

Tilburg University

Collaboration in buyer-supplier relationships

van de Vijver, M.A.R.

Publication date:
2009

Document Version
Publisher's PDF, also known as Version of record

[Link to publication in Tilburg University Research Portal](#)

Citation for published version (APA):
van de Vijver, M. A. R. (2009). *Collaboration in buyer-supplier relationships*. CentER, Center for Economic Research.

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

COLLABORATION IN BUYER-SUPPLIER RELATIONSHIPS

COLLABORATION IN BUYER-SUPPLIER RELATIONSHIPS

PROEFSCHRIFT

ter verkrijging van de graad van doctor aan de Universiteit van Tilburg,
op gezag van de rector magnificus, prof.dr. Ph. Eijlander, in het openbaar
te verdedigen ten overstaan van een door het college voor promoties
aangewezen commissie in de aula van de Universiteit op vrijdag 30
januari 2009 om 14.15 uur door

MARK ANGELE ROGER VAN DE VIJVER

geboren op 24 juni 1979 te Middelburg.

PROMOTORES

prof. dr. ir. Bart Vos

prof. dr. Henk Akkermans

This PhD project has been financially supported by the NEVI Research Stichting (NRS), part of the Dutch Association for Purchasing Management (NEVI)

PREFACE

This PhD thesis is the result of four years of research on buyer-supplier collaboration. My interest in the topic was strongly stimulated by my involvement in several interesting applied research projects in the years before starting as PhD student. Especially the projects at Royal DSM N.V. and the studies related to the F-35 Joint Strike Fighter gave me the opportunity to develop important research skills and motivated me to write my PhD thesis. In addition, it made me realize that I enjoy working on the interface between the academic and practitioner world.

These applied research projects also meant a start of the close cooperation with Bart Vos and Henk Akkermans. Their contagious enthusiasm resulted in a special and enjoyable working atmosphere. I especially wish to thank Bart for his support and detailed feedback during these four years. He balances extremely well between showing personal interest and having discussions on the work that needs to be done. His guidance clearly motivated me and enabled me to complete this thesis within four years. The special relationship between Bart and me has also influenced my decision to choose Tilburg University as the institute for continuing my research activities in the next couple of years. Henk's input has also been valuable throughout the research process. He continuously challenged the content and structure of the thesis by regularly returning to the question: why are we doing this? His way of thinking definitely helped in making me more flexible in my thinking. This flexibility will also be needed in my combined job at Air France–KLM and Tilburg University, a combination I am proud of. My first months at Air France–KLM have already been exciting and I look forward to making the best of this combined position in the next couple of years.

Furthermore, I would like to thank my committee members (Björn Ivens, Finn Wynstra, Frits Tazelaar, Niels Noorderhaven, and Stefan Wuyts) for their comments on the manuscript. The diverse academic backgrounds of the committee members underline the various perspectives that can be used to study buyer-supplier collaboration. In particular, I wish to express my gratitude to Frits Tazelaar whose critiques and suggestions helped to improve the methodological underpinnings of this thesis.

The financial support offered by the Dutch Association for Purchasing Management (NEVI) as well as the discussions with my NEVI mentor, Philip van Beek, are also highly appreciated. In addition, the academic network set up by NEVI to encourage research in the field of purchasing and supply management also offered the possibility to work together with several other PhD students. The cooperation with Fredo, Henk Jan, Marc, Merijn, Mirjam, and Wendy and the time spent together during conferences and other events was pleasant and inspiring. I would also like to thank the contact persons of the participating companies for their continuous efforts in improving response rates and my colleagues at the department of Organization & Strategy for providing me a pleasant time on the 11th floor. In particular, I would like to thank Astrid and Geertje with whom I

could always discuss challenges I was facing in the research process, and Fons for his advice in the final stages of the writing process.

One of the most valuable ‘spillovers’ of conducting this PhD study is the friendship with Frans and Gijsbert, who I met during my period at CentER Applied Research. I am happy that you have accepted the role as ‘paranimf’, and I have good memories of the mountainbike weekends, ‘hartenjaag’ evenings (also together with Marlies), dining together, and the lengthy and amusing discussions on all sorts of topics. Thanks for that! Also the friendships with Bas, Ivo, Marijke, and Rolph have been valuable and have helped me in overcoming some more difficult periods during the past four years.

Finally, I would like to thank my parents and brother for their unconditional support. Peter, the geographical distance during your visits to Nicaragua proved no hindrance in elaborating on our thoughts and I am thankful for this. Pa, Ma, ‘going home’ to Middelburg is always special to me and I am grateful for your continuous interest in the research progress. Knowing that you will always be there for me has been essential in successfully completing this thesis. Thanks.

Mark van de Vijver

Tilburg, November 2008

CONTENTS

Chapter 1	Introduction	1
1.1	Problem statement	1
1.2	Examples of collaboration.....	2
1.3	Collaboration in the academic literature.....	3
1.4	Thesis structure.....	4
Chapter 2	Developing collaborative buyer-supplier relationships: An exploratory study of experiences of Dutch multinationals	7
2.1	Introduction	7
2.2	Theoretical background.....	7
2.3	Research method	9
2.4	Results	11
	2.4.1 Impediments in the development of buyer-supplier relationships.....	11
	2.4.2 Influencing methods in the development of buyer-supplier relationships....	13
2.5	Discussion	15
	2.5.1 Limitations and directions for further research	16
Chapter 3	A cross-disciplinary literature review.....	19
3.1	Introduction	19
3.2	Research method	21
	3.2.1 Step 1: Rough article selection	21
	3.2.2 Step 2: Final article selection.....	22
	3.2.3 Step 3: Reference search.....	24
3.3	Analysis.....	24
	3.3.1 Research methods in different fields	25
	3.3.2 Research scope	25
	3.3.3 Longitudinal studies	26
	3.3.4 Citation analysis	27
3.4	Discussion	28
	3.4.1 Longitudinal research on buyer-supplier collaboration.....	28
	3.4.2 Interpersonal aspects of collaboration	30
3.5	Concluding remarks.....	32

Chapter 4	Research method for longitudinal case studies	35
4.1	Introduction	35
4.2	Case study research	36
4.3	Case description.....	37
4.4	Data collection.....	38
4.4.1	Development of the survey instrument.....	39
4.4.2	Qualitative research	40
4.4.3	Interview procedure	40
4.5	Qualitative data analysis.....	41
4.5.1	Coding and coding procedures	41
4.5.2	Levels of transcript analysis	42
4.6	Validity and reliability of case study research.....	44
4.6.1	Construct validity.....	44
4.6.2	Internal validity.....	45
4.6.3	External validity	45
4.6.4	Reliability	46
Chapter 5	Multiple informants' perceptual differences in collaborative buyer-supplier relationships	49
5.1	Introduction	49
5.2	Theoretical background	50
5.2.1	Using and justifying single informants.....	50
5.2.2	Using and justifying multiple informants	51
5.2.3	The methodological debate on informant selection.....	52
5.3	Focal constructs	54
5.4	Data analysis.....	57
5.5	Results	59
5.5.1	Dyadic comparison of perspectives on collaboration	59
5.5.2	Intra-firm comparison of perspectives on collaboration.....	60
5.6	Discussion.....	61
Chapter 6	Relationship building through key supplier programs	63
6.1	Introduction	63
6.2	Literature review.....	64
6.2.1	Relationship quality	64
6.2.2	Relationship development	65
6.2.3	Key account management.....	66

6.3	Research method	67
6.4	Results	68
6.5	Discussion	72
6.6	Directions for future research.....	74
Chapter 7	A tale of two partnerships: socialization in the development of buyer-supplier relationships	77
7.1	Introduction	77
7.2	Theoretical background.....	78
7.3	Research method	80
7.4	Results	81
7.5	Discussion	85
7.6	Directions for future research.....	87
Chapter 8	Towards a process model on the evolution of collaborative buyer-supplier relationships	89
8.1	Introduction	89
8.2	Theoretical background.....	90
8.2.1	Evolutionary models.....	90
8.2.2	Managing business relationships	91
8.2.3	Developing collaborative relationships	91
8.2.4	A process model on relationship evolution	92
8.3	Research method	94
8.4	Results	95
8.4.1	History of collaboration.....	95
8.4.2	Relationship development with supplier B.....	96
8.4.3	Relationship development with supplier C.....	99
8.5	Discussion	103
8.6	Directions for future research.....	107
Chapter 9	Conclusions and recommendations.....	109
9.1	Conclusions	109
9.2	Managerial implications	111
9.3	Recommendations for future research.....	112
Bibliography	115	

Appendices	129
Appendix I Research on collaboration in buyer-supplier relationships: 2000 – 2006....	129
Appendix II Survey instrument.....	138
Appendix III Response rates survey and interviews.....	140
Appendix IV Coding scheme.....	141
Appendix V Relationship quality.....	143
Samenvatting (Summary in Dutch)	145
CentER Dissertation Series	155

CHAPTER 1 INTRODUCTION

This introductory chapter starts with formulating the problem statement and continues by describing several examples of collaboration in business settings. Then, a definition of collaboration is provided, as well as a description of collaborative buyer-supplier relationships. Finally, the structure and coherence of the chapters of this thesis is outlined.

1.1 PROBLEM STATEMENT

“Collaboration” is an increasingly important area of interest in the academic and the business world. Companies focus strongly on the development of closer ties with other organizations in search of competitive advantage and improved market positioning. So far, little is known about the mechanisms determining the evolution of collaborative relationships, nor about the existence and interplay of collaboration at various levels within business relationships.

Collaborative relationships exist within and between firms, are composed of two or more parties, and may be horizontally (i.e. alliances with competitors) as well as vertically oriented (i.e. with a firm’s suppliers or customers). The focus of this study is on the development of vertical business relationships and the central phenomenon is “collaboration in buyer-supplier relationships”¹. The studied buyer-supplier relationships are part of the key supplier program of a focal buying company and the views of both the buyer and the supplier company are included and compared in this study (‘dyadic’). Furthermore, there are multiple informants from each participating company, allowing for developing a deeper understanding of the central phenomenon. Finally, the design is longitudinal and the study examines the development of collaborative buyer-supplier relationships for three consecutive years.² The dyadic, longitudinal, multiple informant design of this study facilitates a detailed examination of the evolution of buyer-supplier relationships and the mechanisms underlying the development of such relationships. This leads to the following problem statement:

How do collaborative buyer-supplier relationships evolve over time?

In the academic literature, many authors have contributed to the literature on collaboration in buyer-supplier relationships. Most of these studies are part of the marketing, operations

¹ The term buyer-supplier relationship is used in operations management and strategic management literature, whereas buyer-seller relationship is more common in marketing literature. For convenience, the term ‘buyer-supplier relationship’ is used in this thesis.

² See Chapter 4 for a more detailed discussion of the research design of this study.

management, and strategic management literature (see Chapter 3). However, only few have endeavored to study the development of buyer-supplier relationships in a longitudinal manner. Such approaches are valuable to see the developmental process of buyer-supplier relationships and to understand the mechanisms driving these developments. Most of the current longitudinal studies describe different phases (Jap and Anderson 2007; Spina and Zotteri 2000), of relationships (i.e. moving from an adversarial to a collaborative relationship), and generally fail to provide adequate explanations of why relationships move in a certain direction (either upwards or downwards). Notable exceptions are the studies by Anderson and Jap (2005), Bell et al. (2002), and Narayandas and Rangan (2004). In these studies, several mechanisms are proposed that guide the development of collaborative relationships. Narayandas and Rangan (2004) discuss processes that explain relationship initiation and maintenance in industrial markets. For example, they argue that performance outside contractual terms jumpstarts trust building between individuals and that these individuals will transfer this bond to the firm level as interorganizational commitment. Anderson and Jap (2005) and Bell et al. (2002) focus on mechanisms explaining the fall of collaborative relationships. Specific attention is given to the role of opportunistic behavior (for example because of strong personal relationships) and the effects of trust violation causing the decline of collaborative relationships. As Narayandas and Rangan (2004) further notice, the lack of a rich body of longitudinal studies may be caused by the risks associated with and time consuming character of such studies. The risks are larger for 'real-time' than for retrospective longitudinal studies, because of changes to the market environment and high time investments for the participating companies. Still, various other authors call for more longitudinal studies and view this approach most suitable for improving our understanding of the development of collaborative relationships (e.g. Eggert et al. 2006, Fynes et al. 2005b, Geyskens et al. 1999, Johnston et al. 2004). This study aims to contribute to this specific gap in the extent knowledge base on collaborative relationships.

1.2 EXAMPLES OF COLLABORATION

Within the Netherlands, well-known examples of (inter-firm) collaboration are the joint development of Senseo by Sara Lee / DE and Philips, and the Nedcar production facilities where both Volvo and Mitsubishi cars were manufactured simultaneously. In addition, the global automobile industry is commonly known for the use of supplier networks to gain collaborative advantage (e.g. Dyer and Hatch 2006). Dyer (2000) further argues that competitive advantage will be increasingly realized by teams of firms rather than by individual companies. In the aerospace industry, firms form international consortia in the development of new aircraft. For example, Lockheed Martin, General Electric, Pratt & Whitney, and Rolls-Royce form the core team in the development of the F-35 Lightning II (Joint Strike Fighter) and use many companies from different

partner countries in the development of new technologies and components (Van de Vijver and Vos 2006a, 2007).

In line with the increased emphasis on collaboration, firms set up key supplier programs (see also Chapter 6). For example, Toyota has developed relationships with suppliers to stimulate knowledge sharing and to improve organizational performance. IBM established the Partnership World program and offers various benefits to members of the program. Also other companies, such as Microsoft and Boeing have established special programs for their key suppliers. The criticality of developing supplier relationships is also emphasized by CAPS³ Research (Carter et al. 2007), who stress that well-developed supplier relationships are important assets to firms.

1.3 COLLABORATION IN THE ACADEMIC LITERATURE

Firms can benefit from collaborating with other companies in several ways. Various theories explain the effectiveness of inter-organizational cooperative arrangements.⁴ Palmatier et al. (2007) identify and compare four theoretical lenses that dominate research on inter-organizational relationships performance: (1) commitment – trust (e.g. Morgan and Hunt 1994), (2) dependence (e.g. Hibbard et al. 2001), (3) transaction cost economics (e.g. Heide and John 1990), and (4) relational norms (e.g. Macneil 1980). They stress there is insufficient understanding of the causality between focal constructs and develop an integrated framework of the four mentioned theoretical perspectives and the resource based view of the firm. In this single theoretical framework, relationship specific investments, trust and commitment are considered drivers of both financial and relational outcomes. Their study indicates that these drivers are critical to the success of collaborative inter-organizational relationships.

However, few academics actually define collaboration: most of them just introduce and use the term. The wide variety of terms used for horizontal collaborative arrangements has for example been illustrated by Schotanus (2007), identifying 171 different terms for cooperative purchasing. Apparently, defining the concept of collaboration is difficult because of the large number of factors contributing to the existence of collaborative inter-organizational relationships. As an exception, Hardy et al. (2005, pp. 58) define collaboration as follows: “a cooperative, inter-organizational relationship in which participants rely on neither market nor hierarchical mechanisms of control to gain cooperation from each other.” Hence, collaborative relationships are characterized by a different governance structure. Bensaou (1999) uses other characteristics to distinguish collaborative relationships from other types of buyer-supplier relationships. His portfolio approach to buyer-supplier relationships is based on the level of buyer and supplier specific investments in a relationship. Four types of relationships are identified: market exchange, buyer captive, supplier captive relationships, and strategic partnerships. These relationship types differ on the level of

³ CAPS is the Center for Advanced Procurement and Supply and is affiliated with Arizona State University

⁴ An extensive theoretical background on collaboration is provided in Chapter 3

relationship specific investments, where, for example, strategic partnerships are characterized by high levels of buyer and supplier relationship specific investments. This portfolio approach also implies different forms of governance are necessary for managing different types of relationships.

Duffy (2008) uses a relationship continuum to identify relationship types and examines differences between partnerships, highly coordinated and limitedly coordinated buyer-supplier interactions. She follows the definition by Ellram and Hendrick (1995, pp. 41) and considers partnerships as “ongoing relationships between two firms involving a commitment over an extended time period and a mutual sharing of information and the risks and rewards of the relationship”. Duffy (2008) compares relationships that are perceived as partnership with highly coordinated and limitedly coordinated buyer-supplier exchanges, and finds that partnership relationships are different from other types of buyer-supplier interactions in various ways. First, partnerships experience higher levels of trust, cooperative attitudes, relational norms, and functional conflict resolution than highly coordinated relationships. Secondly, the level of integration between the buyer and supplier company is highest in partnership relationships. Meanwhile, other authors stress that there is not always a need for close ties between organizations and partnerships are not always desirable (e.g. Cannon and Perreault Jr. 1999; Spekman and Carraway 2006).

1.4 THESIS STRUCTURE

Chapter 2 covers the empirical exploratory phase of this PhD study and describes experiences of leading Dutch multinational companies in their collaboration with key suppliers. Special attention is given to the techniques used by Chief Purchasing Officers (CPOs) to stimulate development of these relationships. Data are only based on the buyer perspective whereas other chapters of this thesis use a dyadic perspective. An extensive literature review of research on the central topic of this thesis “collaboration in buyer-supplier relationships” is presented in Chapter 3. Academic journals in the fields of marketing, operations management, and strategic management are examined for a 7-year period (2000 – 2006) and citation analysis is used to identify most-cited studies on the topic before 2000. Together with the selection, design and analysis of the longitudinal case studies (Chapter 4), the literature review is an essential input to the subsequent chapters of the thesis. The dyadic, multiple informant survey data provide the opportunity to analyze different perspectives on the same buyer-supplier relationship between representatives from the buying and the supplying company, as well as differences between those working at tactical and strategic level (Chapter 5). So far, existing studies have presented contradictory results on the existence of perceptual differences between actors on different sides of the dyad. Chapters 6, 7, and 8 describe the main empirical results from this study and deal with three different aspects of collaborative relationships. In Chapter 6, survey data are used to examine the development of relationship quality by analyzing the evolution of trust, commitment and satisfaction. These visual

displays are used in combination with financial data on business volume development to examine the assumed benefits of membership to a key supplier program. Qualitative analyses of interview transcripts are the main data source to Chapters 7 and 8. First, interfirm socialization efforts are analyzed and related to the perceived quality of communication. Perspectives from the buyer and supplier organization on these aspects are presented with thematic conceptual matrices (Miles and Huberman 1994). Chapter 8 builds on the work by Geyskens et al. (1999) who develop a meta-analytical framework of the role of satisfaction in marketing channel relationships. This framework is expanded to a process model of the evolution of buyer-supplier relationships that explains positive as well as negative developments within these relationships. Finally, conclusions and directions for future research are summarized in Chapter 9. A schematic representation of the structure of this thesis is provided in Figure 1-1.

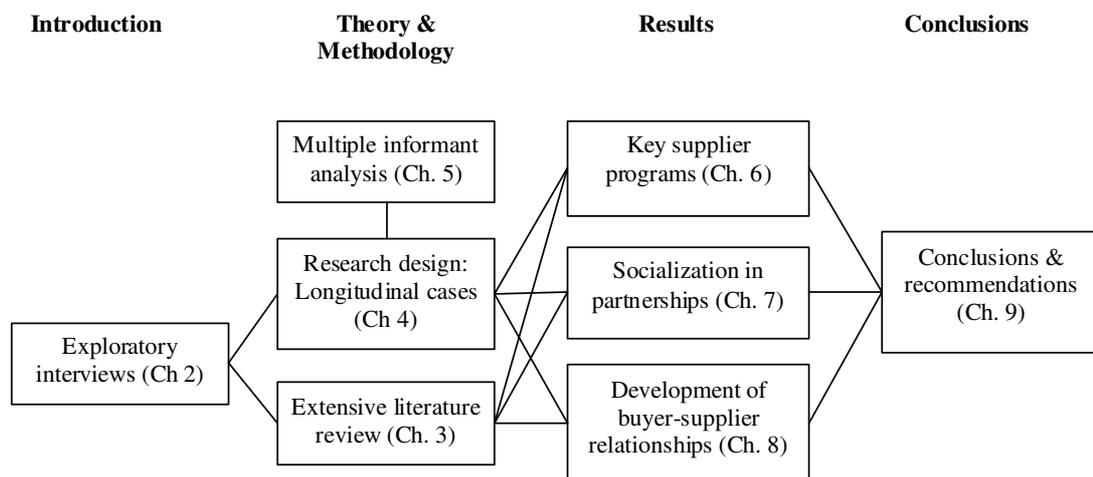


Figure 1-1 Thesis structure

CHAPTER 2 DEVELOPING COLLABORATIVE BUYER-SUPPLIER RELATIONSHIPS: AN EXPLORATORY STUDY OF EXPERIENCES OF DUTCH MULTINATIONALS⁵

2.1 INTRODUCTION

Managing buyer-supplier relationship has been an important topic in academic research over the past decades. Contributions are found in different research areas, such as industrial marketing, purchasing and supply management, and strategic management. Within the literature on collaborative buyer-supplier relationships, several authors concentrate on the development of buyer-supplier relationships (e.g. Anderson and Jap 2005; Doz 1996; Dwyer et al. 1987; Narayandas and Rangan 2004; Ring and Van de Ven 1994; Spina and Zotteri 2000). They describe processes and stages of relationship development, and changes within buyer-supplier relationships over time. Still, there is limited empirical evidence on potential mechanisms that enable buying companies to increase the effectiveness of their key supplier relationships.

The objective of this paper is to describe and analyze practices of leading Dutch firms in the development of key suppliers and how they try to get maximum value out of their important buyer-supplier relationships. In the next section, we provide a theoretical background on collaboration in buyer-supplier relationships. Then we describe our research method and the empirical setting of our study. Finally, we discuss the results of our study, focusing on mechanisms to improve a buying company's relationship with important suppliers and factors that may hamper the development of collaborative relationships.

2.2 THEORETICAL BACKGROUND

Many leading articles on collaborative relationships stem from relationship marketing. Dwyer et al. (1987) build on social exchange theory and propose five generic steps of the relationship development process. Their proposed framework for developing buyer-supplier relationships has been used by many other academics working on this topic. Anderson and Narus (1990) develop a manufacturer-distributor partnership model with dependence, cooperation and trust as core constructs. They find cooperation is an antecedent rather than a consequence of trust in static models of partnerships. In dynamic models, "cooperation leads to trust which, in turn, leads to a greater willingness to cooperate in the future, and so on" (Anderson and Narus 1990). The key

⁵ This chapter is co-authored by Bart Vos and resulted from the early stage of the PhD study. The chapter is under review of an international journal in logistics and operations management and an early version has been published in Dutch, see Van de Vijver and Vos (2006b)

role of trust in cooperative relationships has been widely studied (e.g. Fynes et al. 2004; Geyskens et al. 1999; Nooteboom 2002). Yet a recent review of empirical research (Seppänen et al. 2007) on interorganizational trust reveals major inconsistencies in conceptualization and measurement of the construct. Trust is, together with commitment, also one of the key elements in key mediating variable theory of relationship marketing by Morgan and Hunt (1994). Five antecedents are included in the model that is tested in the automobile industry. The model also includes five consequences of trust and commitment, such as propensity to leave, uncertainty, and cooperation. Ganesan (1994) also considers trust a key element in cooperative relationships. He suggests long-term orientation in a buyer-supplier relationship is a function of the mutual dependence and the extent to which the companies trust one another.

Various scholars have also studied the quality of business relationships. As holds for interorganizational trust, the definition of relationship quality is far from consistent. Kumar et al. (1995) regard relationship quality as a higher order construct and define it as “encompassing conflict, trust, commitment and two constructs that represent the converse of disengagement – willingness to invest in the relationship and expectation of continuity.” They find that distributive and procedural fairness (positive), the level of outcomes received by the reseller (positive), and the level of environmental uncertainty (negative) have an effect on relationship quality. Fynes et al. (2004, 2005a) also regard relationship quality as higher order construct, but use communication, cooperation, trust and adaptation as underlying constructs. In their model, adaptation is positively related to manufacturing performance, implying that higher levels of relationship quality result in improved performance. In Fynes et al. (2005b), relationship quality has interdependency as additional dimension. Hibbard et al. (2001) operationalize relationship quality using trust and affective commitment. Their study focuses on the effect of destructive acts on channel relationships. Ivens (2005) uses satisfaction, trust and commitment as variables for relationship quality in his article on the role of flexibility on the quality of business relationships.

The important role of trust in developing successful partnership relationships is also highlighted in other studies. Goffin et al. (2006) present a conceptual model of supplier partnerships with trust building directly related to partnership characteristics. Akkermans et al. (2004) develop a causal loop model of interorganizational collaboration with trust as a core construct. Other elements are openness of communication, information transparency, and history of successful collaboration. In their study, business performance is, like in contributions on relationship marketing literature, enhanced by higher trust, more open communication, and transparent information. A distinguishing element in the study by Akkermans et al. (2004) is the reinforcing nature of the loops in the collaboration process, herewith highlighting the evolutionary nature of interorganizational collaboration. Duffy and Fearne (2004) confirm the positive effect of cooperative attitudes on performance in partnership relationships.

The development of relationships over time is a separate area of research. Studies with a longitudinal character, which specifically focus on the evolution of buyer-supplier relationships, are not as common as cross-sectional studies considering aspects of collaboration. The contributions by Dwyer et al. (1987) and Ring and Van de Ven (1994) stress the importance of studies focusing on evolutionary aspects of relationships and they call for future research in this area. Ariño and De la Torre (1998), Doz (1996), Gulati (1995), and De Rond and Bouchikhi (2004) all study the evolution of strategic alliances. More specifically, there are also several studies dealing with the development of buyer-supplier relationships. For example, Spina and Zotteri (2000) consider the implementation process of a customer-supplier partnership in the Italian textiles industry. Storey et al. (2005) describe the development of collaborative relationships with key suppliers based on a study at Marks and Spencer. They argue there are several organizational factors that can impede the development of collaborative relationships, such as lack of commitment, diverging corporate strategies and priorities, and differences between levels of trust and commitment at an operational and a strategic level in the organization. Barratt et al. (2004) also mention lack of trust as one of the key inhibitors of collaborative planning in supply chains. The focus of this paper is on factors impeding the development of buyer-supplier relationships and on ways companies may try to avoid the pitfalls in the development of collaborative relationships. Cousins and Menguc (2006) have provided valuable insight in the important role of socialization processes in the development of key relationships within supply chains.⁶ They propose and test a model including the effect of socialization on supplier communication and operational performance. Examples of socialization efforts are joint workshops, on-site visits, team-building exercises, and regular (formal and informal) meetings. An important managerial implication is that the evaluation of socialization strategies in the development of buyer-supplier relationships is not only based on cost, quality, and delivery performance. Benefits are more long-term oriented and may include improved problem solving, joint technology development and asset sharing.

2.3 RESEARCH METHOD

The main purpose of this study is to examine how companies try to influence and shape their key buyer-supplier relationships. We consider seven buyer-supplier relationships of leading Dutch companies in different industries. Initially, we had eight buying companies yet for one company we were unable to collect data on a specific supplier relationship. Consequently, this company was excluded from our sample. We collected our data by interviewing Chief Purchasing Officers (CPOs) or people with similar functions of these companies. The informant is in all interviews a representative of the buying firm in the relationship. In order to obtain a broad view on the existing practices in key supplier management the following sectors were selected: energy, financial

⁶ See Chapter 7 for a more extensive discussion of the role of socialization in the development of buyer-supplier relationships

services, oil and gas industry, public transport, retailing, steel, and telecom industry. Our research approach consists of three steps.

First, we used existing literature on strategic alliances and buyer-supplier relationships to develop a topic list for the interviews. This list included the following topics: culture, dependency, learning mechanisms, performance, problems and problem solving, risk, transparency, and trust. The notion of 'learning mechanisms' is described by Zollo and Winter (2002) and explains different learning methods in the development of dynamic capabilities (see also Eisenhardt and Martin 2000; Teece et al. 1997). These capabilities contribute to the evolution of operating routines. We pose that collaboration in buyer-supplier relationships is such a dynamic capability and the notion of "learning mechanisms" in this perspective refers to ways to influence the development of collaboration between companies. We use the term "influencing methods" for ways companies try to overcome impediments in the development of their long-term buyer-supplier relationship. The term "socialization" was considered to be too conceptual for our informants, but we did expect to find examples of such efforts in our interviews.

Second, we constructed a guideline for the semi-structured interviews based on existing research. For each of the items on the topic list, we used several questions to serve as suggestions for aspects to be discussed in the interview. We asked the informant to take one important or 'strategic' buyer-supplier relationship to serve as point of reference during the interview. We did not prescribe or define the term 'strategic' to the informant to avoid unnecessary discussion on what a strategic relationship is. In doing so, we were able to focus on our primary research goal: How do companies try to maintain and develop their important buyer-supplier relationships? In each of the interviews, we asked the informant to start with a description of the specific buyer-supplier relationship they had in mind and made sure that throughout the interview different aspects of the relationship were discussed, bearing in mind the topics that were listed in the interview guideline. The average duration of an interview was about 90 minutes. All interviews were tape recorded and transcribed. In this way, we were able to enhance the quality of our data. Moreover, codifying and classifying text fragments also becomes easier (Miles and Huberman 1994; Strauss and Corbin 1998).

Finally, we analyzed the transcripts of the interviews. Each transcript was coded manually with the items of the topic list as coding scheme. Given the semi-structured nature of our interviews on the development of a specific buyer-supplier relationship, topics were discussed in random order. In the coding process, related text segments were placed together and from the coded material we filled several cross-case display schemes (Miles and Huberman 1994) to compare observations across the interviews. The relevant displays for the purpose of this article are those on impediments in the development of collaborative buyer-supplier relationships and mechanisms used to positively influence this development process.

2.4 RESULTS

This section presents the main findings of our exploratory study. We start by describing each of the examined relationships in Table 2-1. These relationships cover various industries and are either in manufacturing or services. Next, we discuss impediments encountered by buying companies in their efforts to develop important buyer-supplier relationships. Finally, we show how these companies try to improve the development process.

Company	Sector	Relationship with supplier
K	Financial services	Supplier T is a global IT services provider. Hardware solutions provided by T should be compatible with other systems to reduce dependency of Buyer K on Supplier T.
L	Steel industry	Supplier U performs industrial cleaning operations in the plants of Buyer L. An improvement program was initiated to enhance cost transparency.
M	Telecom	Supplier V is the IT services provider and critical to the operations of Buyer M. Switching costs are high for Buyer M. Supplier V is also dependent on the revenues from the relationship with Buyer M, but their dependency is less than M's.
N	Energy	Buyer N cooperates with Supplier W for their telemarketing activities. Buyer N considers end customer satisfaction as the most important KPI in its relationship with Supplier W.
O	Oil and gas	Supplier X works jointly with Buyer O in the exploration of new gas fields. Close co-operation is needed to manage process costs.
P	Public transport	Buyer P has a long-standing relationship with Supplier Y for supplying transportation equipment. Contracts generally range from several years to two decennia. Cooperation is needed for quality improvement and controlling production and maintenance costs.
Q	Retail	Supplier Z is active in meat processing and works in close co-operation with Buyer Q to secure food safety and quality.

