referred to as “how well the outcome of a partnership delivered matches the participants’ expectation” (Lee & Kim, 1999, p. 57). Several determinants are proposed to influence the degree of relationship quality (Lee & Kim, 1999; Blumenberg et al., 2008):

- age of relationship: period of relationship among key actors,
- benefit and risk sharing: degree of articulation and agreement on benefit and risk among key actors,
- commitment: the key actors’ shared values and governance structures, and their joint investments in the exchange relationship,
- communication quality: the key actors’ perceived efficiency and effectiveness of information exchange. This involves degree of accuracy, timeliness, adequacy, and credibility of interaction processes among key actors,
• **conflict:** the degree of incompatibility of activities, resource share and goals among key actors,

• **congruence:** the key actors’ general agreement concerning the client–IS supplier relationship and service exchanges,

• **consensus:** the extent of general agreement among the involved key actors,

• **coordination:** the degree of key actors working together in harmony,

• **cultural compatibility:** the closeness of behaviour patterns, values and norms within the client–IS supplier relationship,

• **flexibility:** the degree of willingness to make adaptations when something unpredictable occurs,

• **mutual business understanding:** the degree of understanding of behaviours, goals, and policies among key actors,

• **mutual dependency:** the degree of the ability of a firm to influence partner’s decision making on a particular issue,

• **participation:** the degree of willingness to enter into and participate in activities among key actors,

• **trust:** the degree of confidence and willingness among partners and

• **support from top management:** the degree of top manager’s support and understanding of the specific benefits of collaboration with partners.

Through their research study, Lee and Kim (1999) found that benefit and risk sharing, conflict, commitment, mutual business understanding and trust have a significant influence on relationship quality and the IS outsourcing success from both the perspective of the firm and the relationship.

The key condition of relationship quality and its relation to other key conditions identified in this subchapter is presented in Table 7.7.

### 7.1.8 The key condition trust

Trust is a recurrently used word for describing a successful IS outsourcing relationship (e.g. Siakas & Siakas, 2008). Trust is a feature of *relationship quality* and has in the IS outsourcing literature been conceptualized as “the firm’s belief that the other firm will perform actions that will result in positive outcomes for the firm” (Lee & Kim, 1999, p. 32). The condition of trust has been researched in conjunction with the IS outsourcing relationship and is identified as an important condition for all interorganisational business relationships, and for the success of IS outsourcing in particular (Sabherwal, 1999; Nguyen et al., 2006).
Table 7.7: The key condition of relationship quality and related key conditions

<table>
<thead>
<tr>
<th>Key condition</th>
<th>Related key conditions</th>
<th>Descriptions</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship quality</td>
<td>• Age of relationship</td>
<td>The relationship quality is influenced by several conditions during the IS outsourcing process. Of the related conditions, five have been found more influential on the degree of successful outcome of the IS outsourcing process: benefit and risk sharing, conflict, commitment, mutual business understanding and trust.</td>
<td>Lee &amp; Kim (1999),</td>
</tr>
<tr>
<td></td>
<td>• Benefit and risk</td>
<td></td>
<td>Blumemberg et al.</td>
</tr>
<tr>
<td></td>
<td>• Sharing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Commitment</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• quality</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Conflict</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Consensus</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Congruence</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Coordination</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Cultural</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• compatibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Flexibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Mutual business</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• understanding</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Mutual dependency</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Participation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Trust</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Support from</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• top management</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This is a result of that the presence of trust enables improved communication, increases IS outsourcing performance, leads to higher service quality outcomes, greater satisfaction, supports knowledge sharing and the creation and achievement of mutual shared goals (Cong & Chau, 2007; Siakas & Siakas, 2008).

Conditions that influence the degree of trust and its maintenance during the IS outsourcing process are as follow (Nguyen et al., 2006; Ali Babar et al., 2007):

• Personal visits: by visiting each other it brings the opportunity to observe working conditions and meet the developers.

• Investments: investments in form of staff training, reliable infrastructure and process improvement increase trust in IS outsourcing relationships.

• Communication: communication has been found crucial to maintain the trust among involved key actors.
- Cultural understanding, contract conformity, service quality, timely deliveries and expectation realization are conditions found to be important to maintain trust.

Additionally, it has been found that conditions such as commitment, conflict, cooperation, satisfaction and mutual dependency influence trust in an IS outsourcing relationship (Lee & Kim, 1999; Kern & Willcocks, 2001). The key actors of the IS outsourcing relationship are recommended to strive for the establishment of a trustworthy relationship. This is a result of the positive influence trust has on the degree of successful outcome of both the IS outsourcing relationship and the IS outsourcing process (Cong & Chau, 2007).

The key condition of trust and its relation to other key conditions identified in this subchapter is presented in Table 7.8.

Table 7.8: The key condition of trust and related key conditions

<table>
<thead>
<tr>
<th>Key condition</th>
<th>Related key conditions</th>
<th>Descriptions</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conflict</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cooperation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cultural understanding</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Investments</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Personal visits</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Knowledge sharing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mutual dependency</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Contract conformity</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Expectation realization</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Satisfaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Performance</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Relationship quality</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Service quality</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7.2 Summary and contributions of Chapter 7

This chapter has been devoted to a review of IS outsourcing literature. The aim of the literature review is to identify key conditions that influence the degree of successful outcome of the IS outsourcing process. The literature review resulted
in the identification of several key conditions which are summarized in Table 7.9. The summary includes both the key conditions referred to as ‘key conditions’ and key conditions referred to as ‘related key conditions’ in Table 7.1-Table 7.8. Thus, there is no difference among these key conditions regarding their influence on the degree of successful outcome of the IS outsourcing process. The key conditions are structured in groups according to how they are related to the different dimensions identified as a result of the conducted literature review in Chapter 5 and 6. Each group of key conditions ends with an underlined key condition.

Table 7.9: Essential key conditions identified as a result of the conducted literature review

<table>
<thead>
<tr>
<th>Key conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Age of relationship</td>
</tr>
<tr>
<td>• Benefit and risk sharing</td>
</tr>
<tr>
<td>• Communication</td>
</tr>
<tr>
<td>• Communication quality</td>
</tr>
<tr>
<td>• Confidence</td>
</tr>
<tr>
<td>• Conflict</td>
</tr>
<tr>
<td>• Control</td>
</tr>
<tr>
<td>• Cooperation</td>
</tr>
<tr>
<td>• Coordination</td>
</tr>
<tr>
<td>• Cultural understanding</td>
</tr>
<tr>
<td>• Investments</td>
</tr>
<tr>
<td>• Knowledge sharing</td>
</tr>
<tr>
<td>• Participation</td>
</tr>
<tr>
<td>• Personal visits</td>
</tr>
<tr>
<td>• Commitment</td>
</tr>
<tr>
<td>• Trust</td>
</tr>
<tr>
<td>• Congruence</td>
</tr>
<tr>
<td>• Consensus</td>
</tr>
<tr>
<td>• Cultural compatibility</td>
</tr>
<tr>
<td>• Mutual benefit</td>
</tr>
<tr>
<td>• Mutual business understanding</td>
</tr>
<tr>
<td>• Mutual dependency</td>
</tr>
<tr>
<td>• Contract conformity</td>
</tr>
<tr>
<td>• Firm strategies’ alignment</td>
</tr>
<tr>
<td>• Flexibility</td>
</tr>
<tr>
<td>• Culture</td>
</tr>
<tr>
<td>• Geographical location of key actors</td>
</tr>
<tr>
<td>• Technical infrastructure</td>
</tr>
<tr>
<td>• Time zone differences</td>
</tr>
<tr>
<td>• IS activity</td>
</tr>
<tr>
<td>• IS life cycle approach</td>
</tr>
<tr>
<td>• Management strategy</td>
</tr>
<tr>
<td>• Financial management</td>
</tr>
<tr>
<td>• Project management</td>
</tr>
<tr>
<td>• Resource management</td>
</tr>
<tr>
<td>• Time management</td>
</tr>
<tr>
<td>• Team building</td>
</tr>
<tr>
<td>• Quality management</td>
</tr>
<tr>
<td>• Support from top management</td>
</tr>
<tr>
<td>• Relationship quality</td>
</tr>
<tr>
<td>• Expectation realization</td>
</tr>
<tr>
<td>• Satisfaction</td>
</tr>
<tr>
<td>• Service quality</td>
</tr>
<tr>
<td>• Performance</td>
</tr>
</tbody>
</table>

The key conditions in Table 7.9 are not all unique and/or new. With this is meant that some of the key conditions presented in Table 7.9 already have been identified through the conducted literature review on IS (see Table 5.1) and interorganisational business relationships (see Table 6.2). For an overlap to
exist, the content and the meaning of the identified key conditions must be the same. The result of excluding key condition overlaps among the identified key conditions in Chapters 5-7 is the unique key conditions identified through the conducted literature review in this chapter. The unique identified key conditions from the literature review on IS outsourcing is presented in Table 7.10.

Table 7.10: Unique key conditions identified as a result of the conducted literature review

<table>
<thead>
<tr>
<th>Unique key conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Age of relationship</td>
</tr>
<tr>
<td>• Benefit and risk sharing</td>
</tr>
<tr>
<td>• Communication quality</td>
</tr>
<tr>
<td>• Confidence</td>
</tr>
<tr>
<td>• Coordination</td>
</tr>
<tr>
<td>• Cultural understanding</td>
</tr>
<tr>
<td>• Investments</td>
</tr>
<tr>
<td>• Knowledge sharing</td>
</tr>
<tr>
<td>• Participation</td>
</tr>
<tr>
<td>• Personal visits</td>
</tr>
<tr>
<td>• Congruence</td>
</tr>
<tr>
<td>• Consensus</td>
</tr>
<tr>
<td>• Cultural compatibility</td>
</tr>
<tr>
<td>• Mutual benefit</td>
</tr>
<tr>
<td>• Mutual business understanding</td>
</tr>
<tr>
<td>• Culture</td>
</tr>
<tr>
<td>• Geographical location of key actors</td>
</tr>
<tr>
<td>• Time zone differences</td>
</tr>
<tr>
<td>• Financial management</td>
</tr>
<tr>
<td>• Project management</td>
</tr>
<tr>
<td>• Resource management</td>
</tr>
<tr>
<td>• Team building</td>
</tr>
<tr>
<td>• Time management</td>
</tr>
<tr>
<td>• Quality management</td>
</tr>
<tr>
<td>• Expectation realization</td>
</tr>
<tr>
<td>• Relationship quality</td>
</tr>
<tr>
<td>• Service quality</td>
</tr>
<tr>
<td>• Contract conformity</td>
</tr>
</tbody>
</table>

In similarity with the conducted procedure of categorising the identified key conditions in Chapter 5 and 6 in dimensions, the key conditions in Table 7.10 are categorised in dimensions. The literature review on IS outsourcing did not contribute any new dimensions in comparison with already identified dimensions. As a result, each key condition presented in Table 7.10 are categorised in one of the identified dimensions from Chapter 5 and 6: Atmosphere, Behaviour, Contract, Environment, Interaction, IS, Management, Organisation and Outcome. The categorisation of the key conditions in dimensions is presented in Table 7.11. The resulting categorisation of key conditions in dimensions is partly a result of the literature review and partly a result of my own interpretation. When applicable, the key conditions identified are structured in groups according to how they are related, which is identified as a result of the conducted literature review.
<table>
<thead>
<tr>
<th>Dimension</th>
<th>Key conditions</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atmosphere</td>
<td>• Congruence</td>
<td>Nadin et al. (2004),</td>
</tr>
<tr>
<td></td>
<td>• Consensus</td>
<td>Blumenberg et al. (2008)</td>
</tr>
<tr>
<td></td>
<td>• Mutual benefit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Mutual business understanding</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Cultural compatibility</td>
<td></td>
</tr>
<tr>
<td>Behaviour</td>
<td>• Age of relationship</td>
<td>Cong &amp; Chau (2007),</td>
</tr>
<tr>
<td></td>
<td>• Benefit and risk sharing</td>
<td>Blumenberg et al. (2008)</td>
</tr>
<tr>
<td></td>
<td>• Knowledge sharing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Investments</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Participation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Personal visits</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Communication quality</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Confidence</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Coordination</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Cultural understanding</td>
<td></td>
</tr>
<tr>
<td>Contract</td>
<td>• Contract conformity</td>
<td>Ali Babar et al. (2007)</td>
</tr>
<tr>
<td>Environment</td>
<td>• Culture</td>
<td>Carmel (1999), Rottman &amp; Lacity (2008)</td>
</tr>
<tr>
<td></td>
<td>• Geographical location of key actors</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Time zone differences</td>
<td></td>
</tr>
<tr>
<td>Management</td>
<td>• Financial management</td>
<td>Carmel (1999), Cadle &amp; Yeates (2001)</td>
</tr>
<tr>
<td></td>
<td>• Project management</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Resource management</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Time management</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Quality management</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Team building</td>
<td></td>
</tr>
<tr>
<td>Outcome</td>
<td>• Expectation realization</td>
<td>Lee &amp; Kim (1999), Fabrick et al. (2008), Siakas</td>
</tr>
<tr>
<td></td>
<td>• Relationship quality</td>
<td>&amp; Siakas (2008)</td>
</tr>
<tr>
<td></td>
<td>• Service quality</td>
<td></td>
</tr>
</tbody>
</table>

The literature review on IS outsourcing resulted in the identification of key conditions and how these key conditions are related to each other. Through the identified relations among key conditions and the resulting categorisation of key conditions in dimensions new interrelations among dimensions are identified. New is referring to that the interrelations among dimensions have not been identified in Chapter 5 or 6. The identified interrelations among dimensions are presented in Table 7.12 together with descriptions. These interrelations between dimensions are graphically represented in Figure 7.2.
The interrelations among dimensions summarized in Table 7.12 and graphically represented in Figure 7.2 are identified as a result of the conducted literature review on IS outsourcing. The relations among the identified key conditions presented in Table 7.1-Table 7.8 constitute the basis for the identified interrelations among dimensions. As a result, the interrelations among dimensions are an outcome of the categorisation of key conditions in dimensions, both the categorisation of key conditions conducted in this chapter and in Chapter 5 and 6. Consequently the number of dimensions represented in Table 7.12 and Figure 7.2 are more than the ones represented in Table 7.11.
Table 7.12: Interrelations among dimensions identified as a result of the conducted literature review (to be continued)

<table>
<thead>
<tr>
<th>Dimensional interrelation</th>
<th>Descriptions</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atmosphere – Behaviour</td>
<td>Behavioural conditions such as cultural understanding, investments and personal visits contribute to the creation and maintenance of trustworthy client–IS supplier relationships. Established trust contributes a high degree of knowledge sharing.</td>
<td>Lee &amp; Kim (1999), Kern &amp; Willcocks (2001), Siakas &amp; Siakas (2008)</td>
</tr>
<tr>
<td>Atmosphere – Contract</td>
<td>Contract conformity is one way of positively influencing the establishment and maintenance of trust.</td>
<td>Nguyen et al. (2006), Ali Babar et al. (2007)</td>
</tr>
<tr>
<td>Atmosphere – Environment</td>
<td>A high degree of cultural compatibility such as closeness of behaviour patterns, values and norms, influences the atmosphere of the client–IS supplier relationship positively. Furthermore, when cultural compatibility is high the problems related to the culture diminish.</td>
<td>Blumenberg et al. (2008)</td>
</tr>
<tr>
<td>Behaviour – Interaction</td>
<td>A communicative client–IS supplier relationship increases the possibility of forming a relationship recognised by behavioural conditions such as coordination and knowledge sharing.</td>
<td>Cong &amp; Chau (2007), Siakas &amp; Siakas (2008)</td>
</tr>
<tr>
<td>Behaviour – Outcome</td>
<td>The relationship quality is influenced by several behavioural conditions during the IS outsourcing process. The conditions of benefit and risk sharing influence the degree of successful outcome of the IS outsourcing process. Benefit and risk sharing concern the degree of articulation and agreement on benefit and risk among the key actors.</td>
<td>Lee &amp; Kim (1999)</td>
</tr>
<tr>
<td>Environment – IS</td>
<td>The IS activity to be outsourced should be carefully evaluated in terms of the geographical distance between client and IS supplier. The greater the distance between the key actors, the more structured the outsourced IS activity should be and the more significant the use of a common IS life cycle approach becomes. Furthermore, it is recommended that IS activities outsourced to an offshore IS supplier should be culturally neutral, i.e., IS activities that are less dependent on cross-cultural understanding.</td>
<td>Prikladnicki et al. (2003), Sakthivel (2005), Bergkvist (2007)</td>
</tr>
</tbody>
</table>
Table 7.12 (continuation): Interrelations among dimensions identified as a result of the conducted literature review

<table>
<thead>
<tr>
<th>Dimensional interrelation</th>
<th>Descriptions</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment – Organisation</td>
<td>The condition of organisational flexibility contributes positively to the management of cultural differences.</td>
<td>Lee &amp; Kim (1999), Blumenberg et al. (2008)</td>
</tr>
<tr>
<td>Interaction – IS</td>
<td>The more communicative relationship, the easier the performance of IS activities. This counts in particular for unstructured and complex IS activities.</td>
<td>Lee et al. (1999), Cullen et al. (2005b), Niederman et al. (2006)</td>
</tr>
<tr>
<td>IS – Management</td>
<td>Control of the IS outsourcing process is one way to improve performance of IS activities in relation to certain firm goals and strategies. The more unstructured IS activity, the higher the degree of performance control of the IS outsourcing process is required. Irrespective of the degree of structure of the IS activity outsourced, the management strategy needs to be adjusted to the specific outsourced IS activity.</td>
<td>Lee et al. (1999), Bergkvist (2007)</td>
</tr>
<tr>
<td>Organisation – Outcome</td>
<td>The relationship quality is influenced by the organisational degree of flexibility during the IS outsourcing process. Organisational flexibility concerns, for example, the degree of willingness to make adaptations when something unpredictable occurs.</td>
<td>Lee &amp; Kim (1999), Blumenberg et al. (2008)</td>
</tr>
</tbody>
</table>

Chapters 5-7 have constituted literature reviews on the theoretical fields of IS, interorganisational business relationships and IS outsourcing. The theories, models and concepts described have resulted in the identification of key conditions that influence the degree of successful outcome of the IS outsourcing process from a relationship perspective. The key conditions have been categorised in dimensions essential for describing and explaining the degree of successful outcome of the IS outsourcing process from a relationship perspective. The collected knowledge, in form of key conditions, dimensions and interrelations among dimensions, is reused by its amalgamation into a conceptual framework. This conceptual framework is presented in the subsequent chapter.
8 A conceptual framework for the information systems outsourcing process

This chapter presents a conceptual framework for the IS outsourcing process. The conceptual framework builds on a combination of contributions from theories about IS, interorganisational business relationships and IS outsourcing for describing and explaining the degree of successful outcome of the IS outsourcing process. The relationship perspective is used for identifying key conditions and dimensions, which are the core elements of the conceptual framework. The core elements in the conceptual framework are derived from Chapters 3-7. The knowledge contribution of this chapter comes from an amalgamation of the contributions of Chapters 3-7. This amalgamation results in the elimination of key condition overlaps, a presentation of dimensions and corresponding key conditions, and interrelations among dimensions. The chapter concludes with a presentation and a graphical representation of the conceptual framework for describing and explaining the degree of successful outcome of the IS outsourcing process from a relationship perspective.