Table 2-1 Description of buyer-supplier relationships⁷

When looking at the data in Table 2-1 it becomes clear that the buying companies have various reasons for considering their supplier relations as “strategic”. Companies N and Q put forward their relations with suppliers W and Z for their influence on customer satisfaction. Companies L and O put more emphasis on cost considerations to establish closer ties with their suppliers (U and V).

2.4.1 Impediments in the development of buyer-supplier relationships

Table 2-2 summarizes the impediments encountered by each of the buying organizations in their efforts to enhance the relationship with a specific key supplier.

⁷ The buying and supplying organizations have been labelled as K – Q and T – Z respectively and are different companies than those central to chapters 4 until 8

Company	Impediments in relationship development
K	In the relation with Supplier T, the escalation paths are not adequately defined. This hampers problem solving and may damage the development of the buyer-supplier relationship.
L	There is no spend visibility in this relationship. As a result, it is difficult to show the value of the relationship and the positive contribution of closer co-operation. Moreover, Supplier U has damaged the relationship by behaving opportunistically.
M	Initially, the companies focused on cost reductions, and only one FTE was working directly related to this relationship. There was only limited monitoring of quality performance, and no mutual incentives existed.
N	The main difficulty is the communication with Supplier W. Furthermore, it is difficult to influence the operations of Supplier W following a recent merger. W is now mainly internally focused, which hampers development of the relationship with N.
O	In the collaboration with Supplier X, the prices charged to O are higher than market prices. Tender processes and continuous performance monitoring are necessary to realise cost reductions.
P	There is only limited information available concerning relationship performance.
Q	It is difficult to improve a relationship if there is no mutual interest and commitment.

Table 2-2 Impediments in the development of buyer-supplier relationships

Based on our interview findings, we identify four main impediments in the development of collaborative relationships. First, the lack of mutual commitment is detrimental to improvement efforts. If companies do not both have an incentive to engage in relationship development, there is limited support for such improvement programs. To overcome this impediment, buyer M and supplier V created a joint incentive by defining joint key performance indicators (KPIs). They attached premiums to these KPIs, implying that each company rewards the other company when they perform well.

A second impediment is an unclear definition of roles and responsibilities in the relationship. For example, buyer K mentions the importance of clear definition of the problem solving process. Such escalation paths are especially important to IT services, since major IT issues may cause delays in or disturbances of operational processes. If there are no clear guidelines for managing such problems, the relationship will be more vulnerable to issues in service delivery. This will ultimately cause dissatisfaction among company K's end customers. Buyer M has faced similar challenges with its IT services provider (supplier V).

Thirdly, incomplete information on the performance of (one of the partners in) the relationship is a source of problems in the development of collaboration. Buyer P indicates there is insufficient information supporting the potential value of a collaborative relationship with supplier Y. These companies first need to collect management information in order to continue with their relationship development efforts. Buyer L suffers from a lack of cost transparency in its

relationship with supplier U. There is limited spend visibility, e.g. buyer L has no correct information of the total spend with supplier U. Furthermore, information on service quality is incomplete. Such incomplete information often results in discussions within the buying company, since not all employees share the idea that developing the relationship with supplier U would be beneficial to buyer L. Accurate information is needed to initiate and monitor development initiatives.

Finally, opportunistic behavior of one of the companies ruins the efforts taken to improve the relationship. Such behavior often occurs when there is a lack of transparency. For example, supplier U used to register its regular assignments as additional work to increase their revenues with buyer L. Once a company discovers the other party is not trustworthy in the relationship, this will seriously damage the trust level between the companies. Buyer O provides another example of the damaging effect of opportunistic behavior. This company found out that their supplier X used prices that were higher than the actual market prices. Buyer O believes that all supplier companies will find it difficult to resist the temptation to behave opportunistically at a certain point in the relationship.

2.4.2 Influencing methods in the development of buyer-supplier relationships

In addition to the problems that are signaled in the development of collaborative relationships, we are interested in methods companies can use to positively influence this development process. In Table 2-3, we give a description of such influencing methods used by the interviewed companies.

One method to improve supplier relationships is to create transparency. In the relationship between Buyer P and supplier Y it is critical to show the value of and benefits from enhanced collaboration. Without such transparency, it would not be possible to realize a more collaborative way of working. Moreover, buyer L argues that transparency positively influences trust in the relationship. Buyer Q stresses the importance of transparency in developing business relationships by emphasizing the central role of well-defined procedures. In addition, this company mentions transparency is necessary to avoid suspicion. This finding is in line with the earlier discussed impeding influence of limited transparency on opportunistic behavior.

Secondly, the use of cross-functional and cross-company teams is widely mentioned by the companies as a way of improving collaborative relationships. Buyer O and supplier X have cross-company teams working together on a continuous basis to improve trust levels between their employees. These teams work in the same office to improve cooperation. Buyer N also indicates there are cross-functional teams on both sides of the dyad in order to stimulate collaboration. The joint KPI measurement by buyer M and supplier V is another example of a cross-company collaborative initiative. Finally, there are cross-company teams at various plants of buyer L in order to improve operational processes.

Company	Influencing methods
K	Buyer K has a supplier manager with a direct counterpart of Supplier T. There are also several multi-disciplinary sales teams. Furthermore, there is a contract manager for dealing with daily operations. There is also a bi-annual evaluation meeting with an active role of a member of the Board of Directors of Supplier T. Monitoring quality performance is also a way to improve relationships.
L	There are various task groups with representatives of Supplier U at the plants of Buyer L. There are group sessions to improve communication and face to face meetings to improve mutual understanding. Furthermore, there is an independent audit for performance measurement.
M	There is a separate office for registering, calculating, analyzing and managing the joint KPIs in the relationship. Premiums for responsible managers of both companies depend on these KPIs. There are various examples of workshops and off-site programs to stimulate discussion between employees of both companies.
N	Both parties have created multi-disciplinary teams to improve the relationship. In addition, there have been several replacements of people who have regular contact with the other company. Finally, there is an independent organization responsible for measuring performance.
O	There are monthly operational review meetings with a discussion between representatives of both companies. Inviting supplier personnel stimulates collaboration. There have also been a few examples where the companies jointly register for patents. Buyer O has plans to move to global relations, which offers opportunities for Supplier X.
P	There are teams of buying and supplying company that regularly interact to improve collaboration and trust. Experts from other industries have been invited to share their experiences in developing collaborative relationships. Active involvement of the management team and showing results supports successful development of the relationship with Supplier Y.
Q	Processes are very important in supplier management. There need to be clear communication guidelines, a meeting structure for different levels in the organization, and complete and accurate reporting. Furthermore, joint responsibilities are necessary for adequate problem solving.

Table 2-3 Influencing tactics to enhance buyer-supplier relationships

Thirdly, several companies stress the positive effect of actively involving top management in the relationship. For example, buyer A has one of its board members actively involved in the bi-annual relationship evaluation meetings to stress the importance of the relationship to supplier S. The collaborative relationship between buyer P and supplier Y resulted from close interaction between top management teams of both companies.

Fourthly, establishing joint KPIs creates a mutual incentive for the companies involved. Well-defined joint KPIs reduce the incentive for companies to show opportunistic behavior. Buyer M has attached premiums on organizational and manager level to the joint KPIs. Workshops and group sessions were held in order to introduce the joint KPIs and to define improvement areas in

the relationship. Furthermore, buyer L and buyer Q indicate they use independent organizations for measuring and reporting relationship performance.

Finally, the use of face to face meetings is often mentioned by the informants. Such meetings can occur in various forms. Monthly or quarterly review meetings are commonly used, but also the use of group sessions and workshops to generate new ideas for an improved relationship are often mentioned. For example, buyer L uses joint group sessions to improve mutual understanding. Companies M and V also organized several workshops and social events to stimulate discussions between representatives of both companies. Buyer P emphasizes the value of face to face meetings for building trust in the relationship.

2.5 DISCUSSION

Our findings allow us to identify impediments encountered in the development of collaborative relationships and efforts undertaken by companies to enhance the performance of their important buyer-supplier relationships. The most important impediments are the lack of mutual interest, limited transparency, measuring the added value of the relationship, and opportunistic behavior by the buying or the supplying firm. Companies try to overcome these impediments in various ways. For example, they put effort in creating transparency in their exchange relationship, stimulating interaction between the companies at multiple levels, and implementing joint performance measurement and management. These influencing methods are in line with the findings of Storey et al. (2006), who consider transparency of information and knowledge, supply chain behavior, and performance measurement as core enablers of successful supply chain management. Many of the influencing methods are jointly undertaken and confirm the importance of joint action in buyer-supplier relationships (see also Heide and John 1990).

This study provides several examples of ways to improve collaborative buyer-supplier relationships. Our findings show that more formal improvement methods, such as a collaborative KPI system and well-defined procedures to foster transparency, should preferably be accompanied by socialization activities (Cousins and Menguc, 2006). Especially the relationship between buyer M and supplier V is a good example of using both procedures and socialization activities to improve collaboration in a buyer-supplier relationship. The jointly defined, measured and evaluated KPIs are an important element in the relationship structure. At the same time, various socialization initiatives were undertaken to stimulate discussion between the companies and to create awareness of the importance and value of working together. In Table 2-4, we present ways to improve collaboration in buyer-supplier relationships by means of the relationship structure and the collaboration process.

Influencing mechanism	Mentioned by buyer	Positive effect on
<u>Relationship structure</u>		
Joint KPIs	M	Mutual interest and commitment
Performance auditing	L, M, N	Information quality and relationship performance
Review meetings	K, O, P, Q	Communication and relationship performance
<u>Collaboration process</u>		
Socialization		
- Workshops, group sessions	L, M	Communication and trust
- Joint team working	K, L, N, O, P	Mutual commitment
Top management involvement	K, P	Mutual commitment

Table 2-4 Influencing collaboration through structure and process

In most relationships, a combination of a well-defined relationship structure is combined with socialization processes to stimulate collaboration between companies. We argue that each of these influencing mechanisms is aimed at overcoming different types of impediments. Therefore, we speculate in Table 2-4 on the positive effect of each of the observed influencing mechanisms on the collaborative relationship. Moreover, we stress the importance of combining enhancements of relationship structure and the collaboration process to effectively improve collaboration with key suppliers.

2.5.1 Limitations and directions for further research

Our study has several limitations. First, this paper presents experiences with managing key supplier relationships of seven companies. This relatively small sample limits the external validity of this study. However, we do consider collaborative efforts in a wide variety of industries. Future research should either consider a larger sample size, or, alternatively, should more closely look at the effects of specific influencing mechanisms on certain aspects of the collaborative relationship. A more detailed examination of how collaboration can actually be enhanced in existing buyer-supplier relationships does not necessarily benefit from a larger sample size. Rather, longitudinal studies specifically designed to capture the effects of influencing mechanisms over time would be valuable for this purpose.

Second, our study has only considered the buying companies perspective. For a better understanding of the effects of efforts to enhance collaborative relationships, it is valuable to adopt a dyadic approach. Suppliers may have different perceptions on certain aspects of their collaborative relationship with the buying company.

Thirdly, we have not collected factual data on the performance of the buyer-supplier relationships in our study. In order to improve our understanding of the effects of influencing buyer-supplier relationships, it is important to include factual performance data.

Finally, we base our findings on interviews with key informants. Although we are confident the informants in this study, mainly CPOs or people with comparable positions, are competent to describe developments in their key supplier relationships, we argue that the use of multiple informants would enrich the analysis. Many key supplier relationships have several layers with different types of interaction (Zerbini and Castaldo 2007). Furthermore, actors may play various roles within the same buyer-supplier relationship (see also Ross and Robertson 2007). In order to capture the micro dynamics in developing collaborative relationships, we propose to include multiple rather than single informants in future research.

CHAPTER 3 A CROSS-DISCIPLINARY LITERATURE REVIEW⁸

3.1 INTRODUCTION

One way for companies to improve their performance and competitive position is to work closely with other companies. Many researchers have studied collaborative business relationships over the past two decades. The use of supplier networks by Japanese automakers is an illuminating example of creating competitive advantage by collaborating with other companies (Dyer and Hatch 2004; Liker and Choi 2004). There are many other academic studies concentrating on the effects of collaboration on performance (e.g. Fynes et al. 2005b; Vandaele et al. 2007; Vereecke and Muylle 2006).

Many different types of business relationships are addressed in the existing research on collaboration, including buyer-supplier relationships (e.g. Anderson and Narus 1990; Gulati and Sytch 2007; Morgan and Hunt 1994), networks (e.g. Anderson et al. 1994; Dyer and Hatch 2004; Håkansson 1982), and alliances (e.g. Ariño and De la Torre 1998; Doz 1996; Hamel 1991). There are also several studies focusing specifically on the development of business relationships (e.g. Narayandas and Rangan 2004; Ring and Van de Ven 1994; Spina and Zotteri 2000). Das and Handfield (1997) mention buyer-supplier partnering as one of the emerging themes in the purchasing field following their review of dissertations in the field of purchasing management. Interorganizational trust is often regarded as one of the critical factors in the development of alliances and partnerships. For a review of articles measuring interorganizational trust, we refer to Seppänen et al. (2007). Palmatier et al. (2006) emphasize the critical role of trust in their synthesis of existing empirical research on relationship marketing in a meta-analytic framework. They stress that “most research has conceptualized the effects of relationship marketing by one or more of the relational constructs of trust, commitment, relationship satisfaction, and / or relationship quality” (Palmatier et al. 2006, pp. 136). They build on the work by Dwyer et al. (1987), Crosby et al. (1990), and Morgan and Hunt (1994) as a starting point for the development of their meta-analytical framework of factors influencing the effectiveness of relationship marketing. Geyskens et al. (1999) conduct a meta-analytical study of satisfaction in marketing channel relationships. They develop a structure-conduct-outcomes framework and consider economic and non-economic satisfaction, conflict, trust and commitment as relationship outcomes.

⁸ This chapter has been written together with Bart Vos and Henk Akkermans and is in the review process of an international academic journal. An early version of this chapter has been presented and discussed in the WION (Workshop Inkoop Onderzoek Nederland) 2006 meeting in Lunteren, The Netherlands. The authors would like to thank all colleagues who helped in the article selection process, and are in particular grateful for the valuable suggestions by Frits Tazelaar. Furthermore, we acknowledge the assistance of Margot de Rooij and Vivian Rutten in documenting and analyzing the large amount of studies reviewed in this chapter

Most contributions on creating and managing collaborative relationships are found in the marketing, operations management, and strategic management literature. Yet despite the large number of studies on collaboration, there is no comprehensive overview of literature on collaboration across these disciplines. Our study fills this gap by providing an overview of the relevant research on collaboration in buyer-supplier relationships by looking at articles on this topic in 29 marketing, operations management, and strategic management academic journals. The main purpose of this article is to review and analyze research conducted on collaboration in buyer-supplier relationships from 2000 through 2006. We do not consider other types of business relationships, such as horizontal alliances, intra-firm collaboration, triads, or networks. Contributions on the development of relationship portfolios, supplier strategy, supplier selection, and joint new product development are also beyond the scope of our analysis.

In addition to identifying articles dealing with collaboration in buyer-supplier relationships, we also examine the extent to which these articles study the development of collaboration over time. Many authors have called for the use of longitudinal approaches to better understand the development of collaborative relationships over time (e.g. Palmatier et al. 2007; Ring and Van de Ven 1994) and we wonder whether this call for longitudinal research has indeed resulted in a substantial amount of studies adopting such a method. Finally, we also examine each selected article to determine whether the studied phenomenon occurs at inter-organizational level, interpersonal level (e.g. boundary spanning personnel)⁹, or both. Ross and Robertson (2007) argue that business relationships are increasingly compound, consisting of various simple relationships between organizations. Furthermore, Zerbin and Castaldo (2007) show how exchange relationships develop at different layers simultaneously. To summarize, our literature review is specifically designed to answer four research questions:

1. What methods are commonly used in research on collaboration in buyer-supplier relationships?
2. From which perspective, buyer, supplier, or dyadic, is collaboration studied?
3. Which levels of the relationship are examined: interorganizational, interpersonal, or both?
4. To what extent are longitudinal approaches used?

Our results show 133 articles have been published in the period between 2000 and 2006 in the selected journals on collaboration in buyer-supplier relationships. More than 40% of them are published in 2005 and 2006 which indicates a growing interest in this phenomenon in academic literature. The findings confirm there are still few studies using longitudinal approaches to study

⁹ Boundary spanners are organizational members responsible for processing information from the partner organization and representing their organization in the collaborative relationship (Janowicz-Panjaitan and Noorderhaven 2008, Perrone et al. 2003)

the evolution of collaborative relationships, and that studies on the interaction between individuals of buying and supplying organizations are also relatively scarce.

In the next section, we provide a description of our research method, followed by an analysis of several characteristics of selected articles. Moreover, we analyze references of the 133 selected articles to identify seminal articles published before 2000. We then discuss those studies with a longitudinal character and those with an interpersonal perspective on collaborative relationships. Finally, we conclude by suggesting directions for future research.

3.2 RESEARCH METHOD

We use several steps in our study to identify relevant articles for further analysis. First, we looked at the table of contents of 29 journals in marketing, operations management, and strategic management from 2000 through 2006. Journals in marketing include Industrial Marketing Management (IMM), Journal of Business and Industrial Marketing (JBIM), Journal of Business to Business Marketing (JBBM), Journal of Marketing (JM), Journal of Marketing Research (JMR), and Marketing Science (MktS). The journals in operations management are International Journal of Logistics Management (IJLM), International Journal of Operations and Production Management (IJOPM), International Journal of Physical Distribution and Logistics Management (IJPDLM), International Journal of Production Economics (IJPE), Journal of Operations Management (JOM), Journal of Product Innovation Management (JPIM), Journal of Purchasing and Supply Management (JPSM)¹⁰, Journal of Supply Chain Management (JSCM), Manufacturing & Services Operations Management (MSOM), Production and Operations Management (POM), and Supply Chain Management (SCM). Finally, in strategic management we look at the Academy of Management Journal (AMJ), Academy of Management Review (AMR), Administrative Science Quarterly (ASQ), California Management Review (CMR), Harvard Business Review (HBR), Journal of International Business Studies (JIBS), Journal of Management (JMgt), Long Range Planning (LRP), Management Science (MS), Organization Science (OS), Sloan Management Review (SMR), and Strategic Management Journal (SMJ). The details of our research method are given in the following sub-sections.

3.2.1 Step 1: Rough article selection

The first author of this chapter took on the task as first rater to look at the table of contents of each of the journals listed above in order to identify relevant articles published from 2000 through 2006. We asked 12 colleagues from six other universities, all of whom are active in research in the purchasing and supply area, to act as second raters in the coding of articles. Each of them was to perform the same task as the first rater, namely to identify, based on their titles, articles that deal

¹⁰ Formerly titled European Journal of Purchasing and Supply Management

with collaboration between organizations that were published during the same seven-year period. We emphasized that we were interested in articles dealing with collaboration between organizations and not articles dealing with intra-firm collaboration. We also stressed that the focus of our study is business-to-business markets so articles with “consumer” in the title should not be selected. We used a broad perspective in selecting articles on collaboration between organizations, including those dealing with collaboration in supply chains, alliances, networks, buyer-supplier relationships, and other business-to-business relationships. We believe that such a broad definition is warranted given that this first selection was made based solely on article title. For example, an author might choose to use “supply chain relationship” in titling an article focusing on buyer-supplier relationships. The same line of reasoning holds for other types of relationships.

The selections made by the first rater were compared with the selections of the second raters. This allowed for the calculation of inter-rater reliability for each of the journals. We define inter-rater reliability as the proportion of articles selected by both raters compared to the total number of articles selected by the raters. That is, should the first and second rater select 10 titles that are the same, and each of them also select 10 titles not chosen by the other, inter-rater reliability for this total set of 30 articles would be 33%.

In this first step, the first and second raters initially agreed on 586 articles. Articles selected by only one of the raters were discussed, journal by journal, until a consensus between the raters was reached. In the end, 374 articles that were initially selected by just one rater were added to the initial set of articles, implying that 960 articles formed the input for the second step in our research. A more detailed representation of the inter-rater reliability and the number of selected articles per journal is given in Table 3-1. The overall inter-rater reliability of this first step is 49%. Our definition of inter-rater reliability excludes articles not selected by any rater. Had we included them in our definition, the reliability scores would have been close to 100% due to the high total number of article titles under consideration.

3.2.2 Step 2: Final article selection

The outcome of the rough selection of articles (step 1) was a list of articles that raters believed from their titles could deal with collaboration in buyer-supplier relationships. In the second step we analyzed the content of each article selected in step 1 by examining the abstract, the research method, and the conclusion or discussion sections. We used decision rules (see also Geyskens et al. 2006), similar to those used in step 1, to identify those studies that specifically deal with collaboration in buyer-supplier relationships. Articles on collaboration in alliances were excluded from our analysis, unless it turned out that the alliance was actually a buyer-supplier relationship. Furthermore, we only included articles dealing with an on-going collaboration between a buying and supplying company (see also Vandaele et al. 2007). For example, topics such

as partner selection, and the development of relationship portfolio approaches, were excluded from our analysis.

JOURNAL	Total # articles	Selected by both raters	Inter-rater reliability step 1	Final # articles step 1	Final # articles step 2
MARKETING					
IMM (*)	125	73	58%	116	25
JBBM	37	12	32%	30	7
JBIM	36	14	39%	31	11
JM (*)	42	21	50%	37	8
JMR	12	6	50%	9	4
MktS	15	8	53%	9	0
Subtotal				232	55
OPERATIONS MANAGEMENT					
IJLM (*)	23	14	61%	21	3
IJOPM	70	25	36%	49	6
IJPDLM	54	32	59%	46	7
IJPE(*)	79	50	63%	71	6
JOM	51	27	53%	38	9
JPIM	14	7	50%	13	0
JPSM (*)	35	20	57%	33	7
JSCM	57	37	65%	47	13
MSOM	22	8	36%	15	0
POM (*)	20	6	30%	14	0
SCM	55	36	65%	52	6
Subtotal				399	57
STRATEGIC MANAGEMENT					
AMJ (*)	34	16	47%	25	1
AMR	24	14	58%	22	1
ASQ	23	10	43%	18	0
CMR (*)	15	8	53%	13	1
HBR	49	18	37%	33	3
JIBS	37	8	22%	15	4
JMgt (*)	28	7	25%	17	0
LRP	39	20	51%	33	2
MS	65	24	37%	44	5
OS (*)	33	11	33%	29	2
SMJ	73	36	49%	48	1
SMR	40	18	45%	32	1
Subtotal				329	21
Total	1207	586	49%	960	133

Table 3-1 Step-wise procedure of article selection

In order to ensure completeness and reliability, we used two different validation techniques. First, we selected ten journals for review by both the first and a second rater. The journals were placed in alphabetical order per research area and the first, fourth, seventh, and tenth journal in each area was judged by two raters. These journals are marked with an asterisk in Table 3-1. The first and second author of this paper examined the abstract, research method, and conclusion / discussion sections of each article in order to determine whether it dealt with collaboration in buyer-supplier relationships. The inter-rater reliability score is also calculated for this step, albeit with a different definition. For the second step, inter-rater reliability is defined as the proportion of articles selected in step 1 upon which both raters agreed in step 2. The inter-rater reliability for step 2 is 86%. Similar to the approach used in step 1, the raters discussed those articles upon which they did not initially agree until a consensus was reached.

Another validation technique was used for the remaining 19 journals. The first author of this paper read all of the articles selected in step 1 and determined which of them met the selection requirement for inclusion in the data set. To improve the reliability of the selection process, the first author discussed each ambiguous article with one of the two co-authors. In all, 133 articles are included in the final set of articles dealing with collaboration in buyer-supplier relationships published from 2000 through 2006. Table 3-1 provides the final number of relevant articles per research area and per journal. An examination of article characteristics is part of the analysis section.

3.2.3 Step 3: Reference search

The last step of our study is the examination of references made by authors of contributions on collaboration in buyer-supplier relationships. We looked at the list of references of each of the 133 selected articles to determine which articles published prior to 2000 are the most cited. By doing this we were able to identify the seminal works in the area of collaboration in buyer-supplier relationships.

3.3 ANALYSIS

The overview of selected articles presented in Table 3-1 shows there are 57 articles in journals in operations management and 55 in marketing. There are only 21 articles from the strategic management literature that specifically deal with collaboration in buyer-supplier relationships as the focus of that literature tends to be on other relationships such as alliances and joint ventures. Most of the selected articles are published in *Industrial Marketing Management* (25 studies), followed by the *Journal of Supply Chain Management* (13 studies). In the marketing literature, *JBIM* (11), *JM* (8), and *JBBM* (7) also have a considerable amount of relevant contributions. In the operations management literature, comparable numbers of relevant articles are found in *JOM* (9), *IJPDLM* (7), *JPSM* (7), *IJOPM* (6), *IJPE* (6), and *SCM* (6). In the strategic

management literature there are some relevant contributions in for example MS (5), JIBS (4), and HBR (3). Appendix I lists all the articles dealing with collaboration in buyer-supplier relationships that were published from 2000 through 2006, along with a brief description of the general purpose of each. In this section, we address the questions raised in the introduction in order to assess the current state of research on collaboration in buyer-supplier relationships.

3.3.1 Research methods in different fields

The authors of the selected articles use a variety of research approaches. There are survey-based studies, case studies, conceptual papers, modeling approaches, and in some cases a mixed approach. Such categorization resembles that of Das and Handfield (1997), who use survey, case study, and secondary data as categories. In Table 3-2 an overview is given of the research methods used in the fields of marketing, operations management, and strategic management. Almost 60% of the articles on collaboration in buyer-supplier relationships are survey-based. Another 8% use a mixed method approach, which generally is a combination of qualitative analysis based on interviews, and quantitative analysis based on surveys. Survey-based research is most common in marketing, while most case study research is found in operations management.

	Marketing	Operations Management	Strategic Management	Total
Case study	7	17	4	28
Conceptual	4	0	1	5
Mixed	4	3	4	11
Other	0	2	0	2
Simulation	0	4	4	8
Survey	40	31	8	79
Total	55	57	21	133

Table 3-2 Research method per research area

3.3.2 Research scope

In our analysis, we distinguish two elements of the scope taken in selected studies. First, we identify whether data is collected at the buying organization, the supplying organization, or at both. Second, we examine whether the unit of analysis is interorganizational, interpersonal or a combination of both. An interorganizational approach studies the collaboration between organizations. Interpersonal studies focus on collaboration between individuals within a buyer-supplier relationship. There are also studies that adopt a research design that is both interorganizational and interpersonal. In Table 3-3, the research perspective and unit of analysis are

matched with the research method. Conceptual papers and simulation-based papers have been omitted.¹¹

	Interorganizational			Interpersonal			Interorganizational and interpersonal			Total
	Buyer	Supplier	Dyadic	Buyer	Supplier	Dyadic	Buyer	Supplier	Dyadic	
	Case study	4	4	15				2		
Mixed	4		3			1			2	10
Other	2									2
Survey	45	18	10			1	3		1	78
	55	22	28			2	5		4	116

Table 3-3 Research perspective and unit of analysis per research method

More than 90% of existing research which focuses on collaboration in buyer-supplier relationships concentrates on the interorganizational relationship, and a majority of them use a survey-based approach. Our analysis shows only nine articles that include both interorganizational and interpersonal levels in their research design. Four of them are survey-based, three are case studies, and two use a mixed approach. There are only two studies that focus exclusively on interpersonal aspects. Bendapudi and Leone (2002) examine the value of relationships between key contact persons across the dyad, and Perrone et al. (2003) study the effect of role autonomy on interpersonal trust between boundary spanners.

Another observation from Table 3 is that more than half of the articles on buyer-supplier collaboration are conducted from a buyer perspective, and nearly 80% of those are survey-based. Thirty percent of the selected articles have a dyadic perspective. The way authors use the dyadic information in their analysis varies. Some use the dyadic data as matched pairs in their analysis (e.g. Perrone et al. 2003; Rokkan et al. 2003; Selnes and Sallis 2003), while others use qualitative dyadic data to compare different perspectives on the relationship (e.g. Spina and Zotteri 2000; Liker and Choi 2004; Narayandas and Rangan 2004). Finally, we see that the supplier perspective is taken in only 19% of the selected articles.

3.3.3 Longitudinal studies

Ten of the selected articles feature longitudinal studies, appearing in eight different journals (IJOPM, IJPDLM, JBBM, JM, JPSM, MS, SCM, and SMR), and almost all of them have a dyadic perspective. The work of Andersen and Christensen (2000) is the only exception as they study

¹¹ Moreover, Kwon and Suh (2004) and Min et al. (2005) use a survey approach and refer to the partner company in their survey items without specifying whether the respondents should focus on the supplier or on the customer organization. House and Stank (2001) and Narayandas (2005) describe in their studies the development of a relationship without specifying which perspective is taken in the research. These studies have also been omitted. As a result, Table 3 is based on 116 articles.

interpartner learning in a collaborative buyer-supplier relationship from a buyer perspective. Eighty percent of the longitudinal contributions are cases studies that analyze different aspects of the development of buyer-supplier relationships. Most longitudinal, dyadic cases are found in operations management journals. A more detailed discussion of the content of the longitudinal articles is provided in the section 3.4.1.

3.3.4 Citation analysis

While this study reviews articles that deal with collaboration in buyer-supplier relationships that were published from 2000 through 2006, many important academic contributions on this topic were made prior to that period. We looked at each of the 133 articles in our data set noting the references made in them to other work published in academic journals prior to 2000. More than 5000 such references were found, averaging 37 references per article. The most frequently cited study is that by Morgan and Hunt (1994) in the *Journal of Marketing* in which they introduce the key mediating variable theory in relationship marketing. Almost 50% of the 133 selected articles in our literature review refer to that seminal work. Two other frequently cited contributions are a study by Dwyer et al. (1987) and another by Anderson and Narus (1990), both also published in *Journal of Marketing*. It is interesting to note that the 13 most-cited studies are all in the marketing field (see Table 3-4). The trend is broken by Mohr and Spekman (1994).

Rank	Authors	Year	Journal	# Citations
1	Morgan and Hunt	1994	JM	64
2	Dwyer et al.	1987	JM	57
3	Anderson and Narus	1990	JM	52
4	Ganesan	1994	JM	41
5	Armstrong and Overton	1977	JMR	35
6	Anderson and Weitz	1992	JMR	33
7	Heide and John	1990	JMR	30
8	Heide and John	1992	JM	30
9	Noordewier et al.	1990	JM	30
10	Moorman et al.	1992	JMR	26
11	Heide	1994	JM	26
12	Doney and Cannon	1997	JM	26
13	Heide and John	1988	JM	24
14	Mohr and Spekman	1994	SMJ	24
15	Kalwani and Narayandas	1995	JM	23

Table 3-4 Most cited studies pre-2000

Another interesting topic is in which disciplines the most-cited articles are most popular. Authors in the marketing journals included in our study account for more than 60% of the citations made to the top-15 most-cited studies, while the marketing field has only 41% of the total number of articles in our set. Surprisingly, only two of three seminal works upon which the meta-analytical

study of relationship marketing by Palmatier et al. (2006) is based, are part of the top-15 cited studies. The study by Crosby et al. (1990) is missing from the top-15 with only 14 citations in our final data set of 133 articles. It is plausible that this observation is explained by the fact that the study by Crosby et al. (1990) is conducted in a consumer market.

3.4 DISCUSSION

Our study provides a cross-disciplinary review of research on the topic for the period 2000 to 2006. We identify 133 articles on buyer-supplier collaboration. The fact that 40% of them were published in 2005 and 2006 shows the growing academic interest in such relationships. Most of the studies on collaboration are survey-based and use a buyer perspective. Case studies are most common in operations management journals, the amount of published studies with a mixed method approach is similar across the three fields of interest. Our analysis further shows two important gaps persist in the extant literature on collaboration in buyer-supplier relationships. First, few articles are longitudinal. Second, little work has been done on the interpersonal aspects of collaboration. We address these two topics in this section by looking more closely at those studies that indeed have these characteristics within our article set.

3.4.1 Longitudinal research on buyer-supplier collaboration

Since the 1980s academics have been calling for longitudinal research on the development of buyer-supplier relationships (e.g. Dwyer et al. 1987; Anderson and Narus 1990; Morgan and Hunt 1994; Ring and Van de Ven 1994; Wilson 1995). Moreover, of the 133 articles included in our review, 30 recommend additional longitudinal research. Yet, our analysis shows that there are only ten such studies between 2000 and 2006. A potential explanation of this finding is that collecting longitudinal data requires considerable time (Lambe et al. 2001), and this is seen as increasingly risky given ever-growing pressure to publish (Lambe et al. 2001; Narayandas and Rangan 2004). In this section, we discuss several distinct features of the longitudinal studies published between 2000 and 2006 in more detail.

First, there are several studies with an explicit focus on the development stages of relationships. Spina and Zotteri (2000) look at the Italian machinery industry to study the implementation of buyer-supplier relationships. Their study is descriptive and discusses stages in the development of such relationships from adversarial to collaborative. Goffin et al. (2006) observe that Spina and Zotteri (2000) is the sole case study to look at the longitudinal aspects of developing partnerships. Still, we find several other relevant contributions in this area, among them Narayandas and Rangan (2004) who investigate the evolution of three buyer-supplier relationships in mature industrial markets, including relationship initiation, development and maintenance. They stress the importance of developing high levels of interpersonal trust across the dyad, which in turn positively influences the development of interorganizational commitment. Their study moves

beyond the descriptive nature of the study by Spina and Zotteri (2000) and proposes several mechanisms guiding the development of collaborative relationships. These mechanisms describe the interplay between important relationship variables such as trust, commitment, and performance, and can be used for positive as well as negative developments in the relationship. Another example is the study by Storey et al. (2005) who examine suppliers of Marks and Spencer and argue that collaborative initiatives, even when functioning properly, need constant nurturing. Furthermore, Lau and Goh (2005) discuss development stages of buyer-supplier relationships in the Asian printed circuit boards industry, and Wagner et al. (2002) describe the evolution of a relationship between a distiller company and its supplier of cardboard boxes.

Second, there are two contributions that pay attention to the downsides of close collaboration. Vaaland (2006) explores the role played by communication in conflicts between clients and contractors. This case study on the Norwegian oil and gas industry focuses on different communication strategies and their influence on relationships. In another study, Anderson and Jap (2005) identify three mechanisms initially supporting the relationship that can turn against it in later stages of the development process: the creation of immediate benefits, strong interpersonal ties, and investments in unique processes and adaptations. They also suggest solutions to overcome these problems. This study, together with the above mentioned work by Narayandas and Rangan (2004), is one of few recent articles explicitly focused on obtaining a better understanding of evolutionary patterns in collaborative buyer-supplier relationships. In doing so, the present study also includes 'soft' aspects of collaboration, such as trust and commitment, thus advancing on the established relationship models as developed by Dwyer et al. (1987) and Ring and Van de Ven (1994). These classic models describe stage-wise development of collaborative relationship, whereas Narayandas and Rangan (2004) and Jap and Anderson (2005) clear the way for more detailed studies on mechanisms explaining relationship development.

Finally, there are three more longitudinal studies in the period from 2000 to 2006 that concentrate on specific aspects of collaborative relationships. Two of these studies consider the governance of such relationships. Jap and Anderson (2003) provide a longitudinal test of the ability of relational safeguards to preserve performance outcomes. Interpersonal trust is especially effective in situations with low levels of ex-post opportunism, while goal congruence between the partners is a more powerful safeguard when ex-post opportunism is high. Bilateral idiosyncratic investments are effective in both situations. Halldórsson and Skjøtt-Larsen (2006) focus on the dynamics of relationship governance in third party logistics dyads, and observe that the mechanisms of governance change as relationships develop.¹² Finally, Andersen and Christensen (2000) examine another specific aspect of collaborative relationships. They look at interpartner learning and the development of shared skills in supply chain relations.

¹² A transaction-cost framework of relational and contractual governance in business services exchanges is discussed by Vandaele et al. (2007)

In conclusion, little work has been done that answers the call for longitudinal research on the development of interorganizational relationships and more effort is still needed to improve our understanding of the development of such relationships. Collaboration between organizations is by definition a dynamic process and therefore longitudinal approaches are required for better understanding this phenomenon. Narayandas and Rangan (2004, pp. 64) note that “notwithstanding a few pioneering attempts to focus on the nature of relationship building and the changing dynamics of relationships over time, important voids persist, which is a consequence of the cross-sectional designs used in most empirical work in relationship management to date.” Other authors acknowledge that conducting longitudinal research is demanding, time consuming, and risky (e.g. Lambe et al. 2001; Kaufmann and Carter 2006). Still, such studies are indispensable in understanding the complex process of building and maintaining buyer-supplier relationships.

3.4.2 Interpersonal aspects of collaboration

When considering the research perspective of the articles in our data analysis, we find that most studies of buyer-supplier collaboration have an interorganizational perspective and only a few incorporate an interpersonal perspective. This observation is surprising when considering that collaboration between two companies builds on the interaction between boundary spanners in the relationship. There are three recurring themes among those that do discuss interpersonal aspects of collaboration: (1) the impact of emotional ties; (2) the role of trust; and (3) the importance of relationship maintenance.

First, Andersen and Kumar (2006) stress the importance of emotions on interpersonal relationships and show with several case studies how interpersonal emotions of boundary spanning personnel influence the development of buyer-supplier relationships. The key role of boundary spanners in collaboration efforts is supported by Hutt et al. (2000)¹³, who emphasize the importance of analyzing interpersonal aspects of collaboration in their work on joint product development alliances. Complementary work has been done by Bagozzi (2006), whose conceptual article focuses on the role of positive and negative emotions in salesperson-customer interactions in business-to-business relationships.

Second, some authors taking an interpersonal perspective have focused on the role of trust. Jap and Anderson (2003) describe interpersonal trust as “the confidence that two individuals place in each other”. They argue that interpersonal trust has the most positive impact in situations where there are low levels of opportunism. Conversely, when opportunism is high, interpersonal trust is less effective in preserving relationship outcomes. In another contribution, Anderson and Jap (2005) introduce the “dark side of collaboration”, which implies that high levels of trust in a buyer-

¹³ This study is not part of the final set of articles dealing with buyer-supplier collaboration since this study focuses on horizontal collaboration. Still, the findings from their research are useful to better understand collaboration in buyer-supplier relationships.

supplier relationship may induce opportunistic behavior of one of the parties.¹⁴ So while strong relationships with a high level of trust can create flexibility and responsiveness that may benefit the relationship, opportunism will negatively influence relationship outcomes. Narayandas and Rangan (2004) distinguish between trust and commitment by regarding trust an interpersonal construct and commitment an interorganizational phenomenon. Hence, according to them, one of the key drivers of successful collaboration, trust, emerges between individuals (interpersonal) rather than between organizations. They go on to say that while trust does have a positive influence on the development of interorganizational commitment, there is no such reverse relationship. Tellefsen and Thomas (2005) have a different perspective on commitment, seeing it as having both organizational and personal dimensions and arguing that both influence the relationship between the customer firm and the supplier. Perrone et al. (2003) focus on the role of interpersonal trust between boundary-spanners. Their findings “suggest that boundary spanners with greater autonomy to manage interorganizational relationships are better able to cultivate trust from their counterparts” (Perrone et al. 2003). Finally, Jeffries and Reed (2000) look at the role of interpersonal trust in buyer-supplier relationships. Their results indicate that too much affective trust reduces the motivation of negotiators and so may be as harmful as too little trust. Indeed they suggest that negotiators should be rotated frequently to prevent the development of unduly high levels of affective trust.

The third interpersonal theme is the merit of developing and maintaining buyer-supplier relationships. Welling and Kamann (2001) look at how personal contacts influence vertical cooperation. Bendapudi and Leone (2002) study the role of boundary spanners in buyer-supplier relationships. More specifically, they focus on what business-to-business customers most value in their relationships with key contact employees. Ulaga (2003) also stresses the value of interpersonal ties and personal relationships. Bettencourt et al. (2002) take a different approach as they focus on the customer in business-to-business relationships and find that the level of co-production is especially important in knowledge-intensive industries. All these studies indicate the importance of personal contacts in developing collaborative buyer-supplier relationships, but largely fail to show the role individuals can play in positive as well as negative relationship development.

Finally, there are two studies combining interpersonal and interorganizational elements. Parsons (2002) looks at the role of interpersonal and interorganizational aspects on relationship quality and finds a positive relationship between interpersonal communication and relationship quality. Kamann et al. (2006) study whether a shared past and future can preclude problems and distinguish between the organizational and individual level. They find that a shared future at the organizational level only affects marginally problems in a current relationship. However, when

¹⁴ Other mechanisms that can support the development of the dark side of collaboration in a relationship are the natural tension between short term and long term benefits to the partners and unique investments and adaptations that may cause companies to loose touch with better alternatives.

there is an expected future at the individual level, there is a small, but significant impact on the likelihood of problems within the relationship (Kamann et al. 2006).

Summarizing, several authors have highlighted the important role of interpersonal aspects in the development of buyer-supplier relationships. Yet studies that indeed focus on the interpersonal dimension of such relationships, and on the effect of interaction between individuals on interorganizational relationship development, are scarce. We believe that future research on that dimension is needed to understand the complex processes that underlie the development and maintenance of collaborative buyer-supplier relationships. We further argue the development of collaborative relationships is also determined by the dynamics at various levels in the organization. First, experiences at operational level may influence tactical and strategic level and vice versa. Second, different dynamics may exist in different geographical regions within the same global collaborative relationship. For example, the interaction in a global partnership between two UK based companies may well be experienced and operated in a different manner in other regions of the world. Such geographical differences, as well as differences in perceptions of the collaborative agreement between different levels of the organizations, can put pressure on relationship development.

3.5 CONCLUDING REMARKS

There is considerable interest in collaboration between buying and supplying companies. Both academics and practitioners argue that collaborative relationships have a positive impact on competitiveness. Despite this, there is no comprehensive overview of research on collaboration in buyer-supplier relationships. To our knowledge, this is the first study providing a comprehensive literature review on buyer-supplier collaboration. Our analysis includes journals between 2000 and 2006 from the fields of marketing, operations management, and strategic management. Such a cross-disciplinary approach yields valuable, complementary insights on research on buyer-supplier collaboration. Our results, for example, show that surveys are most frequently used in the marketing field, whereas case studies are more common in operations management research. Moreover, contributions from the marketing field dominate the list of the 15 most cited articles published before the year 2000. We call for more multidisciplinary research designs in studying the development of collaborative buyer-supplier relationships. Such approaches will contribute to a better understanding of key characteristics and the development of buyer-supplier relationships.

Finally, our study allows us to identify promising areas for future research on collaboration in buyer-supplier relationships. In our total data set of 133 articles we observe two important gaps in the extant literature. Firstly, despite repeated calls for longitudinal studies, few have been carried out to date. Secondly, only a limited number of studies have focused on the interpersonal elements of buyer-supplier collaboration. What is more, we find only three longitudinal studies that also consider interpersonal characteristics (Jap and Anderson 2003; Narayandas and Rangan 2004;

Anderson and Jap 2005). It must be said that, while limited in number, the few studies that look at the interpersonal elements of buyer-supplier collaboration have made a valuable contribution to the literature. Since a longitudinal research design allows for examination of changes in collaborative relationships over time, and the role of individuals on interorganizational relationship development remains largely unclear, we add our voices to the call for more longitudinal studies and also for more work done on the interpersonal aspects of buyer-supplier collaboration.

CHAPTER 4 RESEARCH METHOD FOR LONGITUDINAL CASE STUDIES¹⁵

This chapter describes the methods used for data collection and analysis in the longitudinal case studies of this thesis (section 4.4 and 4.5). The main purpose of this research is to gain a better understanding of the process and development of collaboration in buyer-supplier relationships and uses a longitudinal, dyadic, multi-level and multiple informant approach. A description of process theory and process thinking is provided in section 4.1. Section 4.2 discusses the use of case study research, introduces the focal buying company, and describes the selection of the buyer-supplier relationships examined in this study. The topics of reliability and validity are discussed in section 4.6.

4.1 INTRODUCTION

Mohr (1982) considers process theory and variance theory as two ways of conducting strategy research. Process research is the discipline in which process issues in strategic management are studied (Pettigrew 1992). Variance theory focuses on variation in a dependent variable by examining several independent variables (e.g. Langley 1999). This introductory paragraph builds on process theory rather than variance theory since in this research longitudinal case studies are used to study the (development of) collaboration in buyer-supplier relationships. An extensive literature review of strategy process research has been conducted by Hutzschenreuter & Kleindienst (2006). Their work is criticized by Langley (2007) since they include studies with only a marginal process element that do not reflect real process approaches. Langley (2007) further argues that process studies require process thinking and that such studies are far less common than studies that include a process element in one of the variables in the study. Process thinking “involves considering phenomena dynamically – in terms of movement, activity, events, change, and temporal evolution” (Langley 2007, pp. 271).

A common definition of process in strategy process research is that by Van de Ven (1992, pp. 169): “a sequence of events that describe how things change over time”. Van de Ven and Poole (2005) use the distinction between variance and process theory in their typology of approaches for studying organizational change, and consider process studies of organizational entities as narratives of sequences of events, stages or cycles of change. Narratives are especially helpful in analyzing

¹⁵ This chapter was presented and discussed during the WION 2008 meeting. The author wishes to thank Erik van Raaij for his suggestion to include process research studies, and Frits Tazelaar for his support in developing this chapter. Furthermore, gratitude is expressed to the contact persons and colleagues who commented on an early version of the survey instrument

various levels of data and offer an opportunity to realize deep structure and gain better understanding of the studied phenomena (Pentland 1999). Examining multiple contexts or levels of analysis is also one of the main challenges in future research on organizational change and development (Pettigrew et al. 2001).

The way of thinking common to process theory has also been adopted in studies on the development of inter-organizational relationships. For example, Doz (1996), Dwyer et al. (1987), and Ring and Van de Ven (1994) propose frameworks for examining the development of inter-organizational relationships over time. Dwyer et al. (1987) describe general phases in the evolution of buyer-supplier relationships and the different ways the buyer and supplier company interact in each of these developmental steps. Ring and Van de Ven (1994) develop a process framework of inter-organizational relationships and concentrate on the development and interplay of negotiation, commitment, and executions of commitments in cooperative inter-organizational relationships. Doz (1996) builds on the work by Ring and Van de Ven (1994) and develops a process framework for the development of alliances. His study specifically addresses the importance of the initial conditions of the alliance in the effectiveness of the relationship. In the cooperation process, the parties will modify their perceptions of the relationship and use revised conditions to decide to terminate or continue with the alliance. The central role of the studies by Dwyer et al. (1987) and Ring and Van de Ven (1994) has also been stressed by Jap and Anderson (2007) who combine both process models and test the movement of relational properties over different relationship stages. The development of relational properties in cooperative buyer-supplier relationships is also the central phenomenon studied in this thesis. Process approaches require researchers to see the object of their study as an evolving phenomenon over time and explains the use and value of longitudinal (case) studies.

4.2 CASE STUDY RESEARCH

Case study research is widely used in research on collaborative buyer-supplier relationships in the areas of marketing and operations management. The use of case studies is less common in strategic management literature (see Chapter 3). Case study research is an empirical inquiry of phenomena in their real-life context and has the following characteristics (Yin 2003, pp. 13-14):

- Copes with the technically distinctive situations in which there will be many more variables of interest than data points
- Relies on multiple sources of evidence, with data needing to converge in a triangulating fashion
- Benefits from the prior development of theoretical propositions to guide data collection and analysis.

There are different types of case studies. Eisenhardt and Graebner (2007) discuss how multiple case studies are used for theory building. The main strength of case study research is the

closeness with the data, while ensuring the objective character of the theory-building process. Siggelkow (2007) also stresses the persuasiveness and strength of case study research and states that even single case studies can be extremely powerful. This is especially true when the researcher is able to present something new or unique. In Siggelkow's terminology, such unique and powerful case studies are called "talking pigs". Longitudinal case studies are particularly valuable, since such an approach allows researchers to collect rich data on the evolution and interrelatedness of different phenomena simultaneously. Furthermore, Siggelkow (2007) argues that case studies are useful for motivation, inspiration, and illustration. Inspirational case studies may precede theory, while illustrative cases are better positioned after theory. Positioning the case material helps to persuade the reader of its value. Other examples of studies focusing on case study roles and types include Voss et al. (2002) who indicate which case study designs are helpful for exploration, theory building, theory testing, and theory refinement, and Yin (2003) who distinguishes between exploratory, descriptive, and explanatory case studies.

This research is both descriptive and explanatory and is best described as a hybrid case study since it uses both survey and interview data. Such hybrid studies provide an excellent opportunity for developing knowledge in the field of purchasing and supply management (Tazelaar 2007). The explanatory character of this PhD study is best observable in Chapters 7 and 8, in which the evolution of two collaborative buyer-supplier relationships is explained. Meanwhile, Chapter 6 has for example a more descriptive character. Finally, a dyadic perspective is adopted throughout this thesis (Chapter 5, 6, 7, and 8), which allows for comparing perspectives from buying and supplying organization on their collaborative business relationship. The case studies are buyer-supplier relationships of a single focal buying company and are described in more detail in the next section.

4.3 CASE DESCRIPTION

There are not many dyadic longitudinal case studies of collaborative relationships (see Chapter 3) that also examine different levels within the relationship. Such designs require much cooperation from the participating companies and suffer from considerable risk in the execution of the study. Furthermore, such studies are extremely time consuming and as a result most studies use cross-sectional designs (see Narayandas and Rangan 2004). This thesis is an effort to better understand the nature of relationship building and uses one focal buying company in its relationship with two of its key suppliers as empirical setting. These supplier companies are part of a special platform established by the buying company by the end of 2004. The use of key supplier programs is a fairly new phenomenon (Chapter 6) and the design of this study enables studying this phenomenon. Within this context, several buyer-supplier relationships have been monitored for three consecutive years and multiple informants are used to cover various dimensions within each of these relationships (see Chapter 5 and 7). In order to capture the richness of the longitudinal data, no more than three relationships were selected at the start of the project. As a result of

changes of corporate strategies, it was impossible to continue with data collection in one of the buyer-supplier relationships. Therefore, this thesis is based on the data collected in two strategic buyer-supplier relationships within one focal buying company. Eisenhardt and Graebner (2007) stress that opportunities for unusual research access is a good reason for limiting the research scope. Furthermore, Siggelkow (2007, pp. 20) posits that “it is often desirable to choose a particular organization precisely because it is very special in a sense of allowing one to gain certain insights that other organizations would not be able to provide”.

The focal buying company is a large multinational company active in high technology markets. It has several independently operating divisions in different markets and various entities at a corporate level to support the divisions in their activities. In the remainder of this thesis, the focal buying company is referred to as buyer A1 in its relationship with supplier B and as buyer A2 in its relationship with supplier C. None of the informants of the focal buying company are active in both buyer-supplier relationships. Supplier B is a logistics services provider with a global presence. The company has relationships with each of the divisions and with the corporate purchasing group of buyer A1. This also holds for supplier C which is active in global IT services. Supplier C used to be part of the focal buying company, but was separated in the 1990s. Later, supplier C was acquired by another company, and the focal buying company had divested its stake in supplier C at the start of the research project.¹⁶

4.4 DATA COLLECTION

The corporate purchasing group of the focal buying company has provided support throughout the research project, both within its own company as well as in establishing contact with the supplier companies. In each of the buyer-supplier relationships, a contact person was named for the buying and the supplying organizations. These persons have been the primary point of contact throughout the study period and held key positions in the relationship. In close cooperation with them, lists of informants were developed. These lists are “mirrored”, meaning both companies developed a list of informants that reflected most of the activities between the companies. About 15 – 20 informants per company were asked to participate in the research. The informants work in various divisions, in different geographical locations (e.g. EMEA, Asia Pacific, and Americas), and at different levels (see Chapter 5). This approach allows for looking beyond simple dyadic relationships and is in line with suggestions by Ross and Robertson (2007). These authors propose to look at compound relationships in inter-organizational research: dyadic relationships with different layers and different roles of the actors. The dyadic, multi-informant design of this study is particularly suited for adopting multiple perspectives on the same buyer-supplier relationship, as suggested by Ross and Robertson (2007).

¹⁶ A more elaborate description of the history of collaboration between the companies is part of chapter 8.

The hybrid character of this study results from the joint use of a survey with items on several relational properties and follow-up interviews with each of the informants to obtain more detailed information on their perception of (aspects of) their collaborative relationship. Hence, the two main data sources in the longitudinal case studies are: (1) a 41-item survey to assess the state of collaboration in buyer-supplier relationships, and (2) interviews with informants based on their survey answers. There are three measurements in each of the buyer-supplier relationships; in the summer of 2005, 2006, and 2007.

Over the three years, it is inevitable that people change positions or leave the company. Such changes may affect the comparability of results over the years. However, by keeping the functional roles or job positions consistent as much as possible over time, the balance between the buying and supplying organization's representatives is maintained. For example, when the purchasing manager of a division of Buyer A1 leaves the company, this person is replaced by its successor.

4.4.1 Development of the survey instrument

A 41-item survey instrument covering various aspects of collaborative relationships, such as adaptation, commitment, communication, conflict, cooperation, dependency, performance, pro-activity, problem solving and trust is one of the data sources in this study. The primary goal of this instrument is collecting an indication of an informant's attitude towards the business relationship. The survey items are selected by using a stepwise approach. First, an initial list of 230 items was created based on studies found in an exploratory literature review. Similar items were clustered and two researchers discussed which items were important to include in the final survey. The survey is specifically designed for dyadic analysis. Apart from using it for buying and supplying organizations, many items are "reciprocal" (see Muthusamy and White 2005). This means that informants provide their views on the buying and the supplying organization concerning various elements of collaborative relationships. For example, each informant is asked to assign scores to the perceived dependency of the buying and the supplying organization in the relationship, and, similarly, to the extent to which each party shares proprietary information with the other party in the relationship. Such an approach implies that the number of survey items quickly increases. The survey serves as a means to obtain an initial view of the informants' perspective on the buyer-supplier relationship. More detailed information is asked through follow-up interviews. The draft version of the survey was sent out for comment to academics and non-academics (including the contact persons of the case companies), and their responses were used to develop the final survey instrument as shown in Appendix II. The survey items were similar for data collection in 2005, 2006 and 2007. The only modification in the 2006 and 2007 surveys is that the informants were also asked to indicate developments in the relationship over the past year.

4.4.2 Qualitative research

Qualitative research covers a wide spectrum of research types. Strauss and Corbin (1998, pp. 10-11) describe qualitative research as “any type of research that produces findings not arrived at by statistical procedures or other means of quantification.” Qualitative research includes studies that are observation based, archival, and interview based. Some of the common features of qualitative studies (Miles and Huberman 1994, pp. 6-7) that are also observed in this study are:

- It is conducted through an intense and/or prolonged contact with a field or life situation (e.g. the longitudinal case studies)
- The researcher attempts to capture data on the perceptions of local actors “from the inside” (e.g. capturing perceptions of multiple informants through the combined use of surveys and interviews)
- The researcher’s role is to gain a holistic (systemic, encompassing, integrated) overview of the context under study (e.g. through including informants at different hierarchical levels and in different areas of the collaborative relationship between the companies)
- Most analysis is done with words. They can be organized to permit the researcher to contrast, compare, analyze, and bestow patterns upon them (e.g. the transcription and analysis of the interviews)

An important aspect of the qualitative research process is memoing. Memos are used for documenting ideas, comments, and decisions during the data analysis process. Miles and Huberman (1994) use Glaser’s (1978, pp. 83-84) classic definition of a memo: “the theorizing write-up of ideas about codes and their relationships as they strike the analyst while coding... it can be a sentence, a paragraph, or a few pages... it exhausts the analyst’s momentary ideation based on data with perhaps a little conceptual elaboration.” Memos supplement the rich information of the transcripts and help the analyst to gain analytical distance from the materials (Strauss and Corbin 1998). Research memos may evolve throughout the process whenever the analyst has additional information or new ideas concerning the topic described in specific memos. In this study, the idea of using memoing is not limited to the coding process. Rather, research memos are used throughout the research process to document decisions of and directions for the researchers. For example, some memos contain changes in the phrasing of the research questions during the research process, while others report on changes of informants of the participating companies. Furthermore, memos have a creative function – when researchers have new ideas concerning their material, writing memos is an excellent way of capturing and documenting these ideas.

4.4.3 Interview procedure

After returning the survey, each of the informants was asked to participate in a 20 minute follow-up telephone interview. Almost all participants who returned the survey agreed to

participate in the interview. Appendix III provides a detailed overview of responses to the survey and interview participation.¹⁷ The interview had an open character, because there is no pre-defined list of questions for the informant (Baarda et al. 2000). Open interviews are normally conducted with rough guidelines or topic lists. In this study, the researcher asked the informants to elaborate on their answers in the survey. The completed survey was used as guideline for the interviews. The reciprocal survey items were valuable in the interview procedure, since these questions show on which aspects of collaboration the informant believes there are differences between the buying and the supplying organization. For the 2006 and 2007 interviews, the survey scores were compared with the values of the year(s) before in order to identify developments on specific aspects of the buyer-supplier relationship. All interviews were tape recorded and transcribed to improve the quality of the data and to reduce observer bias. Transcribing interviews is a commonly used method in qualitative research. In addition to the transcribed interviews, the comments given by the informant on the open ended questions of the survey were considered in the coding process.

4.5 QUALITATIVE DATA ANALYSIS

4.5.1 Coding and coding procedures

In qualitative research, textual data is the most important information source. Examples of textual data are archival records, newspapers, minutes of meetings, reports, and other types of documents. Although conducting qualitative research is still time-consuming, computers and software programs for analyzing qualitative data have increased the amounts of data that can be processed. In this study, Atlas.ti version 5.2 is used as software in the coding process. Coding is a method to structure and reduce textual data for analysis. A code is “a tag or label for assigning units of meaning to the descriptive or inferential information compiled during a study” (Miles and Huberman 1994, pp. 56). These labels can be assigned to words, sentences, or paragraphs in the textual data. Assigning codes to various types of text fragments is the task of the research team and is always to some extent subjective. No study of qualitative data is free of researcher bias. Still, there are ways to deal with subjectivity in qualitative research (see section 4.6) to ensure reliability of this study.

In this study, the codes are based on the earlier described survey instrument. Using a conceptual model and the central research phenomenon as guideline is an accepted way of developing coding schemes (Hutjes and Van Buuren 1996). Moreover, a start list of codes is commonly used in qualitative research (Miles and Huberman 1994). These lists may be altered during the coding process. In this study, the research team decided during the research process to add several codes to the initial coding scheme. Two additional codes are included to assess the

¹⁷ In the remainder of this thesis both survey response (e.g. Chapter 5) as well as interview participation metrics are used (e.g. Chapter 8) in the methods section, depending on the topic and data used for the analysis.

extent to which historical factors and anticipated future benefits influence the current relationship between the buying and supplying organization. Another code for cooperation structure is added since many informants mention aspects of the structure of the cooperative relationship between the companies. Furthermore, a code was added to capture the perception of the informants of the “partnership” between the companies. Finally, specific codes were added to understand the influence of the specific context of this research. For example, separate codes are used to identify differences in perspectives on the relationship both within the participating organizations as well as between the buyer and the supplier. By doing so, we are able to look at multiple perspectives of the same buyer-supplier relationship (see Ross and Robertson 2007). In total, 31 codes are used in the coding process. The final coding scheme and definition of codes are available in Appendix IV.

4.5.2 Levels of transcript analysis

Within-case displays present information derived from the textual data in a systematic and comprehensive manner. There are two types of displays: matrices and networks (Miles and Huberman 1994). Matrices are characterized by defined rows and columns, whereas networks provide insight in relations between different nodes or topics in the research project. This section describes the matrices used in the analysis of interview transcripts of the two collaborative buyer-supplier relationships in this study. Four display levels are used in this study (see also Akkermans 1995; Miles and Huberman 1994, pp. 92). Several efforts to limit the possible influence of researcher bias were taken in constructing these display levels. These steps are described in section 4.6.4.

Display level 0

The lowest level of abstraction in qualitative research is creating texts to work on. In this study, the interview transcripts provide the documentation for the coding process. Level 0 is a list of quotations concerning one specific code for one specific year and one specific organization and sorted by informant. For example, all quotations of informants of Buyer A1 concerning affective commitment in 2005 are ordered in one document which serves as input for display level 1.

Display level 1

The author of this thesis summarized the quotations per informant. A summary is written for each informant and these summaries are gathered in a conceptually clustered matrix (Miles and Huberman 1994). The informants are on the vertical axis of the display and the code(s) on the horizontal axis. An example of such a lay-out is provided in Table 4-1. This display provides a summary of the 6 quotations from 5 informants who said something concerning the level of adaptation in the relationship between buyer A1 and supplier B. The highest number of quotations

for a certain code in a specific year is 74. In total, 372 level 1 displays were created from the interview material (31 codes x 3 years x 4 organizations).

Informant	Level 1 summary ADAPTATION, Buyer A1 – 2005
2	The initiation of joint projects is sometimes difficult because for both buyer A1 and supplier B it is difficult to convince people for investing in such projects.
10	Supplier B has in-plant personnel for a key warehouse location in Mediterranean Europe and the relationship with buyer A1 that cannot easily be terminated.
11	Appointing a supplier manager at buyer A1 is a signal that buyer A1 intends to work towards a partnership.
15	There is a dedicated buyer A1 team within supplier B with a global customer manager, who has direct contact with the buyer A1 supplier manager. Currently, the companies are looking at opportunities to create a 24-hour helpdesk.
19	There is insufficient capacity available at supplier B, especially given the amount of business the companies have together. This results in difficulties in communication with supplier B.