8.1 Derivation of the elements included in the conceptual framework

The core elements of the conceptual framework for the IS outsourcing process include key conditions and dimensions. Moreover, the identified and described interrelations among dimensions constitute an element of the conceptual framework. Three theoretical fields comprise the basis for the identification of key conditions, dimensions and interrelations: IS, interorganisational business relationships and IS outsourcing. The key conditions have been identified according to their influence on the degree of successful outcome of the IS outsourcing process. Furthermore, the key conditions have been identified from a relationship perspective. This means that the key conditions influence the degree of successful outcome from the perspective of both client key actors and IS supplier key actors. The client–IS supplier relationship is therefore an important element of the conceptual framework. The IS outsourcing relationship is represented in the conceptual framework through the three areas of the client firm, the IS supplier firm and key actors’ possible intra-firm and inter-firm interactions.

In addition to the relationship perspective, the IS outsourcing process was described in Chapter 4. The presentation of the relationship perspective and the IS outsourcing process mainly aimed at clarifying two of the central building blocks of this research study. As well, the review and description of the IS outsourcing relationship and the IS outsourcing process contributed the identi-
fication of essential key conditions that are important to include in the conceptual framework.

The dimensions identified and included in the conceptual framework are derived from theories about strategies, approaches and frameworks for the IS life cycle (Chapter 5) and interorganisational business relationships (Chapter 6). From Chapter 5 the dimensions Behaviour, IS and Organisation were identified. The literature presentation in Chapter 6 contributed the identification of the dimensions Atmosphere, Contract, Environment, Interaction, Management and Outcome. The review of literature presented in Chapters 3-7 contributed the identification of key conditions influencing the degree of successful outcome of the IS outsourcing process from a relationship perspective. As a result of the conducted literature reviews from Chapters 5-7, interrelations among dimensions were identified. Figure 8.1 is a graphical representation of the elements (key condition, dimension and/or interrelation among dimensions) from Chapters 3-7 for the development of the conceptual framework for the IS outsourcing process.

Figure 8.1: The elements of the conceptual framework and their derivation to different chapters of this thesis
The combination of theories and the identification of elements contribute to the purpose of this research study: to develop a conceptual framework for describing and explaining the degree of successful outcome of the IS outsourcing process from a relationship perspective.

By using the conceptual framework, it should be possible to describe the core elements to be considered in the IS outsourcing decision and subsequent design of the post-contract stage of the IS outsourcing process. Furthermore the dimensions, key conditions and interrelations among dimensions provide managers at the business, process and IS area of the client and IS supplier firm with useful information about the implementation of IS outsourcing. The information provided includes dimensions important to consider during the post-contract stage of the IS outsourcing process. The key conditions explain in more detail what should be considered during the management of each dimension. Thus, the dimensions and key conditions provide managers with information about management of the single firm, key actors involved and management of the IS outsourcing relationship. The result of performing the IS outsourcing process with the use of the conceptual framework as the basis, should contribute a high degree of successful outcome of the IS outsourcing process.

The practical application of the conceptual framework for the successful outcome of the IS outsourcing process has been presented. From a theoretical point of view, it is thought that the conceptual framework should capture the essence of the IS outsourcing process for receiving a successful outcome from the relationship perspective. As a result, the conceptual framework is a fruitful ‘tool’ for future empirical research: fruitful in the sense that it can provide useful and important insights into how different key conditions influence the degree of successful outcome of the IS outsourcing process and how these key conditions are interrelated.

8.2 The elements of the conceptual framework for the information systems outsourcing process

The literature review study on IS, interorganisational business relationships and IS outsourcing has emphasised the identification of key conditions that influence the degree of successful outcome of the IS outsourcing process. The result of the analysis is a multiplicity of key conditions related to the degree of successful outcome of the IS outsourcing process. The identified key conditions have common denominators, such as management issues or contract issues,
which has resulted in the categorisation of the key conditions in dimensions. This method of performing research, i.e., identifying key conditions and thereafter categorising them in relevant dimensions, has support in previous research (e.g., Kwon & Zmud, 1987; Lacity & Hirschheim, 1994; Reponen, 1998). The dimensions are a result of the literature review on IS and interorganisational business relationships and are therefore relevant for studying the IS outsourcing process from the relationship perspective. The dimensions are the following: Atmosphere, Behaviour, Contract, Environment, Interaction, IS, Management, Organisation and Outcome. The use of dimensions facilitates the management of the key conditions and furthermore contributes to the readability and clarity of the presentation of the conceptual framework. The interrelations among the dimensions constitute the third element of the conceptual framework.

The elements of the conceptual framework are summarized and presented in Table 8.6 ‘Summary of essentially identified key conditions and their categorisation in dimensions’, subchapter 8.2.2 ‘Dimensions included in the conceptual framework’ and Table 8.7 ‘Identified interrelations among dimensions’.

### 8.2.1 Key conditions included in the conceptual framework

The aim of this subchapter is to provide a summary of the key conditions included in the conceptual framework. First, however, the key conditions and the dimensions identified as a result of the conducted literature review study need to be further elaborated. For example, the key conditions identified from the conducted literature review in Chapter 3 and 4 have not yet been categorised in representative dimensions. This is accomplished in the next section together with the elimination of key condition overlaps.

Before a summary of key conditions can be presented, the Atmosphere and the Behaviour dimension need to be discussed from the point of view of their distinguishing attributes. The ambiguity between the two dimensions arises from the similarity characteristics of the key conditions categorised in the dimensions.

As a result of the elaboration on key conditions and dimensions, a summary of the key conditions included in the conceptual framework is provided. This summary is presented in Table 8.6 and includes the key conditions that influence the degree of successful outcome of the IS outsourcing process.
Categorisation of key conditions and elimination of key condition overlaps

The number of key conditions identified in Chapter 7 has been reduced according to the existing overlaps with key conditions identified in Chapter 5 and 6. It is also necessary to eliminate key condition overlaps in Chapters 3-6. Each of the key conditions in Chapter 3 and 4 has not yet been categorised into one of the nine dimensions. This is presented subsequently. Table 8.1 lists all key conditions identified in Chapter 3 and 4. The ones in italics are unique key conditions. The expression ‘unique’ is used to indicate that there is no key condition overlap with other identified and already categorised key conditions. Each unique key condition is categorised in a dimension according to its characteristic that corresponds with other key conditions already categorised in the nine dimensions.

Out of the key conditions listed in Table 8.1, it is only firm strategies’ alignment that has been categorised in another dimension: Management. This categorisation is a result of the conducted literature review in Chapter 6. Firm strategies’ alignment is most surely an issue for management, but foremost within the single firm. As a result, firm strategies’ alignment is an organisational question and therefore categorised in the dimension Organisation.

When comparing the key conditions identified in Chapter 5 and 6 and their categorisation in dimensions, overlaps are discerned. The existing overlaps include the key conditions of communication, management strategy and IS activity. These three key conditions furthermore have been categorised in different dimensions because of the literature review conducted in Chapter 5 and 6. The different categorisations of the key conditions in dimensions are illustrated in Table 8.2. In Chapter 5 the key conditions are categorised in the dimension Behaviour and IS. On the contrary, the literature review in Chapter 6 resulted in the categorisation of communication in the dimension Interaction, management strategy in the dimension Management, and IS activity in the dimension Contract.
Table 8.1: Key conditions identified from Chapter 3 and 4 and their categorisation in dimensions (to be continued)

<table>
<thead>
<tr>
<th>Key conditions</th>
<th>Dimension and descriptions</th>
<th>References</th>
</tr>
</thead>
</table>
| Derived from subchapter 4.5:  
  • Contract management  
  • Governance  
  • Knowledge management  
  • Performance management  
  • Strategic management  
  • Working relationship management  
  • Interaction | Management  
  The management key conditions identified in Chapter 4 include specific management activities, which when performed professionally, are assumed to contribute to a high degree of successful outcome of the IS outsourcing process. Strategic management comprises all the activities of strategic fit and functional integration. The key conditions interaction and knowledge management have also been identified in Chapter 6. Knowledge management is categorised in the dimension Management whereas interaction denotes the interactions taking place between client and IS supplier during the operationalisation of the IS outsourcing process. | Håkansson (1982), Henderson & Venkatraman (1999), Alborz et al. (2003) |
| Derived from subchapter 3.6:  
  • The special case of IS outsourcing | The special case of IS outsourcing has also been identified as a key condition in Chapter 6 and categorised in the dimension Management. This categorisation is furthermore motivated as the special case of IS outsourcing (e.g. IS offshoring, IS nearshoring) brings specific circumstances, such as cultural diversity, which influence the management of the IS outsourcing process. | Blumenberg et al. (2008) |
| Derived from subchapter 4.5:  
  • Balance among firm areas  
  • Firm strategies’ alignment  
  • Firm strategies’ integration | Organisation  
Table 8.1 (continuation): Key conditions identified from Chapter 3 and 4 and their
categorisation in dimensions

<table>
<thead>
<tr>
<th>Key conditions Derived from subchapter 4.5:</th>
<th>Dimension and descriptions</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Key actors</td>
<td>Behaviour</td>
<td>Lacity &amp; Willcocks (2000)</td>
</tr>
<tr>
<td></td>
<td>Key actors was identified as a key condition from the literature review on IS (Chapter 5). The key actors are those who implement and realize the stipulated agreements of the IS outsourcing contract and are therefore identified as a key condition.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key conditions Derived from subchapter 4.5:</th>
<th>Contract</th>
<th>Kern &amp; Willcocks (2001)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• IS outsourcing strategies’ alignment</td>
<td>IS outsourcing strategies’ alignment concerns the alignment of the client’s and the IS supplier’s IS outsourcing strategy. The alignment concerns key actors’ expectations and should therefore be dealt with during contract negotiation.</td>
<td></td>
</tr>
</tbody>
</table>

The motivation for categorising communication and management strategy in the Behaviour dimension is given in Chapter 5 and finds that the key condition communication is found to be important when performing IS activities (e.g. Sakthivel, 2005). Communication is especially key to reaching a mutual understanding about how the relationship should be designed and activities performed during the IS outsourcing process. As a result of describing the interaction approach in Chapter 6, however, it became obvious that the key condition of communication denotes the exchange episodes between client and supplier as part of the interaction process (Håkansson, 1982). As a result, the most suitable categorisation of the key condition communication is in the dimension Interaction.

Table 8.2: Key conditions that have been categorised in different dimensions as a result of the conducted literature review in Chapter 5 and 6

<table>
<thead>
<tr>
<th>Key condition</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>Behaviour (Chapter 5), Interaction (Chapter 6)</td>
</tr>
<tr>
<td>Management strategy</td>
<td>Behaviour (Chapter 5), Management (Chapter 6)</td>
</tr>
<tr>
<td>IS activity</td>
<td>IS (Chapter 5), Contract (Chapter 6)</td>
</tr>
</tbody>
</table>

The motivation for categorising management strategy in the dimension Behaviour in Chapter 5, is that the less standardised and/or unstructured the outsourced IS activity is, the more effort is needed on the strategy of managing the IS outsourcing process (e.g. Sakthivel, 2005). The management strategy is necessarily important both for the management of the client–IS supplier rela-
tionship and for the management of the IS outsourcing process. Therefore, it is more natural to include the key condition management strategy in the Management dimension. The management strategy needs to incorporate the entire IS outsourcing process and not just some parts of the process such as the management of the outsourced IS activity.

It seems natural to categorise the key condition IS activity in the dimension IS. The contract is certainly influenced by the type of IS activity outsourced, which instead is represented by the interrelation between the dimension Contract and IS.

To summarize, the result of the discussion on the categorisation of the key conditions communication, management strategy and IS activity is as follows:

- the key condition communication is hereafter categorised in the dimension Interaction,
- the key condition management strategy is hereafter categorised in the dimension Management and
- the key condition IS activity is hereafter categorised in the dimension IS.

**Elimination of ambiguity between the Atmosphere and the Behaviour dimension**

Because the overlaps among the identified key conditions were eliminated, a summary of the total number of key conditions and their categorisation in dimensions can be presented. An explanation of the main difference between the two dimensions Atmosphere and Behaviour, however, is thought to be necessary. This is a result of that the key conditions categorised in these two dimensions are characteristically similar. The boundary between these two dimensions is ambiguous.

Håkansson (1982) describes the atmosphere as a product of the specific client–supplier relationship. The atmosphere of the working relationship influences the episodes of exchanges through conditions such as conflict, cooperation and trust. The Behaviour dimension is based mainly on the notion referred to as the ‘Karlstad University Approach’. This approach is a designation of the field of IS as an integration of people, IS and business operations (Håkangård & Nilsson, 2001). In Chapter 5, this is symbolized through the dimensions Behaviour, IS and Organisation. Kern and Willcocks (2001) include conditions such as trust, conflict, power and cooperation, in the dimension which they refer to as

In this research study, the dimensions Atmosphere and Behaviour are treated as separate from each other. The Atmosphere dimension includes the client–IS supplier relationship and conditions that depend on this specific relationship. This coincides with how Håkansson (1982) denotes the working atmosphere. On the contrary, the Behaviour dimension is used for characterising the individual key actor, i.e., the client firm and its key actors or the IS supplier firm and its key actors. The application of the Atmosphere dimension and the Behaviour dimension as previously described is significant as the single key actor and his behaviour towards the relationship may influence the degree of successful outcome of the IS outsourcing process. The result of characterising the Atmosphere and Behaviour dimension as previously described is the necessity of scrutinizing the key conditions categorised in both these dimensions. The key conditions currently categorised in the Atmosphere dimension are presented in Table 8.3. The key conditions are presented according to how they have been structured in groups in Table 6.2 and Table 7.11. The number of key conditions is consequently a result of summarizing the key conditions categorised in the Atmosphere dimension in Chapter 6 and 7.

Table 8.3: Summary of key conditions categorised in the dimension Atmosphere as a result of the conducted literature review in Chapter 6 and 7

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Key conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atmosphere</td>
<td></td>
</tr>
<tr>
<td>Conflict</td>
<td></td>
</tr>
<tr>
<td>Cooperation</td>
<td></td>
</tr>
<tr>
<td>Mutual dependency</td>
<td></td>
</tr>
<tr>
<td>Power</td>
<td></td>
</tr>
<tr>
<td>Firm size</td>
<td></td>
</tr>
<tr>
<td>Congruence</td>
<td></td>
</tr>
<tr>
<td>Consensus</td>
<td></td>
</tr>
<tr>
<td>Mutual benefit</td>
<td></td>
</tr>
<tr>
<td>Mutual business understanding</td>
<td></td>
</tr>
<tr>
<td>Cultural compatibility</td>
<td></td>
</tr>
<tr>
<td>Honesty</td>
<td></td>
</tr>
<tr>
<td>Openness</td>
<td></td>
</tr>
<tr>
<td>Reliability</td>
<td></td>
</tr>
<tr>
<td>Trust</td>
<td></td>
</tr>
<tr>
<td>Commitment</td>
<td></td>
</tr>
<tr>
<td>Win-win mentality</td>
<td></td>
</tr>
</tbody>
</table>

The key conditions currently categorised in the Behaviour dimension are presented in Table 8.4. The key conditions are presented according to how they have been structured in groups in Table 5.1 and Table 7.11. The number of key conditions is consequently a result of summarizing the key conditions categorised in the Behaviour dimension in Chapter 5 and 7. The number of key conditions in Table 8.4 moreover is a result of removing key condition overlaps, which were presented in Table 8.2.
Table 8.4: Summary of key conditions categorised in the dimension Behaviour as a result of the conducted literature review in Chapter 5 and 7

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Key conditions</th>
</tr>
</thead>
</table>
| Behaviour | • Age of relationship  
|           | • Benefit and risk sharing  
|           | • Key actors  
|           | • Knowledge sharing  
|           | • Investments  
|           | • Participation  
|           | • Personal visits  
|           | • Communication quality  
|           | • Confidence  
|           | • Coordination  
|           | • Cultural understanding |

The categorisation of the key conditions in Table 8.3 and Table 8.4 is a result of the conducted literature review study. The recategorisation of these key conditions, presented in Table 8.5, is an outcome of my own interpretation according to the presented characteristics of the dimensions Atmosphere and Behaviour. The key conditions are structured in groups according to how they are related, which are identified as a result of the conducted literature review. Each group of key conditions ends with an underlined key condition.