Table 4-1 Example of a level 1 conceptually clustered matrix

Display level 2

The conceptually clustered matrix used for display level 1 serves as input for developing a thematic conceptual matrix (Miles and Huberman 1994) at display level 2. Based on the summaries per informant, the researcher produces a summary of all informants' commentaries for each code for each year. These summaries are displayed by using a thematic conceptual matrix. On the horizontal axis each code is displayed with the number of quotations between brackets to show the amount of underlying quotations that led to the summary. Table 4-2 shows the level 2 displays for the codes affective commitment and calculative commitment for Buyer A1 in 2005. Both codes had 6 quotations in 2005 for informants of buyer A1. In total, there are 12 such displays (3 years x 4 organizations) which all consist of 31 codes and their summaries. These displays have been important in conducting the analysis of Chapters 7 and 8.

Code	Level 2 summary Buyer A1 – 2005
Affective commitment (6)	There is a general belief that supplier B is working hard in order to improve the relationship with buyer A1. Furthermore, the appointment of a supplier manager by buyer A1 signals the intention to move towards a more strategic relationship between the companies.
Calculative commitment (6)	Some of the informants indicate that they cannot terminate the relationship because there is no alternative available for the current services supplier B is providing, and others stress that buyer A1 will terminate the partnership when there are cheaper options available.

Table 4-2 Example of a level 2 thematic conceptual matrix

4.6 VALIDITY AND RELIABILITY OF CASE STUDY RESEARCH

Yin (2003) distinguishes between four design tests in empirical social research: construct validity, internal validity, external validity, and reliability. These topics are discussed in this section and tactics to improve validity and reliability of the longitudinal case studies are summarized in Table 4-3.

Design criteria	Tactics used in longitudinal case studies
Construct validity	Member check in development of survey instrument
	Triangulation of survey and interview data
	Triangulation of multiple informants
	Peer debriefing of display levels ('researcher triangulation')
Internal validity	Data reduction by matrix display levels
	Pattern matching of empirical observations with existing theory (Chapter 7, 8)
External validity	Detailed transcript analysis to identify causality from interview data (Chapter 2, 7)
	Replication possibilities because of strict procedures in interview analysis and extensive use of research memos
Reliability	Multiple informants in data collection
	Memoing of the research process
	Using multiple raters for transcript analysis

Table 4-3 Validity and reliability in this PhD study

4.6.1 Construct validity

Yin (2003, pp. 34) defines construct validity as “establishing correct operational measures for the concepts being studied”. The central phenomenon of this study is collaboration in buyer-supplier relationships, a widely used term including various elements. To make sure that the survey instrument covers collaboration in buyer-supplier relationships, academic experts and the contact persons of the case companies were asked to give their comments to the survey items. As a result, two items regarding the pro-activeness of each of the companies were added to the survey (see section 4.4.1). This method is called a member check, a method to improve validity in which others in the field are asked to corroborate the findings of a study (Baker 1999). Drawing on theoretical sources, and combining this with suggestions from academic and industry experts is an example of using multiple sources of evidence, which is one of the tactics suggested by Yin (2003) to enhance construct validity. In addition, the development of the coding scheme is also based on several sources of evidence. The basis of the initial coding scheme was the survey instrument, supplemented by multiple theoretical definitions of the codes and discussion between members of the research team.

Furthermore, the combined use of a survey instrument and telephone interviews with participants from the buying and supplying organization in various geographic locations and various roles allows for data triangulation. Triangulation is defined as “drawing together multiple types of evidence gathered from different sources using different methods of data collection”

(Baker 1999, pp. 505). On informant level, triangulation is possible by combining survey data and interview material. At an organizational level, the perspectives of various informants are compared (e.g. the display levels in the interview analysis). Reducing data through using various display levels is another way of improving construct validity.

Finally, another technique to improve validity is used in the data analysis phase (see section 4.5 for a discussion about display levels in the analysis). This technique is called ‘peer debriefing’ and is a special form of researcher triangulation (Boeije 2005). The ‘peers’ act as a panel and check outcomes of the research project. For the interview analysis, both supervisors of this thesis were given level 0, level 1, and level 2 files of 13 of the 31 defined codes and commented on the summaries made in the creation of level 1 and level 2 files. The codes selected for this procedure are those concerning dependency, trust, commitment, and satisfaction (which are also the core elements of Chapter 5), complemented by cooperation and conflict, since these codes were most often used in the coding process.

4.6.2 Internal validity

Internal validity is only relevant to explanatory case studies since it is related to the logic of causal relationships. Yin (2003, pp. 34) defines internal validity as “establishing a causal relationship, whereby certain conditions are shown to lead to other conditions, as distinguished from spurious relationships.” The key question underlying the concept of internal validity is whether changes in a certain variable are indeed caused by another variable or whether there are alternative causes for explaining the observed changes. In this thesis, Chapter 7 and 8 deal with explaining the development of collaboration in the studied buyer-supplier relationships. Empirical observations are matched with existing theory in this chapter in order to explain observed patterns in the development of each of the relationships. Yin (2003) refers to this method as ‘pattern matching’. Furthermore, the detailed textual analysis of transcripts and the identification of causalities within these narratives is a second approach of improving the internal validity of this study.

4.6.3 External validity

Yin (2003, pp. 34) defines external validity as “establishing the domain to which a study’s findings can be generalized”. It is important to note that, contrary to quantitative studies, case studies are not based on a sample (representing a larger population). In that perspective, the discussion of external validity is not whether the case study findings are representative of some broader population, rather the external validity of case studies needs to be testable through replication.

The longitudinal design of this study and the dyadic, multiple informant approach provides an opportunity for replication in other industries or with other companies (with a specific program

for developing key supplier relationships). The transparency of the research process, reached by extensive use of memoing and the strict procedures followed in the coding process and analysis of interview transcripts, offers important support for replication studies. These aspects are also important for the reliability of the study.

4.6.4 Reliability

Reliability is defined by Yin (2003, pp. 34) as “demonstrating that the operations of a study – such as data collection procedures – can be repeated with the same results”. The goal of reliability “is to minimize errors and biases in the research” (Yin 2003, pp. 37). In other words, high reliability means that when another researcher would analyze the same case material similar findings and conclusions would result. The importance of reliability in case study research is stressed by Jonker and Pennink (2004) who state transparency of the research approach is more important in qualitative research than in quantitative research, because of the open character of qualitative studies. Therefore, much attention has been given to increase reliability of this research. In the cross-disciplinary literature review discussed in Chapter 3, several ways of increasing reliability of the review study have already been discussed. This section deals with the efforts taken to improve the reliability of the longitudinal case study analyses.

First of all, the multiple informant design of this study allows for collecting various perspectives of the same buyer-supplier relationship. In case of people leaving the organizations during the research period, the successor of this person was asked to take participate in the research program. In this manner, the same functional areas are considered in different rounds of data collection in the three year longitudinal study. More details on the amount of informants, response rates, and levels of these informants are presented in Chapter 5.

In the research process, extensive use of memos increases both the transparency of the study (traceability) and its reliability by explicating choices and changes throughout the research process. For example, changes of informants over the years were recorded in memos, as well as decisions in the development of the coding scheme. Meanwhile, regular feedback sessions and communication with contact persons took place to discuss observations from the interviews and to stay informed about key developments in the relationship.

Finally, several ways of enhancing reliability are used in the coding process. First, the supervisor of this thesis acted as ‘second rater’ in coding the interview transcripts¹⁸. This role implies that several transcripts are coded by both the author and the supervisor of this thesis. In total, 24 transcripts are coded by both raters (3 years x 4 organizations x 2 transcripts). Coded

¹⁸ Reliability is also one of the key concerns in the literature review on collaborative buyer-supplier relationships as described in Chapter 3. In the review, reliability is enhanced by using multiple raters in the (article) selection process. This way of working is similar to the role of the second rater in the interview analysis.

fragments are compared between the raters and discussed until agreement was reached. Furthermore, for those transcripts not coded by both raters, the author of this thesis collected interview fragments that are not straightforward to code. Each of these fragments has also been discussed with the supervisor of this thesis.

CHAPTER 5 MULTIPLE INFORMANTS' PERCEPTUAL DIFFERENCES IN COLLABORATIVE BUYER-SUPPLIER RELATIONSHIPS¹⁹

5.1 INTRODUCTION

Relationship marketing has been studied extensively over the past decades. Especially building and managing buyer-supplier relationships is a popular area of research within the marketing literature (e.g. Dwyer et al. 1987, Morgan and Hunt 1994, Narayandas and Rangan 2004). These studies are often survey-based and use a single informant approach. The choice between using single and multiple informants in survey research constitutes a separate methodological discussion in academic literature. Campbell (1955) is one of the first contributors to this methodological debate, followed by several other scholars either advocating the use of single or multiple informants. However, there are only few empirical studies attempting to determine the value of each of these approaches (e.g. Barnes et al. 2007). There are two ways of defining multiple informant studies. First, these studies may have several informants within the same organization. For example, Kumar et al. (1993) show that different positions within a firm can have different perspectives on the same relationship with a dealer company. Second, multiple informant studies can refer to dyadic research approaches, where data is collected on both sides of the dyad, including the buying and the supplying perspective (e.g. Hibbard et al. 2001). Existing studies have presented contradictory results on the existence of perceptual differences between actors on different sides of the dyad. Hence, informant selection is an important element of the research design that may influence the outcome of studies.

In this study, we focus on key relationship variables in managing buyer-supplier relationships and adopt a dyadic perspective (e.g. including perspectives of buyer and supplier). In addition, we use multiple informants within each organization, either working at strategic or tactical level. With such a research design, we are able to compare the similarity of perspectives between the buying and the supplying organization, as well as between informants working at strategic and tactical level. Our study contributes to the methodological discussion on the use of single versus multiple informants. We find evidence for differences in scoring between informants of the buyer and the supplier company, as well as between informants working at strategic and tactical levels in the buying and supplying organizations. These findings confirm that informant selection may influence the outcomes of studies on relationship marketing.

¹⁹ This chapter has been written in cooperation with Björn Ivens and has been submitted to an international academic journal. We appreciate the Fredo Schotanus' suggestions in the writing process. An early version of the article was presented at the 23rd IMP conference in Manchester, UK (Van de Vijver and Ivens 2007).

5.2 THEORETICAL BACKGROUND

In business research, methodological discussions concerning empirical studies often focus on the use of single versus multiple informants. Advantages and limits of using multiple informants are discussed in various streams of research, e.g. in operations management research (see Boyer and Verma 2000) and in international business (see Ghoshal and Bartlett 1988). In the marketing literature, the use of multiple informants in empirical research is prevalent in several sub-disciplines, e.g. in research on buying processes in families or other social groups, and in research on inter-functional relationships inside a firm (i.e. in a B2B setting but with an intra-company perspective). Dyadic studies with matched pair data provide another type of multiple informant research and, over the past years, informant issues have received increasing attention in inter-organizational marketing research. Yet, the majority of survey-based contributions to the marketing field use a single informant design. In this section, we discuss three types of articles: (1) studies relying on single informants, (2) studies using multiple informants, and (3) articles contributing specifically to the methodological debate on using single or multiple informants in survey research.

5.2.1 Using and justifying single informants

There are several reasons for using single informants in survey research. The first argument is the practical impossibility of obtaining several answers from multiple informants. For example, Tatikonda and Montoya-Weiss (2001) in their study on operations and marketing perspectives of product innovation posit that in their specific research context obtaining multiple informants is impossible. Capron and Hulland (1999) provide a similar explanation. Although they acknowledge that “the use of multiple informants would reduce concerns about potential response bias” (Capron and Hulland 1999, pp. 47) they rely upon the CEO of the acquiring company as single informant. In a large sample study such as theirs, identifying and obtaining responses from multiple well-informed informants is extremely problematic according to them. Moreover, determining whether any lack of convergence between multiple informants stems from unequal levels of knowledge or real disparity in assessments raises substantial empirical issues.

A second argument resides in the limited knowledgeability of informants. Morgan et al. (2003) test a framework for export venture knowledge management. They empirically examine relationships between different types of individual-level and organizational-level knowledge relevant to the market environment, architectural marketing capabilities, and the adaptive performance of export ventures. To test their hypotheses they adopt a cross-sectional research design and collect data from export manufacturers located in the United Kingdom and China. They rely on the export manager as single informant arguing that he is the only knowledgeable person in relation to the studies’ key concepts. They do, however, apply a series of “methodological guidelines commonly used” (Morgan et al. 2003, pp. 300) to mitigate problems. Research tradition

is a third reason for justifying the use of single rather than multiple informants in survey-based research. For instance, Baker and Sinkula (2005) study the impact of “enviropreneurial” marketing practices on new product success and market share and use single informants for their cross-sectional survey. They justify this approach claiming that it is consistent with past studies on marketing strategy.

5.2.2 Using and justifying multiple informants

The use of single informants is often criticized for having perceptual biases. For example, Teo and King (1997) identify three potential causes for disagreements between informants from the same company: educational gaps, cultural gaps, and communication gaps. In their study, they compare the views of business planners and executives on several issues and identify substantial differences in both groups’ perceptions. For dyadic marketing constellations, Czepiel (1990) posits that research must include both customer and supplier perceptions as the focal unit because relationships are essentially reciprocal phenomena. Van Bruggen et al. (2002, pp. 476) argue that “when there is an error in informants’ responses, using multiple versus a single informant improves the quality of response data and thereby the validity of reported relationships in organizational marketing research”.

Studies providing empirical support for these arguments stem from different areas of marketing research. A first group of studies has analyzed the convergence of answers within an organization or a social group. Kim and Lee (1997), for example, study the similarity of answers in “consumer-level buying centers”, i.e. families. These authors develop triadic measures of child influence in four categories of product purchase decisions that exhibit decent levels of convergent and discriminant validity. They advocate “the use of multiple-informant, multiple-item measurement approaches in assessing family constructs” (Kim and Lee 1997, pp. 319). Sharfman (1998) compares perceptions of CEO and (senior) managers on strategic decision making methods. He finds there are significant differences between these groups for the majority of his measures. Furthermore, he observes that the higher the level of general content in a research variable, the more likely CEO responses are significantly different from those of other managers. Sharfman’s research presents perceptual gaps for managers who are all situated on a strategic hierarchical level inside the organization, whereas others have extended the scope by analyzing perceptual gaps between employees from different hierarchical levels. For example, Harker and Harker (1998) study the role of strategic selling in a company turnaround process. Forty in-depth interviews were held in four firms with managers and workers at different hierarchical levels and from different functional areas to reflect the view that turnaround strategy formulation and implementation is an organizational process.

A similar question is whether different organizational units within the same company show differing response behavior. Ghoshal and Bartlett (1988) analyze the creation, adoption, and

diffusion of innovations by subsidiaries of multinational companies. They use multiple informants at the subsidiary level in one part of their multi-method study of three multinational companies. In each of the twenty subsidiaries, they collect answers from one representative in each of the subsidiary's functional areas. It is argued that such an approach is required in order to be able to obtain aggregated subsidiary level scores for each variable. Tsai and Ghoshal (1998) study the relationships between the different business units within one particular multinational company. They use three informants from each business unit to evaluate this business unit's relationships with other business units. Dyadic data are used for all relational variables describing the intra-organizational network. As in our study, these authors draw upon multiple informants from both sides of each dyad. However, their analyses are limited to intra-firm dyads, whereas our focus is on inter-firm buyer-supplier dyads.

A concern arising when studying the management of business-to-business relationships is whether the actors on the different sides share a common appreciation of the state and evolution of the relationships. Several studies specifically address to what extent there is perceptual agreement between buyer and seller organizations on relationship variables. For example, Anderson et al. (2006) use multiple informant data from both sides of manufacturer-distributor dyads about constructs such as influence, conflict, communication, and cooperation. They find perceptual agreement between manufacturer and distributor companies for both firm-specific and relational properties. Barnes et al. (2007) use a research approach in which they collect data from both sides of buyer-supplier dyads to evaluate the relationship along a total of 24 relationship variables such as trust, commitment, closeness, switching costs and staff exchange. Zhou et al. (2007) have a more focused approach and concentrate on the effect of perceptual differences of dependence between buyers and sellers and its impact on conflict in the marketing channel.

Summarizing, there are two main approaches in survey research: single and multiple informant studies. Whereas the previous sections dealt with examples of such studies, there are also several authors who have contributed to the methodological debate on informant selection.

5.2.3 The methodological debate on informant selection

In many papers the informant issue is not the focal topic. However, there are also contributions aiming specifically at studying informant selection from a methodological perspective. The topic of informant selection has been identified as being of importance in the social sciences for some time now (see for example Campbell 1955). In a marketing relationship context, Kumar et al. (1993) show that using multiple informants for survey research has its difficulties. They identify two issues in conducting multi-informant research: informant selection and obtaining perceptual agreement among multiple informants. The selection problem refers to the possibility of higher response errors for informants who are less knowledgeable about the studied phenomenon. A way of dealing with this problem is to verify the competence of the informant, as

suggested by Kumar et al. (1993). The perceptual agreement issue relates to the question of how to interpret diverging perceptions from multiple informants on the same topic. The authors suggest using a hybrid approach in which consensual judgments (i.e. positions shared by several informants after a consultation process) are collected in those cases where there is substantial disagreement between knowledgeable multiple informants. In a more recent article, Hibbard et al. (2001) also use an informant competency measurement in their study on the impact of destructive acts in marketing channel relationships.

John and Reve (1982) provide one of the most detailed analyses on the reliability and validity of key informant data in the field of marketing. They examine the ability of single informants from different sides of channel dyads using structural equation modeling. Their results provide “encouraging evidence about the utility of the key informant approach itself” (John and Reve 1982, pp.522). However, they do stress that a sine qua non condition is to carefully select knowledgeable single informants.

Phillips (1981) collects data from 506 single informants in wholesale distribution companies concerning two types of measures: (1) instruments to measure power-dependence relationships in marketing channel relationships and (2) instruments used by the PIMS researchers to measure characteristics of a firm’s product portfolio. For each informant from one wholesale company in the sample there is at least one second informant from the same company in the sample. One of the conclusions of the article is that asking single informants to make complex social judgments about organizational characteristics may place unrealistic demands on them as informants, thereby increasing random measurement error. Second, distortion in single informants’ reports may be attributable to systematic sources of error such as bias or ignorance” (Phillips 1981, pp. 410). Svensson (2006) studies the perception of mutual trust in dyadic relationships with both one-to-one and multiple informants. He stresses the importance of using multiple informants to measure and evaluate the relationship properties of mutual trust in dyadic contexts.

Another example is the earlier-mentioned study by Barnes et al. (2007), who analyze perceptual gaps and similarities in industrial buyer-supplier dyadic relationships. They examine perceptions in relationships with different durations and find that sellers have slightly stronger perceptions of the relationship in short duration relationships, whereas in long-term relations buyers rate relationships higher.

Summarizing, we find that the informant selection issue receives attention in different streams of marketing research. Several studies have analyzed perceptual differences within one organization, either on the same hierarchical level or between hierarchical levels, between functions, and between national subsidiaries. Other studies have examined the congruence of perceptions between different organizations in various settings. The results of existing studies are contradictory, since there is evidence for both the convergence and the divergence of views. Our research aims at contributing to the debate on using single or multiple informants by

simultaneously considering perceptual differences across the buyer-supplier dyad as well as examining differences between hierarchical levels within organizations. Our data stem from the field of industrial buyer-supplier relationships and we analyze different informants' perspective of the relationship they are involved in along four key constructs (dependency, trust, commitment, and satisfaction). In the next section we present the focal constructs of our research.

5.3 FOCAL CONSTRUCTS

In our study we analyze different actors' views of dyads on four key constructs which have received a considerable amount of attention in different streams of literature on inter-organizational marketing relationships: dependency, trust, commitment, and satisfaction. We provide a brief description of each construct.

Dependency

One of the key constructs in literature on managing business relationships is dependency (e.g. Anderson and Narus 1990; Heide and John 1988; Wilson 1995). Heide and John (1988) build on Pfeffer and Salancik's (1978) work and identify four means by which dependence is increased: the magnitude / importance of the relationship, the comparison of outcome levels, concentration of exchange by measuring the number of exchange partners, and the potential for replacing exchange partners. Ganesan (1994) acknowledges the four means by which dependency is created. He uses a simple definition for a firm's dependence: "the need to maintain the channel relationship to maintain desired goals" (Ganesan 1994, pp. 4).²⁰ Mutual dependence between exchange partners and the level of trust in a relationship play central roles in the long-term orientation of both buying firms and their vendors. Palmatier et al. (2007) present the dependence perspective as one of four theoretical perspectives of inter-organizational relationship performance. They posit that "interdependence and dependence asymmetry are not immediate precursors to performance" (Palmatier et al. 2007, pp. 183). Rather, they argue that dependence, operationalized as the product of customer dependency and perceived seller dependency (Jap and Ganesan 2000), is a contextual factor influencing other performance drivers. Another way of looking at the dependence between companies is simultaneously looking at total dependence and relative dependence (Hibbard et al. 2001), or, similarly, at joint dependence and dependence asymmetry in the relationship (Gulati and Sytch 2007). Hibbard et al. (2001) consider the effects of total and relative dependence on responses to destructive acts and relational consequences in channel relationships. Gulati and Sytch (2007) refer to the sociology literature (e.g. Emerson 1962) and social psychology (e.g. Thibaut and Kelley 1959) to stress that within these streams of literature first attention was paid to the existence of a joint form of dependence (or interdependence) in interpersonal relationships. In their work,

²⁰ This definition is also used in the coding process of interview transcripts (see Appendix IV)

Gulati and Sytch (2007) find, contrary to Palmatier et al. (2007), an indirect and a direct effect of joint dependence on manufacturer performance in procurement relationships. The indirect effect of joint dependence on performance is mediated by the level of joint action and the quality of information exchange. In conclusion, the exact role of dependency in inter-organizational relationships remains unclear.

Trust

Trust is a concept that has been described in different ways, for example as an “expectation held by an agent that its trading partner will behave in a mutually acceptable manner (including an expectation that neither party will exploit the other’s vulnerabilities)” (Sako and Helper 1998, pp. 388)²¹, or the “perceived credibility and benevolence of a target of trust” (Doney and Cannon 1997, pp. 36). Reviewing four alternative definitions of trust, Wilson (1995, pp. 337) states that “trust is a fundamental relationship model building block”. Morgan and Hunt (1994) indicate that many definitions of trust are based on Rotter’s view. For Rotter, trust is “a generalized expectancy held by an individual that the word of another ... can be relied on” (Rotter 1967, pp. 651). Therefore, in order to trust, the individual needs to establish the other party’s trustworthiness (Rotter 1980). Such a judgment will be made on the basis of relevant information which may be based on the individual’s own experience in dealing with the other party or may be drawn from other sources, e.g. joint business partners whom both partners trust (Doney and Cannon 1997). In the context of long-term business relationships, an individual’s own experience is of foremost importance: it stems from repeated interaction with the other party.

The relevance of the trust concept within relationships has also been shown in several empirical studies (e.g. Anderson and Narus 1984, Krishnan et al. 2006). Results provide evidence of a positive link between trust and various performance measures (e.g. Smith and Barclay 1997, Corsten and Kumar 2005) as well as between trust and ex post transaction costs and information sharing (Dyer and Chu 2003). Accordingly, in a review of research on inter-organizational trust in the period from 1990 to 2003, Seppänen et al. (2007) conclude that despite certain inconsistencies in conceptualization, operationalization and measurement, trust has emerged as an important factor in inter-organizational relationships.

Commitment

Dwyer et al. (1987) see commitment as the highest stage of relational bonding. Relationship commitment (much like trust) is mainly interpreted as an attitude. Morgan and Hunt (1994, pp. 23) define the construct as “an exchange partner believing that an ongoing relationship with another is so important as to warrant maximum efforts at maintaining it; that is, the committed party believes

²¹ This definition is also used in the coding process of interview transcripts, including the subcategories of competence, contractual and goodwill trust (see Appendix IV)

the relationship is worth working on to ensure that it endures indefinite”.²² Customers showing high levels of commitment consider a particular relationship important. This ‘esteem’ makes it possible to stabilize the relationship and to establish close bonds with the customer. Other authors have empirically shown the existence of a positive link between the credibility of commitment inputs (e.g. Gundlach et al. 1995) and commitment intentions, and between shared values as well as relational norms and commitment (e.g. Sollner 1999, Ivens 2004). Anderson and Weitz (1992) stress the importance of pledges to build and maintain commitment in inter-organizational relationships. They point out that stability and sacrifice are the essence of commitment.

Commitment is an important objective that companies pursue with their relationship marketing approach. It is a prerequisite for the customer to proactively seek relationship maintenance whereas uncommitted customers can only be kept in relationships through instruments such as use of power, long-term contracts or in monopoly situations. Several empirical studies have also shown a positive link between commitment and important outcome variables such as cooperation (e.g. Morgan and Hunt 1994), or performance perceptions, conflict, and relationship satisfaction (Jap and Ganesan 2000).

Several authors have discussed the link between trust and commitment. Morgan and Hunt (1994) developed the trust-commitment key mediating variable theory in relationship marketing. Narayandas and Rangan (2004) consider commitment an inter-organizational construct and trust inter-personal, where inter-personal trust contributes to inter-organizational commitment, not vice-versa. Empirical results provide support for the hypothesis that there is a positive relationship between trust and commitment (e.g. De Ruyter et al. 2001).

Satisfaction

Many studies in the channel marketing literature concentrate on drivers of satisfaction in business relationships. Crosby et al. (1990) examine relationship quality in services selling and consider satisfaction and trust as key constructs of relationship quality. Anderson and Narus (1984, pp. 66) define satisfaction as “a positive affective state resulting from the appraisal of all aspects of a firm’s working relationship with another firm.” This definition is also used by Geyskens et al. (1999)²³ although they make a further distinction between economic and non-economic satisfaction in their meta-analytical study of satisfaction in marketing channel relationships. Economic satisfaction is related to the economic rewards of a relationship, whereas non-economic satisfaction covers psychological aspects of the relationship, such as the level and quality of interaction with the exchange partner. Satisfaction is considered a performance outcome of alliances in the strategic

²² This definition is broadly used and accepted in the academic literature and is also used in this thesis (also in the coding process, see Appendix IV)

²³ The distinction between economic and non-economic satisfaction is part of Chapter 8. In the coding procedure, one code has been used for satisfaction based on the definition of satisfaction as used by Anderson and Narus (1984) and Geyskens et al. (1999)

management literature. For example, Ariño (2003) uses separate measures for specific areas of an alliance, but also includes an item to assess the overall satisfaction with the results of the venture. Chandrashekar et al. (2007) provide yet another perspective on the role of satisfaction in channel marketing literature. They suggest using level and strength as separate facets of satisfaction. Strength is determined by the variance in the distribution of the satisfaction scores. Their studies in business-to-consumer and business-to-business settings demonstrate that satisfaction strength is an important factor in explaining the relation between stated satisfaction and loyalty. In summary, there are several ways to look at satisfaction as a performance outcome. Distinguishing between economic and non-economic satisfaction, viewing satisfaction as a construct with satisfaction level and strength as underlying facets, and considering overall satisfaction with a relationship are the perspectives described in this section.

Commitment, trust, dependency, and satisfaction are the core elements of this empirical study. We look at perceptual differences on these key aspects in relationship marketing between buyer and supplier representatives, and also between people working at strategic and tactical levels in organizations. In doing so, we show how informant selection may influence the assessment of key relationship variables. Such knowledge is important in correct interpretation of results in studies on relationship marketing. Before turning to our results, we provide a description of the research method in the next section.

5.4 DATA ANALYSIS

A detailed description of data collection procedures and the participating firms forming the two focal collaborative buyer-supplier relationships are described in Chapter 4. Appendix III details the annual number of informants per organization and the response rates of this study. Response rates of 90%, 75%, and 69% were achieved in the three consecutive years of study. The dyadic, multiple informant design of the study provides the opportunity to examine buyer-supplier relationships from multiple perspectives. These informants have been identified in close cooperation with the contact persons of the participating companies. In chapter 4, it is mentioned that an approach with dedicated contact persons is a special way to ensure informant competence. In other studies, Kumar et al. (1993) and Hibbard et al. (2001) use an informant competency measurement as an alternative way of ensuring informant competence.

Our analyses focus on two specific topics. First, we examine the extent of perceptual agreement between informants from the buying and the supplying companies. This part of our analysis builds on the work by Hibbard et al. (2001) and other authors using a dyadic research approach with matched pairs. We elaborate on the differences and agreements between informants on different sides of the dyad, often referred to as boundary spanners. Boundary spanners are organizational members responsible for processing information from the partner organization and

representing their organization in the collaborative relationship (Janowicz-Panjaitan and Noorderhaven 2008, Perrone et al. 2003). Barnes et al. (2007) also adopt a dyadic perspective in their study of perceptual gaps and similarities in buyer-supplier dyadic relationships. Our second contribution lies in contributing to the discussion on the use of multiple informants within the same organization. For example, we compare the scores of the higher management within an organization with the scores of the informants operating on a tactical level. Such an approach resembles that of Kumar et al. (1993), who look at the intra-firm perceptual differences and agreements of sales managers and fleet managers.

The focus of this paper is on commitment, trust, dependency, and satisfaction. These elements of collaboration have been widely studied. However, comparing the perceptions of different actors within the same relationship is not as common. The survey items used in this research have been specifically adapted to capture the views of informants on their own organization's and the partner organization's contribution to the relationship. For example, informants are asked to assess the trustworthiness of both the buying and the supplying organization that form the relationship. For this study, we concentrate on 11 items which are listed in Table 5-1.

Item description	Adapted from
<i>Commitment</i>	
Buyer A1/A2's senior management is committed to this relationship (B_COMMIT)	Lambe et al. (2002)
Supplier B/C's senior management is committed to this relationship (S_COMMIT)	Lambe et al. (2002)
Buyer A1/A2 devotes considerable time and effort into making this relationship work (B_TIMEEFF)	Smith and Barclay (1997), Smith (1998)
Supplier B/C devotes considerable time and effort into making this relationship work (S_TIMEEFF)	Smith and Barclay (1997), Smith (1998)
<i>Trust</i>	
Buyer A1/A2 is trustworthy in this relationship (B_TRUSTW)	Crosby et al. (1990)
Supplier B/C is trustworthy in this relationship (S_TRUSTW)	Crosby et al. (1990)
This buyer supplier relationship is characterized by a high level of trust (TRUST)	Larzelere and Huston (1980)
<i>Dependency</i>	
Buyer A1/A2 is dependent on Supplier B/C (B_DEPEND)	Rinehart et al. (2004)
Supplier B/C is dependent on Buyer A1/A2 (S_DEPEND)	Rinehart et al. (2004)
<i>Satisfaction</i>	
Overall, Buyer A1/A2 is satisfied with the results of this specific buyer supplier relationship (B_SATISF)	Ariño (2003)
Overall, Supplier B/C is satisfied with the results of this specific buyer supplier relationship (S_SATISF)	Ariño (2003)

Table 5-1 Survey items on commitment, trust, dependency, and satisfaction

5.5 RESULTS

As indicated in the previous section, we concentrate on two types of analysis. First, we use a dyadic perspective to study differences between buying and supplying organizations on various aspects of collaboration. Second, we examine intra-firm differences on collaborative relationships and distinguish between informants at the strategic level and those at the tactical level.

5.5.1 Dyadic comparison of perspectives on collaboration

In our dyadic comparison, we focus on differences between the scores of informants from the buying and the supplying companies. We conduct Mann Whitney (MW) U tests to compare the groups (see Table 5-2). Significant differences in MW testing indicate that the compared groups show a different distribution of responses. For example, the 2-tailed asymptotic difference of .000 for S_COMMIT supports the view that buyers and suppliers have different perceptions of the level of senior management commitment by the supplying company. In total, six of eleven survey items show differences between the scores of the buying and supplying organization at a significance level of .05. The perceived level of buyer satisfaction is significant at .10.

	Buyer (n=86)		Supplier (n=81)		Mann-Whitney U	Asymptotic Sig (2-tailed)
	Average	SD	Average	SD		
B_COMMIT	5,15	1,28	4,85	1,31	3013,5	0,114
S_COMMIT	5,20	1,36	5,93	0,72	2457,5	0,000**
B_TIMEEFF	5,42	1,05	4,67	1,38	2424,5	0,000**
S_TIMEEFF	5,08	1,01	5,81	1,00	1979,0	0,000**
B_TRUSTW	5,26	1,02	5,22	1,42	3293,5	0,512
S_TRUSTW	5,00	1,26	5,80	0,83	2148,0	0,000**
TRUST	4,37	1,38	4,89	1,56	2702,0	0,010**
B_DEPEND	3,97	1,70	3,90	1,30	3355,0	0,676
S_DEPEND	3,19	1,58	4,02	1,42	2425,0	0,001**
B_SATISF	4,49	1,23	4,84	1,17	2946,0	0,075*
S_SATISF	4,42	1,28	4,70	1,32	3065,0	0,169

Table 5-2 Dyadic comparison of perspectives on collaboration²⁴

From Table 5-2, it becomes clear that differences between buyers and suppliers are most prominent when they assess their own position or contribution to the relationship. This phenomenon can partly be attributed to the possible influence of a social desirability bias (Phillips and Clancy 1972). This bias implies that informants provide higher scores to survey items to place them in a favorable light. In our empirical study, there are also items without any significant difference between buyer and supplier informants (i.e. buyer trustworthiness). Furthermore, the mean scores on buyer and supplier satisfaction (B_SATISF and S_SATISF) are both higher on the

²⁴ ** = significant at $\alpha = .05$, and * = significant at $\alpha = .10$ measured on 7-point scale

supplying side compared to the buying side of the relationship. Although the difference in S_SATISF is not significant, it is surprising to observe that suppliers seem more positive on both these items.

The item TRUST is the only item measured at relationship level and is thus not referring to the buying or supplying organization's contribution to the relationship. Consequently, the potential influence of social desirability bias is less of an issue for this item, since both groups of informants base their answers on the relationship rather than on the contribution of one of the companies to the relationship. Therefore, it seems plausible that both sides of the dyad have similar perceptions of relationship trust, yet our results show that suppliers hold a stronger view of trust in the relationship than buyers.

5.5.2 Intra-firm comparison of perspectives on collaboration

We have also examined differences between informants working at strategic and tactical level. The strategically oriented group of informants is composed of informants from both buying and supplying organizations. This also holds for the tactically oriented group of informants. The results of the intra-firm comparison are shown in Table 5-3.

	Strategic (n=90)		Tactical (n=77)		Mann-Whitney U	Asymptotic Sig (2-tailed)
	Average	SD	Average	SD		
B_COMMIT	5,18	1,21	4,81	1,38	2938,0	0,075*
S_COMMIT	5,59	1,09	5,51	1,23	3428,5	0,899
B_DEPEND	3,92	1,60	3,95	1,41	3434,5	0,920
S_DEPEND	3,33	1,54	3,90	1,54	2753,5	0,020**
B_TIMEEFF	5,36	1,12	4,70	1,35	2534,5	0,002**
S_TIMEEFF	5,51	0,90	5,35	1,23	3318,5	0,609
B_TRUSTW	5,32	1,14	5,14	1,33	3255,5	0,468
S_TRUSTW	5,33	1,22	5,45	1,06	3290,5	0,537
TRUST	4,67	1,39	4,57	1,60	3389,5	0,804
B_SATISF	4,80	1,22	4,49	1,19	2901,5	0,061*
S_SATISF	4,79	1,22	4,29	1,35	2710,0	0,013**

Table 5-3 Intra-firm comparison of perspectives on collaboration ²⁵

The results show that three out of eleven items (S_DEPEND, B_TIMEEFF, S_SATISF) on collaboration show differences between strategic and tactical informants at $\alpha = .05$. The largest average score difference between the groups of strategic and tactical informants exists for the amount of time and effort devoted to the relationship by the buying company (B_TIMEEFF). Those working at strategic level are far more positive about the effort shown by buying company representatives compared to those working at tactical level. In addition, two more items

²⁵ ** = significant at $\alpha = .05$, and * = significant at $\alpha = .10$ measured on 7-point scale

(B_COMMIT, B_SATISF) show significant differences at $\alpha = .10$. Both of these items receive higher scores at the strategic level compared to the tactical level. This means that the level of senior management commitment of the buying company (B_COMMIT) and the perceived overall satisfaction of the buying company (B_SATISF) are more positively evaluated by informants working at strategic level. For those items where significant differences exist between strategic and tactical informants, four out of five items have higher mean scores at the strategic level. Only supplier dependency is rated higher by informants working at tactical level.

5.6 DISCUSSION

The first contribution of this study results from the comparison of buyer and supplier scores on key relationship variables. We find seven of eleven survey items showing significant differences ($\alpha = .10$) between responses of buyers and suppliers. Some of these differences may be the result of social desirability bias, e.g. those items where informants can place themselves in a favorable light. However, not all differences are readily explained by this bias. Surprisingly, we observe that suppliers hold higher average scores of the overall satisfaction of the buyer company than the informants from the buying company do themselves. Furthermore, we see that informants from buying and supplying hold different views on the level of trust in the relationship. Supplier average scores are also higher for this item than for the buying company. These observations show that suppliers tend to be more positive in their evaluation of business relationships than buyer firms. This finding is different from Barnes et al.'s (2007) observation that suppliers only tend to be more positive in short or medium term relationships, and that there are no significant differences between buyer and supplier scores for long term relationships.

The second dimension of this study is the comparison of survey responses between various levels in organizations, more specifically between strategically and tactically oriented informants. Our results indicate significant differences also exist between these groups of informants. There are five out of eleven survey items with significant differences ($\alpha = .10$) in the responses of informants working at different levels. For four out of these five items, the mean scores of the strategic level informants are more positive than those of people working at the tactical level. This observation suggests that informants working at higher levels in the organization generally are more positive about collaborative relationships than those working at the tactical level. A possible explanation for the more negative view of informants at the tactical level is that these people are more close to daily problems and hence are also more confronted with the downsides of the relationship. This could imply those informants are more conservative in their scores. In addition, the strategic informants are often responsible for (part of) the relationship, and are therefore reluctant to assign low scores to aspects of relationship quality. This would also be an example of social desirability bias (Phillips and Clancy 1972).

Our results show that differences exist in the perceptions of buying and supplying firms with respect to their collaborative relationship, both across the dyad as well as at various levels in the relationship. Although these differences are not present for all survey items, our results suggest that it is necessary to rely on multiple informants in survey research, and to be careful in the interpretation of survey results. Meanwhile, we do acknowledge that there are situations where single informant research designs are more appropriate than using multiple informants, for example when there are no other knowledgeable informants.

Furthermore, we also need to clarify specific dimensions of perceptual differences between groups of informants. For example, it would be interesting to examine individual differences more closely across the buyer-supplier dyad. In this study, we concentrated on intra-firm differences and group differences across the dyad. Another interesting idea is to examine individuals that are closely working together and to analyze perceptual differences between these individuals. Such studies require matched pair boundary spanners data within buying and supplying firms. For example, the differences of each set of boundary spanners could be examined in order to determine the influence of agreement or disagreement between these representatives on the overall relationship. In this manner, the influence of interpersonal relationships (i.e. between boundary spanners) may be linked to interorganizational relationship outcomes.

Finally, it would be valuable to examine the effects of perceptual differences on the interaction in and outcomes of buyer-supplier relationships. A promising study in this area is that by Zhou et al. (2007), who show perceptual differences on dependency asymmetry between buyer and supplier are positively related to the channel conflict perceived by the supplier. Future studies could also examine the effects of perceptual differences between buyer and supplier firms on other key variables in relationship marketing such as trust and satisfaction.

CHAPTER 6 RELATIONSHIP BUILDING THROUGH KEY SUPPLIER PROGRAMS²⁶

6.1 INTRODUCTION

Many companies are trying to develop closer relationships with their key suppliers to improve organizational performance. Various companies officially recognize the importance of a select group of suppliers, for example by creating preferred supplier programs. IBM has such a program with various benefits to its members, for example in marketing and technical support. Different membership levels are distinguished within IBM's program, resembling the frequent flyer programs used in the airline industry. Microsoft also has a vendor program which is used to qualify and work with a select group of suppliers. On their website the main goal of this program is defined as "enable new efficiencies for both Microsoft and vendors, bringing new value to the relationship we are building together". In the aerospace industry, Boeing stresses it shares one future with its suppliers, whereas Lockheed Martin and Northrop Grumman have developed preferred supplier programs. Companies in the automobile industry, such as Toyota and Honda, use supplier partnerships in developing knowledge-sharing networks and close supplier relationships (e.g. Dyer and Hatch 2004, Liker and Choi 2004).

The need for improved relationships with suppliers is also stressed by CAPS Research (Carter et al. 2007), who consider this topic as the most important challenge in realizing collaborative forms of business exchange. Furthermore, they argue that key supplier relationships need to become institutionalized to ultimately regard such relationships as a strategic resource of the buying company. These key supplier programs go beyond the traditional notion of preferred supplier and generally require the development of close relationships between the companies. The main difference between preferred and key suppliers is that the latter are considered critical to the future success and growth of the buying company, whereas preferred suppliers represent a category of suppliers largely based on their delivery and quality performance. Preferred suppliers are the result of supplier certificate programs by which suppliers are evaluated and placed in certain categories. Key suppliers need to provide innovative solutions, are expected to invest in the relationship, and collaborate with the buying company in realizing its long term goals. This particular type of collaborative buyer-supplier relationships is the central topic of our study.

Our study aims to contribute to the emerging literature on key supplier programs by following the development of two collaborative buyer-supplier relationships for three consecutive

²⁶ This chapter is co-authored by Bart Vos and Henk Akkermans and has been submitted to an international journal with an academic as well as a managerial audience. We wish to thank Fons Naus for his valuable comments in writing this article

years. Both relationships are part of the key supplier program of the focal buying company. The central question is whether membership of a key supplier program is beneficial in the development of collaborative buyer-supplier relationships. In order to answer this question, we first discuss several streams of literature related to key supplier management. More specifically, we provide a review of studies considering relationship quality, relationship development, and key account management (KAM). Next, we discuss the design of this study followed by the results of our longitudinal case studies.

We find that membership of key supplier programs does not necessarily result in increased business with the buying company. Moreover, suppliers entering a key supplier program do not automatically experience enhanced relationship quality. Still, setting up key supplier programs is a valuable strategy for buying companies to improve key supplier relationships as long as these programs are supported by clear communication regarding mutual expectations.

6.2 LITERATURE REVIEW

An important premise of this study is that key suppliers are different from preferred suppliers. Key suppliers are those that make an essential contribution to the long term success and future growth of the buying company. In contrast, suppliers receive the ‘preferred’ status largely on their delivery and quality performance. The preferred supplier category is usually larger than the group of key suppliers, yet buying companies increasingly initiate programs to develop relationships with their most important suppliers (Ulaga and Eggert 2006).

However, the use of key supplier programs has so far received limited attention in the academic literature. We review several related streams of literature in order to position this emerging phenomenon. In particular, we consider research in marketing, operations management and strategy. Strategy research is predominantly focusing on the management of alliances (e.g. Hipkin and Naudé 2006, Slobodow et al. 2008), whereas the marketing literature has contributed strongly to the conceptualization of key constructs in the management of inter-organizational relationships. In operations management literature, the development and management of relationships is also a common topic (e.g. Fynes et al. 2005a, Spina and Zotteri 2000). We first address research on relationship quality in business relationships followed by a discussion of research on the development of buyer-supplier relationships over time. The literature review is completed by discussing the key account management concept which has been developed in the marketing literature.

6.2.1 Relationship quality

The notion of relationship quality is present in both the marketing literature (e.g. Crosby et al. 1990, Kumar et al. 1995), and the operations management literature (e.g. Fynes et al. 2004, Fynes et al. 2005b). Despite the various conceptualizations of relationship quality, higher levels of

relationship quality are often associated with increased performance and relationship success (e.g. Fynes et al. 2005b, Hibbard et al. 2001, Ivens 2004). To illustrate the wide variety of definitions: Crosby et al. (1990) include trust and satisfaction in their definition of relationship quality, Kumar et al. (1995) use conflict, trust, commitment, willingness to invest in the relationship and expected continuity, Jap (2001) uses satisfaction, willingness to collaborate and outcome fairness, and Hibbard et al. (2001) consider trust and affective commitment. In operations management literature, Fynes et al. (2004, 2005b) also use different definitions for relationship quality, yet in both contributions adaptation, communication, cooperation, and trust are included. Fynes et al. (2005b) add commitment and interdependence to relationship quality. Ivens (2004) builds on the work by Garbarino and Johnson (1999) in consumer marketing, and poses relationship quality is composed of trust, commitment and satisfaction. This conceptualization is most commonly found in studies dealing with relationship quality (see also Rauyruen and Miller 2007).

6.2.2 Relationship development

Two seminal articles in the literature on the development of inter-organizational relationships are those by Dwyer et al. (1987) and Ring and Van de Ven (1994). Dwyer et al. (1987) stress the interaction between buyer and supplier organizations differs depending on the relationship stage, whereas Ring and Van de Ven (1994) argue cooperative inter-organizational relationships evolve through a repetitive negotiation – commitment – execution cycle. Jap and Anderson (2007) base their analysis on these frameworks and test a life-cycle theory of inter-organizational relationships. Contrary to the Dwyer et al. (1987) framework, Jap and Anderson (2007) find that relational properties such as dependence, bilateral idiosyncratic investments, and trust peak in the build-up rather than the maturity phase. This observation also holds for relationship building blocks (e.g. goal congruence, and information exchange norms) and bonding patterns (e.g. invested time and adaptation). However, slightly lower scores in the maturity phase compared to those in the build-up phase are not necessarily bad for relationship development. To a certain extent, it is plausible that routines take over when relationships move from build-up to maturity phase. Moreover, the build-up and maturity phases have almost similar scores on these aspects and are therefore largely indistinguishable (Jap and Anderson 2007).

Spina and Zotteri (2000) analyze the development of a partnership across several stages in a study of the partnership implementation process of a customer-supplier relationship in the machinery industry. They demonstrate performance fluctuations on various dimensions across these stages. Storey et al. (2005) provide another description of the development of a collaborative buyer-supplier relationship. They argue that collaborative initiatives, even when functioning properly, need constant nurturing. Furthermore, employees need to be re-convinced over and over again about the benefits of partnership relationships to make sure their conformance to the approach. Narayandas and Rangan (2004) also examine the process of building and sustaining

buyer-seller relationships. They distinguish between relationship initiation, development, and maintenance and identify five processes that explain the evolution of buyer-seller relationships in mature industrial markets. An emphasis is placed on the role of interpersonal trust in the evolution of such relationships. Narayandas and Rangan (2004) argue trust is built between individuals, whereas commitment is a broader organizational phenomenon. Johnston et al. (2004) also stress the central role of trust (one of the core elements of relationship quality) to stimulate cooperation between collaborating parties.

6.2.3 Key account management

Homburg et al. (2002) present an extensive review of key account management (KAM) literature and observe that much research has concentrated on design issues. Furthermore, they pose key accounts are different from average accounts since they are offered special activities, often involve special inter-organizational actors dedicated to the key account, and require contributions from multiple functions within the organization. Accordingly, they conceptualize KAM with four dimensions: activities, actors, resources and degree of formalization. Based on these dimensions, Homburg et al. (2002) develop a taxonomy of eight KAM types. The most profitable form of KAM is the top management approach, whereas the most effective approach in terms of organizational-level outcomes is cross-functional KAM, with strong use of teams and a high degree of formalization. These KAM approaches are also performing far better than companies with isolated and those without KAM strategies. Profitability in this typology is a reflective measure at company level and assesses the performance of the firm compared to the market. KAM effectiveness reflects the performance of key account compared to average accounts within the same company. Ryals' (2005) also shows the positive effect of customer relationship programs in business-to-business and business-to-consumer markets on firm performance. From a supplier perspective, Kalwani and Narayandas (1995) show that suppliers engaged in long-term relationships with specific customer firms achieve the same level of growth as suppliers with a transactional approach, while generating higher profits.

Most KAM studies focus on the relationships of a focal supplier with its key customers (Wengler et al. 2006). Key accounts are selected based on economic (e.g. turnover) as well as non-economic factors, such as reputation, internationalization, benchmarking and lead user functions (Ivens and Pardo 2007). The study by Abratt and Kelly (2002) is one of few KAM contributions with a dyadic perspective. In their research on the role of key account management in partnership relations, they find that buyers and suppliers hold similar perceptions of key factors determining success of partnership management using a KAM approach.

Ivens and Pardo (2007) compare key accounts with average accounts and study differences in relational behaviors and relationship quality. Their study uses a supplier perspective and provides mixed results for the proposed differences between key account relationships and regular

buyer-supplier relationships. First, their results indicate suppliers put more effort in key account relationships for value creation, but they do not change their behavior in realizing or claiming value from those relationships. A second result is that key accounts only show higher scores on commitment and not on satisfaction or trust compared to ordinary buyer-supplier relationships. Similar to Ivens and Pardo (2007), Ulaga and Eggert (2006) consider relationship value in key supplier relationships. They find that personal interaction and service support in the relationship contribute most strongly to the perceived value of the relationship.

6.3 RESEARCH METHOD

The details of the participating companies, data collection and response rates to the survey are presented in Chapter 4 and Appendix III. Of specific importance to this study is that informants were specifically asked to assess both the own organization's contribution as well the partner's contribution on aspects of relationship quality. This approach allows for examining relationship characteristics and company-specific contributions to that relationship from both sides of the dyad, as well as for observing the development of these elements for three consecutive years. For example, informants were asked to score their own organization's satisfaction with the relationship as well as the perceived level of satisfaction of the other organization. All constructs were measured with 7-point single item scales, where 1 = strongly disagree and 7 = strongly agree. The items of this study relate to the level of trust in, senior management commitment to, and satisfaction with the relationship as experienced by the buyer and supplier company and are in line with the common view on relationship quality. The focal items are further detailed in Appendix II.

	B_COMMIT	S_COMMIT	TRUST	B_SATISF	S_SATISF
B_COMMIT	1				
S_COMMIT	.551***	1			
TRUST	.412***	.301***	1		
B_SATISF	.330***	.277***	.714***	1	
S_SATISF	.393***	.404***	.635***	.733***	1

Table 6-1 Correlation matrix²⁷

To establish discriminant validity, we examine the correlation between the items (see Table 6-1). The scores indicate low correlation exists between commitment and trust, as well as between commitment and satisfaction. Low correlation means that these items are different from each other and do not measure the same construct. The correlation between satisfaction and trust is higher, .714 and .635 for buyer and supplier satisfaction respectively. A correlation of .7 implies that almost 50 percent of the variance in a specific item is explained by one particular other item.

²⁷ *** = significant at $\alpha = .01$

Generally, correlation scores that are clearly above .7 raise doubt as to whether these items are actually different from each other (e.g. Fornell and Larcker 1981).²⁸

6.4 RESULTS

In line with the common conceptualization of relationship quality, we use the concepts of trust, commitment, and satisfaction for examining relationship quality in the two studied buyer-supplier relationships. In addition, we use company data on revenue development in the relationships with both suppliers and the key supplier program as a whole.

Trust

Trust is measured at a relationship level rather than company level and we assess the extent to which the informants believe their buyer-supplier relationship is characterized by a high level of trust. Trust development in relationship I reveals an almost equal and slightly declining pattern for buyer A1 and supplier B between 2005 and 2006 (Figure 6-1). However, in 2007 supplier B indicates an increase in trust of 0.70 (from 4.92 to 5.62), whereas there is a continuing negative trend among informants of buyer A1, resulting in a difference of 1.22 on a 7-point scale between buyer A1 and supplier B in 2007. The relationship of buyer A2 and supplier C is characterized by a cumbersome period in 2005 and 2006, where the experienced trust level by buyer A2 is below the neutral value of 4. In 2007, both companies indicate a strong revival of the perceived trust level, although the absolute score for buyer A2 is still only slightly above the neutral score of 4.

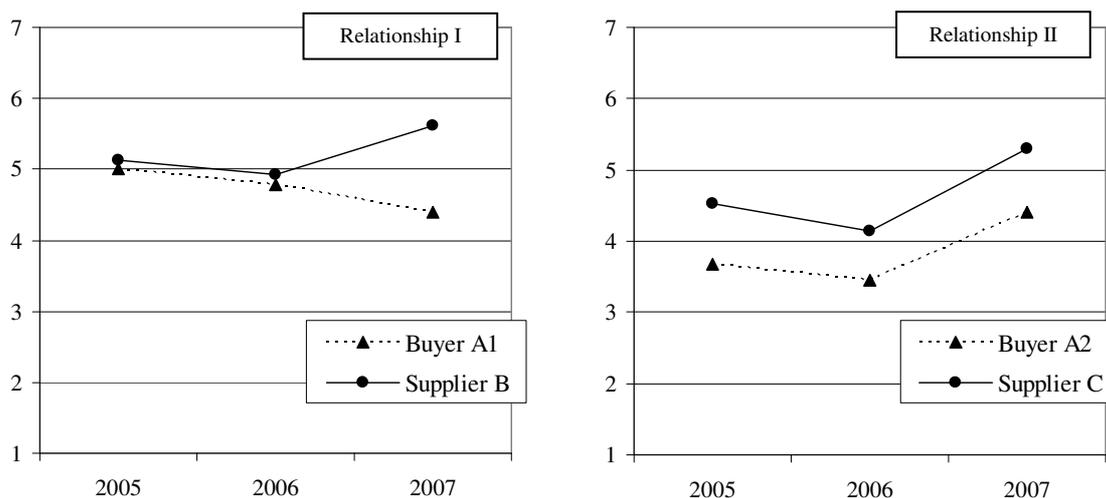


Figure 6-1 Relationship trust (2005 – 2007)

²⁸ In addition to the correlation matrix, factor analysis was used to examine the extent to which the focal survey items are elements of relationship quality. More detail is presented in Appendix V.

Commitment

For relationship I, most scores on buyer and supplier senior management commitment have dropped from 2005 to 2007 (Figure 6-2). Only the level of buyer senior management commitment as perceived by supplier B shows an increase from 2005 to 2007. The sharpest decrease is observed for buyer A1's perceived level of senior management commitment by supplier B.

All informants rate the items on the perceived level of senior management commitment for both the buying and the supplying organization (self assessment and assessment of the other party). Using self assessment in survey research is a potential source of response bias. Informants tend to score higher on items relating to their own person or organization, a phenomenon known as social desirability bias (Phillips and Clancy 1972). In this perspective, it is surprising that buyer A2 is more positive about the level of senior management commitment shown by supplier C compared to that of its own senior management (see Figure 6-3). Moreover, the absolute scores of buyer A2 on its own senior management commitment are also relatively low, and close to the neutral score of 4. From 2006 to 2007, there has been an increase in both organizations' assessment of buyer A2's senior management commitment, in line with the positive development of relationship trust (see Figure 6-1).

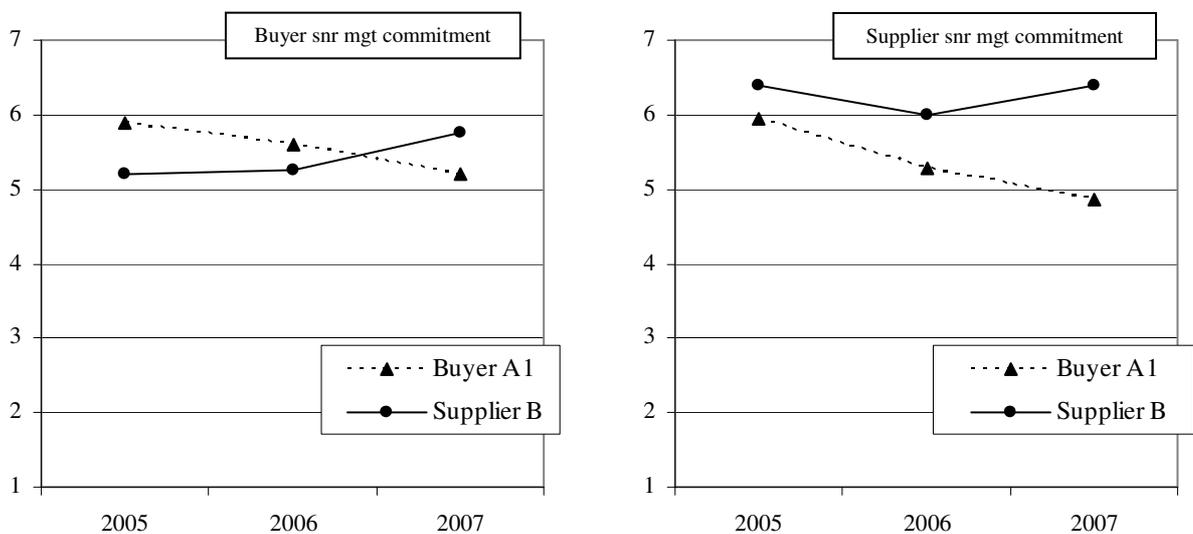


Figure 6-2 Senior management commitment in relationship I (A1 – B)

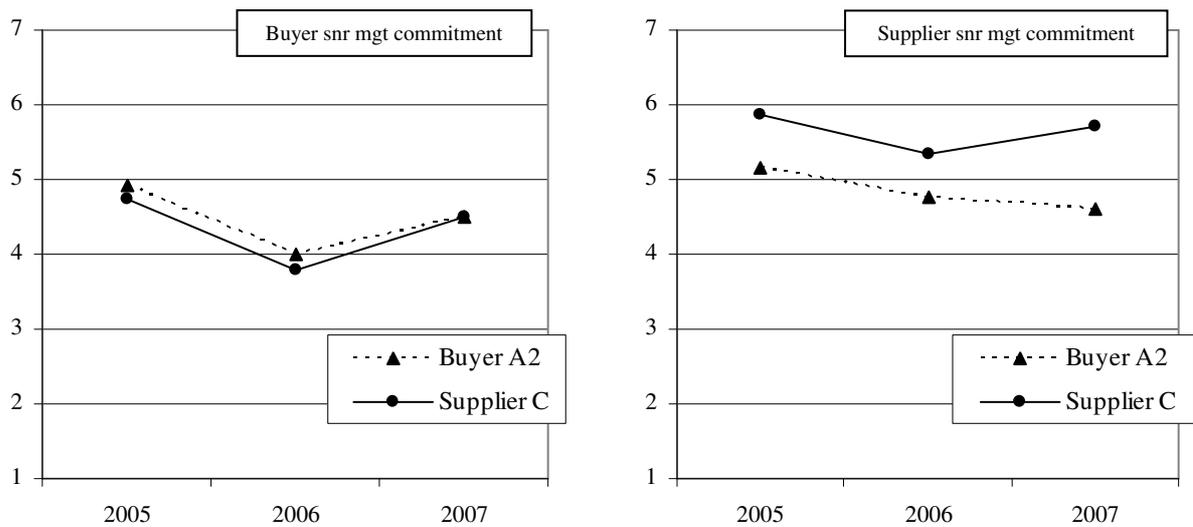


Figure 6-3 Senior management commitment relationship II (A2 - C)

Satisfaction

All informants were asked to indicate the extent to which they think the buyer and the supplier company are satisfied with the outcomes of the buyer-supplier relationship. An interesting observation in relationship I (see Figure 6-4), is that supplier B is apparently more positive about relationship developments in 2007. This belief is expressed in both buyer and supplier overall satisfaction scores, and also in relationship trust (see Figure 6-1) and the level of senior management commitment (see Figure 6-2). Meanwhile, the results for buyer and supplier satisfaction as expressed by buyer A1 are fairly stable. Hence, the positive trend in key relationship variables as acknowledged by supplier B is not shared by the buying company.

Buyer A2 indicates positive developments in the overall satisfaction of their company with the relationship, as well as a perceived negative development on supplier overall satisfaction with the relationship (see Figure 6-5). At the same time, buyer A2 also believes that there has been an increase in trust from 2006 to 2007 (see Figure 6-1). Moreover, the perceptions on the level of trust show similar patterns for buyer A2 and supplier C, whereas especially for supplier satisfaction no such similarity is present.