Table 8.5: Recategorisation of key conditions in the dimensions Atmosphere and Behaviour as a result of the conducted literature review study

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Key conditions</th>
<th>References</th>
</tr>
</thead>
</table>
| Atmosphere | • Conflict  
|           | • Cooperation  
|           | • Mutual dependency  
|           | • Power  
|           | • Coordination  
|           | • Congruence  
|           | • Consensus  
|           | • Mutual benefit  
|           | • Mutual business understanding  
|           | • Cultural compatibility  
|           | • Age of relationship  
|           | • Benefit and risk sharing  
|           | • Knowledge sharing  
|           | • Reliability  
|           | • Commitment  
|           | • Trust  
|           | • Win-win mentality  
| Behaviour | • Communication quality  
|           | • Confidence  
|           | • Cultural understanding  
|           | • Honesty  
|           | • Openness  
|           | • Investments  
|           | • Key actors  
|           | • Firm size  
|           | • Participation  
|           | • Personal visits  
|           | Kinnula & Juntunen (2005), Nguyen et al. (2006), Ali Babar et al. (2007) |

The identified ambiguity among dimensions concerns the Atmosphere and Behaviour dimension. As a result of eliminating the ambiguity between the two
dimensions the next section aims to present the key conditions included in the conceptual framework and their categorisation in dimensions.

Summary of key conditions included in the conceptual framework

A summary of the total number of key conditions and their categorisation in the nine dimensions are presented in Table 8.6. The summary comprises the results of the performance of the following:

- the identification of key conditions from the conducted literature review on IS outsourcing terms (Chapter 3), building blocks of the present research study (Chapter 4), IS theories (Chapter 5), interorganisational business relationship (Chapter 6) and IS outsourcing (Chapter 7),
- the categorisation of identified key conditions in dimensions,
- the elimination of identified key condition overlaps,
- the explanation and elimination of the ambiguity between the Atmosphere and Behaviour dimensions and
- recategorisation of key conditions previously categorised in the Atmosphere and Behaviour dimensions.

Due to the amount of key conditions identified the key conditions are structured in groups according to how they are related, which was ascertained from the conducted literature review study. In Table 8.6 each group of key conditions ends with an underlined key condition. Besides the identified key conditions, the identified dimensions constitute another element of the conceptual framework. These dimensions are presented subsequently.

8.2.2 Dimensions included in the conceptual framework

Thus far, the nine dimensions have not been organised according to a specific structure. Both with the interaction approach (Håkansson, 1982) and the framework for the IS outsourcing relationship (Kern & Willcocks, 2001), it is recommended to apply a structure on the dimensions for studying IS outsourcing processes. The applied structure is the division of the nine dimensions into contextual dimensions, relationship-specific dimensions and actor-specific dimensions. This chosen structure builds on the conducted literature review study, the characteristics of the key conditions categorised in each dimension and my own interpretation.
Table 8.6: Summary of essentially identified key conditions and their categorisation in dimensions as a result of the conducted literature review study (to be continued)

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Key conditions</th>
<th>References</th>
</tr>
</thead>
</table>
Table 8.6 (continuation): Summary of essentially identified key conditions and their categorisation in dimensions as a result of the conducted literature review study

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Key conditions</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interaction</td>
<td>• Adaptation</td>
<td>• Financial exchange</td>
</tr>
<tr>
<td></td>
<td>• Institutionalisation</td>
<td>• Information exchange</td>
</tr>
<tr>
<td></td>
<td>• Capability</td>
<td>• Service exchange</td>
</tr>
<tr>
<td></td>
<td>• Inconsistency</td>
<td>• Social exchange</td>
</tr>
<tr>
<td></td>
<td>• Mutuality</td>
<td>• Communication</td>
</tr>
<tr>
<td></td>
<td>• Particularity</td>
<td></td>
</tr>
<tr>
<td>IS</td>
<td>• IS activity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• ISD strategy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• IS life cycle approach</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• IS framework</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Stability</td>
<td>• Strategic management</td>
</tr>
<tr>
<td></td>
<td>• Team building</td>
<td>• Time management</td>
</tr>
<tr>
<td></td>
<td>• Control</td>
<td>• Quality management</td>
</tr>
<tr>
<td></td>
<td>• Contract management</td>
<td>• Working relationship management</td>
</tr>
<tr>
<td></td>
<td>• Financial management</td>
<td>• Governance</td>
</tr>
<tr>
<td></td>
<td>• Knowledge management</td>
<td>• Support from top management</td>
</tr>
<tr>
<td></td>
<td>• Performance management</td>
<td>• The special case of IS outsourcing</td>
</tr>
<tr>
<td></td>
<td>• Project management</td>
<td>• Management fit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Management strategy</td>
</tr>
<tr>
<td></td>
<td>• Firm strategies’ alignment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Firm strategies’ integration</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Agility</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Flexibility</td>
<td></td>
</tr>
<tr>
<td>Outcome</td>
<td>• Expectation realization</td>
<td>• Relationship quality</td>
</tr>
<tr>
<td></td>
<td>• Satisfaction</td>
<td>• Transaction cost</td>
</tr>
<tr>
<td></td>
<td>• Performance</td>
<td>• Customisation</td>
</tr>
<tr>
<td></td>
<td>• Service quality</td>
<td>• Uncertainty reduction</td>
</tr>
</tbody>
</table>
For example, the interaction approach focuses partly on the relationship-specific interaction process and partly on contextual dimensions in the form of working atmosphere and environmental aspects. In the descriptions of the Behaviour and Organisation dimensions, it becomes apparent that their main emphasis is on one of the key actors in the client–IS supplier relationship. The division of the nine dimensions into contextual dimensions, relationship-specific dimensions and actor-specific dimensions is as follows:

**Contextual dimension**: Environment

**Relationship-specific dimensions**: Atmosphere, Contract, Interaction, IS, Management, Outcome

**Actor-specific dimensions**: Behaviour, Organisation

Subsequently, the nine dimensions are presented and discussed with emphasis on their relevance for studying the degree of successful outcome of the IS outsourcing process. The presenting order of the dimensions follows the division stated previously, beginning with the Environment dimension.

**The Environment dimension**

The IS outsourcing process does not exist in an isolated vacuum but is influenced by several environmental aspects (Kern & Willcocks, 2001). This is also the case for the IS outsourcing relationship. The key conditions identified that correspond to the environment of the IS outsourcing process have been categorised in the Environment dimension.

During IS outsourcing, the presence of cultural differences becomes particularly obvious. This is especially the case when the client and the IS supplier are located geographically far from each other, as for example in IS offshore outsourcing. The existence of cultural differences and geographical distances between client and IS supplier influence several of the identified key conditions negatively. For example, face-to-face communication and the perceived relationship quality are reduced (Carmel, 1999; Blumenberg et al., 2008). It is further found that the more geographically dispersed the key actors are, the more significant the act of management becomes (Prikладникі et al., 2003).

Market dynamism, internalisation and structure influence the parties of the interaction process and the episodes of exchanges (Håkansson, 1982). The market dynamism concerns changes in the market, which eventually affects the client–IS supplier relationship. Internalisation of the market, for example, con-
cerns sales arrangements, language and trade legislation. Changes in the market internalisation may result in difficulties performing and managing exchanges that are included as part of the interaction process.

There are more environmental aspects than those mentioned. However, the previous presentation shows that the key conditions of the Environment dimension are relevant from different points of view. The client–IS supplier relationship is affected by the surrounding environment and sometimes its performance is even restricted due to environmental circumstances such as trade legislation. Moreover, the managers of the IS outsourcing process need to incorporate the cultural circumstances following IS outsourcing to develop a suitable management strategy. Thus, the key conditions of the Environment dimension relate to other key conditions. The inclusion of the Environment dimension is significant when describing and explaining the degree of successful outcome of the IS outsourcing process.

The Atmosphere dimension

The Atmosphere dimension is included in this study since it contributes the description of circumstances that depend on the specific client–IS supplier relationship (Håkansson, 1982). Key conditions such as power, conflict, cooperation and trust, depend on the relationship. For example, the more cooperative the relationship is (i.e., high degree of trust and commitment) the more mutually dependent the key actors become (Morgan & Hunt, 1994). Some of the key conditions categorised in the Atmosphere dimension are intertwined (Håkansson, 1982). For example, the degree of power a client perceives depends on the degree of IS supplier dependency, which is a result of the current client–IS supplier relationship.

All of the key conditions categorised in the Atmosphere dimension in Table 8.6 fulfill the condition that the degree of the key conditions experienced by the key actors depends on their current relationship. This becomes apparent when scrutinizing the definition of the key conditions. Congruence means the key actors’ general agreement concerning the client–IS supplier relationship. Service exchanges and consensus refers to the extent of general agreement among the involved key actors (Blumenberg et al., 2008).

The Atmosphere dimension is obviously significant for describing and explaining the degree of successful outcome of the IS outsourcing process.
Especially since the perspective used for studying the successful outcome of the IS outsourcing process in this research study is the relationship perspective.

The Contract dimension

It has been stipulated in previous research that any relationship framework that should be applied to study IS outsourcing, needs to integrate the relevance of the contract (Kern, 1999). The contract is the foundation for IS outsourcing and symbolizes the commitment between the client and the IS supplier (Kern & Willcocks, 2000). The contractual agreement should be built on several conditions, which are a result of the key actors’ expectations and the agreed episodes of exchanges between the client and the IS supplier. The contractual agreement needs, for example, to consider key actors’ expectations and requirements, build-in clarity to avoid misunderstandings in the post-contract stage and consider the complexity of the outsourced IS activity (Lacity & Willcocks, 1998; Fisher et al., 2008). Contract flexibility is moreover expressed as a prerequisite when formulating the content of the contract (Fisher et al., 2008). Through flexibility, it becomes possible to reflect the evolution of technology, firm requirements, relationship development and emergence of new competitive services.

Another issue that needs to be discussed when agreeing on the content of the contract is each key actor’s IS outsourcing strategy. The IS outsourcing strategies should preferably be aligned or partly aligned. IS outsourcing strategies’ alignment refers to the communication and clarification of the client’s and the IS supplier’s intentions and expectations of IS outsourcing (Kern & Willcocks, 2001). The aim of IS outsourcing strategies’ alignment is to avoid, or at least minimize, the possibility for unforeseen expectations to unfold in the post-contract stage of the IS outsourcing process.

The importance of including the contract as a dimension relates to the legality bound between the client and the IS supplier provided by the contract. Although the content of the contract is discussed during the pre-contract stage, and written during the contract stage of the IS outsourcing process, it has consequences for the post-contract stage25. It is during the post-contract stage of the IS outsourcing process that agreements stipulated in the contract are realized. The contract contributes to the realization of expectations, which in turn adds to the success of the IS outsourcing relationship (Parikh & Gokhale, 2001).

---

25 See Alborz et al. (2003) for a presentation on the stages of the IS outsourcing process.
2006). These facts explain the importance of including the Contract dimension when studying the degree of successful outcome of the IS outsourcing process. Since the contract includes stipulations for the performance of the IS outsourcing process, the Contract dimension has several links to the other dimensions. For example, the content of the contract partly depends on the special case of IS outsourcing (dimension Management) and the outsourced IS activity (dimension IS).

The Interaction dimension

The interaction process and the four episodes of exchanges are expressed as the core part of the interaction approach (Håkansson, 1982). The exchange episodes constitute the product/service exchanges, information exchanges, financial exchanges and the social exchanges. The exchanges of product/service are the core exchanges. This is because the characteristics of the product/service influence the inter organisational business relationship as a whole. Similarly, it has been found that the IS activity influences the IS outsourcing relationship (Hirschheim, 2006). The degree of structure of the IS activity determines the suitability for outsourcing and furthermore outlines how the client–IS supplier relationship and the IS outsourcing process have to be managed (Cullen et al., 2005b).

It is mainly social exchanges that contribute to long-term relationships because social exchanges contribute trust and understanding, which in turn lead to institutionalisation of the client–IS supplier relationship (Håkansson, 1982). In IS outsourcing literature institutionalisation concerns cultural closeness, shared approaches to problem solving, similar values and close personal chemistry (Kern & Willecocks, 2002). Information routines and social relations are part of the adaptations of the relationship (Håkansson, 1982). Cost reduction and increased revenue may result from adaptations. The more institutionalised the exchange episodes become and the higher the degree of relationship adaptation, the more likely it is that the service exchanges involve more complex and knowledge-demanded services. This includes IS activities such as requirement analysis and interface design (Shao & David, 2007).

Interactions between a client firm and an IS supplier contribute both to the comprehensive picture of the firm and the reasons for its existence. Interactions take the form of words and/or actions and can be frequent or infrequent, regular or irregular, explicit or implicit, conscious or unconscious. The
initiative of interactions is based on individual intentions. Client–supplier interactions involve both intentions and interpretation of intentions of the two parties (Giddens, 1975). During the IS outsourcing process several key actors are involved from different areas of the client and IS supplier firm, which result in several intentions and interpretations. To manage this complexity, each party needs to understand its own intentions as well as the intentions of its counterpart (Ford, 1990). Every new interaction constitutes an opportunity to learn about each other. As a result, the activities and capabilities of each party are adjusted to the particular relationship.

The features of client–IS supplier interactions are analysed from four aspects of interaction: capability, inconsistency, mutuality and particularity (Ford, 1990). Each aspect constitutes specific features of the interaction. The four aspects, however, are closely related to each other. In summary, the capability aspect concerns what the two parties can do for each other and the functions that they contribute. Inconsistency refers to the ambiguity and/or lack of clarity in the interaction, which influences the interpretation of the wishes and intentions of each interacting party. Mutuality focuses on the social relations among the parties and is based on the assumption that the two parties share common goals and/or interests. Finally, particularity denotes the direction and uniqueness of the interaction between client and IS supplier.

The interaction process and the single interaction of the client–IS supplier relationship has been found to be a significant element of interorganisational business relationships (Håkansson, 1982; Kern & Willcocks, 2002). Consequently, the interactions can not be rejected when studying the IS outsourcing process. The Interaction dimension is therefore perceived as an obvious element of the conceptual framework for the IS outsourcing process.

The Information systems dimension

The dimension IS considers the outsourced activity of concern in this research study: the IS and in particular activities of the IS life cycle. Different strategies, approaches and frameworks are available for the performance of the IS life cycle. Strategies include strategies for ISD, which is represented by in-house development, acquisition of standard application packages and component-based development (Brandt et al., 1998; Szyperski, 2002). The different ISD strategies, together with the applied IS life cycle approach, influence the performance of the ISD process and require different competencies of the
system developers. IS life cycle approaches are represented by the sequential, iterative and standard application package approach.

IS is often based on a combination of in-house, standard application packages and component-based parts (Christiansson, 2000). When outsourcing, for example, maintenance of this type of IS will provide consequences for the degree of complexity and for the competence and knowledge required. In-house developed parts, for example, require knowledge about the firm and the contributions that the IS aims to realize.

The different IS life cycle approaches require diverse involvement by the client. For example, the iterative approach builds on frequent communication with the client and its users whereas the sequential approach emphasises the performance of ISD activities (Andersen, 1994; Kruchten, 2002). The need for communication and face-to-face meetings will become more manifested when outsourcing ISD activities, which also is a result of the lack of structure of these types of activities. The client and the IS supplier need to be aware of the actual ISD strategy and IS life cycle approach to reach a mutual understanding about how the cooperation should be designed and activities performed during the IS outsourcing process.

Frameworks should be used to obtain an overall picture before outsourcing different IS activities. The framework should preferably address both technical and personal aspects concerned with IS usage. Two frameworks are presented that address the circumstances of IS outsourcing: the method-in-action framework and Zachman’s framework for IS architecture (Zachman, 1987; Fitzgerald et al., 2002). It is not suggested to adopt the frameworks in detail but instead they constitute the frame for IS outsourcing design. The frameworks are in a way a reminder that IS not only concerns technical issues but also organisational and behavioural aspects. This is important from the perspective of both the single firm and the client–IS supplier relationship since the IS outsourcing initiative influences different parts of the firm and the individuals working in the firm.

The different strategies, approaches, frameworks and trends presented as a result of the conducted literature review on IS theories, show that IS can not be viewed upon as a separate unit of the firm. Instead, changes in the IS infrastructure influence the organisational structure and the people in the firm. The
IS dimension is therefore perceived as a significant element of the conceptual framework for the IS outsourcing process.

*The Management dimension*

The Management dimension concerns the overall management of the IS outsourcing process. This includes both the management of the operationalisation of the IS outsourcing process and the management of the client–IS supplier relationship. Additionally, management of environmental aspects surrounding the IS outsourcing process and relationship, are included in the overall management.

More precisely, management of the operationalisation of the IS outsourcing process involves management related to the contract, finance, performance, time and quality (e.g. McFarlan & Nolan, 1995; Kumar & Palvia, 2002). Knowledge management, resource management, team building and working relationship management are management issues related to the client–IS supplier relationship (e.g. Blumenberg et al., 2008). When the IS outsourcing process is organised as a project, the financial management, resource management, time management and quality management are highly prioritised. These four management issues are of foremost importance during IS outsourcing project management (Fabriek et al., 2008).

The degree of management depends on, for example, the special case of IS outsourcing and the IS activity outsourced (e.g. Kumar & Palvia, 2002). These two circumstances are thus important to consider to guarantee that the most appropriate management strategy is applied.