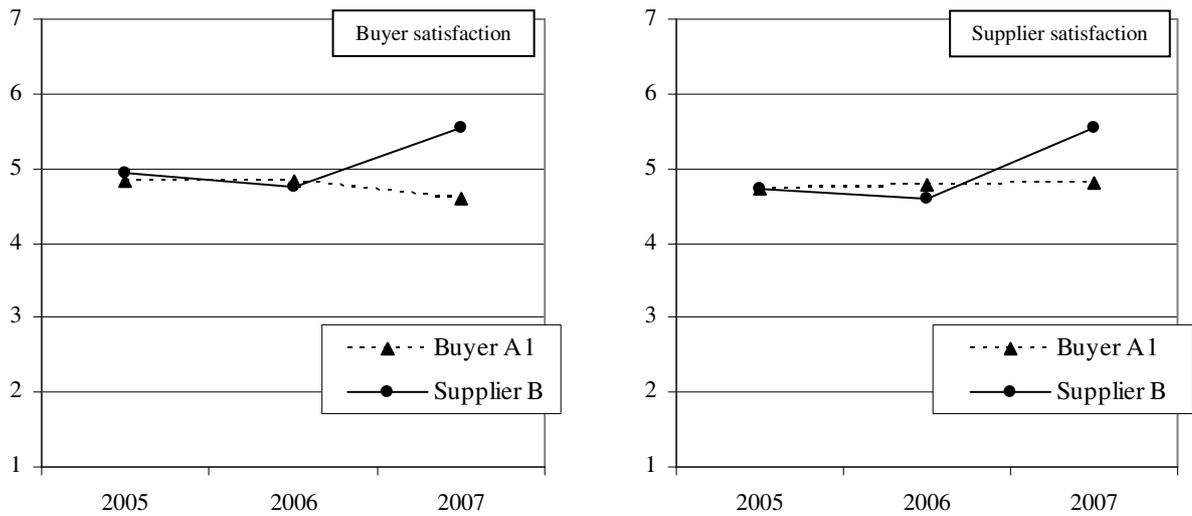


Figure 6-4 Overall satisfaction in relationship I (A1 – B)

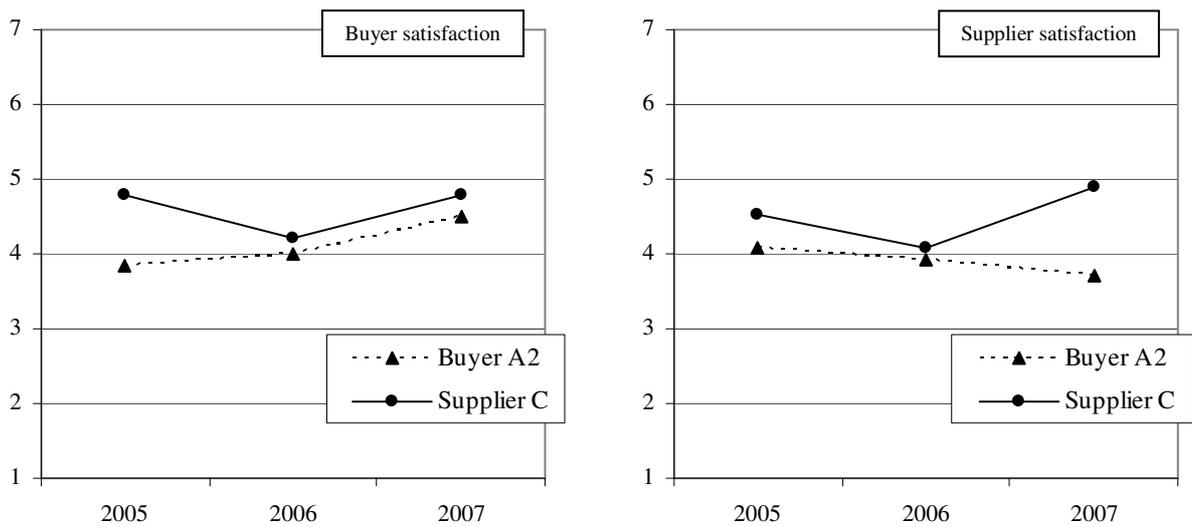


Figure 6-5 Overall satisfaction in relationship II (A2 – C)

Our findings do not show clear support for a positive development of indicators of relationship quality. The empirical data presented in this section show that development of trust, commitment, and satisfaction occurs in both positive and negative directions over the three consecutive years of study.

Revenue development

In addition to the data collected through the surveys from 2005 to 2007, we also have information on the revenue development in each of the relationships. The revenue data is corrected

for investments and divestments of the focal buying company. No adjustments could be made to correct for the effects of investments and divestments of the supplying companies. In the period 2005 – 2007, no major acquisitions were made by supplier C. Supplier B on the contrary acquired several companies in this period with one large merger in 2006. Table 6-2 shows the normalized revenue development for both studied buyer-supplier relationships, and for the overall IT and logistics spend of the focal buying company. Moreover, we include data of all companies that are part of the focal buying company's key supplier program.

Category	2005	2006	2007
Supplier B	100	139	143
Overall Logistics	100	121	134
Supplier C	100	86	65
Overall IT	100	111	107
Overall key supplier program	100	104	101
Total spend	100	108	110

Table 6-2 Normalized revenue development 2005 – 2007 (buying company data)

For supplier B, the 39 percent revenue increase from 2005 to 2006 is mainly attributed to mergers and acquisitions by the supplying organization. The data in Table 6-2 reveal that the relative share of supplier B within the logistics services decreased in 2007 (i.e. the overall spend increase of logistics activities is larger than that with supplier B). Still, supplier B has realized a 43 percent business volume increase from 2005 to 2007 against an overall increase of logistics activities with 34 percent. Meanwhile, the overall spend with suppliers that are part of the key supplier program has increased with only 1 percent, which is especially small considering the increase in overall spend with 10 percent, and the ambition to further develop relationships within the key supplier program.

In addition, we find that despite positive developments in some relationship quality indicators, Supplier C's business volume has decreased with 35 % from 2005 to 2007. Basically, there are two reasons for this negative revenue development. First, several large contracts were not renewed, and, secondly, changes in the IT strategy of the focal buying company resulted in 'insourcing' several IT activities, particularly within the domain in which supplier C is active. The insourcing policy is also visible in the overall IT spend decrease from 2006 to 2007. Still, the data in Table 6-2 clearly show that supplier C has lost market share in the IT domain.

6.5 DISCUSSION

Key supplier programs are a special way of collaboration and appear to be the mirror image of key account management programs in the marketing domain. The contribution of establishing

key supplier programs to the development of specific buyer-supplier relationships and to the participating companies is largely unclear. This study contributes to our understanding of the value of supplier programs in various ways.

First of all, we argue business partners may alter their expectations regarding relationship outcomes once their buyer-supplier relationship becomes part of a key supplier program. We speculate that supplying companies anticipate on increased business with the buying company, whereas the buying company, in turn, expects superior performance and pro-active involvement of the supplier in shaping its future activities. Hence, by being recognized as key supplier, both buying and supplying adjust their expectations regarding the anticipated future interaction between the companies. Given such raised expectations, we argue more effort and higher levels of interaction are needed to achieve the same levels of satisfaction. In a similar vein, Ulaga and Eggert (2006) stress that more focus on key suppliers increases buyer dependency, and also pressures suppliers to make more relationship specific investments.

Secondly, it would be a misconception that being part of a key supplier program is a guarantee for maintaining or expanding existing business with the buying organization. The business volume with supplier C sharply decreased for two consecutive years despite being a member of the key supplier initiative. Clear communication from the buying company to (potential) members of the key supplier program is needed to limit negative influences from such misconceptions. We further see that members of the key supplier program do not necessarily realize higher growth rates than other suppliers. More specifically, the relative spend with key suppliers compared to the complete supply base of the focal buying company decreased from 2005 to 2007, and supplier C even had to cope with a large absolute spend decrease.

However, recognition as key supplier possibly may offer advantages to supplier firms. As shown by Ulaga and Eggert (2006), the strongest differentiators in realizing value from key supplier relationships are personal interaction and service support in the sourcing process. From this perspective, we can explain the counterintuitive finding in relationship II of increasing trust levels, while suffering a sharp decrease in relationship spend from 2005 to 2007. Our contact persons of the participating companies indicate that supplier C still is in close interaction with the buying company despite that they have not always been able to match offers of its competitors. This close interaction keeps the door open for increased future business opportunities once the primary conditions (e.g. competitiveness) are restored. Meanwhile, supplier B managed to increase its business volume from 2005 to 2007 and supplier B also indicated the quality of the relationship improved between 2006 and 2007.

Finally, we like to stress that higher scores on relationship quality indicators are not necessarily better than lower ones. Jap and Anderson (2007) indicate that relationships in build-up may require more interaction between companies, resulting in slightly higher levels of trust and commitment. The fact that the scores in relationship I (buyer A1 and supplier B) are generally

higher than those of relationship II may partly be the result of differences in the maturity of the relationship. Supplier C has had a long-standing relationship with the focal buying company, whereas supplier B still had to confirm its status as key supplier, for example by delivering more integrated logistics solutions. Although we cannot exactly determine the effect of varying maturity levels, we do observe that the quality of the relationship with supplier B is better than that with supplier C. Our data further show that the absolute differences between these two relationships on key relationship variables are quite large, especially for the items on commitment and satisfaction. In addition, supplier B has been able to increase its business with the buying company with 43 percent from 2005 to 2007, whereas supplier C has seen its business shrink with 35 percent.

6.6 DIRECTIONS FOR FUTURE RESEARCH

First of all, we argue that both the buying and the supplying firm may raise relationship expectations once a particular company is recognized as key supplier. To investigate this assumed effect, we encourage research directed to empirically examine and possibly test the consequences of awarding the status of key supplier. In addition, we are interested in the possible effects of such raised expectations on interaction within and quality of key buyer-supplier relationships. For such studies, it is necessary to compare expectations from buying and supplying organizations before and after selecting a particular organization as key supplier.

Another insight from this study is that the combined use of dyadic data and reciprocal survey items allows for a comparison of buyer and supplier perceptions of both organizations' contributions of the collaborative relationship. We argue that further research is needed to examine the implications of perceptual differences between buying and supplier companies in relationship development. Furthermore, it is worthwhile to more closely examine those occurrences where the development of perceptions on key relationship variables of the buying and the supplying organization are in opposite direction. An example in our study is the dissimilar development of buyer and supplier overall satisfaction in relationship II, while trust in this relationship evolves in a similar way. Studies specifically designed to capture such effects would enhance our knowledge on the development of buyer-supplier relationships over time, and contribute to the literature on the evolution of business relationships.

We also consider the design of key supplier programs an interesting area of future research. For example, these programs may consist of buyer-supplier relationships with various levels of maturity. The question then arises whether it pays off to explicitly consider the maturity phase in the development of the relationship. Moreover, it is interesting to look at the group size of key supplier programs. What kind of exclusivity is given to members of key supplier programs, and what are fair mechanisms for promoting and relegating suppliers from these programs?

Finally, we support Ross and Robertson (2007) in their call for more research on 'compound relationships', which are multiple types of relationships between two firms at the same time. For

example, two firms can simultaneously have a vertical relationship, act as partners in R & D, and be competitors in other markets. We argue that multiple relationships also occur when various product divisions with a high degree of autonomy do business with the same supplier, as was the case in our study. The interaction within and across these multiple types of relationships strongly influences the evolution of buyer-supplier relationships and also affects the quality of these relationships. Therefore, we argue it is necessary to include a 'compound' perspective in for future research on key supplier programs.

CHAPTER 7 A TALE OF TWO PARTNERSHIPS: SOCIALIZATION IN THE DEVELOPMENT OF BUYER-SUPPLIER RELATIONSHIPS²⁹

7.1 INTRODUCTION

Companies increasingly engage in the development of collaborative relationships. Dyer and Hatch (2006) have shown how such relationships in a network of suppliers create competitive advantage for Toyota. Other companies, such as Microsoft and IBM in the computer industry, as well as Lockheed Martin and Boeing in the aerospace industry use preferred supplier programs to enhance learning from their supplier network. From an academic perspective, Ulaga and Eggert (2006) find that service support and personal interaction are key differentiators in key supplier relationships, whereas Storey et al. (2005) acknowledge that managing collaborative relationships requires constant nurturing. More generally, many authors have contributed to the rich body of research on collaborative buyer-supplier relationships. The roles of commitment (e.g. Morgan and Hunt 1994), communication (e.g. Mohr and Spekman 1994), dependency (e.g. Gulati and Sych 2007), trust (e.g. Doney and Cannon 1997) have received much attention in marketing research. The central role of these constructs has also been acknowledged in the operations management literature, especially in contributions focusing on the management and development of buyer-supplier relationships (e.g. Fynes et al. 2005a, Goffin et al. 2006, Griffith et al. 2006, Spina and Zotteri 2000, Zirpoli and Caputo 2002). In addition to these relational variables, Cousins and Menguc (2006) and Cousins et al. (2006) introduced the notion of socialization as a new concept to the buyer-supplier relationship literature within the operations management domain. This concept has its roots in the organizational behavior literature and originally refers to the process by which employees become part of the organization they work for (e.g. Feldman 1981, Van Maanen and Schein 1979). Cousins and colleagues use the term socialization for the interaction and communication between individuals of different organizations in building improved business relationships. Their studies are survey-based and they emphasize the importance of using multiple source data (e.g. dyadic) as well as adopting longitudinal perspectives in future research on interorganizational socialization. In this study, we use such an approach and examine the effect of socialization efforts on communication quality in two longitudinal case studies of collaborative

²⁹ This chapter is the result of joint work with Bart Vos and Henk Akkermans and has been presented at the 15th EurOMA Conference (Van de Vijver et al. 2008). The authors have been invited to submit their modified conference article to a special issue of an international academic journal. We are grateful for the help by Margot de Rooij and Vivian Rutten in preparing the interview transcripts and would also like to thank the participating companies and their representatives for their commitment throughout the research project. Furthermore, we also wish to thank Eric Dooms for his suggestions.

buyer-supplier relationships. We analyze interview transcripts from multiple informants both within the buying and the supplying company for three consecutive years.

Our findings show that the assumed positive effect of socialization efforts on communication quality may be moderated by the history between the companies. We find that when the relationship has gone through several negative experiences, the positive effect of socialization on communication quality can be hampered by the negative influence of prior interaction between the companies ('shadow of the past').

7.2 THEORETICAL BACKGROUND

This study aims at expanding our understanding of the role of socialization in the development of buyer-supplier relationships. The concept of socialization has its roots in the organization behavior literature. Organizational socialization is the process by which individual employees become part of their company (e.g. Feldman 1981, Van Maanen and Schein 1979). As Van Maanen and Schein (1979, pp. 211) define it, organizational socialization is "the process by which an individual acquires the social knowledge and skills necessary to assume an organizational role". They develop a framework of socialization tactics, i.e. actions organizations can undertake to affect incoming talent in such a way that they become more valuable to the firm (Tuttle 2002). This framework has served as basis for numerous studies on socialization.³⁰ Another important study is that by Jones (1986), who refine the proposed configuration of socialization tactics as developed by Van Maanen and Schein (1979). Ashford and Saks (1996) build on both these seminal articles and show the longitudinal effects of socialization tactics on newcomer adjustment. Their cross-sectional as well as longitudinal findings show that institutionalized socialization tactics are associated with, amongst others, higher job satisfaction and organizational commitment. Furthermore, they argue that an institutionalized approach need not result in negative outcomes, such as low role innovation.

The role of socialization has also been studied within the literature on multinational corporations (MNC). Socialization of managers is regarded as a control mechanism and as an important mechanism for building commitment to an organization (e.g. Ouchi 1979). Within the MNC literature, special attention is given to socialization of subsidiary managers (e.g. Tsai 2002), which examines the extent to which 'subsidiary managers' values and norms become closely aligned with those of the parent corporation" (Gupta and Govindarajan 1991, pp. 779). Gupta and Govindarajan (1991) define four generic subsidiary roles based on the extent to which subsidiaries engage in knowledge transfer, and whether the subsidiary receives knowledge from or provides it to the parent company. Harzing and Noorderhaven (2006) test this subsidiary typology and find that the level of control by socialization is highest for subsidiaries that are engaged in knowledge transfer to other units, while at the same time receiving knowledge from other units. Gupta and

³⁰ Tuttle (2002) provides a review of these studies.

Govindarajan (2000) distinguish between inter-subsidiary knowledge sharing on the one hand, and knowledge sharing between a subsidiary and the parent corporation on the other. They base their measures for lateral socialization mechanisms (between subsidiaries) and vertical socialization mechanisms (between headquarters and subsidiary) on the work by Ghoshal and Bartlett (1988), and analyze intracorporate knowledge flows within multinational corporations.

Gupta and Govindarajan's (2000) view of socialization serves as basis for the definition used by Cousins and Menguc (2006, pp. 607) who introduce the notion of socialization to the operations management literature. They define socialization as "the level of interaction between, and communication of, various actors within and between organizations, which leads to the building of personal familiarity, improved communication and problem solving". In a second contribution, Cousins et al. (2006, pp. 853) use an alternative definition of socialization, based on the work by Van Maanen and Schein (1979): "the process by which individuals in a buyer-supplier engagement acquire knowledge of the other enterprise's social values and norms". This second definition has, contrary to the first, no specific reference to the interaction between the parties involved in the relational exchange. Actually, interaction in this second study is considered as construct of relational capital together with mutual trust and respect (Cousins et al. 2006). Another difference between both studies is the distinction between informal and formal socialization mechanisms by Cousins et al. (2006). Formal mechanisms are related to the structure and processes needed to facilitate socialization efforts in the relationships, whereas informal socialization efforts more often occur outside of the physical setting of the workplace.³¹ Still, the exact difference between formal and informal socialization mechanisms remains unclear in the study by Cousins et al. (2006). For example, they consider the use of workshops a construct of formal socialization, whereas these are often off-site meetings that are not formalized in the relationship. In addition, they do not define these aspects separately and consider both to consist of structures and processes to facilitate socialization (Cousins et al. 2006, pp. 857). Moreover, the distinction between formal and informal elements of socialization is not present in a third study by Cousins and his colleagues (Cousins et al. 2008). Rather, they use four indicators of socialization (workshops, supplier conferences, cross-functional teams, and matrix style reporting) to show the positive effect of socialization mechanisms on business performance. Furthermore, they examine the mediating effect of these mechanisms on the performance measurement – performance outcomes relationship.

For the purpose of this study, we follow the definition suggested by Cousins and Menguc (2006), who consider interaction between the companies as part of socialization rather than considering it as a form of relational capital (Cousins et al. 2006). One of Cousins and Menguc's

³¹ The distinction between formal and informal elements of socialization is for example also present in the organizational learning literature (e.g. Janowicz-Panjaitan and Noorderhaven 2008) where a distinction is made between informal and formal learning behavior.

findings is that there is a positive effect of socialization on supplier operational performance as well as communication performance.

The importance of communication in developing improved buyer-supplier relationship has been stressed by various authors. For example, Anderson and Narus (1990) and Fynes et al. (2005a) consider communication as one of the antecedents of relationship trust, similar to Goffin et al. (2006) in their conceptual model of supplier partnerships. In the work by Fynes et al. (2005a, 2008), communication is conceptualized based on the study by Heide and John (1992). The items of the construct are especially designed to capture the amount of information sharing between the partners rather than looking at communication quality. Mohr and Spekman (1994) study various aspects of communication (i.e. communication quality, participation, and information sharing) and consider timeliness, accurateness, adequateness, completeness, and credibility as elements of communication quality in their study on the characteristics of partnership success. Apart from the critical role of communication quality to partnership success, they also stress the importance of the willingness to coordinate activities by the partners, trust, and commitment as key elements of strategic partnerships. Communication can also be seen as a relational competence directly affecting buyer and supplier performance. For example, the assumed positive relationship between communication and performance is supported by Paulraj et al. (2008). In addition, Cousins and Menguc (2006) find that socialization efforts are positively related to supplier's communication performance as well as to supplier operational performance. They use communication effectiveness, information exchange quality and timeliness, and feedback from the supplier as measures of communication performance in their study. This perspective on communication performance has clear similarities with the definition of communication quality by Mohr and Spekman (1994). Our focus is on the effect of socialization on communication quality and we use longitudinal case studies to examine the dynamic effect of socialization in buyer-supplier relationships. Such an approach answers the call for longitudinal studies in future research on socialization within the operations management literature (Cousins et al. 2006).

7.3 RESEARCH METHOD

We study the development of two collaborative buyer-supplier relationships that are part of a special key supplier platform set up by the focal buying company just before the start of our study. We analyze the relationships of a focal buying company with a global logistics services provider and a key IT services provider for three consecutive years. The IT services provider used to be part of the same organization as the focal buying company and as a result has strong historical ties at organizational and employee level. The cooperation with the logistics services provider is also a long-standing relationship with more than 15 years of history. This relationship, however, does not have as strong historical ties as the relationship of the focal buying company with the IT services provider because that company used to be part of the buying organization during the 1990s. We

refer to the buying company as buyer A1 in its relationship with the global logistics services provider (supplier B), and as buyer A2 in its relationship with the IT services provider (supplier C). More information on the participating companies, data collection method and response rates is described in Chapter 4. This chapter is based on 157 interview transcripts which are analyzed using a theoretically defined coding scheme (Appendix IV). More specifically, we use the definition by Cousins and Menguc (2006) to identify text fragments related to socialization and define communication quality with the dimensions proposed by Mohr and Spekman (1994): timeliness, accurateness, adequateness, completeness, and credibility.

The coded fragments represent level 0 in the qualitative analysis and are assessed for each organization and for each year by using the query tool in Atlas.ti 5.2. A summary per informant is made for each code in each year and these summaries form level 1 of the analysis. Then, the summaries per informant for a certain year and a certain code are combined into a summary per organization (level 2 of the analysis). Examples of these different types and levels of data displays are also part of chapter 4. Our qualitative approach with different levels of analysis allows us to carefully distill the richness of the data while maintaining the multiple perspectives on the relationship both across the dyad as well as within the buying and supplying organization.

7.4 RESULTS

In this section, we present the development of socialization and communication quality in both collaborative buyer-supplier relationships by using ‘thematic conceptual displays’ (Miles and Huberman 1994). These displays are based on level 2 of our qualitative data analysis. Using displays is a common way of presenting large amounts of qualitative data in a condensed manner. In each of the cells, we show the total amount of coded fragments in a certain year between brackets (see Table 7-1 and Table 7-2).

Relationship I: Buyer A1 and supplier B

In this relationship, supplier B provides global logistics services to the divisions of buyer A1. These activities include transportation as well as warehousing services. Both companies are originally European and have developed into global players in their respective industries. The logistics services industry is rapidly globalizing and the global character of the relationship is also present in the interview analysis (Table 7-1). In 2005, most concerns exist about the level of socialization and lack of communication in regions outside Europe. Supplier B indicates more interaction and relationship building efforts are needed to develop the relationship in Asia and the US. Furthermore, there is limited communication between the companies in Latin America. Still, in general communication is quite open and at a reasonable level for other parts of the relationship in the consecutive years, and is especially good at the senior management level. For one of the

divisions, the interaction is high as a result of co-location of buyer A1 and supplier B employees in one office.

In 2006, the relationship in North America improved through increased interaction between the companies. There is especially more 'face time' between supplier B's regional customer manager and buyer A1's account team. Meanwhile, no real improvements were realized in Latin America and Asia between 2005 and 2006. In Asia, supplier B worked without a regional customer manager for several months, which clearly limited the possibilities to improve the relationship between the companies. In Latin America, the appointment of a new global account manager in fall 2006 has helped to revitalize the relationship following the severe communication problems between the parties signaled in 2005. Despite the improved relationship and increased interaction between these companies, no additional contracts were won by supplier B in 2007 for this region. During 2006, a change occurred in the relationship management structure. More specifically, buyer A1 invited more division representatives to the quarterly business review meetings with supplier B. These review meetings are used to assess the results from and future of the relationship. The change in the attendants of the review meetings has contributed to more and better discussions between buyer A1 and supplier B.

Several of the joint initiatives between the companies that were mentioned in 2005, continued in 2006 and 2007 and also expanded to other areas. For example, one of buyer A1's divisions transferred the management of one of its largest warehouses to supplier B. The warehousing and logistics activities have now become the responsibility of supplier B and their activities are an integral part of buyer A1's processes. For these warehousing activities, the companies jointly monitor relationship performance. Of course, there are also incidents in the relationship where the communication is not fully accurate. For example, Supplier B informed buyer A1 in 2006 that they could develop and provide a new, innovative logistics service but needed to withdraw this promise during the project and buyer A1's expectations were not met in this project. Buyer A1 also has concerns about the limited involvement of supplier B senior management in tendering procedures and the mistakes (accuracy and completeness) made in these procedures by supplier B in 2006 and 2007. These problems are also acknowledged by supplier B. Still, the overall relationship is characterized as an open and cooperative relationship.

Year	Socialization		Communication quality	
	Buyer A1	Supplier B	Buyer A1	Supplier B
2005	There is regular contact both through formal meetings as well as on an ad-hoc basis, Supplier B invites buyer A1 to its logistics society and there are regular dinners to discuss business in an informal manner (8)	There is much interaction between the companies. Joint projects have been initiated to develop the relationship. In addition, several supplier B employees are co-located at buyer A1's offices. However, more informal interaction (e.g. workshops) is needed to develop the relationship in the US & Asia (24)	On average, the informants appear to be slightly positive about the quality of the communication in the relationship. Mostly, concerns are present regarding completeness and accurateness of the communication rather than on the timeliness (36)	There is quite open communication and a good dialogue between the companies, especially at senior levels in the relationship. Only in Latin America, there are severe problems with the accurateness and openness of communication between the companies (21)
2006	Buyer A1 and supplier B jointly manage part of the relationship as well as performance registration in the relationship with one of A1's divisions. For another division, there is mainly interaction in the tendering process, although special meetings have helped to solve problems with the delivery performance (11)	In North-America, the relationship between the companies has improved by increased interaction between them. Travelling to countries within a certain region is mentioned as a way to improve communication. There are also some joint efforts to look at supply chain improvement areas. Finally, including more people from the divisions in the discussion with corporate entities has improved these meetings (7)	The internal focus by supplier B following the merger with another logistics services provider has negatively influenced the communication with buyer A1. At the same time, monthly meeting structures, and operations manuals have a positive influence on communication. Communication between account and supply management groups is good (32)	Communication quality is quite positively evaluated by supplier B informants. However, there are some problems with one of the divisions of buyer A1 and in a project for the development of new services for better coordination of logistics activities. The merger of supplier B with another logistics services provider offers possibilities for further improving the communication between the companies (9)
2007	The US relationship is on 'cruise control' although the parties continue to develop the relationship at site level. Despite regular face-to-face meetings there are misconceptions of expectations in an important new project. In addition, less senior management attention has been shown in tendering procedures (10)	A joint effort was undertaken for one of the divisions to define new process guidelines. Furthermore, employees are co-located on several sites. Site visits and face-to-face meetings are organized to stimulate the relationships in France and Latin America. In Asia, joint problem solving teams are used (21)	There is open communication regarding mutual expectations, although expectations shared in a project about the development of new coordination services could not be met by supplier B. Communication frequency and responsiveness to senior management has improved to prevent a decline in revenues. Meanwhile, many mistakes (accuracy and completeness) are made internally by B in tendering procedures (12)	In Latin America, the relationship and the communication between the companies improved drastically under the influence of the new global customer manager. The communication between the companies is quite good and open. Some problems rise in the completeness of information given in tendering procedures and in visualizing service quality in certain countries (10)

Table 7-1 Socialization and communication quality in relationship I (buyer A1 and supplier B)

Year	Socialization		Communication quality	
	Buyer A2	Supplier C	Buyer A2	Supplier C
2005	Co-location contributes to the highly valued technical knowledge of supplier C. However, there is poor interaction between operational and strategic level in the relationship with one of buyer A2's divisions. Meanwhile, there are quite some informal events between the companies (e.g. drinks, soccer, golf) and C involves A2 in selecting new customer operations managers (18)	There is quite some attention for relationship building in informal settings (e.g. soccer) and through organizing workshops. There also is a close network of personal contacts between both companies. At the same time, there is not enough dialogue in the partner board meeting. Close interaction has helped in solving contractual issues, and in creating a more transparent relationship (21)	A relationship improvement plan has been developed to establish a better communication structure in the relationship with one of the divisions. Communication is not always accurate (including internal communication by supplier C), and supplier C is not very responsive (7)	As a result of frequent, personal (informal) contact communication quality is kept at a high level. Timeliness and accurateness of communication is at times hampered by frequent personnel changes and modifications are not always communicated timely by buyer A2. The communication structure is not always clear because of the technical background of employees (25)
2006	There is more frequent contact for corporate level solutions and joint meetings have contributed to better understanding of responsibilities in the relationship. However, partner meetings have not always resulted in structural improvements. Informal drinks are organized at operational level to allow buyer A2 and supplier C employees to get better acquainted (13)	Initiatives have been undertaken for improving cooperation within the relationship, such as a joint relationship improvement plan in one of the divisions, and joint account meetings at corporate level. However, there is little willingness to discuss mutual opportunities at strategic level, and more pro-activity is needed from supplier C to move to a more strategic relationship (21)	Communication has improved (frequency, timeliness) but is still incomplete and not yet at the desired level. Communication is not always open, especially now buyer A2 is reconsidering its strategic options without involving supplier C. The internal account management structure of C impedes timely and accurate communication. Buyer A2 also needs to improve responsiveness. (12)	Communication takes much time and is not always accurate and complete. Timeliness has suffered by not being co-located anymore after restructuring activities of corporate entities. Meanwhile, there is still co-location for managed operations. Especially at senior levels there is limited openness in communication. There is also limited communication in problem solving (17)
2007	There is close interaction in joint teams for corporate solutions. The aim of these teams and of joint account management sessions is to get to an acceptable performance level. For certain divisions, there are still informal efforts (e.g. drinks, offering cake) to stimulate the relationship. For one division, there is no interaction at CIO level anymore (9)	There is no strong informal relationship at top management level despite several strategic sessions. Meanwhile, operational review meetings, relationship improvement plans, and joint account management sessions have helped to improve the relationship at lower levels. Finally, joint benchmarking was used to remove distrust in pricing (14)	There is more, and better communication but the parties are still pushing to get it at the right level. Still, supplier C needs to be chased quite a bit, and communication is not always credible and accurate. Only in escalations communication is initiated. It is one of the weak areas of the relationship and directly influences perceived performance (9)	The communication between supplier C and one of buyer A2's divisions is cumbersome. This item has been added to the relationship scorecard and is now showing improvement. Strategic sessions contributed to the awareness that the companies have a joint goal and results in more open and adequate communication (5)

Table 7-2 Socialization and communication quality in relationship II (buyer A2 and supplier C)

Relationship II: Buyer A2 and supplier C

Supplier C is the largest IT services provider of buyer A2 and provides commodity as well as specialty services. Their relationship is characterized by many informal contacts between employees of both organizations (Table 7-2), e.g. through drinks, visiting soccer matches, golf, and sailing events. These initiatives occur primarily at operational and tactical level and are most often mentioned in 2005. In 2006 and 2007, the relationship deteriorated and the companies used a combination of initiatives to revitalize the cooperation between the companies. For example, they developed relationship improvement plans for parts of the relationship that were not performing well, and organized joint account management meetings as well as strategic sessions to enhance cooperation between the companies. Still, these initiatives do not seem to contribute to an improved relationship between the companies at senior management level. Moreover, the quality of communication between the companies is not considered as timely, complete, and accurate, thus remaining one of the weak areas of the relationship. The major concern of buyer A2 in its cooperation with supplier C is its reactive attitude and their inability to provide structural improvements. As a result, there is not much willingness to discuss mutual opportunities at strategic level, whereas socialization efforts have a positive effect at lower levels in the relationship.

In short, the collaborative spirit between the companies is vanishing at strategic level, while socialization efforts are primarily aimed at lower levels of the relationship. These efforts have not been sufficient to enhance communication to an acceptable level and to turn relationship development in a positive direction.