Since the overall management of IS outsourcing has been found significant for reaching IS outsourcing success, it is obvious to include the Management dimension in the conceptual framework. In my opinion, the inclusion of key conditions related to management will contribute important insights for describing and explaining the degree of successful outcome of the IS outsourcing process.

*The Outcome dimension*

The Outcome dimension is related to the outcome of the IS outsourcing process. In this thesis, the choice has been to identify key conditions that influence the degree of successful outcome of the IS outsourcing process. In summary,
the degree of successful outcome, defined in subchapter 1.9.3, is dependent on the degree to which key actors’ expectations are met and the degree to which key actors are satisfied with the performance of the IS outsourcing process.

The expectations of the IS outsourcing process should be part of the contract that establishes the IS outsourcing relationship (Kern & Willcocks, 2001). When this is the case, the resulting outcome is more likely satisfied key actors because the performance of the IS outsourcing process is restricted by the stipulations of the contract. The stipulations of the contract include, for example, constraints of transaction costs and the quality of the resulting service. The stipulations are in themselves one way to reach a successful IS outsourcing process (Kern & Willecocks, 2001; Goles & Chin, 2005). The Outcome dimension further represents the termination of the IS outsourcing process and it is during this part of the process that the relationship quality is assessed. Relationship quality includes how well the outcome of the client–IS supplier relationship matches the key actors’ expectations (Lee & Kim, 1999).

The key conditions of the Outcome dimension are significant because they contribute the key actors’ assessment of how well the stipulations of the contract are realized. The evaluation of the performance of the IS outsourcing process usually results in either the termination of the IS outsourcing relationship or in the prolonging of the contract (Kern & Willecocks, 2001). Consequently, the Outcome dimension is important for describing and explaining the degree of successful outcome of the IS outsourcing process.

The Behaviour dimension

The border between the Behaviour dimension and the Atmosphere dimension has been described as ambiguous. The main difference between the two dimensions, stipulated and applied in this research study, is the dimensional focus on either the client–IS supplier relationship or on one of the key actors of this relationship. Whereas the Atmosphere dimension includes key conditions related to the client–IS supplier relationship, the Behaviour dimension emphasises the individual key actor. This does not necessarily mean, however, that the key conditions of the Behaviour dimension should not influence the client–IS supplier relationship. For example, an understanding of each key actor’s culture and the presence of personal visits contribute to a high degree of trust (Nguyen et al., 2006). The presence of trust promotes in turn the working atmosphere of the client–IS supplier relationship (Kern & Willcocks, 2001). Furthermore, it
has been found that the key actors’ firm size influences each key actor’s perceived degree of power-dependency during, for example interactive situations (Håkansson, 1982). As a result, the key conditions of the Atmosphere dimension and the Behaviour dimension are obviously interrelated.

The importance of including the Behaviour dimension in this research study comes from the descriptions about how the behaviour of the individual key actor influences the overall client–IS supplier relationship. The conclusion is that including the Behaviour dimension contributes to the knowledge about the client–IS supplier relationship and its performance during the IS outsourcing process. This knowledge contributes in turn a description of how the client–IS supplier relationship influences the degree of successful outcome of the IS outsourcing process.

*The Organisation dimension*

The Organisation dimension especially considers the individual key actor of the IS outsourcing relationship and organisational conditions related to the single client and IS supplier firm. The conditions refer to the three areas of a firm: business, process and IS (e.g. Tolis & Nilsson, 1996). The goal should be to reach a balance among these three areas to achieve distinctive competence (Rhenman, 1969). Interactions among key actors of the three firm areas continually contribute to the establishment of the desired balance. The balance contributes a bound among the key actors. This bound positively contributes to the achievement of firm strategies’ integration and alignment. Strategic integration is a result of firm strategies’ link with each other and with external components (Henderson & Venkatraman, 1999). External components are found in the surrounding marketplace. By considering external components, the firm becomes more competitive. Strategies’ alignment is achieved through the continuous process of communication and knowledge sharing among business managers (Martin et al., 2008).

The Organisation dimension also includes conditions related to the firm’s degree of flexibility and agility. Through the fast-paced global economy, firms are required to meet the demands of agility and flexibility (Bieberstein et al., 2005). One way for firms to become agile is to align IS by adopting SOA. SOA is perceived by many IT firms as the core for creating a flexible organisation (Cox & Kreger, 2005). Adopting SOA, however, does not only influence the IS area of the firm, but also requires organisational and behavioural trans-
formation to maximize its benefits. For example, the organisational structure has to meet business agility needs, streamline tasks and communication, and provide result-oriented outcomes (Bieberstein et al., 2005). The organisational changes impact the work of the individuals in the firm (Cherbakov et al., 2005).

In similarity with the Behaviour dimension, the Organisation dimension focuses especially on the individual key actor of the IS outsourcing relationship. It is found, however, that the conditions of the Organisation dimension are related to key conditions of other dimensions. For example, interrelations have been identified among the Organisation dimension and the Behaviour, Environment, IS and Outcome dimensions (these identified interrelations are presented in Table 8.7). This shows that the organisational conditions of the single key actor influence the performance of the client–IS supplier relationship and the IS outsourcing process. The Organisation dimension is thus perceived as relevant for incorporation into the conceptual framework for the IS outsourcing process.

### 8.2.3 Interrelations among dimensions included in the conceptual framework

The previous description of the nine dimensions focused on their separate qualities, but through the conducted literature review study, a number of interrelations among the dimensions have been identified. The interrelations are theoretically derived from the review of three theoretical fields (Chapters 5-7) and by comparing and combining the results from these literature reviews. The identified interrelations constitute a favourable starting point for studies on the successful outcome of the IS outsourcing process from a relationship perspective.

First, this subchapter includes a presentation of the interrelations among dimensions identified as a result of each conducted literature review (Chapters 5-7). This presentation aims to describe identified interrelations and moreover reflect on these interrelations as a result of key conditions’ recategorisation and the clarification of dimensions’ ambiguity previously described. Thereafter, the interrelations among dimensions included in the conceptual framework are summarized and graphically represented.
Interrelations among dimensions identified as a result of the conducted literature review on information systems theories

As a result of the literature review of strategies, approaches and frameworks for the IS life cycle presented in Chapter 5, three interrelations among dimensions were identified and described. The three interrelations are the following:

**Behaviour – IS:** The amount of required communication and management is dependent on the degree of structure and standardisation of the outsourced IS activity. Furthermore, some IS life cycle approaches include steps and phases that naturally involve a high degree of communication through frequent face-to-face meetings.

**Behaviour – Organisation:** The flexibility and agility of a firm does not only concern technical issues but also the individuals performing the business activities. The key actors of a firm are responsible for the firm’s quick adaptation to changing requirements.

**IS – Organisation:** IS facilitates the realization of the business activities. If the firm’s goal is to be flexible and meet the demands of an agile approach the IS infrastructure has to be adjusted to fit these requirements. The appropriate selection of, for example, ISD strategy and frameworks can facilitate the realization of these requirements.

The interrelation between Behaviour and IS builds on the key conditions communication and management, which were categorised in the Behaviour dimension in Chapter 5. The underlying cause for the identified interrelation was the outsourcing of IS activities recognized by high complexity requiring a great amount of communication and management. Because key condition overlaps were eliminated, the key conditions communication and management were removed from the Behaviour dimension. Consequently, the interrelation between the dimensions Behaviour and IS no longer correspond with the key conditions categorised in the dimensions. The interrelations relevant for describing and explaining the degree of successful outcome of the IS outsourcing process are **Behaviour** and **Organisation** and **IS** and **Organisation**.

Interrelations among dimensions identified as a result of the conducted literature review on interorganisational business relationships

Through the literature review on interorganisational business relationships, (Chapter 6) dimensions and interrelations among these dimensions were identified:
Atmosphere – Interaction: Of the exchange episodes, it is primarily the social exchanges that contribute an atmosphere of trust, commitment and long-term relationships. The degree of institutionalisation of operations and adaptation of social relations influences the long-term relationship. Effective communication and exchanges leading to satisfactory outcomes with the undertaking of complementary activities form the cooperation element of the atmosphere. Exchange episodes and long-term exchange experiences contribute to the evolution of the atmosphere.

Atmosphere – Management: The management strategy, for example, should include descriptions for managing conflicts and retaining control. Management fit between client and IS supplier contributes shared approaches for the performance of IS activities. Shared values and mutual dependency lead to a win-win mentality. The style of management used is important to prevent miscommunication, promote trust and overcome challenges with cultural diversity.

Atmosphere – Outcome: The degree of outcome satisfaction of the relationship does not only concern stipulations of the contract but also the experienced contributions of the specific client–IS supplier relationship such as degree of trust and commitment. Trust can be evaluated by performance of obligations and commitments, perceived benefits, outcome satisfaction and motivation to continue the relationship.

Contract – Environment: The contract must consider environmental aspects such as evolution of technical infrastructure, market structure, geographical location of key actors and emergence of new competitive firms, and should therefore have flexibility built-in.

Contract – Interaction: The contract specifies the exchange episodes that need to be present in order to reach the expected outcomes formulated by the involved key actors. The aim of the contract is to facilitate exchange episodes to reach better performance.

Contract – Management: The contract should consider the firms’ different strategies and managers’ needs to ensure that the IS outsourcing strategy contributes to the firm strategies. The management strategy partly builds on the stipulated agreements in the contract. The complexity of the outsourced IS activity partly influences the strategy of management.

Contract – Outcome: Both key actors’ expectations and performance instructions/restrictions are included in the contract. The resulting outcome should be satisfied key actors through the realization of expectations and performance metrics.
Environment – Interaction: Environmental aspects such as market structure, market dynamism, market internalisation, social system and technical infrastructure influence the performance of the interaction process and present exchange episodes.

Environment – Management: The more geographically dispersed the key actors in the interorganisational business relationship are, the more difficult the task of management becomes. To increase the success of management, an overall management strategy should be applied. Different cultures and technological uncertainty influence the degree of required management of control mechanisms, coordination and conflict management.

Interaction – Management: Communication is significant and makes it possible to influence, and most importantly, negotiate across organisational boundaries within both the client and the IS supplier firm. Management performance influences the intensity of communication such as communication frequency, informality and openness. Inconsistency of interactions is furthermore found to be one of the most difficult aspects of interaction to manage.

Outcome – Management: Variables of measurement stipulated in the contract constitute guidelines of management. Transaction costs, as a result of the relationship management, must meet the expectations in order to meet the requirements of satisfaction. Hidden management costs, therefore, need to be considered in the contract.

Interrelations among dimensions identified as a result of the conducted literature review on information systems outsourcing

As a result of the conducted literature review on IS outsourcing (Chapter 7), several key conditions were identified and described with a departure in how they relate to each other. The key conditions furthermore were categorised into the dimensions presented in Chapter 5 and 6. As a result of the identified relations among key conditions and their categorisation in dimensions, interrelations between dimensions were identified. These interrelations are described subsequently.

Atmosphere – Behaviour: Behavioural conditions such as cultural understanding, investments and personal visits contribute to the creation and maintenance of trustworthy client–IS supplier relationships. Established trust contributes a high degree of knowledge sharing.

Atmosphere – Contract: Contract conformity is one way of positively influencing the establishment and maintenance of trust.
Atmosphere – Environment: A high degree of cultural compatibility, such as closeness of behaviour patterns, values and norms, positively influences the atmosphere of the client–IS supplier relationship. Furthermore, when cultural compatibility is high the problems related to the culture diminish.

Behaviour – Interaction: A communicative client–IS supplier relationship increases the possibility of forming a relationship recognized by behavioural conditions such as knowledge sharing.

Behaviour – Outcome: The relationship quality is influenced by several behavioural conditions during the IS outsourcing process. The conditions of benefit and risk sharing are influential in the degree of successful outcome of the IS outsourcing process. Benefit and risk sharing concern the degree of articulation and agreement on benefit and risk among the key actors.

Environment – IS: The IS activity to be outsourced should be carefully evaluated in terms of the geographical distance between client and IS supplier. The greater the distance between the key actors, the more structured the outsourced IS activity should be, and the more significant the use of a common IS life cycle approach becomes. Furthermore it is recommended that IS activities outsourced to an offshore IS supplier should be culturally neutral, i.e., IS activities that are less dependent on cross-cultural understanding.

Environment – Organisation: The condition of organisational flexibility contributes positively to the management of cultural differences.

Interaction – IS: The more communicative the relationship, the easier the performance of IS activities, particularly unstructured and complex IS activities.

IS – Management: Control of the IS outsourcing process is one way to improve performance of IS activities in relation to certain firm goals and strategies. The more unstructured the outsourced IS activity, the higher the degree of performance control of the IS outsourcing process is required. Irrespective of the degree of structure of the IS activity outsourced, the management strategy needs to be adjusted to the specific outsourced IS activity.

Organisation – Outcome: The relationship quality is influenced by the degree of organisational flexibility during the IS outsourcing process. Organisational flexibility concerns, for example, the degree of willingness to make adaptations when something unpredictable occurs.

In this chapter, the interpreted difference between the dimensions Atmosphere and Behaviour have been clarified. As a result, the categorisation of key conditions in these two dimensions conducted in Chapter 6 and 7 have been reviewed. The result from this activity is presented in Table 8.5, which sum-
marizes the recategorisation of key conditions in the Atmosphere and Behaviour dimensions. According to the categorisation of key conditions in dimensions presented in Table 8.6, the interrelations among the dimensions Behaviour and Interaction, and Behaviour and Outcome shown in Chapter 7 are no longer relevant. These interrelations are instead represented by the interrelations between the dimensions Atmosphere and Interaction and Atmosphere and Outcome identified in Chapter 6.

The elimination of the key condition IS activity from the dimension Contract for instead being included in the dimension IS contributes to the existence of the interrelation between the dimensions Contract and IS. This is a result of the decision to formulate a complete or an incomplete contract influenced by the specific IS activity outsourced (Richmond et al., 1992).

Summary of interrelations among dimensions included in the conceptual framework

Table 8.7 summarizes and describes the number of identified interrelations among dimensions as a result of the conducted literature review study.

The number of identified interrelations among dimensions might be perceived as immense. The multiplicity of interrelations identified is mainly a result of including several theoretical fields in the literature review study. As previously presented the conducted literature review on IS theories contributed two interrelations among dimensions. Theories on interorganisational business relationships contributed eleven interrelations among dimensions. The conducted literature review on IS outsourcing provided eight interrelations among dimensions. Finally, as a result of eliminating the key condition IS activity from the dimension Contract to the dimension IS, an additional interrelation between the dimensions Contract and IS was identified. Altogether, the result is 22 identified interrelations among dimensions. The identified interrelations among dimensions included in the conceptual framework are graphically represented in Figure 8.2. Figure 8.2 aims to provide a better possibility for visualizing the identified interrelations among the nine dimensions.
The identified interrelations among the dimensions are a central element of the conceptual framework for the IS outsourcing process. The interrelations contribute to the description and explanation of the degree of successful outcome of the IS outsourcing process as they provide insights into how different key conditions influence and/or are related to each other.

8.3 A graphical representation of the conceptual framework for the information systems outsourcing process

The conceptual framework is graphically represented in Figure 8.3. The conceptual framework developed includes key conditions, dimensions and interrelations among dimensions that have been identified as a result of the conducted literature review study. The graphical representation of the conceptual framework, however, does not explicitly name all of the numerous key conditions. Moreover, the 22 identified interrelations among the dimensions are not represented in the graphical representation of the conceptual framework. The decision to exclude key conditions and interrelations among dimensions is a deliberate choice in order to be able to reach an overview of the conceptual framework for the IS outsourcing process.
Table 8.7: Identified interrelations among dimensions as a result of the conducted literature review study (to be continued)

<table>
<thead>
<tr>
<th>Dimensional interrelation</th>
<th>Descriptions</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Atmosphere – Behaviour</td>
<td>Behavioural conditions such as cultural understanding, investments and personal visits contribute to the creation and maintenance of trustworthy client–IS supplier relationships. Established trust contributes a high degree of knowledge sharing.</td>
<td>Lee &amp; Kim (1999), Kern &amp; Willcocks (2001), Siakas &amp; Siakas (2008)</td>
</tr>
<tr>
<td>3. Atmosphere – Environment</td>
<td>High degree of cultural compatibility such as closeness of behaviour patterns, values and norms, positively influence the atmosphere of the client–IS supplier relationship. Furthermore, when cultural compatibility is high the problems related to the culture diminish.</td>
<td>Blumenberg et al. (2008)</td>
</tr>
<tr>
<td>4. Atmosphere – Interaction</td>
<td>A communicative client–IS supplier relationship increases the possibility of forming a relationship recognized by conditions such as coordination and knowledge sharing. Of the exchange episodes, it is especially the social exchanges that contribute an atmosphere recognised by trust, commitment and long-term relationships. The degree of institutionalisation of operations and adaptation of social relations furthermore influence the long-term relationship. Effective communication and exchanges, leading to satisfactory outcomes, together with the undertaking of complementary activities, form the cooperation element of the atmosphere. Exchange episodes and long-term exchange experiences contribute to the evolution of the atmosphere.</td>
<td>Håkansson (1982), Morgan &amp; Hunt (1994), Lee &amp; Kim (1999)</td>
</tr>
<tr>
<td>5. Atmosphere – Management</td>
<td>The management strategy should, for example, include descriptions for managing conflicts and retaining control. Management fit between client and IS supplier contributes shared approaches for performance of activities. Shared values and mutual dependency lead to the existence of a win-win mentality. The style of management used is important to prevent miscommunication, promote trust and overcome challenges with cultural diversity. Moreover, management is connected to the actual size of the firm.</td>
<td>McFarlan &amp; Nolan (1995), Kern and Willcocks (2001), Alborz et al. (2003)</td>
</tr>
</tbody>
</table>
Table 8.7 (continuation): Identified interrelations among dimensions as a result of the conducted literature review study (to be continued)