7.5 DISCUSSION

The starting point of this study is the positive link between socialization and communication performance as found by Cousins and Menguc (2006). We use a longitudinal research design to analyze this effect in two focal buyer-supplier relationships. The background of these relationships is similar in various ways. First of all, both suppliers are part of the key supplier program of the focal buying company. Furthermore, they are service suppliers in markets that are commoditizing and globalizing. Both the logistics services industry and the IT services industry are characterized by an increased number of commodity services and it is more difficult for companies to differentiate themselves from competitors. Moreover, both companies originally have a European origin and are now a global services provider to the focal buying company. Thirdly, and most importantly for our study, in both relationships various forms of socialization have been used in an effort to stimulate their collaborative relationship. Especially in relationship II, between the focal buying company and its key IT services provider, there are numerous examples of workshops, strategic sessions, informal drinks, and other events to enhance the relationship. However, these socialization efforts do not seem to pay off in an improved relationship between the companies.

Most of the initiatives in relationship II are focused on the operational or tactical level while there is no close interaction between the companies at strategic level. Moreover, the socialization efforts have not resulted in structural improvements in relationship quality. Hence, our observations from relationship II do not support the positive relationship between socialization and communication quality.

An explanation for the observed differences in socialization effectiveness between relationship I and II may come from the historical ties in each of the relationships. There is a long-standing relationship between the focal buying company and supplier B, but there are especially strong historical ties between supplier C and buyer A2 since they used to be part of the same organization. The influence of historical ties and of experiences from the past on current relationships is known as ‘shadow of the past’. This term has been introduced by Axelrod (1984) in his game theoretical work and has also been used in studies on inter-organizational cooperation (e.g. Blumberg 2001) and trust (e.g. Poppo et al. 2008). Blumberg (2001) finds that strong historical ties are especially valuable in building mutual trust and as a result reduce the need of contractual commitments. Poppo et al. (2008) also argue that shadow of the past plays a facilitating role in inter-organizational trust building. However, their analyses also show that “when weak expectations of continuity exist, trust is lower for exchanges characterized by a longer prior history, suggesting a potential dark side of overembedded ties” (Poppo et al. 2008, pp. 39). This view is in line with the study by Anderson and Jap (2005) who argue close ties within collaborative relationships pose a threat to the success of the relationship.

Based on our findings, we suggest prior history moderates the positive link between socialization and communication quality in inter-organizational relationships as put forward by Cousins and Menguc (2006). First, we see in relationship II that experiences from the past contribute to a poor perception of supplier C’s flexibility and responsiveness. In their historical relationship, there was no strong need for supplier C to be flexible and responsive to the requirements of buyer A2. The resulting reactive attitude from supplier C is still present and has led to the belief at buyer A2’s senior management that supplier C is not sufficiently capable to develop innovative solutions. As a result, there is limited willingness at buyer A2’s senior management to discuss mutual opportunities, and more pro-active thinking is needed by supplier C to sustain the relationship at a strategic level. Furthermore, the commoditization of the global IT services market makes it more difficult for IT suppliers to differentiate themselves from other suppliers and further pressures the relationship. Second, supplier C has co-developed current IT systems with the buying organization. As a consequence, they also provide maintenance services to these systems and therefore it is more difficult for them to think about radical changes to the current IT systems. Thus, it is difficult for supplier C to develop and present innovative solutions to buyer A2.

Summarizing, we argue that it is not by definition true that socialization efforts indeed lead to improved communication in the relationship. There are other factors that are influencing the

effectiveness of such efforts. We argue that shadow of the past moderates the relationship between socialization and communication quality. If there are negative past experiences, the shadow of the past limits the positive influence of socialization on communication quality.

7.6 DIRECTIONS FOR FUTURE RESEARCH

This contribution builds on the work by Cousins and Menguc (2006) and examines the relationship between socialization and communication quality in a longitudinal dyadic study. We do not distinguish between formal and informal socialization mechanisms in this study. This distinction is used by Cousins et al. (2006) and would be an interesting topic for future research. It would be especially valuable to study which type of socialization mechanisms, formal or informal, contributes most to improved communication performance. In addition, we call for more research on the roles of and the interplay between informal and formal socialization mechanisms in the development of partnerships. Jap and Anderson (2007) show that relationship variables vary over the life-cycle of inter-organizational relationships. In line with this reasoning, we expect that the use of and possibly also the balance between informal and formal socialization mechanisms is different across stages of the relationship life-cycle. More specifically, Jap and Anderson (2007) find that relationship properties such as mutual dependence, trust, and bilateral idiosyncratic investments peak in relationship build-up rather than in the maturity phase. Once relationships enter in a steady state (maturity), routines take over part of the role of these relational properties. We expect that the role of informal socialization mechanisms is especially important in creating trust during the relationship build-up phase, and that formal socialization mechanisms become more important once the relationship enters the maturity phase.

Finally, our study reveals that socialization efforts can take place at various levels in the relationship. The results demonstrate that socialization efforts directed at operational and tactical level do not contribute to relationship development when serious negative perceptions exist at senior management level about the capabilities of the partner company. Furthermore, we observe that there are different developments within the same relationship across regions. Ross and Robertson (2007) use the term compound relationships and argue that the overall relationship between two firms is composed of multiple simple relationships. We stress that incorporating various organizational levels as well as different geographical regions provide much opportunity for improving our understanding the development of collaborative relationships.

CHAPTER 8 TOWARDS A PROCESS MODEL ON THE EVOLUTION OF COLLABORATIVE BUYER-SUPPLIER RELATIONSHIPS³²

8.1 INTRODUCTION

Effective management of business relationships provides an opportunity for companies to create a competitive advantage (e.g. Dyer 2000; Ireland et al. 2002). Collaborative relationships have been extensively studied in the relationship marketing (e.g. Cannon and Perreault Jr. 1999; Palmatier et al. 2006) and alliance management literature (e.g. Dyer and Hatch 2004; Luo 2008). Many of these studies consider the role of key relationship variables on relationship or firm performance. Especially the concepts of trust (e.g. Doney and Cannon 1997; Johnston et al. 2004), commitment (e.g. Gundlach et al. 1995; Morgan and Hunt 1994), dependency (e.g. Gulati and Sytch 2007; Heide and John 1988), communication (e.g. Mohr and Spekman 1994; Paulraj et al. 2008), and satisfaction (e.g. Chandrashekar et al. 2007; Geyskens et al. 1999) are widely considered as important aspects of relationship management. Geyskens et al. (1999) examine the influence of conflict and satisfaction on trust and commitment in marketing channel relationships. They find that conflict and non-economic satisfaction determine trust within marketing channel relationships, which in turn is positively related to relationship commitment. Palmatier et al. (2006) also stress the importance of trust and commitment and consider these variables together with relationship quality and satisfaction as key relationship mediators in their meta-analytical framework. In another study, they combine four theoretical perspectives on relationship management and develop an integrated model of interorganizational relationship effectiveness (Palmatier et al. 2007). These studies are valuable in improving our understanding of factors influencing the effectiveness of relationship strategies. However, there are still relatively few studies using a process perspective (e.g. Langley 2007) to examine the development of collaborative relationships over time. Most studies examining the development of collaborative relationships either study the evaluation process by relationship partners (e.g. Doz 1996; Ring and Van de Ven 1994) or the stage-wise development in relationship life cycles (e.g. Dwyer et al. 1987; Jap and Anderson 2007) and do not address the interplay between and dynamics of key relationship variables over an extended period of time. As an exception, Narayandas and Rangan (2004) study the development of three partnerships and identify mechanisms explaining the evolution of these relationships. These mechanisms describe the interplay between relational variables guiding the

³² This chapter will be further developed together with Bart Vos and Henk Akkermans for journal submission after defending this thesis. We would like to thank Inge Geyskens for her remarks on an early version of this chapter.

direction of the overall development of the relationship. However, they do not combine these mechanisms to develop a process view on the development of key relationship variables. The purpose of this study is to combine existing knowledge on managing collaborative relationships and to develop and propose a process model of relationship evolution. We use empirical data from a dyadic, multiple respondent longitudinal study involving two collaborative buyer-supplier relationships. Observations from both relationships are used to illustrate how feedback loops shape relationship evolution. We conclude by discussing valuable areas for future research to further improve our understanding of the dynamic processes underlying the evolution of collaborative buyer-supplier relationships.

8.2 THEORETICAL BACKGROUND

8.2.1 Evolutionary models

There are several authors who develop evolutionary models of the development of interorganizational relationships. For example, Doz (1996) develops an evolutionary model of learning within alliances. He describes how initial conditions may facilitate or hamper learning processes. Alliance partners assess the relationship on the value creation potential, partner behavior, and the adjustment capabilities of the partner. In other words, relationship evaluation is based on effectiveness, equity, and adaptability. Ring and Van de Ven (1994) use the notions of efficiency and equity in their process framework of the development of cooperative interorganizational relationships to assess negotiations between, commitments by, and execution of commitments by partner companies. Their framework represents a cyclical theory of development (Jap and Anderson 2007). Ariño and De la Torre (1998) use and expand the models proposed by Ring and Van de Ven (1994) and Doz (1996) to describe the rise and fall of a joint venture in ecological cleaners. They use feedback loops to describe the successful start and subsequent problems in the joint operations of the partner companies. The main focus of their model is on the evaluation of learning from the alliance and adjustment of conditions between the alliance partners. Dwyer et al. (1987) argue in their pioneering study that collaborative relationship experience stage-wise developments. Collaborative relationships go through five general phases: awareness, exploration, expansion, commitment and dissolution. Jap and Anderson (2007) compare and test propositions based on the leading studies on relationship development by Dwyer et al. (1987) and Ring and Van de Ven (1994). They ask their informants to classify the phase of the current relationship, and the phase the relationship was in five years before. Relational properties and relational building blocks (e.g. information exchange norms, trust, and dependency) are, contrary to their expectations, not better in maturity than in the relationship build-up phase. This observation may be explained by the lower need for relational aspects such as information exchange and communication once routines have been established in the relationship.

8.2.2 Managing business relationships

Within the marketing literature, many authors have contributed to the rich literature on factors influencing the effectiveness of managing business relationship. The meta-analytical study by Palmatier et al. (2006) presents a wide variety of antecedent, mediator, moderator, and outcome variables within the relationship marketing literature. They synthesize empirical research on relationship marketing and consider trust, commitment, relationship satisfaction and relationship quality as relational mediators. Antecedent and outcome variables are either focused on the buyer, the supplier, or the dyad. Conflict is one of the dyadic antecedent variables and has the strongest effect on relational mediators. Hence, “the negative impact of conflict is larger in magnitude than the positive effect of any other relationship marketing strategy” (Palmatier et al. 2006, pp. 150). In another study, Palmatier et al. (2007) combine four theoretical perspectives (i.e. commitment-trust, dependence, transaction cost economics, and relational norms) on relationship marketing and develop an integrated model of interorganizational relationship performance. They find that customer commitment and customer trust have a negative effect on the level of conflict within the interorganizational relationship. Conflict is seen as one of the indicators of relationship performance.³³ Geyskens et al. (1999) develop a meta-analytical framework of satisfaction in marketing channel relationships. They consider conflict and satisfaction as antecedent to relationship trust. Trust, in turn, is positively related to commitment. None of these overarching studies (Geyskens et al. 1999, Palmatier et al. 2006, 2007) explains the mechanisms guiding the development of business relationships over time. The main reason for this is that meta-analytical studies usually integrate various cross-sectional studies rather than studies with a longitudinal character.

8.2.3 Developing collaborative relationships

Only few studies focus on the mechanisms underlying the development of collaborative business relationships over time. For example, Narayandas and Rangan (2004) use a longitudinal design in their study on building and sustaining industrial buyer-supplier relationships. They use a dyadic, retrospective approach and develop five processes explaining the evolution of buyer-supplier relationships over time. An explicit distinction is made between contractual and extra-contractual performance. Performance within the limits of the contract is important for building trust between individuals and commitment between the organizations, whereas performance outside the terms of the contract provides the opportunity to jumpstart trust-building between individuals. Each party’s performance is monitored by the other party and measured and evaluated against the expected performance. An organization is satisfied with the relationship when the

³³ Interestingly, conflict is considered antecedent to trust and commitment in the earlier mentioned study of factors influencing the effectiveness of relationship marketing strategy (Palmatier et al. 2006).

performance meets or exceeds expectations and trust and commitment is built as a result. Similarly, trust and commitment suffer when expectations are not met. Anderson and Jap (2005) also describe mechanisms determining the evolution of buyer-supplier relationships. They argue close relationships are not always desirable since they provide both partners the opportunity to act opportunistically and systematically cheat a partner. For example, close interpersonal relationships between employees of the buyer and supplier organization may be helpful in creating flexibility and responsiveness, but also provide an opportunity to set up covert activities. Other weaknesses of close relationships lie in the balance between short term and long term benefits, and an imbalance in unique processes and adaptations. Anderson and Jap (2005) show that mechanisms necessary for building close relationships may actually be the same mechanisms that eventually are detrimental to the success of the relationship. Still, they find that relationships characterized by mutual commitment, joint goal setting, and successful creation of returns for both companies, tend to outperform stable relationships that have gone through a period of decline. Despite these valuable contributions on the evolution of relationship variables over time, Jap and Anderson (2007) acknowledge that there is still little knowledge about relationship dynamics and there are many research areas that remain to be explored and understood. Geyskens et al. (1999, pp. 234) also stress there is an urgent need for longitudinal studies to understand “the process dynamics and the cumulative effects of individual exchange episodes in establishing long-term relationships.”

8.2.4 A process model on relationship evolution

We use the meta-analytical framework by Geyskens et al. (1999) as starting point for developing a process model of relationship evolution. In total, we include five relationship variables: trust, commitment, conflict, non economic and economic satisfaction. The definitions for these variables are based on the definitions used by Geyskens et al. (1999) since all elements are part of their meta-analytical study. Conflict represents the level of tension, frustration, and disagreement in the relationship when one partner perceives that the other partner is engaged in behavior that is preventing or impeding it from achieving its goals. Economic satisfaction is defined as an organization’s positive affective response to the economic rewards that flow from the relationship with its partner, such as sales volume and margins. Non-economic satisfaction is an organization’s positive affective response to the noneconomic psychosocial aspects of its relationship, in that interactions with the exchange partner are fulfilling, gratifying, and easy. Trust is seen as the extent to which a firm believes that its exchange partner is honest and / or benevolent, and commitment is defined a desire to continue the relationship in the future and a willingness to make short-term sacrifices to maintain the relationship.

The five key relationship variables of our study are linked through seven relations, five of which are supported by the original work by Geyskens et al. (1999). Two relations have been added in order to develop a dynamic perspective on relationship evolution (see Figure 8-1). The five

original relations³⁴ are the paths between (1) economic satisfaction – conflict, (2) conflict – non economic satisfaction, (3) non economic satisfaction – trust, (4) conflict – trust, and (5) trust – commitment. The second and fourth relation are also part of Palmatier et al.'s (2006) meta-analytical framework of factors influencing the effectiveness of relationship marketing, and the fifth relationship is supported by Palmatier et al. (2007). Anderson and Narus (1990) provide support for the negative effect of conflict on non economic satisfaction (relation 2), and Morgan and Hunt (1994) introduced the trust – commitment key mediating variable theory of relationship marketing (relation 5).

We also include two other relations: (6) trust – economic satisfaction and (7) commitment – non economic satisfaction. The positive effect of trust on economic satisfaction is for example supported by Mohr and Spekman's (1994) study on the characteristics of partnership success. They further find a positive relationship between commitment and satisfaction with manufacturer support, showing the positive relation between commitment and non economic satisfaction (relation 7). Del Bosque Rodriguez et al. (2006) also find a positive relation between these variables. In addition, they find that commitment also influences the level of economic satisfaction. However, Mohr and Spekman (1994) do not find support for the effect of commitment on satisfaction with profit. In our proposed process model of relationship evolution (Figure 8-1), we do not include the effect of commitment on economic satisfaction and limit our model to the seven relations described above.

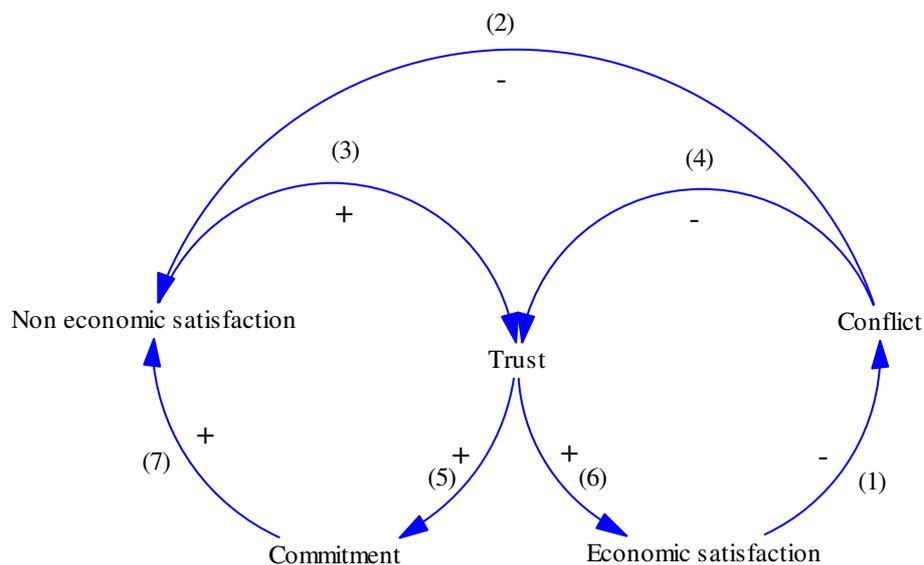


Figure 8-1 Proposed process model of relationship evolution

³⁴ The sequence of the relations is similar to the meta-analytical framework developed by Geyskens et al. (1999)

So far, most studies with a process view on relationship evolution either consider stages in the development of business exchange relationships (e.g. Dwyer et al. 1987, Jap and Anderson 2007) or look at changing conditions and re-evaluation of these conditions by exchange members over time (e.g. Ariño and De la Torre 1998, Doz 1996). All these authors use loop structures to visualize the evolution of interorganizational cooperative relationships, yet they do not include important relational variables such as commitment, conflict, satisfaction, and / or trust. As an exception, Akkermans et al. (2004) published a study in which trust, communication, and performance are included in a theoretical causal loop model of supply chain collaboration. They illustrate how the hard work shown by all parties participating in a supply chain collaboration program generates a virtuous cycle of higher levels of trust, transparency, and performance. Their study considers a collaborative planning initiative rather than on-going, business exchange relationships. In earlier work, Akkermans et al. (1999) used the notions of virtuous and vicious cycles to describe the path towards effective international supply chain management. In this study, we propose a process model of relationship evolution and illustrate which relational mechanisms determine the development of collaborative buyer-supplier relationships.

8.3 RESEARCH METHOD

Mohr (1982) considers process theory and variance theory as two ways of conducting strategy research. Process research is the discipline in which process aspects in strategic management are studied (Pettigrew 1992). Variance theory focuses on variation in a dependent variable by examining several independent variables (e.g. Langley 1999). This article builds on process theory rather than variance theory since longitudinal case studies are used to study the development of collaboration in buyer-supplier relationships. Process thinking “involves considering phenomena dynamically – in terms of movement, activity, events, change, and temporal evolution” (Langley 2007, pp. 271). A common definition of process in strategy process research is that by Van de Ven (1992, pp. 169): “a sequence of events that describe how things change over time”. Process approaches require researchers to see the object of their study as an evolving phenomenon over time, thus explaining the use and value of longitudinal studies. Narrative research is commonly used for the development of process theory (Pentland 1999). The value of narrative research in understanding deep structure of processes underlying the development of certain phenomena is also stressed by Rhodes and Brown (2005).

This study uses observations from two collaborative buyer-supplier relationships and has a longitudinal character. The perspectives of the buying and supplying organizations are considered; hence the study has a dyadic character. The focal buying organization is a large multinational company active in high technology markets. It has several independently operating divisions in different markets and various entities at a corporate level for supporting the divisions in their activities. In the remainder of this chapter, we refer to the focal buying company as buyer A1 in its

relationship with supplier B and as buyer A2 in its relationship with supplier C. More information on the profiles of the participating companies and the data collection procedure are part of Chapter 4. This particular chapter is, similar to Chapter 7, based on the 157 interview transcripts part of this study. To improve reliability, about 20 percent of the transcripts is assessed by two judges to improve reliability of the coding process. Where coding differences existed, these were discussed among the judges until agreement was reached. In addition, the first judge collected text fragments that were ambiguous and these were also discussed within the research team until agreement was reached. The coding process was further formalized by pre-defining the codes. For this study, we use the concepts of commitment, conflict, satisfaction and trust. By using such well-established definitions, the coding process also becomes more reliable and accurate since the interpretation of a certain code is less dependent on the perceptions of the judges.³⁵

8.4 RESULTS

The results section is presented as a story describing the development of the studied buyer-supplier relationships. Generally, four levels of structure are distinguished in narrative research (Pentland 1999). The first level is formed by the actual text (i.e. the interview transcript in our study), which is transformed in a story by creating versions of the actual text from a specific point of view. At the next level, “fabula are generic descriptions of a particular set of events and their relationships” (Pentland 1999 , pp. 719). The deepest level in the narrative structure is represented by the generating mechanisms that enable or constrain the fabula. These generating mechanisms are used to describe why certain events occur. In this study, we start by describing the story of relationship development of two collaborative buyer-supplier relationships by addressing sequences of events. Next, we discuss the generating mechanisms explaining the evolutionary processes underlying the development of these collaborative relationships.

8.4.1 History of collaboration

Supplier B is a leading global logistics services provider and has done business with the focal buying company for many years. In the 1990s, buyer A1 still interacted with primarily locally and regionally oriented logistics services providers. Following several mergers that were part of global consolidation efforts in the logistics industry during the late 1990s and early 2000s, buyer A1 now cooperates with supplier B as global logistics services provider. The companies with which buyer A1 used to interact are now part of supplier B. Supplier B provides both commodity services such as express deliveries, as well as specialty services like warehousing. Neither of the companies has had a substantial shareholding position in the other company over the past decades,

³⁵ More information on the interview procedure and transcript analysis is also part of Chapter 4

contrary to the relationship between the focal buying company and supplier C. The annual turnover of supplier B has risen to over 50 billion euro in 2006.

Supplier C was founded in the late 1970s and acted in the rapidly emerging IT market. The company grew gradually during the 1980s and merged in the early 1990s with one of the operating divisions of the focal buying company. The new IT company was renamed and acted as an internal supplier of IT services to buyer A2. Due to the close ties in the relationship, many employees changed jobs between the IT company and the focal buying company. As a result, representatives of the buying and supplying company often used to be working for the same organization. These employees always helped out their counterparts because of their close personal ties and it was not common to look at the exact contractual agreements to determine what should and should not be done. The strong growth of IT business in the late 1990s and early 2000s forced buyer A2 to outsource many of its IT activities to supplier C, since they did not have enough resources to cope with this growth. These outsourcing deals also included core activities resulting in incomplete control of these activities by the buying company. In the following years, buyer A2 put much effort in insourcing these core activities. Also in the early 2000s, the IT company was separated again from the buying company and acquired by a large foreign IT services provider. Supplier C was given certain privileges by the buying company, such as a revenue guarantee for various IT services and a last-bid clause³⁶ for new requests for proposals. Buyer A2 had a minority shareholding position in supplier C until mid-2005, when it sold its last shares just before the start of our first interview round. Supplier C has an annual turnover of more than 5 billion euro.

8.4.2 Relationship development with supplier B

Setting up a global partnership

The global partnership between buyer A1 and supplier B was formalized by supplier B's membership to the key supplier program which was set up by the buying company by the end of 2004. The appointment of a supplier manager at the buying company and a global customer manager at the supplier company signals the intention to move towards an improved relationship. Mid-2005, both companies are quite positive about the level of trust despite several incidents where opportunistic behavior instead of partnership behavior got the upper hand (e.g. in pricing discussions). The good level of trust in the relationship is for example expressed by awarding new contracts to supplier B following several years of close interaction between the companies. The integration of activities between buyer and supplier requires close cooperation and also stimulates relationship trust. In addition, supplier B believes they have shown their competence by delivering on commitment and because of their knowledge of the buying organization. Still, Buyer A1 is not experiencing that supplier B has an obvious competitive advantage over other suppliers. Moreover,

³⁶ A last-bid clause is the right of a supplier to submit a final bid to the buyer after all other suppliers have presented their offers to the buying company

buyer A1 has some concerns with respect to the delivery performance and at times considers supplier B as too expensive. Buyer A1 further indicates that supplier B might be slightly dissatisfied by losing business for certain activities in the first months of 2005, but in general both companies are comfortable with their relationship and stress that senior management is committed to the relationship. Most examples of limited partnership behavior occur at the operational level. For example, buyer A1 sometimes tends to dictate communication, telling supplier B what to do. Supplier B refers to such behavior as 'one-way communication'. There are also situations where buyer A1 is not fully honest in tender procedures and both companies cannot fully rely on the information they receive from the other party in such procedures. Furthermore, limited communication exists between the companies in Latin America and buyer A1 is not always showing the importance of the collaborative relationship in its behavior at regional and country level. Within the supplying organization, each country is responsible for its own profit and loss account. The priorities for individual countries are not necessarily to the collaborative relationship as a whole, which makes it sometimes difficult for buyer A1 to work together with supplier B. Moreover, different processes and standards exist within the supplying company following various mergers and acquisitions. From 2005 to 2007, the profit and loss structure was not changed and was mentioned each year as one of the impediments to relationship development.

Cost reductions and strong internal focus slow down relationship development

In the second half of 2005 and early 2006, both companies overall remain satisfied with the relationship. Buyer A1 considers supplier B as one of the leading logistics services providers although concerns regarding delivery performance are still present. High satisfaction especially results from the warehousing services which have been partially handed over to supplier B in 2005 and 2006. Delivery performance is not an issue for this service type. However, increased tension in 2006 negatively influences relationship trust. First, the extreme focus on cost reduction by buyer A1 sharpens discussions between the companies and has changed the atmosphere considerably. The cost focus is especially exercised by the divisions rather than the overarching corporate entity. Supplier B has contacts with representatives of the divisions as well as with the corporate entity, and receives different signals from these parties. The divisions have strong cost reduction targets and act accordingly, while the corporate entity stresses the partnership between the companies and present relationship development plans to supplier B. Generally, the ties with the divisions are less strong than those with the corporate entities, which has resulted in decreased business volumes. Furthermore, supplier B has also lost business in commodity services because their prices were too high. The hardened relationship has put pressure on relationship trust, and the declining revenues negatively influence supplier B's satisfaction according to buyer A1. Secondly, supplier B has promised more in tendering procedures than the can actually deliver. For certain transportation management services, a sophisticated, integrated solution was offered to buyer A1 which could

eventually not be realized. Despite the relatively small size of these activities, buyer A1 was clearly disappointed with this outcome since they consider these services as a strategic activity and as one of the areas in which key suppliers can distinguish themselves from other suppliers. Meanwhile, supplier B is considered to be competent in other areas and is still seen as one of the leading logistics services providers. Thirdly, buyer A1 cancelled an inbound logistics project just before the 'go live' date without compensating supplier B for its investments in this project. This kind of behavior is described by representatives of supplier B as 'inexcusable' and has decreased relationship development efforts with this division. Meanwhile, the relationships with the other divisions are fairly good, although not as strong as the relationship with the corporate purchasing group. Fourthly, supplier B acquired a large competitor in the second half of 2005 and needed to integrate the activities of both companies in the beginning of 2006. The resulting internal focus of supplier B negatively influenced the service levels experienced by buyer A1. For example, less attention is given to customer needs (i.e. the quality of communication between the companies suffers from internal orientation of supplier B), there is less senior management involvement in the interaction with buyer A1, supplier B is not acting as one company, and is less often pro actively presenting integrated solutions to buyer A1. In other words, supplier B is putting less effort in the relationship with buyer A1 and first needs to settle internal issues following the large acquisition. Furthermore, the merger also caused problems regarding the competence of employees working in the relationship with buyer A1. The integration of activities of the merged companies implied re-assigning personnel across the organization and there were not always sufficient capable people on the supplier side to manage the relationship effectively. For example, there was no direct contact person for the operations in Asia for several months. About a half year after the large acquisition, supplier B became more eager to win new business and consequently showed willingness to develop the relationship with buyer A1.

Bringing fresh faces to the relationship

In the period from August 2006 to February 2007, key account managers of buyer A1 as well as supplier B found new jobs and were replaced by colleagues who had already been actively involved in the relationship. Buyer A1's supplier manager was replaced twice in this period and the role of key supplier manager was reduced to a part time position. During these replacements, there was poor internal alignment within the buying company and inconsistent information was communicated with supplier B. Meanwhile, buyer A1 puts effort in selecting and appointing less traditional-minded purchasers in order to move towards a more strategic relationship. Modern style purchasers are not primarily concentrating on price as the main variable of interest; rather they pay attention to building a collaborative relationship with the supplier. Furthermore, the new customer manager of supplier B uses another approach than his predecessor and gives more attention to the divisions because the divisions are ultimately responsible for contract awarding. As a result,

satisfaction increases for several divisions, while representatives of the corporate purchasing group regard the increased focus on the divisions as a negative development. For one of the product divisions, disappointment arose when a transportation management contract was terminated by buyer A1. Although this project was different from the terminated contract in 2006, it is another example of termination of a program on developing logistics solutions. Nonetheless, there is a strong and increased willingness to work together in warehousing activities, also resulting in revenue growth. Especially the integrated warehousing activities in Mediterranean Europe are considered a success. These warehouses operate under the management of supplier B in close cooperation with the buying company. These warehouses are actually part of the operations of the same division that terminated the transportation management contract. Supplier B also interacted closely with buyer A1 in the Middle East in setting up new warehouses and logistics activities for other divisions. Furthermore, the North American relationship was strengthened by the successful implementation of VMI. A joint press release following the implementation illustrates the high level of satisfaction resulting from this project. In Latin America, supplier B's new customer manager played a central role in rebuilding the relationship, which is one of the growing markets for the buying company and offers opportunities for future business for supplier B. So far, no additional business in Latin America has been awarded to supplier B despite the improved relationship. Similar to 2005 and 2006, buyer A1 mentions that supplier B still has difficulties in presenting new solutions and is not always meeting expectations in that area. Supplier B offers satisfactory service levels for commodity services although delivery performance and flexibility are not much better than from competitors. Supplier B's main advantage to buyer A1 is its diverse portfolio of logistics services. Meanwhile, it is difficult for supplier B to move to a more strategic role by providing sophisticated and integrated logistics solutions. Buyer A1 has weak confidence in supplier B's capabilities to provide such innovative, new solutions following the negative experiences in projects during 2006. These problems still affect the relationship, although they have become less of an issue in the relationship after appointing the new key account managers. Buyer A1 further indicates supplier B made many mistakes in tendering procedures during 2006 and 2007, and information is often inaccurate and incomplete. Still, the relationship between the companies is generally seen as satisfactory.