<table>
<thead>
<tr>
<th>Dimensional interrelation</th>
<th>Descriptions</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Atmosphere – Outcome</td>
<td>The relationship quality is influenced by several conditions during the IS outsourcing process. The condition benefit and risk sharing are influential to the degree of successful outcome of the IS outsourcing process. Benefit and risk sharing concern the degree of articulation and agreement on benefit and risk among the key actors. The degree of outcome satisfaction of the relationship does not only concern stipulations of the contract but also includes the experienced contributions of the specific client–IS supplier relationship, such as degree of trust and commitment. Trust can be evaluated by performance of obligations and commitments, perceived benefits, outcome satisfaction and motivation to continue the relationship.</td>
<td>Håkansson (1982), Lee &amp; Kim (1999), Kern &amp; Willcocks (2001)</td>
</tr>
<tr>
<td>7. Behaviour – Organisation</td>
<td>The flexibility and agility of a firm do not only concern technical issues but also the individuals performing the business activities. The key actors are responsible for the firm’s quick adaptation to changing requirements.</td>
<td>Bieberstein et al. (2005), Cherbakov et al. (2005)</td>
</tr>
<tr>
<td>8. Contract – Environment</td>
<td>The contract must consider environmental aspects, such as evolution of technical infrastructure, market structure, geographical location of key actors and emergence of new competitive firms, and should therefore have flexibility built-in.</td>
<td>Fisher et al. (2008)</td>
</tr>
<tr>
<td>9. Contract – Interaction</td>
<td>The contract specifies the exchange episodes that need to be present to reach the expected outcomes formulated by the involved key actors. The aim of the contract is to facilitate exchange episodes to reach better performance.</td>
<td>Gottschalk &amp; Solli-Sahther (2006)</td>
</tr>
<tr>
<td>10. Contract – IS</td>
<td>The decision to formulate a complete or an incomplete contract is influenced by the specific IS activity outsourced.</td>
<td>Richmond et al. (1992)</td>
</tr>
<tr>
<td>11. Contract – Management</td>
<td>The contract should regard the firms’ different strategies and involved managers’ need to make sure that the IS outsourcing strategy contributes to the firm strategies. The management strategy partly builds on the stipulated agreements in the contract. The complexity of the outsourced IS activity partly influences the strategy of management.</td>
<td>Kumar &amp; Palvia (2002)</td>
</tr>
<tr>
<td>Dimensional interrelation</td>
<td>Descriptions</td>
<td>References</td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------------</td>
<td>------------</td>
</tr>
<tr>
<td>12. Contract – Outcome</td>
<td>Both key actors’ expectations and performance instructions/restrictions are included in the contract. The resulting outcome should result in satisfied key actors through the fulfilment of expectations and performance metrics.</td>
<td>Lee &amp; Kim (1999), Gottschalk &amp; Solli-Sæther (2006), Parikh &amp; Gokhale (2006)</td>
</tr>
<tr>
<td>13. Environment – Interaction</td>
<td>Environmental aspects, such as market structure, market dynamism, market internalisation, social system and technical infrastructure influence the performance of the interaction process and present exchange episodes.</td>
<td>Håkansson (1982)</td>
</tr>
<tr>
<td>14. Environment – IS</td>
<td>The IS activity to be outsourced should be carefully evaluated in terms of the geographical distance between client and IS supplier. The more distant the key actors are, the more structured the outsourced IS activity should be and the more significant the use of a common IS life cycle approach becomes. Furthermore, it is recommended that IS activities outsourced to an offshore IS supplier should be culturally neutral, i.e., less dependent on cross-cultural understanding.</td>
<td>Prikladnicki et al. (2003), Sakthivel (2005), Bergkvist (2007)</td>
</tr>
<tr>
<td>15. Environment – Management</td>
<td>The more geographically dispersed the key actors in the interorganisational business relationship are, the more difficult the task of management becomes. To increase the success of management, an overall management strategy should be applied. Different cultures and technological uncertainty influence the degree of required management of control mechanisms, coordination and conflict management.</td>
<td>Kumar &amp; Palvia (2002), Huang &amp; Trauth (2007)</td>
</tr>
<tr>
<td>17. Interaction – IS</td>
<td>The more communicative the relationship, the easier the performance of IS activities, and in particular unstructured and complex IS activities.</td>
<td>Lee et al. (1999), Cullen et al. (2005b), Niederman et al. (2006)</td>
</tr>
</tbody>
</table>
### Table 8.7 (continuation): Identified interrelations among dimensions as a result of the conducted literature review study

<table>
<thead>
<tr>
<th>Dimensional interrelation</th>
<th>Descriptions</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>18. Interaction – Management</td>
<td>Communication is significant and makes it possible to influence, and most importantly, negotiate across organisational boundaries, within both the client and the IS supplier firm. Management performance influences the intensity of communication, such as communication frequency, informality and openness. Inconsistency of interactions furthermore is found to be one of the most difficult aspects of interaction to manage.</td>
<td>Ford et al. (1990), Kumar &amp; Palvia (2002), Alborz et al. (2003)</td>
</tr>
<tr>
<td>19. IS – Management</td>
<td>Control of the IS outsourcing process is one way to improve performance of IS activities in relation to certain firm goals and strategies. The more unstructured the outsourced IS activity is, the higher the degree of performance control of the IS outsourcing process required. Irrespective of the degree of structuredness of the IS activity outsourced, the management strategy needs to be adjusted to the specific outsourced IS activity.</td>
<td>Lee et al. (1999), Bengkvist (2007)</td>
</tr>
<tr>
<td>20. IS – Organisation</td>
<td>IS facilitates the realization of the business activities. If the firm’s goal is to be flexible and meet the demands of an agile approach, the IS infrastructure has to be adjusted to these requirements. The appropriate selection of ISD strategy and frameworks, for example, can facilitate the fulfilment of these requirements.</td>
<td>Sowa &amp; Zachman (1992), Cox &amp; Kreger (2005), Panian (2006)</td>
</tr>
<tr>
<td>21. Outcome – Management</td>
<td>Variables of measurement stipulated in the contract constitute guidelines of management. Transaction costs, as a result of the relationship management, must meet expectations to fulfil the requirements of satisfaction. Hidden management costs need therefore to be considered in the contract.</td>
<td>Kern &amp; Wilcocks (2001), Kumar &amp; Palvia (2002)</td>
</tr>
<tr>
<td>22. Organisation – Outcome</td>
<td>The relationship quality is influenced by the organisational degree of flexibility during the IS outsourcing process. Organisational flexibility concerns, for example, the degree of willingness to make adaptations when something unpredictable occurs.</td>
<td>Lee &amp; Kim (1999), Blumenberg et al. (2008)</td>
</tr>
</tbody>
</table>

Furthermore, the conceptual framework emphasises the applied perspective of the client–IS supplier relationship by viewing each key actor as a firm com-
prised of three areas. The client firm and the IS supplier firm are placed in the centre of Figure 8.3 and the two-way arrows illustrate possible inter-firm and intra-firm interactions. The client firm and the IS supplier firm are surrounded by the nine dimensions. The link between the relationship perspective and each dimension symbolizes the dimensions and corresponding key conditions that are identified from a relationship perspective.

The division of the dimensions into three groups is applied in the graphical representation of the conceptual framework for the IS outsourcing process. The position of the Environment dimension is due to the environmental key conditions’ contextual influence on the IS outsourcing process and the IS outsourcing relationship. The actor-specificity of the Behaviour dimension and the Organisation dimension is symbolized by the IS supplier/client firm in their graphical representations.

8.4 Summary and contributions of Chapter 8

The purpose of this research study is to develop a conceptual framework for describing and explaining the degree of successful outcome of the IS outsourcing process using a relationship perspective. According to Miles and Huberman (1994), a conceptual framework explains the main aspects to be studied. To address the purpose, the conceptual framework focuses on the client–IS supplier relationship (described in subchapter 4.2), key conditions (presented in Table 8.6), dimensions (presented in subchapter 8.2.2) and interrelations among dimensions (presented in Table 8.7 and Figure 8.2) that are found to have the potential to describe and explain the degree of successful outcome of the IS outsourcing process. The relationship perspective was first presented in Chapter 4 and refers to the involvement of the client firm, the IS supplier firm and key actors from three different areas of these two firms. The firm areas are referred to as the business area, the process area and the IS area. The possible intra-firm and inter-firm interactions among the key actors are part of the applied relationship perspective. Primary client–IS supplier interactions in the post-contract stage of the IS outsourcing process have been described in subchapter 4.4.2. Moreover, the four aspects of the client–IS supplier interactions have been presented in subchapter 6.3.2 and are represented by capability, inconsistency, mutuality and particularity (Ford et al., 1990).
Figure 8.3. Graphical representation of the conceptual framework for describing and examining the IS outsourcing process from a relationship perspective.
The theoretically derived descriptions of key actors’ interactions are believed to constitute a favourable starting point for studying intra-firm and inter-firm interactions occurring in client–IS supplier relationships during IS outsourcing processes. The application of the relationship perspective for identifying key conditions contributes to reducing the recognized knowledge gap. The knowledge gap was first presented in subchapter 1.3 and can be summarized as the cause for studying the success of the IS outsourcing process by considering both the client and the IS supplier and their mutual relationship.

The conceptual framework creates the foundation for studying the degree of successful outcome of the IS outsourcing process. The potential of the conceptual framework lies in the individual value of each dimension and the key conditions categorised in each dimension. IS outsourcing processes and their degree of successful outcome is at least influenced by one key condition of each dimension. Larger and long-term IS outsourcing contracts and projects, however, are naturally influenced by several of the identified key conditions. Besides the key conditions and the dimensions of the conceptual framework, this research study contributes possible interrelations among dimensions, which are described and explained with the literature review study. The interrelations illuminate the potential of combining several theoretical fields for studying the degree of successful outcome of the IS outsourcing process.

Additionally, the combination of three theoretical fields illustrates the dynamics and relations among different elements of the conceptual framework. Furthermore, as the conceptual framework is thought to capture the essence of the phenomenon studied it should be used to guide future empirical work in a fruitful direction. This means that the conceptual framework can provide and explain important insights into key conditions influencing the degree of successful outcome of the IS outsourcing process and how these key conditions are related to each other.

In the next and final chapter of this thesis, the contributions of the research study are presented. The practical relevance and theoretical contributions of the conceptual framework are addressed, and the rigour and relevance of the overall research study are reflected on. The final chapter concludes with a discussion about directions for future research.
9 Concluding discussion, contributions and future research

The aim of this chapter is fourfold. First, the chapter aims to provide a retrospective view of the purpose of the thesis as well as a discussion of the realization of the purpose. Second, the aim is to reflect on and discuss the development of the conceptual framework and the conducted research study by addressing the relevance and rigour of this research study. Third, the contributions of the thesis are discussed from a practical and a theoretical point of view. Finally, the chapter concludes with a presentation on different choices of directions for future research. The discussion on future research is based on the IS research framework and includes aspects related to knowledge base, environment and IS research.

9.1 The purpose of this thesis in retrospect

In the introductory chapter of this thesis, a knowledge gap was presented, to which this research study contributes. The knowledge gap can be summarized briefly as the lack of many IS outsourcing studies that have applied the client–IS supplier relationship as the unit of analysis (e.g. Kern & Willcocks, 2001). This research study contributes to this knowledge gap by studying the degree of successful outcome of the IS outsourcing process from a relationship perspective. The relationship perspective includes key actors from different areas of the client firm and the IS supplier firm: the business area, the process area and the IS area (Österle, 1995). Furthermore, the relationship perspective studies the interactions from within and among these firms. The emphasis on client–IS supplier interactions makes it possible to increase the knowledge about the relationship and how its management can contribute to a successful outcome of the IS outsourcing process.

As a result of the identified knowledge gap and researchers’ (e.g. Cullen et al., 2005a) desire to contribute to the success of IS outsourcing processes, the following purpose has been formed:

To develop a conceptual framework for describing and explaining the degree of successful outcome of the IS outsourcing process using a relationship perspective.

Three different theoretical fields comprise the foundation for this purpose: IS, interorganisational business relationships and IS outsourcing. The literature review study has emphasised the identification of key conditions from a relationship perspective. The key conditions that influence the degree of successful outcome of the IS outsourcing process are those from the conceptual frame-
work. The inclusion of a key condition in the conceptual framework is based on how other researchers from the literature review study describe and perceive a key condition in relation to a successful outcome. The identified key conditions may be ranked according to their influence on the successful outcome of the IS outsourcing process. In a 5-point Likert scale, for example, 1 may represent low influence and 5 may represent high influence. Additionally, my own interpretation of key conditions’ influence on the degree of successful outcome of the IS outsourcing process has contributed to the resulting amount of key conditions. Due to the large amount of key conditions, I decided to categorise them into dimensions. The dimensions identified as essential for studying the degree of successful outcome of the IS outsourcing process are the following: Atmosphere, Behaviour, Contract, Environment, Interaction, IS, Management, Organisation and Outcome. The application of these specific dimensions is a result of the literature review study. The dimensions and corresponding key conditions constitute the essential elements for studying the degree of successful outcome of the IS outsourcing process.

Besides key conditions and dimensions, the conceptual framework incorporates identified interrelations among the dimensions. These interrelations should not be perceived as definitive, however, but rather as potential interrelations that can provide insights into the explanation of the degree of successful outcome of the IS outsourcing process. The reason for referring to the interrelations as potential comes from the results of an earlier study (Kern & Willcocks, 2001). One result of their research study was the insight into the difficulty of assuming and recognising relations among dimensions and conditions when the research study is purely theoretical, as this one is.

The conceptual framework for the IS outsourcing process is presented in its entirety in Chapter 8. The core elements of the conceptual framework are the key conditions, the dimensions and the interrelations among the dimensions. The graphical representation of the conceptual framework illustrates the client firm and the IS supplier firm in the centre, representing the applied relationship perspective. The link between both key actors and the dimensions symbolizes the identification of the dimensions and the key conditions accomplished with the use of a relationship perspective. The findings concerning the inter-firm interactions during different phases of the IS outsourcing process are presented in subchapter 4.4.2. Client–supplier interactions have been further described by Ford et al. (1990). Four aspects are described as characterising the interactions:
capability, inconsistency, mutuality and particularity. In my opinion, the descriptions of the client–IS supplier interactions included in this thesis constitute a favourable point of departure for studying how client–IS supplier interactions relate to the degree of successful outcome of the IS outsourcing process.

To summarize, the fulfilment of the purpose is presented through the conceptual framework for the IS outsourcing process. The conceptual framework is then realized through the amalgamation of findings and contributions from Chapters 3-7. These findings and contributions concern the identified key conditions, dimensions and interrelations among dimensions, which are a result of the literature review study in this thesis.

9.2 Reflections on the conceptual framework

In Chapter 2, four criteria were described for addressing the practical and theoretical relevance of the conceptual framework: workability, realizability, logical structure and knowledge extension (Nilsson, 1991). Additionally, the descriptive contribution of the conceptual framework was described to be addressed according to its explanatory potential (Gregor, 2006). Subsequently, the conceptual framework is reflected on using these five criteria.

9.2.1 Workability and explanatory potential of the conceptual framework

Workability concerns the descriptive and explanatory potential of the conceptual framework in a specific situation (Nilsson, 1991). The specific situation in this research is represented by the IS outsourcing process which is studied from a relationship perspective. As a result of the purpose of the research study the workability of the conceptual framework concerns ‘its usefulness and guidance for describing and explaining key conditions that influence key actors’ perception of the degree of successful outcome of the IS outsourcing process.’

The developed conceptual framework provides key conditions identified from three theoretical fields. Through the application of three theories, it is possible to reach a more compelling explanation of the key conditions influencing the degree of successful outcome of the IS outsourcing process (Kern, 1999). Consequently, the conceptual framework supports the description of key conditions that can be traced to the outsourced IS activity, the relationship between the client and the IS supplier, and the performance of IS outsourcing processes in empirical situations. Furthermore, the usefulness of the conceptual framework
lies in its potential to explain how key conditions are related to each other and how they relate to key actors’ perceived degree of successful outcome of the IS outsourcing process.

9.2.2 Realizeability of the conceptual framework

The realizeability of the conceptual framework concerns the degree of its ability to be operationalised, i.e., its ability to be used in future empirical research settings (Nilsson, 1991).

The conceptual framework is developed with a basis in three theoretical fields, implying the incorporation of three different phenomena: the IS, the dyadic interorganisational business relationship and the IS outsourcing process. Because the conceptual framework is generic,26 it supports the description and explanation of the degree of successful outcome of the IS outsourcing process irrespective of the specific IS activity outsourced or the special case of IS outsourcing (such as IS offshoring). Consequently, the empirical situations in which the conceptual framework can be operationalised are believed to have a broad range.

9.2.3 Logical structure of the conceptual framework

The logical structure concerns the consistency, the stringency and the flexibility of the conceptual framework.

Consistency refers to the logic among different parts of the conceptual framework and the absence of contradictions (Nilsson, 1991). The conceptual framework is developed and presented in Chapter 8. The elements of the conceptual framework are a result of the literature review study conducted in this thesis. The findings and contributions from Chapters 3-7 in the form of key conditions, dimensions and/or interrelations among dimensions, have added to the development of the conceptual framework. The description of the development of the conceptual framework aims to be as distinct as possible and points out the derivation of the included elements. As a result, the consistency among different parts of the conceptual framework becomes visible and contradictions are avoided.

---

26 The meaning of a generic conceptual framework as applied in this research study is given in subchapter 1.7.
The stringency of the conceptual framework is achieved when it describes only what it is meant to describe, i.e., redundant parts should be excluded (Nilsson, 1991). To achieve a stringent conceptual framework, the findings and contributions from Chapters 3-7 were combined with the aim to remove redundant and complementary elements. Redundancy occurred when the same key condition was identified in more than one literature review or when key conditions addressed the same content and meaning. Ambiguity among the dimensions was removed by including independent dimensions and, thus, reducing dimensional overlaps. The procedure of removing redundancy and providing independent key conditions and dimensions contributed to the stringency of the conceptual framework. The stringency of the conceptual framework is a result of including only those elements derived from the contributions of the literature review study.

The last criterion used for reflecting upon the logical structure of the conceptual framework is flexibility. Flexibility includes the possibility to add or adjust parts of the conceptual framework (Nilsson, 1991). As has been previously stated, the conceptual framework is generic, which in this study results in applications for different IS outsourcing processes. The conceptual framework is independent of the specific IS activity outsourced and the special case of IS outsourcing. For example, if the IS outsourcing relationship includes an offshore IS supplier, the IS outsourcing process will take another form compared to when the IS supplier is located onshore. During IS offshoring processes, it is recommended to put more time and effort into managing key conditions related to the geographical distance between client and IS supplier (Wareham et al., 2007). The conceptual framework supports IS outsourcing processes irrespective of the geographical distance between the key actors. The choice of developing a generic conceptual framework, consequently, has contributed to the achievement of a flexible conceptual framework.

**9.2.4 Knowledge extension as a result of the conceptual framework**

The development of the conceptual framework is a result of the identified knowledge gap in previous IS outsourcing research. To address this knowledge gap, this research study has been delimited to include research within three theoretical fields. The theoretical fields have been chosen because they reflect the purpose of the research study in a favourable way. The theoretical field of IS focuses on the outsourced activity, i.e., activities included in the IS life cycle, and key conditions connected to IS. Interorganisational business relationship
literature is included to emphasise key conditions related to the client–IS supplier relationship. It is necessary to incorporate previous research of IS outsourcing into this research study since the chosen topic of interest is the IS outsourcing process. The literature review on IS outsourcing has discovered key conditions related to the successful outcome of IS outsourcing. Moreover, an introductory literature review on IS outsourcing identified the presented knowledge gap.

The inclusion of different theoretical fields and their contributions for addressing the purpose of the thesis have resulted in a unique conceptual framework - a conceptual framework that addresses key conditions, dimensions and interrelations among dimensions for studying the degree of successful outcome of the IS outsourcing process from a relationship perspective.

Some reflections on the theories used and consequences for the conceptual framework

The use of three distinct theories limits the scope of possibilities for studying the IS outsourcing process (Walsham, 1993). By limiting the theoretical fields to IS, interorganisational business relationships and IS outsourcing the provided conceptual framework includes key conditions derived only from these theories. Hence, the IS outsourcing process is viewed from the applied theories. The conceptual framework, however, is not static in the sense that no other information can be included. The application of the conceptual framework in empirical ‘real-world’ settings, for example, may provide new insights concerning the degree of successful outcome of the IS outsourcing process.

9.3 Reflections on rigour and relevance of the present research study

This subchapter provides reflections on the rigour and relevance of the present research study. The concept of rigour is often used to refer to the ‘tightness of control’ of the study conducted (Järvinen, 2004). Relevance, on the other hand, is the concept used to denote the ‘richness of reality’ of conducted research (Järvinen, 2004). In management research, the relevance and rigour discussion is sometimes referred to as the rigour-relevance dilemma (Van Aken, 2004). This dilemma concerns a theory that is either scientifically proven or relevant to practice. If the theory is scientifically rigorous it is too broad or too trivial to be of practical relevance (Van Aken, 2004). Conversely, when practical relevance is high, the theory lacks sufficient rigorous justification. Academic researchers aspiring to produce relevant research products therefore operate within two reputation systems: the academic reputation system and the professional reputa-
tion system (March & Sutton, 1997). The first of the two reputation systems rewards rigorous research, whereas the second rewards research outcomes and the professional training of prospective managers.

Within the field of IS research, it has been argued that research has focused on rigour at the expense of research relevance (Hevner et al., 2004). The ambition in this research study is to contribute to research rigour, but also to address research relevance. The rigour of this research study is discussed using three criteria of consumable research: originality, creditability and ability to communicate (Håkangård & Nilsson, 2001). A reflection on the relevance of this research study is then presented.

9.3.1 Originality of the present research study

Originality concerns the generation and contribution of new and interesting knowledge (Håkangård & Nilsson, 2001). After reviewing existing research on the IS outsourcing process, a knowledge gap was identified concerning the relationship perspective for studying this process. The research conducted in this thesis has consequently aimed at decreasing the gap by studying the successful outcome of the IS outsourcing process from a relationship perspective. The originality of this thesis and the conceptual framework is derived from the use of the relationship perspective in combination with three different theoretical fields.

9.3.2 Creditability of the present research study

The validity of the generated and contributed knowledge constitutes the creditability of the research (Håkangård & Nilsson, 2001). The aim of this study, when related to the research process of the Ph.D. thesis, is partly to contribute to a theoretical knowledge base for the empirical research study in the doctoral study. To accomplish this aim, I have chosen to conduct a comprehensive literature review study in this thesis. The contributed knowledge builds on the use of theories that have been developed, tested and established. The knowledge contribution is consequently a result of reviewing earlier published research. This way of conducting accumulative research makes it possible to build on and further develop acknowledged research.

27 An outline of the research process of the Ph.D. thesis is presented in subchapter 2.1.
The literature included in the research has been acquired mainly using digital libraries and specific search commands. The limitation to the use of specific search commands during the database searches may have resulted in articles relevant to the purpose of the thesis not being included. It is difficult, if not impossible, to know when all relevant texts have been included. The search continued until the amount of relevant texts had reached a more mature level and further searches did not find anything new or relevant. The literature reviews have, however, been complemented during the process of writing the thesis. The complemented information has been in the form of scientific publications, such as journal articles, research books and articles in scientific magazines. Articles in scientific magazines have been relevant because they provide insights from 'real-world' settings.

9.3.3 The present research study and its ability to communicate

The ability to communicate involves argumentation and transparency of reasoning (Håkangård & Nilsson, 2001). To ensure communicative research, the description of how this research study was conducted has been as rich and transparent as possible. This applies to the development of the conceptual framework as well. The included elements, in form of key conditions and dimensions, have been thoroughly described and motivated. The same procedure has been conducted when identifying interrelations among the dimensions.

It is important to remember that qualitative studies are built partly on interpretations. Consequently, another researcher may interpret the contributions of this research study differently. This fact, however, does not affect the transparency of my argumentation and reasoning.

9.3.4 Reflections on the relevance of the present research study

The relevance of this research study can be assessed according to how well the findings seem to reflect the topic studied. The degree of relevance depends on the correspondence of the research with the findings of the 'real-world' and the usefulness of the findings to those concerned (Kvale, 1997). The degree of relevance in this study is based on the contributions to the identified knowledge gap, which also can be referred to as the practical problem (cf. Carlsson, 2006). The consideration of not only including scientifically published research but also scientific magazines, has provided insights into key actors’ experiences and perceptions about IS outsourcing and its processes. Furthermore, the contributions and the knowledge acquired because of this research study may provide
valuable information to managers in different areas of the client and IS supplier firms. The resulting knowledge may facilitate the on-going management of IS outsourcing processes and IS outsourcing relationships for key actors in the client and IS supplier firms.

The relevance of this research study is further discussed in conjunction with the practical implications (see 9.4.1).

9.4 The contributions of this thesis

The contributions of this thesis will be discussed from a practical and a theoretical point of view. The practical implications are connected to the relevance of the present research study, whereas the theoretical contributions are linked to its rigour. Moreover, as this research study bridges two scientific fields, Information Systems and Industrial marketing, the contributions to both of these fields will also be discussed.

9.4.1 Practical implications

The practical implications will be discussed from the point of view of design science research. The objective of design science research is to develop valid knowledge that can be applied by professionals to design solutions for their experienced organisational problems (Hevner et al., 2004; Van Aken, 2005). A problem can be defined as the differences between a goal state and the current state of a system. Design science research in IS addresses what are considered to be large problems (Hevner et al., 2004), i.e., problems characterised by unstable requirements and constraints based on environmental contexts and complex interactions among subcomponents of the problem and its solution. For example, problems within the field of IS are often related to some aspect of IS design. The contributions produced may be in the form of intellectual and/or software tools with the aim to improve the process of ISD.

Design science research is a means for addressing the relevance of IS research (Hirschheim & Klein, 2003). The expressed goal of design science research is to reach utility (Hevner et al., 2004). Relevance, however, is subjective. IS research can be relevant to a number of actors such as other researchers, research and development organisations, consultants and IS students (Carlsson, 2006). For IS researchers, the constituent target group is the practitioners who plan, manage, design, implement, operate, and evaluate IS as well as for those who do the same for the technologies that enable practitioners’ development and
implementation (Hevner et al., 2004). The target group of this research is IS professionals who have the responsibility and authority to influence the performance of IS outsourcing processes and IS outsourcing relationships. An IS professional is defined as “a member of a fairly well-defined group who solves real-world IS problems with the help of skills, creativity and scientific and non-scientific IS design knowledge” (Henningsson, 2008, p. 260). From the perspective of senior business managers, senior IT managers and account managers (referred to as key actors in this research study), the contributions of this research study may be perceived as theoretically grounded management knowledge for the performance of IS outsourcing processes. Furthermore, the contributions may be relevant for key actors interested in how ISD processes can become more efficient and effective when they involve client–IS supplier relationships.

As previously mentioned, the starting point for design science research is the identification of a practical problem that needs to be solved (Carlsson, 2006). The identified knowledge gap in this research study is not only a theoretical knowledge gap but also a relevant practical problem. Research studies show that practitioners acknowledge the importance of the client–IS supplier relationship for the management of IS outsourcing processes (e.g. Kern & Willcocks, 2002). The identification of the problem is the first step in the IS design research cycle, which is described as an iterative cycle (Carlsson, 2006). The IS design research cycle consists of the a) identification of theory and/or problem, b) development of prescriptive guidelines, c) testing and d) reflection on the test results (Carlsson, 2006).

The research study conducted in this thesis does not encompass the complete IS design research cycle because this research study is purely theoretical. The problem addressed in this research study relates to the client–IS supplier relationship. Through the application of the IS outsourcing relationship as the unit of analysis the contributions provide knowledge about how the management of the relationship influences the success of the IS outsourcing process. Furthermore, the use of the relationship perspective has enabled a focus on different key actors and their interactions, and on how different firm areas are related to IS outsourcing initiatives.

The identification of the practical problem is followed by the development of prescriptive guidelines. This research study, however, does not provide any pre-
scriptive guidelines or design propositions. Instead a conceptual framework is developed, which emphasises the identified problem by describing and explaining the degree of successful outcome of the IS outsourcing process from a relationship perspective. The description and explanation section is addressed by the theoretically derived key conditions, dimensions and their interrelations, which have been thoroughly described so they may be interpreted in a ‘real-world’ setting. To provide an overview of the conceptual framework, a graphical representation is presented. The graphical representation includes the three core elements of the conceptual framework: key conditions, dimensions and key actors.

The conceptual framework provides a frame, which emphasises key conditions significant to reaching a successful outcome of the IS outsourcing process. The conceptual framework is intended to be used by managers at different areas of the client firm and the IS supplier firm. It can be used for purposes such as the following:

- constituting the basis for managerial decisions regarding the performance of IS outsourcing processes,
- constituting the basis for managerial decisions regarding client–IS supplier relationships,
- describing how different key conditions influencing the degree of successful outcome of the IS outsourcing process are interrelated,
- focusing the attention of key actors on key conditions influencing the successful outcome of IS outsourcing processes and
- facilitating for firms to realize IS outsourcing processes, make decisions and perform actions related to the successful outcome of this process.

9.4.2 Theoretical contributions

The theoretical contributions of this thesis are of a descriptive nature and related to the application of the relationship perspective for studying the degree of successful outcome of the IS outsourcing process. The conceptual framework describes key conditions that influence the degree of successful outcome of the IS outsourcing process. Furthermore, this research study presents the categories for these key conditions in dimensions and their interrelation. When translated into the terminology of Gregor (2006), the contributions relate to the theory of explanation, i.e., the contributions provide explanations but do not aim to predict with any precision. In other words, no testable propositions are provided. The contributions of the conceptual framework are instead related to
the description and explanation of key conditions that influence the degree of successful outcome of the IS outsourcing process.

This thesis constitutes the first step of a research process for studying the degree of successful outcome of the IS outsourcing process using a relationship perspective. Both the client and the IS supplier were included because the majority of prior research has used an actor perspective when studying IS outsourcing processes. Consequently, there is a gap concerning the application of the relationship perspective for studying the IS outsourcing process. The uniqueness of this thesis and the conceptual framework comes from the use of the relationship perspective in combination with three different theoretical fields.

When applying process theory or explanation theory, as in this thesis, the description of causality should be made carefully (Gregor, 2006). The contributions to knowledge are primarily generated through new insights from a relationship perspective. One of these insights is the combination of three theoretical fields, which enables the development of a unique conceptual framework for describing and explaining the degree of successful outcome of the IS outsourcing process.

Besides the theoretical contributions previously presented, this research study contributes a review of different IS outsourcing terms used in the IT/IS literature (see Chapter 3). One contribution is the identification of definitions of IS outsourcing terms used in the IT/IS literature and the examination of these terms from a relationship perspective. A result of the review of IS outsourcing terms and their definitions is the IS outsourcing term applied as a generic term whereas other IS outsourcing terms are special cases of this term. Of the identified IS outsourcing terms, the generic IS outsourcing term and its proposed definition have been chosen for the application in this research study. The choice to use the term IS outsourcing has in turn influenced the development of a generic conceptual framework. The conceptual framework can thus be applied to different IS outsourcing processes. In my opinion, the main difference between outsourcing IS activities to an offshore IS supplier, versus a domestic IS supplier, is the geographical distance. The geographical distance of IS offshoring often brings complications and dissatisfaction due to spatial, temporal and cultural disparities (Wareham et al., 2007). The geographical distance entails that some of the key conditions in the conceptual framework will
have to be more emphasised compared to domestic IS outsourcing. Consequently, there needs to be more time for process and relationship management during IS offshoring.

Theoretical contributions compared to earlier published research

One way to ensure the contributions of a research study is to compare them with previously published research within the same research area. In this research study, the comprehensive framework for the IS outsourcing relationship provided by Kern and Willcocks (2001) has been used as a source of inspiration. The contributions of this thesis have therefore been compared with their research study. The result of this comparison is summarized subsequently.

- With their research, Kern and Willcocks (2001) aimed to comprehensively delineate the IS outsourcing relationship by addressing “what constitutes a conceptual framework that adequately describes and supports a detailed and comprehensive analysis of an IT outsourcing relationship” (Kern & Willcocks, 2001, p. 52). The purpose of the research conducted in this thesis has been to develop a conceptual framework for describing and explaining the degree of successful outcome of the IS outsourcing process using a relationship perspective. Consequently, the studies have not applied the same dependent variable. The dependent variable in this research study is the ‘degree of successful outcome from a relationship perspective’ whereas in the research study by Kern and Willcocks (2001) the dependent variable is ‘risks in IS outsourcing from a relationship perspective’. Previous research shows that risks and relationships are inherently related and based on this they provide details on how risks and relationships interrelate. As a result they present suggestions on how IS outsourcing initiatives can be arranged and managed.

- Different phenomena are applied in the research studies. The IS outsourcing relationship is the phenomenon studied by Kern and Willcocks (2001), whereas the IS outsourcing process is the topic of interest in this research study.

- The framework for studying the IS outsourcing relationship has its theoretical foundation in Interorganisational Relationship Theory, TC Theory and Relational Contract Theory (Kern & Willcocks, 2001). The conceptual framework for the IS outsourcing process is built on the combination of theories from the theoretical fields IS, interorganisa-
tional business relationships and IS outsourcing. Consequently, the two frameworks emphasise different key conditions and dimensions for studying IS outsourcing relationships.

- The involvement of the IS outsourcing process is a significant difference between the two frameworks. Kern and Willcocks (2001) focus on the process of the IS outsourcing relationship and its evolution during IS outsourcing. The research in this thesis studies the phenomenon of the IS outsourcing process and how different key conditions influence the performance of this process.

- The importance of the outsourced IS activity has not been highlighted in the framework provided by Kern and Willcocks (2001). The conceptual framework provided in this thesis emphasises the importance of the outsourced IS activity by including activity-related key conditions and the dimension IS.

- The framework by Kern and Willcocks (2001) is a result of both theoretical and empirical studies, while the conceptual framework for this research study is purely theoretically founded.

9.4.3 Contributions to the scientific fields Information Systems and Industrial marketing

The conceptual framework for the IS outsourcing process in this thesis is predominantly based on theories within the scientific fields of Information Systems and Industrial marketing. The theoretical contributions and practical implications of these two scientific fields are summarized in Table 9.1 and are a result of the conducted research study. The theoretical contributions and the practical implications are presented according to their relation to one or both of the scientific fields.

The models and methodologies representing ISD strategies and IS life cycle approaches in this research study commonly apply the perspective of the client. For example, the IS life cycle model provided by Andersen (1994) describes problem areas, work tasks to be conducted and necessary participants from the perspective of the users of the IS. In this research study, ISD strategies, IS life cycle approaches and frameworks are used to identify key conditions that influence the degree of successful outcome of the IS outsourcing process. The perspective used to identify these key conditions is the relationship perspective. In this way a new dimension, the relationship dimension, is applied to the included theories from the scientific field of Information Systems. This re-
search study, therefore, contributes insights on how the theories become relevant from a relationship perspective. These insights may contribute to more effective performance of IS activities from the perspective of client–IS supplier relationships.

Table 9.1: Contributions to and implications of the two scientific fields represented in the present research study

<table>
<thead>
<tr>
<th>Scientific field</th>
<th>Theoretical contributions</th>
<th>Practical implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Systems</td>
<td>The application of strategies and approaches of the IS life cycle from a relationship perspective</td>
<td>More effective performance of IS activities from the perspective of the client–IS supplier relationship</td>
</tr>
<tr>
<td>Industrial marketing</td>
<td>A proposed framework for studying interorganisational business relationships within IS outsourcing contexts</td>
<td>A conceptual framework for the IS outsourcing process that can be used as a guiding structure by managers for making decisions concerning IS outsourcing processes and IS outsourcing relationships</td>
</tr>
<tr>
<td>Information Systems and Industrial marketing</td>
<td>A conceptual framework for studying the degree of successful outcome of the IS outsourcing process from a relationship perspective</td>
<td>Theoretically grounded management knowledge for the performance of IS outsourcing processes from a relationship perspective</td>
</tr>
</tbody>
</table>

The framework for interorganisational business relationships when studying IS outsourcing relationships, presented in subchapter 6.3, is a theoretical contribution to the scientific field of Industrial marketing. The foundation for the framework is the interaction approach, which has been complemented with aspects of improvements, such as the Contract and Management dimension, from the literature review study (e.g. Kern & Willcocks, 2002). Thus, the framework is a specialisation of the interaction approach for studying interorganisational business relationships in IS outsourcing contexts. This framework and the conceptual framework for the IS outsourcing process can be used both as guiding structures for managers at different areas of the client and IS supplier firm, and for making decisions concerning IS outsourcing processes and relationships.

The conceptual framework for the IS outsourcing process is perceived as a contribution to both scientific fields. IS outsourcing processes may be studied to increase the knowledge about the interorganisational interactions that occur because of client–IS supplier relationships. In addition, the conceptual frame-
work can be used for increasing the knowledge about the operationalisation of IS outsourcing processes. The practical implication generated because of the conceptual framework, is ‘theoretically grounded management knowledge’ for the performance of IS outsourcing processes. The management knowledge provided concerns key conditions, dimensions and interrelations among dimensions. These three elements of the conceptual framework have been identified as influencing the degree of successful outcome of the IS outsourcing process from a relationship perspective. Thus, by regarding these elements during the management of the IS outsourcing process, the expectation is to reach a successful outcome of the same process.

This far, the present research study has been deliberated with the use of criteria established in the IS literature. My own reflections on the conducted research study are presented subsequently.

9.5 The author’s own reflections on the present research study

The research study in this thesis is purely theoretical. This means that no empirical data have complemented the theoretical findings and contributions. The advantage of a theoretical research study is the contribution, which in this study is a conceptual framework, to the knowledge base. The conceptual framework is a fruitful ‘tool’ to be used in future empirical research studies. Fruitful refers to the conceptual framework that provides useful and important insights into the key conditions’ influence on the degree of successful outcome of the IS outsourcing process and their interrelations.

The exclusion of empirical data, however, has had consequences for the practical contributions of this research study. The IS design research cycle, for example, has not been fully addressed. The development of prescriptive guidelines, their testing and subsequent reflections are left for future research. ‘Real-world’ settings are necessary for the testing of the developed prescriptive guidelines. The contribution of design propositions is therefore a subject for future research.

The descriptions of the client–IS supplier interactions included in this thesis are believed to constitute a favourable point of departure for studying client–IS supplier interactions and their influence on the degree of successful outcome of the IS outsourcing process. In my opinion, however, empirical studies would have contributed ‘richer’ information about intra-firm and inter-firm inter-
actions. Empirical research could have provided answers to questions such as ‘When do key actors interact and why?’, ‘How do key actors interact?’, and ‘Which key actors are mainly involved in client-IS supplier interactions?’. Moreover, empirical data could have contributed recognized interrelations among the dimensions included in the conceptual framework. The interrelations among dimensions, provided in the conceptual framework, should be interpreted as potential rather than definitive. The presented interrelations among the dimensions are perceived as a fruitful start for studying the degree of successful outcome of the IS outsourcing process from a relationship perspective.

9.6 Future research

This section is dedicated to future research and choices of research directions for the subsequent doctoral study. The discussion on future research emanates from the IS research framework represented in Figure 9.1. The IS research framework is developed by Hevner et al. (2004), aimed at understanding, executing and evaluating IS research. Both the paradigm of behavioural science and design science are reflected in the framework. Behavioural science focuses on research through the development and justification of theories that explain and/or predict phenomena related to identified business needs (Hevner et al., 2004). Design science is described by Hevner et al. (2004) as the building and evaluation of artifacts designed to meet the identified business needs. Hevner et al. (2004), argue that both paradigms are inseparable since truth (the goal of behavioural science) informs design and utility (the goal of design science) informs theory.

The environment is found in empirical settings and defines the practical problem. People, organisations and technology compose the environment in IS research (Hevner et al., 2004). The people within the organisation define the business needs because of their perception of goals, tasks and problems. Perceptions are shaped by the roles, capabilities and characteristics of the people. The defined business needs are assessed and evaluated within the present organisational context, which includes strategies, structure, culture and business processes. Furthermore, the business needs have to be considered in conjunction with the existing technology. People, organisations and technology define the business needs or the practical problems that the researcher aims to address in order to assure research relevance.
The knowledge base provides the foundations and the methodologies, referred to as the raw materials, through which IS research is accomplished (Hevner et al., 2004). Previous research is the main contributor of foundational theories, frameworks, models and methods. Methodologies provide the guidelines for the research. Rigour is achieved by applying appropriate foundations and methodologies (Hevner et al., 2004).

### 9.6.1 Knowledge base: the developed conceptual framework

Figure 9.1 illustrates the focus of the licentiate study and the doctoral study in relation to the IS research framework. The knowledge gap and practical problem addressed in this research study was identified by reviewing previous research within IS outsourcing literature. Although this research study does not include any empirical data of its own the identified gap/problem has been acknowledged as having practical relevance in the reviewed literature (Kern & Willcocks, 2002). Thus, the licentiate study has not focused on the environmental aspects in Figure 9.1 but has instead aimed to provide a knowledge base for future empirical research. The production and development of this knowledge base has imbued this research study. The main knowledge contribution is...
the conceptual framework for describing and explaining the degree of successful outcome of the IS outsourcing process from a relationship perspective. To assess the applicability of the conceptual framework the next step is to evaluate its usefulness for studying the degree of successful outcome of the IS outsourcing process in empirical ‘real-world’ settings.

How the knowledge base contribution from this thesis may be used and operationalised in future research, is the focus of the remainder of this chapter. The different sections of the IS research framework are used as a point of departure for this discussion. As illustrated in Figure 9.1 the empirical research will be part of the doctoral study, which is the next step of the research process of the Ph.D. thesis.

9.6.2 Environment: the future empirical research study

The environmental aspect of the IS research framework is applied to emphasise the performance of the empirical research in the doctoral study. The performance of the empirical research is discussed in relation to people, organisation and technology. When applicable, a ‘choice to be determined’ is presented. The choices to be determined concern the performance of the empirical research study.

People: key actors’ perceptions

The purpose of this research study has been to describe and explain the degree of successful outcome of the IS outsourcing process from a relationship perspective. The realization of the purpose has focused on the identification of key conditions that influence the successful outcome from a relationship perspective. The key conditions in this research study have been identified through the review of prior research resulting in a fruitful knowledge base: the conceptual framework. To further develop and/or justify the conceptual framework, the doctoral study will emphasise key actors’ perceptions. It is important to elicit the perceptions that contribute to the description and explanation of the degree of successful outcome of the IS outsourcing process. Since the key actors’ perceptions are based on ‘real-world’ experiences, they are believed to constitute a significant complement to the developed conceptual framework. As a result, my belief is that the contribution of the Ph.D. thesis will be at least twofold. The first contribution is a framework for the successful outcome of the IS outsourcing process from a relationship perspective. The second contri-
bution is the design propositions of the management of IS outsourcing processes and IS outsourcing relationships.

**People: operationalising the term degree of successful outcome**

The developed conceptual framework emphasises key conditions for describing and explaining the degree of successful outcome from a relationship perspective. In this thesis, the term ‘degree of successful outcome’ is approached from the perspective of the client–IS supplier relationship. The perspective refers to the client firm with its key actors and the IS supplier firm with its key actors. The key actors are located at three different areas of the firms: business, process and IS (Österle, 1995). As a result, the term degree of successful outcome concerns key actors working at different areas in the client and the IS supplier firms. The definition of the degree of successful outcome has been inspired by Parasuraman et al. (1988)’s method of measuring service quality and prior research definitions of IS outsourcing success (e.g. Willcocks & Kern, 1998; Dibbern et al., 2004). The dimensions proposed for assessing the term degree of successful outcome are presented in subchapter 1.9.3. Thus, the dimensions reflect key actors’ expectations of finance, performance, quality and satisfaction, and the degree to which these expectations are met.

The inclusion of several key actors who play different roles in the firm brings an unavoidable complexity to measuring the degree of successful outcome. The complexity arises because perceived success depends on when it is measured, whom you ask and how you ask (Markus et al., 2000). Moreover, individuals perceive the performance of the IS outsourcing process according to their business roles and business tasks. The result is that each individual has his own experiences and perceptions of the degree of successful outcome of the IS outsourcing process.

One way to determine the degree of successful outcome is to ask the respondents included in the empirical research study to indicate the success of the IS outsourcing process by using a 5-point Likert scale (in which 1 represents very unsuccessful, 2 unsuccessful, 3 neither successful nor unsuccessful, 4 successful and 5 very successful) (cf. Fabriek et al., 2008). This could be accomplished by letting each respondent pick a number from 1 to 5 that represents their perceived degree of success for each identified key condition. For each key condition an average score is calculated, which then is used to calculate the perceived success of each dimension in which the key conditions are categorised.
To reach a number representing the degree of success for each dimension, an average score is calculated. The average score for each dimension is found by adding up the average scores of the key conditions categorised into each dimension and then dividing this sum with the number of key conditions. Average scores below three represent an unsuccessful dimension. If the average score is between three and four, the dimension is perceived as neither successful nor unsuccessful. When the result is four or above, the dimension is perceived as successful. The result of this calculation is a classification of the dimensions that are perceived as successful, unsuccessful, or neither.

The overall successful outcome of the IS outsourcing process is the average of the dimensions’ calculated degree of success divided by the sum of dimensions. Average scores below three represent an overall unsuccessful outcome. If the average score is between three and four, the overall outcome is perceived as neither successful nor unsuccessful. When the result is four or above, the overall outcome is perceived as successful.

This presentation about determining and operationalising the degree of successful outcome of the IS outsourcing process is summarized in Figure 9.2 as a three step procedure.

<table>
<thead>
<tr>
<th>Key condition</th>
<th>Respondent 1</th>
<th>Respondent 2</th>
<th>Respondent 3</th>
<th>Average score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key condition</td>
<td>2</td>
<td>5</td>
<td></td>
<td>2 + 5 / 5</td>
</tr>
<tr>
<td>Key condition</td>
<td>2</td>
<td>2</td>
<td></td>
<td>2 + 2 / 2</td>
</tr>
<tr>
<td>Key condition</td>
<td>3</td>
<td>3</td>
<td></td>
<td>3 + 3 / 3</td>
</tr>
</tbody>
</table>

1. Key condition
2. Degree of success
3. Overall successful outcome of the IS outsourcing process =_degree of success dimension 1 + ... + degree of success dimension _ z / z

**Figure 9.2**: A suggested three step procedure for determining the overall successful outcome of the IS outsourcing process

247
Organisation: type of industry and firm characteristics

The type of industry concerns the characteristics of the firms that will be included in the doctoral study. Possible choices concerning the type of industry are:

- large, or small and medium sized firms and
- homogeneous and/or heterogeneous firms, for example should all the firms included in the study have IT as their core business or should the study include non-IT producing firms?

My aim is to study IS outsourcing processes that provide cooperative and complementary client–IS supplier relationships. Cooperative relationships mean, for example, that the key actors’ business goals are complementary. Goals are often complementary in relationships where each key actor needs something from the other party to succeed. Cooperative relationships promote both the single firm and the relationship between the client and the IS supplier (Han et al., 2008). In a complementary relationship, the key actors have something of value to contribute, the relationship is important for both key actors’ business strategies and the key actors invest in each other (Lacity & Willcocks, 1998). To establish a cooperative and complementary relationship, however, it is necessary that the key actors are engaged in long-term IS outsourcing. Long-term relationships promote institutionalisation and adaptation, which in turn positively influence key actors’ investments in each other (Håkansson, 1982). When relating this discussion on the client–IS supplier relationship to the choice of large or small and medium sized firms, large firms seem to be more appropriate for the doctoral study. This opinion is supported by a recently published magazine article. The article announced that generally small firms have not had the resources and the competence to engage in long-term IS outsourcing, and in particular not in IS offshoring (Computer Sweden, 2008a).

In addition, the choice of firms included in the doctoral study is believed to influence the scope of IS outsourcing experiences that the key actors can provide. For example, IT-producing firms are more frequently involved in outsourcing than non-IT producing firms (Niederman et al., 2006). Furthermore, the intention with outsourcing may vary significantly. Non-IT-producing firms generally outsource their IS services to development expertise. In contrast, IT-producing firms are expected to outsource to domestic IS suppliers or keep the production in-house.

248
**Choice to be determined:** Which characteristics should the firms that are included in the doctoral study possess?

**Organisation: an introductory contact with an IT firm**

In May 2008 I was invited to a meeting in which participants from different IT firms located in the region of Värmland were represented. During this meeting, I introduced this research study and plans for future research. The aim of my presentation was to ascertain the interest among these IT firms for participating in a future empirical research study. Moreover, I wanted to examine the possibility of conducting my future empirical research with geographically close located IT firms.

The result of this presentation was an introductory contact with one of the IT firms. The IT firm is situated in Karlstad and is an IS supplier of IS-services to clients within business sectors such as telecommunication and forestry. I was told that my future empirical study was of foremost interest to them, since outsourcing is part of their daily business performance both today and likely in the future. Their main outsourcing partner is an unaffiliated IS supplier located in Russia, which entails offshore outsourcing. The outsourcing execution of the IT firm is comparable with what is referred to as two-stage offshore outsourcing (Holmström Olsson et al., 2008). This two-stage performance is comprised of the IT firm in the role of both an IS supplier and a client: the IT firm is an IS supplier to a domestically located client and at the same time a client to the IS supplier located offshore. Thus, the IT firm has experience of being both a client and an IS supplier in two-stage offshoring relationships.

The explained performance of their outsourcing processes is favourable since it fits well with my aim for future empirical study. For example, I was told that they outsourced activities such as the development, operation and maintenance of IS. These activities accommodate the type of activities referred to during the development of the conceptual framework. Moreover, the client–IS supplier relationship was described as a relationship characterised by close collaboration and frequent meetings, both face-to-face and virtually. It would be possible for me to participate in these meetings, both at the onshore and offshore location.

The conceptual framework developed in this thesis is not restricted to a special case of IS outsourcing and can therefore be applied to offshore outsourcing processes conducted in the IT firm. Some researchers have suggested recom-
mendations for future research in the field of IS outsourcing. Koh et al. (2004), for example, stress the significance of studying IS offshore outsourcing using a relationship perspective. The empirical environment that can be provided by the IT firm suits this recommendation.

The introductory contact with this IT firm is perceived by me as positive and I will most likely contact them again when it is time for the empirical research study to begin.

Technology: the type of information systems activity outsourced

Since the purpose of this thesis has been to develop a conceptual framework for the IS outsourcing process, it has not been restricted to a specific IS activity. The conceptual framework, however, is restricted to only concern the IS outsourcing process after the decision for IS outsourcing has been made. Thus, one main empirical choice for the doctoral study is whether the study should be delimited to only concern a specific IS activity such as ISD, IS operation or IS maintenance management.

An earlier literature review study (Bergkvist, 2007) showed that outsourcing of ISD elicits more difficulties than, for example, operation and maintenance of IS. In the doctoral study, therefore, it would be interesting to study the process of ISD outsourcing in comparison with the process of outsourcing IS operation and IS maintenance. Moreover, ISD requires close client–IS supplier relationships, therefore more in-depth study of the IS outsourcing relationship could be a possibility.

Choice to be determined: Should the doctoral study emphasise the comparison of the ISD outsourcing process and the outsourcing process of IS operation and/or IS maintenance?

Technology: a delimitation to specific phases of the information systems outsourcing process

The delimitation made in this thesis, according to the IS outsourcing process, is the focus on the process after the decision for IS outsourcing has been made. For the doctoral study, a delimitation could be to include only one or two phases of the IS outsourcing process and thoroughly study IS outsourcing from this point of view.
The IS outsourcing process has been described in subchapter 4.4 and includes six different phases: scoping phase, evaluation phase, negotiation phase, transition phase, middle phase and mature phase. My intention is to use the conceptual framework as an analytical tool during the doctoral study. For this aim, it would be interesting to apply the conceptual framework in an empirical environment representing the operational performance of the IS outsourcing process. This would result in a focus on the transition and middle phase of the IS outsourcing process.

**Choice to be determined:** Should the doctoral study embrace the complete IS outsourcing process or should it be delimited to only include some phases of the IS outsourcing process?

### 9.6.3 IS research: evaluation and design propositions

IS research is addressed by discussing how the research conducted in this research study and the doctoral study can be justified/evaluated through empirical case studies. Moreover, further development of the conceptual framework and intended design propositions, as contributions of the Ph.D. thesis, are briefly discussed.

*Justify/Evaluate: case studies*

The doctoral study will be similar to this study and be of a qualitative nature. The empirical research study should embrace two to three case studies so that comparisons might be made among different IS outsourcing processes. For example, it would be interesting to study the similarities and differences of IS outsourcing processes that focus on ISD, IS operation and IS maintenance respectively. The recommended IS life cycle approaches of, for example, ISD and IS maintenance look somewhat different (Brandt et al., 1998). From this point of view, it would be interesting to discover if the type of IS activity and related strategies and approaches, influence the performance of IS outsourcing processes. Thus, the characteristics of the empirical case studies depend on the empirical environments available and on my own aims for the empirical case studies, which in this chapter are presented as ‘choices to be determined’.

The respondents of interest represent both the client and the IS supplier. Respondents from the business area, the process area and the IS area of both firms will be interviewed as part of the case studies. To be included in the study, the respondents will be part of an IS outsourcing process that has been im-
plemented and they will have reached outcomes linked to the specified IS outsourcing contract. Respondents that meet this criterion are believed to be more likely to contribute with information concerning conditions that influence the perceived degree of successful outcome of the IS outsourcing process. The interviews will be based on the conceptual framework and they will include primarily open questions. Conditions of the IS outsourcing process that have not been included in the applied knowledge base may be discovered through the use of open questions (Kvale, 1997). The empirical data are intended to be collected through personal interviews, i.e., face-to-face meetings, and will emphasise the respondents’ perceptions of key conditions influencing the degree of successful outcome of the IS outsourcing process. The collection of empirical data will be performed with the goal of clarifying how different key actors perceive conditions influencing the success of the IS outsourcing process.

The main difficulty of performing the interviews will be to acquire the perceptions of the respondents. Various methods exist for capturing key actors’ perceptions. Tan and Hunter (2004) suggest the use of the Repertory Grid Technique, which offers a structured interview process. The Repertory Grid Technique provides structure through a group of procedures used for uncovering the constructs that individuals employ to structure and understand their environments. The technique is recommended for qualitative research to study the subjective understanding at the level of the individual, group or organisation. IS researchers have used the technique to uncover respondents’ interpretations of events that relate to the development, implementation, use and management of IS in firms (Tan & Hunter, 2004).

The Repertory Grid Technique could serve as a useful method for performing the interviews during the empirical case studies since the interviews are intended to focus on key actors’ experiences of performing IS outsourcing processes and conditions contributing to a successful outcome. Another available alternative for gathering and analysing data is the Grounded Theory (Glaser & Strauss, 1967). The gathered data from interviews are coded into categories to identify themes and trends. The identified categories can then be related to the dimensions and key conditions in the conceptual framework. Recurring themes and categories are analysed to provide hypotheses, which later should be validated in empirical ‘real-world’ settings to contribute with a validated theory (cf. Cannon & Wilson, 2008).
Choice to be determined: How should the empirical case studies be performed?

Develop/Build: incorporation of the time perspective in the conceptual framework.

One of the shortcomings of the interaction approach addressed by Kern and Willcocks (2002) is the exclusion of the time perspective. The time perspective is necessary because the interaction approach believes that long-term institutionalisation and adaptations create long-term relationships (Kern & Willcocks, 2001). To be able to study how long-term relationships develop over time, the time perspective is considered to be of foremost importance (Kern & Willcocks, 2002).

The conceptual framework developed in this research study does not incorporate the perspective of time. This could be perceived as a shortcoming since prior research indicates the significance of time when studying interorganisational business relationships. The main motive for not including the time perspective in the conceptual framework is that prior research does not contribute a specific time when key conditions influence key actors the most. The contribution of incorporating the time perspective into the conceptual framework would then be a result of my own interpretation. My aim instead is to consider the time perspective in the empirical research study to further develop the conceptual framework. The empirical case studies, for example, may contribute information about when key conditions influence key actors’ perceived degree of successful outcome the most during the IS outsourcing process.

The advantage of incorporating the time perspective is the analysis of aspects such as intention with IS outsourcing and operationalisation of the IS outsourcing process. Furthermore, through the time perspective, it is possible to determine how key conditions influence the successful outcome of the IS outsourcing over time (Markus et al., 2000).

A focus on time also makes it possible to study the institutionalisation of the client–IS supplier relationship. Institutionalisation is a result of long-term interactions and relationship evolution and denotes, for example, cultural closeness, shared approaches to problem solving, mutual values and norms (Håkansson, 1982).
Develop/Build: key conditions and how they influence key actors' perceived degree of successful outcome of the information systems outsourcing process

The key conditions included in the conceptual framework are identified according to their influence on the degree of successful outcome of the IS outsourcing process. The conceptual framework, however, does not specify whether the key conditions influence the degree of successful outcome positively or negatively. One aim of the empirical case studies would be to elicit key actors' perceptions regarding how, i.e., positively, negatively or neither, key conditions influence the perceived successful outcome of the IS outsourcing process. Managers' opportunity to prioritize key conditions in relation to the actual situation is believed to be the main contribution of specifying key conditions' positive and/or negative influence on the successful outcome.

Develop/Build: client–IS supplier interactions

The findings related to the client–IS supplier interactions in this thesis are linked to the research study by Lacity and Willcocks (2000). In their study they explored different phases of the IS outsourcing process and the primary client–IS supplier interactions occurring during these phases. Moreover, inter-firm interactions have been described in this thesis with the point of departure in four aspects characterising client–supplier interactions in general: capability, inconsistency, mutuality and particularity (Ford et al., 1990). The descriptions of the client–IS supplier interactions included in this thesis are believed to constitute a favourable point of departure for studying client–IS supplier interactions and their influence on the degree of successful outcome of the IS outsourcing process.

The goal, however, is that the empirical research study should contribute with 'richer' information about client–IS supplier interactions in IS outsourcing processes. One way to increase the understanding of inter-firm interactions is through the application of the Business Action Theory (BAT) phase model (Goldkuhl, 1996; Axelsson et al., 2000). This model is an instrument for analysing client–supplier interactions in interorganisational business relationships (Axelsson et al., 2002). In similarity with the interaction approach it is a generic model with the purpose of increasing the understanding of inter-firm interactions. The BAT phase model, unlike the interaction approach, divides inter-firm interactions into six generic phases: (1) Establishing business pre-requisites phase, (2) Exposure and contact search phase, (3) Proposal phase, (4) Contractual phase, (5) Fulfilment phase and (6) Assessment phase. The use of
this model in ‘real-world’ IS outsourcing contexts could provide valuable insights and further contribute to the explanation of key actors’ inter-firm interactions in IS outsourcing processes. This is a result of that the model describes the inherent business logic when clients and suppliers perform business with each other (Axelsson et al., 2002). In addition, the model gives equal attention to the parties involved in inter-firm interactions. The BAT phase model, therefore, would constitute a favourable complement to the description of the IS outsourcing process given in this thesis.

Develop/Build: design propositions

As was described in subchapter 9.4.1, the IS design research cycle has not been addressed in its entirety in this research study. In this research study, the first step of the IS design research cycle has been accomplished: the knowledge gap/practical problem has been addressed and a theoretical knowledge base has been provided in the form of a conceptual framework.

An ambition of the Ph.D. thesis is to complete the IS design research cycle. One goal of the doctoral study is therefore to emphasise the practical relevance of the research conducted. To reach this goal, the remaining sections of the IS design research cycle should be completed, i.e., to develop prescriptive guidelines, test the guidelines and reflect on the test results (Carlsson, 2006). The desired result of the completion of the IS design research cycle includes design propositions for supporting and facilitating the management of IS outsourcing processes and IS outsourcing relationships. Another goal is to provide a structure of an IS life cycle approach for IS outsourcing that considers both the client and the IS supplier.

9.7 Summary and contributions of Chapter 9

The aim of this chapter is *fourfold*. First, the chapter provides a retrospective view of the purpose of this thesis in conjunction with a discussion on the realization of the purpose. The realization of the purpose is presented and illustrated through the conceptual framework for the IS outsourcing process. The conceptual framework is then realized through the findings and contributions from previous chapters in this thesis. These findings and contributions concern the identified elements of the conceptual framework: key conditions, dimensions and interrelations among dimensions. These elements were identified from the conducted literature review study.
Second, the aim is to reflect on and discuss the development of the conceptual framework, the rigour and the relevance of the conducted research study. Five criteria are used to address the practical and theoretical relevance of the conceptual framework: workability/explanatory potential, realizeability, logical structure and knowledge extension (Nilsson, 1991; Gregor, 2006).

The workability/explanatory potential of the conceptual framework is related to the incorporation of three theoretical fields for studying the IS outsourcing process. The conceptual framework supports the description of key conditions that can be traced to the outsourced IS activity, the relationship between the client and the IS supplier and the performance of an IS outsourcing process in empirical ‘real-world’ settings. Furthermore, because the conceptual framework is generic, it supports the description and explanation of the degree of successful outcome of the IS outsourcing process irrespective of the specific IS activity outsourced or the special case of IS outsourcing. Consequently, the empirical contexts in which the conceptual framework can be operationalised are believed to have a broad range.

The logical structure concerns the consistency, the stringency and the flexibility of the conceptual framework. The description of the development of the conceptual framework aims to be as distinct as possible and points out the derivation of the included elements. As a result, the consistency among different parts of the conceptual framework becomes visible and contradictions are avoided. To achieve a stringent conceptual framework the findings and contributions from Chapters 3-7 are combined with the aim to remove redundant and complementary elements. The conceptual framework is stringent because it only includes elements that can be derived from the contributions of the conducted literature review study. In addition, the conceptual framework is flexible because it is developed from a generic point of view. This means that it can be applied to different IS outsourcing processes irrespective of the IS activity or the special case of IS outsourcing. The knowledge extension of the conceptual framework is a result of including three different theoretical fields. The inclusion of different theoretical fields and their contributions for addressing the purpose of the thesis have resulted in a unique conceptual framework.

The rigour of the present research study is addressed by considering three criteria of consumable research: originality, creditability and ability to communicate (Håkangård & Nilsson, 2001). The originality of the thesis and the
conceptual framework mainly comes from the use of the relationship perspective in combination with three different theoretical fields. The knowledge contribution is a result of reviewing earlier published research. This accumulative research makes it possible to build on and further develop acknowledged research and to achieve creditability. To ensure communicative research, the description of how this study has been conducted has been as rich and transparent as possible. This also applies to the development of the conceptual framework. The included elements have been thoroughly described and motivated.

Third, the contributions of this thesis are discussed from a practical and a theoretical point of view. The practical implications are addressed by including ideas of design science research. The target group of this research is IS professionals who have the responsibility and authority to influence the performance of IS outsourcing processes and IS outsourcing relationships. From the perspective of senior business managers, senior IT managers and account managers, the contributions of this research study may be perceived as ‘theoretically grounded management knowledge’ for the performance of IS outsourcing processes. Furthermore, the contributions may be relevant for key actors interested in how ISD processes can become more efficient and effective when they involve client–IS supplier relationships.

The starting point for design science research is the identification of a practical problem (Carlsson, 2006). The identified knowledge gap in this research study is not only a theoretical knowledge gap but also a relevant practical problem. The knowledge gap and practical problem relate to the client–IS supplier relationship and research studies show that practitioners acknowledge the importance of the client–IS supplier relationship for the management of the IS outsourcing process (e.g. Kern & Willcocks, 2002). Through the application of the IS outsourcing relationship as the unit of analysis, the contributions provide knowledge about how the management of the relationship influences the success of IS outsourcing processes. The developed conceptual framework emphasises the identified gap/problem by describing and explaining the degree of successful outcome of the IS outsourcing process from a relationship perspective. The description and explanation section is addressed by the theoretically derived key conditions and dimensions and how these are interrelated. The conceptual framework is intended to be used by managers in different areas of the client firm and the IS supplier firm. It can be used, for example, to
constitute the basis for managerial decisions regarding the performance of IS outsourcing processes and the client–IS supplier relationship. Moreover, it can be used to describe how different key conditions influencing the degree of successful outcome of the IS outsourcing process are interrelated.

The theoretical contributions of this research study add to the knowledge base, which is comprised mainly of the developed conceptual framework. To ensure the theoretical contributions of this research study, they are compared with previously published research within the same research area. In this research study, the framework for the IS outsourcing relationship provided by Kern and Willcocks (2001) has been used as a source of inspiration. The contributions of this thesis have therefore been compared with their research study. The differences concern all the topics of interest and the applied theories.

As a fourth aim, the chapter concludes with directions for future research. This discussion is based on the IS research framework and includes knowledge base, environment and IS research (Hevner et al., 2004). The knowledge base is provided through the developed conceptual framework. The environment aspect emphasises the performance of the empirical research study that will be part of the doctoral study. The performance of the empirical research is discussed in relation to people, organisation and technology. When it is applicable, a ‘choice to be determined’ is presented. The choices to be determined concern the performance of the empirical research study. IS research is addressed by discussing how the research conducted in this research study and the doctoral study can be justified/evaluated through empirical case studies. Moreover, further development of the conceptual framework and intended design propositions, as a result of the Ph.D. thesis, are briefly discussed.

To conclude, the research study presented in this thesis builds on and extends the accumulated knowledge about the successful outcome of the IS outsourcing process. To be able to contribute to the knowledge about the successful outcome of the IS outsourcing process, three different theoretical fields are included in the literature review study: IS, interorganisational business relationships and IS outsourcing. Each conducted literature review has added to the description and explanation of the degree of successful outcome of the IS outsourcing process in the form of key conditions, dimensions and/or interrelations among dimensions. By combining the results of each conducted literature review, a conceptual framework for describing and explaining the degree of
successful outcome of the IS outsourcing process from a relationship perspective is developed. The key conditions, the dimensions and the interrelations among dimensions are included in the conceptual framework as a result of their potential and relevance for describing and explaining the degree of successful outcome of the IS outsourcing process from a relationship perspective. The use of the conceptual framework as a basis for making decisions during the performance of the IS outsourcing process is believed to contribute a successful outcome.
References


Fish, K.E. and Seydel, J. (2006), "Where IT Outsourcing is and Where it is Going: A Study Across Functions and Department Sizes", Journal of Computer Information Systems, 46 (3), 96-103.


The Swedish Research School of Management and Information Technology (MIT) is one of 16 national research schools supported by the Swedish Government. MIT is jointly operated by the following institutions: Blekinge Institute of Technology, Gotland University College, IT University of Göteborg, Jönköping International Business School, Karlstad University, Linköping University, Lund University, Mälardalen University, Växjö University, Örebro University and Uppsala University, host to the research school. At the Swedish Research School of Management and Information Technology (MIT), research is conducted, and doctoral education provided, in three fields: management information systems, business administration, and informatics.

DISSERTATIONS FROM THE SWEDISH RESEARCH SCHOOL OF MANAGEMENT AND INFORMATION TECHNOLOGY

Doctoral theses (2003-)


Licentiate theses (2004-)


Contact person: Professor Birger Rapp, Dean of MIT, birger@rapp.se, Phone: 070- 8152650.
Address: Forskarskolan Management och IT, Företagekonomiska Institutionen, Uppsala universitet, Box 513, 751 20 Uppsala.
A Conceptual Framework for Studying the Successful Outcome of the IS Outsourcing Process from a Relationship Perspective

This thesis has its point of departure in the identified knowledge gap, which includes the importance of the information systems (IS) outsourcing relationship for studying the success of IS outsourcing. This research study, therefore, is structured with the belief that the disregard of the client–IS supplier relationship when studying IS outsourcing is paradoxical. Paradoxical since the impact of the relationship on the overall IS outsourcing can make the difference between success, less success and even failure. In contrast to the majority of prior research, which has focused IS outsourcing in its entirety, this research study perceives IS outsourcing as a process. Because prior research shows that the success or failure of IS outsourcing is connected to its implementation, this thesis focuses the post-contract stage of the IS outsourcing process.

The purpose chosen and addressed is to develop a conceptual framework for describing and explaining the degree of successful outcome of the IS outsourcing process using a relationship perspective. To approach this purpose, a literature review study is conducted. The literature review study includes the integration of three theoretical fields: IS, interorganisational business relationships and IS outsourcing. The knowledge domains of particular interest are ‘strategies, approaches and frameworks for the IS life cycle’, ‘the interaction approach’ and ‘IS outsourcing success’.

The purpose is focused through the identification of key conditions, dimensions and interrelations among dimensions. These identified elements, constituting the core elements of the conceptual framework, are a result of the conducted literature review study. The key conditions are identified according to their influence on the degree of successful outcome of the IS outsourcing process from a relationship perspective. Due to the large amount of key conditions identified, they are categorised into nine dimensions: Atmosphere, Behaviour, Contract, Environment, Interaction, IS, Management, Organisation and Outcome. The identified interrelations among these dimensions are fruitful since they provide insights and a favourable point of departure for studying the degree of successful outcome of IS outsourcing processes.

The main contribution of this thesis is the conceptual framework for the IS outsourcing process. The key conditions, dimensions and interrelations constitute the conceptual framework as a result of their potential for describing and explaining the degree of successful outcome of the IS outsourcing process from a relationship perspective. The application of the conceptual framework provides managers with core elements to be considered during IS outsourcing decision-making and subsequent design of IS outsourcing. Its usage, moreover, is believed to support managers during the operationalisation of the post-contract stage of IS outsourcing processes. Finally, the conceptual framework is a fruitful ‘tool’ for future empirical research. Fruitful in the sense that it can provide useful and important insights into how different key conditions influence the degree of successful outcome of IS outsourcing processes and how these key conditions are interrelated.