8.4.3 Relationship development with supplier C

Emerging tension within the partnership

Supplier C enjoys several privileges in its relationship with buyer A2 as an inheritance of their close historical ties (e.g. revenue guarantee, last-bid clause). In the early 2000s, these privileges have fueled opportunistic behavior by supplier C. They were for example not obliged to show detailed cost information to buyer A2 and kept prices high. After several years, buyer A2 required more cost transparency which confirmed the suspicion towards the pricing levels used by

supplier C. These events seriously damaged supplier C's trustworthiness and led to cautious and detailed contract negotiations during the start of our study (mid-2005). In addition, much emphasis is put on providing cost transparency to prevent repetition of outrageous pricing by supplier C. Moreover, the cost focus also reduce buyer A2's efforts in enhancing the relationship with supplier C. Despite the emerging tension, close cooperation still exists between the companies at operational level as a result of the historical ties between the companies and there is much confidence in supplier C's operational capabilities. However, the middle and top management levels of buyer A2 are dissatisfied with the limited flexibility and lack of pro active thinking by supplier C. These shortcomings bring representatives of buyer A2 to describe the relationship with supplier C as 'no real partnership'. For example, supplier C primarily tries to protect current revenues (mainly services performed in European countries) rather than supporting the customer organization with global sourcing initiatives. In 2005, the interaction between the companies outside Europe is quite cumbersome: perceived service quality in the US is low, and differences exist in the strategic focus of the companies in Asia. In Asia, relationship building was also negatively influenced when the corporate IT department of the buying company issued a request for proposal which interfered with several months of constructive interaction between the companies at regional level. Furthermore, buyer A2 suspects supplier C of trying to create a lock-in situation to protect its revenues and stresses that bringing in other competitors is the only way to break through the defensive, protectionist attitude of supplier C. When buyer A2 argues competitors are needed to warrant maximum efforts by supplier C, this behavior is characterized by supplier C as 'shopping around' and perceived as non partnership like since buyer A2 will always select the cheapest offer without considering the strategic relationship between the companies. Nevertheless, a new service level agreement was signed between the companies early 2005 to serve as basis for continued cooperation in the next three years. Meanwhile, buyer A2 indicates supplier C is not showing enough eagerness in winning contracts since they expect to win them anyway. In addition, the buying organization has also set up an initiative to develop in-house IT capabilities in order to become less dependent on the services provided by supplier C. The decreasing business volumes, limited opportunities for future business, and the perception that buyer A2 is only committed when they consider something to be important negatively influence supplier C's satisfaction with the relationship in 2005. At the same time, the joint development of new products in which supplier C's IT services are integrated with the products of buyer A2 offers an opportunity to slow down the revenue decline experienced by supplier C.

Further decline by increased competition and operational problems

The negative trend in revenue development continues in the remainder of 2005 and the beginning of 2006. Supplier C needs to battle strongly for renewal of existing and winning of new contracts. Several other companies are invited for submitting proposals to stimulate competition

with the aim to reduce buyer A2's IT costs. Supplier C especially has difficulties in providing innovative offshoring solutions since that would harm their short term revenue targets. Buyer A2 stresses supplier C is not flexible enough to go along with the changes they are going through. Supplier C also finds it difficult to compete for new contracts as a result of the rapid commoditization of IT services. Furthermore, buyer A2 continues to question supplier C's trustworthiness. For example, there is suspicion regarding prices used in contracting procedures as well as in the extent to which supplier C is capable of delivering services according to contractual terms. This negative attitude is especially observable for corporate entities of the buying firm and is less obvious for the divisions. These corporate entities also compete directly with supplier C as a consequence of the decision to rebuild corporate IT entities of the buying company. This decision was made in the second half of 2005 and has put pressure on a considerable amount of business between the companies. Moreover, buyer A2 recruits personnel directly from supplier C ignoring contractual clauses. The service level agreement was also put aside by buyer A2 when supplier C proposed to use a third party to benchmark C's pricing levels. According to the contract, a third party can be used when disagreement exists regarding (competitive) pricing. When supplier C wanted to use this contractual clause, buyer A2 did not comply with the request.

Supplier C is also confused with the inconsistency of the IT strategy of the buying firm and questions buyer A2's willingness to continue the relationship and experiences buyer A2 is trying to move away from supplier C. Meanwhile, there were also several incidents in supplier C's service delivery late 2005 and early 2006. For example, power outages occurred in datacenters following inadequate IT capacity management. Especially the slow response and poor communication following this incident, as well as the fact that the fault was part of one of the most basic IT processes, negatively influenced the buyer A2's trust in supplier C's capabilities. A claim procedure was started rather than engaging in a joint problem solving effort. In addition, the availability of skilled resources to the operations of the buying company has been an issue in 2006. This situation is partly the result of the recruitment of supplier C's personnel by buyer A2 and is strengthened by higher profitability of other customers. Supplier C assigned an increasing number of resources to these accounts and showed less commitment to the relationship with buyer A2. Buyer A2 also expresses its concerns about the limited cooperation and negative attitude by supplier C during an internal audit procedure of the datacenters. Meanwhile, the annual client satisfaction survey conducted by supplier C still shows reasonable satisfaction with the IT services supplied by C. Several of the divisions indicate that service delivery by the internal IT service centers is not as good as the service levels they experienced when these were still provided by supplier C. For one of the divisions, a relationship improvement program enhances communication and helps to structure the communication process. This program is especially aimed to intensify the contact frequency between the parties. However, for other parts of the relationship there is limited willingness to invest by either of the companies as a consequence of the differences in priorities of

top management teams. This is for example shown by the reluctance of buyer A2 to make significant investments in new product development initiatives, and also by the fact that supplier C is not investing in the US relationship where the companies are located in different geographical regions. One of buyer A2's divisions is strongly focusing on growth in the US market and in 2007 both companies acknowledge their relationship cannot develop further because of the limited strategic fit.

Efforts to turn around the relationship

During the fall of 2006, corporate entities of buyer A2 and supplier C organized a series of sessions and workshops to take away tension and suspicion in order to give the relationship another chance. An important reason for these workshops was the observed problems in delivery performance following an auditing procedure. A benchmark study was conducted by a third party to take away the perception supplier C is using non-competitive prices, and in some occasions supplier C adjusted its pricing levels according to the outcomes of the benchmark study. These sessions and workshops contributed positively to rebuilding trust between the parties and increased attention for customer requirements by supplier C. However, buyer A2 remains skeptical towards supplier C's innovative and operational capabilities as well as its ability to act as a true, global partner for them. These concerns especially prevail at senior management level, where several executives deliberately try to exclude supplier C from future business as a punishment for its basic operational failures and poor communication in problem solving in 2006 (e.g. power outages in datacenters). Some of these senior managers also tend to look for other suppliers even when supplier C should be selected based on formal assessments. Although there are several key decision makers with a negative perception of supplier C's performance and capabilities, there is also a division undermining the position of the internal IT services provider by choosing to work together with supplier C in the realization of a new datacenter. This project shows their commitment to supplier C and requires significant investments by both parties. Such situations may eventually be harmful to supplier C, since they are engaged in enhancing the relationship with the corporate entities while also cooperating directly with divisions of the buying company. Supplier C needs to be careful with internal politics in order to avoid getting caught in the middle. Careful assessment of internal politics is not easy for supplier C since they have lost connection with several of the divisions' Chief Information Officers (CIOs) after these persons were replaced. Meanwhile, the position of the internal IT centers of the buying company is again under pressure and it is unclear whether it is viable to continue the operations of these centers. This development confirms the inconsistency of buyer A2's IT policy and makes it difficult for supplier C to make long term commitments to the relationship. In addition, the commitment shown by supplier C and the time devoted to the relationship also decrease after another year of revenue decline. Margins are still higher for other companies and buyer A2 is not such an attractive customer anymore as in 2005.

Still, the overall satisfaction at operational level is quite good according to the client surveys held by supplier C. There are also some positive signs for developing future business. For example, supplier C was asked to submit an offer for a large contract of one of their direct competitors, and a new cooperation was started in which both organizations have expressed their willingness to develop a new type of partnership. In this project, supplier C works together with one of its competitors, which requires sharing of proprietary information by both these suppliers, to provide joint IT services to the buying company. However, these positive signs could not prevent that supplier C was not invited for the key supplier meeting that took place several months after the final round of interviews in our study.

8.5 DISCUSSION

The narratives provide a detailed description of the development of two collaborative buyer-supplier relationships. These descriptions include a complex interplay of relational factors. This discussion section aims at unraveling the ‘generating mechanisms’ (Pentland 1999) of these collaborative relationships by illustrating and explaining the loops of the proposed process model of relationship evolution (Figure 8-1) with empirical data.

Loop R1 & R2: The role of conflict in relationship evolution

The first reinforcing loop (R1 in Figure 8-2) consists of the relational variables economic satisfaction, conflict, and trust. Non economic satisfaction is the fourth relational variable that is added to create loop R2. Loops R1 and R2 are described as follows: increased conflict has a negative impact on relationship trust (also indirectly via non economic satisfaction, loop R2), which in turn negatively influences the economic satisfaction with the relationship. The lower level of satisfaction in turn enhances conflict in the relationship, and the reinforcing, vicious cycle continues. A similar line of reasoning is also true for the reverse situation: less conflict in an exchange relationship leads to higher trust (also indirect because of higher level of non economic satisfaction), which in turn positively affects economic satisfaction with the relationship.

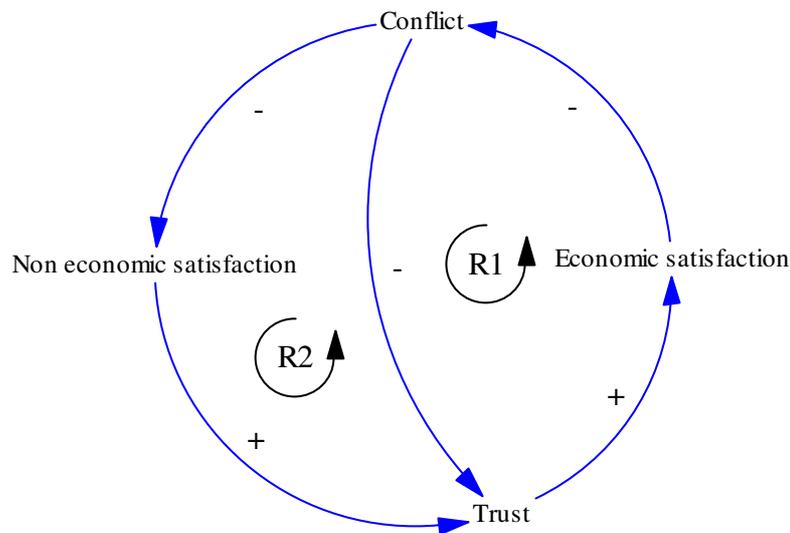


Figure 8-2 The dynamic effects of conflict, trust, and satisfaction

In both relationships, our empirical observations show that the focal buying company has a strong focus on costs reductions in 2006 and 2007. The cost focus results from the launch of a company-wide cost reduction program by the focal buying company and puts pressure on the collaborative relationships with suppliers B and C. The strong emphasis on price leaves less opportunity for relationship building. Our data set contains several occasions where (key) suppliers B and C are not awarded contracts based on their pricing levels. The loss of business by the suppliers (lower economic satisfaction) increases the tension in the relationship and makes the suppliers more sensitive to subsequent occurrences of non-collaborative behavior by the buying company. Hence, a vicious cycle of conflict results from the strong cost focus of buyer A. Meanwhile, the increased attention for pricing also raises buyer A2's concerns with price setting by supplier C. Buyer A2 found out that supplier C has used unfair pricing in its collaborative relationship. Every situation in which supplier C has used non-competitive prices is emphasized by buyer A2 and used to put pressure on the relationship. The resulting conflict between buyer A2 and supplier C seriously damages the collaborative relationship between the companies (lower non economic satisfaction) and also has a negative influence on buyer A2's trust in supplier C. As a result, buyer A2 is reluctant in granting new contracts to supplier C when other options are available. The resulting business volume decrease caused supplier C's dissatisfaction with the (economic) results of its relationship with buyer A2, while buyer A2 is still frustrated with the high prices used by supplier C in the past. Thus, the level of conflict in the relationship is increased and the discussions become sharper. Both companies are annoyed with the lack of progress in the relationship (non economic satisfaction) and respond strongly when another incident occurs. The companies are not willing to rely on each anymore and there is suspicion towards the intentions and behavior of the partner company.

Thus, opportunistic pricing behavior has a detrimental effect on the relationship. Supplier C needs to convince buyer A2 of its pricing policy and has to provide transparency in its offers to buyer A2. Still, representatives of buyer A2 do not easily forget the unfair pricing in the past and will remain reluctant towards supplier C's efforts to change the relationship. This example illustrates the reinforcing character of loop1 in a negative way: a vicious cycle.

On the other hand, we observe how good performance by supplier B in warehousing operations can start a virtuous cycle. One of buyer A1's divisions transferred its warehousing activities to supplier B and they are positive about supplier B's warehouse management (economic satisfaction buyer A1). As a result, there is not much tension in this part of the relationship, and both companies are pleased with the progress of the relationship. The satisfaction with the relationship stimulates mutual trust and buyer A1 has much confidence in supplier B's warehouse management capabilities and is more likely to outsource other warehousing activities to them (increased economic satisfaction supplier B).

In both examined relationships, the supplier experiences strong cost pressure of the focal buying company. The resulting vicious cycle negatively affects the overall relationship with supplier C, whereas the development with supplier B is about neutral. This difference can be explained by the joint existence of multiple dynamic processes in the relationship between buyer A1 and supplier B. More specifically, in this relationship, the same reinforcing cycle (loop 1) acts in a vicious and virtuous way. The vicious cycle concerns the pressure that is put on the relationship by the strong cost focus of buyer A1, and the virtuous cycle relates to the successful transfer of warehouse management tasks to supplier B. Warehousing is a specialty service whereas most of other logistics services supplier B provides to buyer A1 are commodity services. Specialty services are less easy to purchase for the buying company and by providing high service quality suppliers can distinguish themselves from its competitors. For commodity services, competition is mainly on price, and good service quality is regarded as a prerequisite for doing business with buyer A1. Hence, the competition for commodity and specialty services are separate areas within the same buyer-supplier relationship, each with its own dynamics. This implies that the overall development of the relationship is dependent on the combination and strength of multiple cycles. It is possible to aggregate multiple forces in relationship development into a 'net force' of virtuous and vicious cycles active within the relationship. For buyer A1 and supplier B, the negative effect of the strong cost focus is neutralized by the positive effect of the enhanced relationship in warehousing.

Loop R3: The trust – commitment – satisfaction cycle

The third loop of our proposed model of relationship evolution includes trust, commitment, and non economic satisfaction. These relationship variables form a reinforcing loop (Figure 8-3): increased commitment to the relationship leads to higher non economic satisfaction. This leads to

enhanced trust which in turn positively affects commitment after which the cycle starts over again. The reverse line of reasoning is also true: decreased commitment to the relationship leads to lower non economic satisfaction, and to lower trust in the relationship.

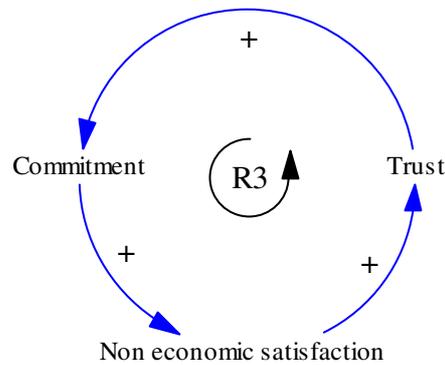


Figure 8-3 The reinforcing trust – commitment – satisfaction loop

In 2006 and 2007, the relationship between supplier C and corporate IT entities of buyer A2 was under strong pressure after severe problems in delivery performance added to the limited belief of buyer A2 that supplier C can act as a true, global partner. Hence, there was an urgent need for supplier C to save the relationship, especially given the substantial business volume of the relationship. Supplier C put much effort in enhancing the relationship through various sorts of joint sessions, such as workshops and meetings to discuss the strategies of the companies. Supplier C organized these sessions to stabilize and improve the relationship with buyer A2 (non economic satisfaction) and to re-establish buyer A2's trust in its operational and strategic capabilities. Step by step, the companies discussed the main problems in the relationship and supplier C gradually increased its attention for customer requirements in an effort to improve its image as partner. These efforts were acknowledged and welcomed by buyer A2 and further decline of the relationship was prevented by addressing and discussing the problems that were present between the companies.

However, buyer A2's senior management is still worried that supplier C cannot provide innovative, new IT solutions as a consequence of operational failures as well as reactive and protective behavior in the past. The negative perception of C's operational and innovative capabilities exists most strongly at division level and supplier C lacks strong ties with most of the CIOs. These CIOs are not committed to the relationship with supplier C and are increasingly dissatisfied with the relationship (non economic satisfaction). Some senior executives deliberately exclude supplier C from new contracts as a punishment for their poor performance in the past. The doubts regarding supplier C's operational and strategic capabilities illustrates how loop R3 can act as vicious cycle.

Still, similar to loops R1 and R2, the trust – commitment – satisfaction loop (R3) also has positive and negative forces. A virtuous cycle exists as a result of the efforts in rebuilding the relationship with buyer A2's corporate entities, and a vicious cycle is present because of the limited belief in supplier C's operational and innovative capabilities at division level. These cycles are present in different parts of the relationship and the resulting overall development is negative ('net force'). We argue that the positive effect of the virtuous cycle in this relationship is limited because of the unsettled position of the corporate IT entities within the buying company and supplier C's poor contact with decision makers in several of buyer A2's divisions. As a result, the vicious cycle got the upper hand, resulting in a downward relationship spiral.

The only way for supplier C to restore the partnership between the companies is to actually provide innovative solutions to (the divisions of) buyer A2. This would restore buyer A2's trust in supplier C's capabilities and would positively influence A2's economic satisfaction with the relationship. Such a development would also reduce the continuous tension in the relationship (loops R1 and R2) and would lead to more commitment to the relationship by buyer A2 (loop R3). Still, supplier C's exclusion from the key supplier program that followed shortly after completing our study casts doubt as to whether this is a realistic development path.

8.6 DIRECTIONS FOR FUTURE RESEARCH

In the previous sections, we have illustrated the dynamic behavior of relationship variables. We described positive as well as negative examples (i.e. virtuous and vicious loops) based on our interview data. In addition to this qualitative approach, we consider simulation as a valuable method to conceptually examine the development of collaborative buyer-supplier relationships. Simulation studies are especially strong in understanding and explaining outcomes of complex situations, for example by calculating the joint effect ('net force') of multiple dynamic processes within the same business relationship.

Furthermore, we encourage future research on buyer-supplier collaboration to use multiple perspectives. More specifically, we consider the use of multiple informants important to understand the evolution of buyer-supplier relationships. This does not only imply to include the buyer and the supplier perspective in the research design, but also to examine various areas and organizational levels within these collaborative relationships. For example, it is interesting to study the possible existence of successful collaboration in one part of the relationship, while in other areas the buying and supplying may be less close. How and why do these different processes affect each other? And how do these experiences at micro level contribute to overall relationship development? Our call for more research on the combined effect of multiple dynamic processes within collaborative relationships is in line with the conceptual studies by Ross and Robertson (2007) and Zerbinì and Castaldo (2007) who argue that buyers and suppliers have multiple roles within the same

relationship. Ross and Robertson (2007) use the term 'compound relationship' when the overall relationship between two firms is composed of several simple relationships.

Apart from analyzing the interplay of dynamic processes in different parts of a relationship, we are also interested in how relationship cycles are started and how these are broken. Our observations suggest that the amount and severity of incidents within the relationship is an external factor influencing the level of conflict. For example, when a major incident takes place, this may break a virtuous cycle of trust development and create a vicious one. Another possibility is to include both actual and expected performance as external factors that influence economic and non economic satisfaction. In our current model of relationship evolution, the reinforcing cycles are either virtuous or vicious and there is no possibility within the model to change the direction of these cycles. Inclusion of such external factors is needed to allow relationship cycles to stop or to change direction. As a result, the explanatory power of the model will improve, since it is will then be closer to business reality where collaborative relationships switch between positive and negative sequences of relationship development.

CHAPTER 9 CONCLUSIONS AND RECOMMENDATIONS

9.1 CONCLUSIONS

The central phenomenon of this thesis is collaboration in buyer-supplier relationships with a particular interest in the evolution of these collaborative relationships. The exploratory study (Chapter 2) on collaborative practices of leading multinational companies confirms the managerial relevance of the topic. The academic relevance is shown in the literature review (Chapter 3), which was conducted in the fields of marketing, operations management, and strategic management. In this review study, 133 studies published between 2000 and 2006 on buyer-supplier collaboration are identified (Appendix I). Most of these articles, as well as the articles that are most cited within these 133 contributions, have been published in the marketing literature. Analysis of all 133 articles shows that there are only few articles examining the dynamics of relationship development, despite repeated calls for longitudinal studies considering the evolution of relationship variables over time. The potential value of longitudinal studies to the literature on buyer-supplier collaboration stems largely from the opportunity to examine mechanisms of and patterns in successful as well as unsuccessful relationships. Only by following developments of such relationships over time, it is possible to gain improved knowledge of the dynamic processes determining overall relationship development. However, longitudinal studies are time consuming and vulnerable to external factors interfering with the studied phenomenon during the period of study. As an exception, Narayandas and Rangan (2004) describe the development of three relationships in mature industrial markets and propose five mechanisms guiding relationship initiation and maintenance. One of their main findings is that trust is built between individuals of both companies and that trust aggregation of these individual relationships determines the level of commitment between the organizations. In another study, Anderson and Jap (2005) emphasize possible downsides of close relationships and describe mechanisms that may lead to the decline of close relationships. They argue that too strong personal relationships can stimulate opportunistic behavior within the close relationship. Both studies are pioneering attempts in improving the understanding of (buyer-supplier) relationship development and are important building blocks of this thesis.

The empirical setting of this thesis is formed by two buyer-supplier relationships part of a key supplier program established by a focal buying company. Developments in the two focal key supplier relationships are studied for three consecutive years through the combined use of a survey instrument and telephone interviews. The interview transcripts were transcribed and analyzed using a detailed and explicit coding procedure. Several 'display levels' were constructed to improve the validity and reliability of this study, in line with the guidelines of qualitative research as put

forward by Miles and Huberman (1994) and Strauss and Corbin (1998). The dyadic, multiple informant, and longitudinal research design allows for a careful and detailed examination of the development of collaborative buyer-supplier relationships. In general, this study thus adds to the few longitudinal studies in the field of buyer-supplier collaboration.

The specific design of this study has also resulted in a contribution to the methodological debate on the value of using multiple instead of key informants in survey research (Chapter 5). More specifically, the results show that differences exist between buyer and supplier informants and between informants working at a strategic and tactical level within the collaborative relationship. These findings suggest that informant selection and the choice of using key or multiple informants is important in interpreting survey research, since the perspective and position of an informant may influence the scores given to the survey items.

In Chapter 6, specific attention is given to the development of collaborative relationships within key supplier programs. Key suppliers represent a different category than preferred suppliers. Key suppliers are those suppliers that are expected to innovate and to make investments in order to develop the relationship. However, recognition as key supplier is no guarantee for increased business, but offers the opportunity to enhance close collaboration between the companies to realize the potential value of the relationship. The close interaction is a way to build trust between the organizations and to improve relationship quality, although the key supplier status also raises expectations regarding relationship outcomes on both sides of the dyad. Ulaga and Eggert (2006) stress that the strongest differentiators in key supplier relationships are personal interaction and service support. From this perspective, the counterintuitive finding of increasing trust levels in one of the examined relationships may be explained. The close interaction as key supplier positively influences relationship quality, while the supplier's competitiveness in certain areas is not sufficient to renew existing contracts, causing a sharp decrease in relationship spend from 2005 to 2007.

The creation of various types of qualitative displays was essential in the development of chapters 7 and 8, respectively considering the role of socialization in and the evolution of buyer-supplier relationships. The choice to include informants from both sides of the dyad (i.e. buyer and supplier), working in various areas (e.g. regions, divisions) and active in different levels in the relationship (i.e. strategic and tactical level) enables a detailed examination of overall relationship development. These different perspectives provide different 'stories' (Pentland 1999) regarding the state as well as the development of the relationship. Qualitative data matrices are valuable in identifying these differences and show the richness of the interview data. For example, these displays provide insight in the socialization efforts across regions in the collaborative relationship with the logistics services provider. They also illustrate the limited effect of socialization tactics in the relationship with the IT services provider, where a negative history of collaboration moderates the assumed positive effect of socialization tactics on communication quality. The potential

stimulating effect of socialization is thus dependent on the characteristics of the business relationship. Careful choices in socialization tactics are essential in generating positive effects on overall relationship development.

The 'stories' further highlight key events in the development of each of the relationships. These events are matched with a process model of relationship evolution that is based on the meta-analytical study by Geyskens et al. (1999). It includes five relationship variables: commitment, conflict, economic & non economic satisfaction, and trust. The original framework is expanded with two additional relations to create a process model of relationship evolution (Figure 8-1). It contains three reinforcing loops, describing the development of collaborative relationships over time. When a loop describes a downward spiral of relationship development, it is a vicious cycle, in situations of positive relationship development there is a virtuous cycle. The data collected in the longitudinal case studies provide evidence of the joint existence of virtuous and vicious cycles within the same buyer-supplier relationship. Consequently, the actual, overall development of collaborative relationships results from the combined effect ('net force') of multiple virtuous and vicious cycles within that same relationship. This insight explains the difficult relationship between the focal buying company and its key IT services provider as well as the neutral development in the relationship with the logistics services provider. The neutral development of the relationship with the logistics services provider is also visualized by the displays in Chapter 6, which indicate a fairly stable development of indicators of relationship quality. The value of the proposed framework of relationship evolution lies in the possibility to improve understanding of the development of buyer-supplier relationships. The complexity of the model stems from the simultaneous existence of various mechanisms that operate at different areas and levels within the relationship. Acknowledging that various dynamic processes influence the quality of collaborative relationships contributes to a better understanding and management of such relationships, although the overall effect of all these processes remains difficult to determine.

9.2 MANAGERIAL IMPLICATIONS

The idea of virtuous and vicious cycles in relationship development is not widespread in managerial practice. Few managers unravel the logic or explanation behind the dynamics in the collaboration of their 'partnership' business relationships. This thesis emphasizes that buyer-supplier collaboration is a dynamic process and as such requires a dynamic lens. It would be worthwhile for practitioners to get acquainted with the notions of 'generating mechanisms' and 'virtuous and vicious cycles' to improve their awareness of the dynamic relationship development process. These insights may help them to look beyond the traditional boundaries of purchasing transactions and to put more emphasis on relationship building. Managers will need to look from their own as well as their partner's perspective to improve their knowledge of development processes. The loop diagrams can also be used in discussions between the companies to identify

(potential) impediments to successful relationship development. Creating and analyzing such loops can yield valuable insights by capturing the micro dynamics of collaborative relationships. Next, appropriate action can be taken to avoid downward spirals of relationship development: ‘the dark side of close relationships’ (Anderson and Jap 2005). Examples of such actions include socialization efforts which signal relationship commitment, and communication to carefully manage both organizations’ expectations.

In addition, improved understanding of collaborative relationships results from the visual displays presented in Chapter 6. These displays show graphically the development of key indicators of relationship quality, and also illustrate areas where the perceptions of the buyer and the supplier do not match and move in opposite directions. The dialogues with the key contact persons of the participating companies demonstrated that this type of information is valuable in managing collaborative relationships and provides support for effective discussions and decision-making in the relationship. Possibly, the companies may also distinguish between perceptions at various levels within the organization. This can either be done by comparing strategic versus tactical levels, or by assessing differences in various parts of the relationship (e.g. when one or both companies have multiple divisions).

It should also be noted that buying companies need to be careful and precise when they initiate key supplier programs. Clear communication is needed to prevent that unrealistic expectations arise either within the buying company or at the supplier one the decision is made to ‘promote’ the relationship to the select group of key suppliers. For example, suppliers need to be aware of the fact that the key supplier status is no guarantee for improved business. Similarly, buyers need to be realistic and they should not expect that key suppliers can always fulfill or exceed their expectations. Furthermore, buyers should make a deliberate choice as to whether to manage key supplier relationships at an aggregate level or to treat them as multiple smaller relationships. Often, the business between the parties consists of commodity as well as specialty products or services. Within the commodity area, competition is mainly based on price and few advantages can be given to the key supplier. On the other hand, key suppliers can distinguish themselves from its competitors in the specialty area, where customized products and services are required to support future developments of the buyer.

9.3 RECOMMENDATIONS FOR FUTURE RESEARCH

An important result of this study is the development of an evolutionary model of relationship development (Figure 8-1). The model is valuable in understanding the stories within the two focal collaborative relationships of this study. It also sheds light on potential ‘generating mechanisms’ (Pentland 1999) underlying the development of collaborative relationships over time. However, more research is needed to gain better understanding of the exact functioning of these loops. One method to examine these dynamic effects of relationship development is to use simulation studies.

Such studies offer the possibility to analyze and compare current and future relationship development patterns, especially when these relationships are complex and characterized by multiple dynamic processes between the companies at the same time. The way these processes can be aggregated to determine the overall effect on relationship development and the interplay between these processes are challenging areas for future research. The opportunities for future research on co-existence of multiple processes within a collaborative buyer-supplier relationship have also been stressed by Ross and Robertson (2007).

Moreover, more research is needed on the role of external factors influencing and changing the dynamic process of relationship development. Currently, the proposed model of relationship evolution is either always improving (virtuous cycle), or it is in a downward spiral (vicious cycle). In reality, the direction of the development of collaborative relationships can change, and it would be interesting to examine which factors can accomplish such changes. For example, the idea is raised in this thesis that the severity and number of incidents are external factors influencing the perceived level of conflict in the relationship. These factors are thus not part of the loop structure, but are external drivers of conflict, one of the core constructs of the proposed process model of relationship evolution. In addition to the severity and number of incidents, conflict is still also influenced by economic satisfaction which is part of the same reinforcing loop. Similarly, it can be argued that expectations and actual performance act as external drivers of non economic and economic satisfaction. This suggestion builds on the work by Narayandas and Rangan (2004) who argue that performance outside contractual terms 'jump-starts' trust building between individuals.

The role of expectations is also related to another interesting area for future research. Within key supplier programs, expectations at both sides of the dyad may change once a certain buyer-supplier relationship has been officially recognized as important ('key') to the future success of the buying company. To examine the possibility of raised expectations, it would be necessary to measure and examine relationship expectations and behavior before as well as after the announcement. A longitudinal design would be required to examine these effects. In such studies, it is also interesting to consider differences between key suppliers and regular suppliers, for example by examining topics such as relationship behavior and profitability.

Finally, a valuable area for future research is the use of reciprocal items in survey research. For example, in this thesis, the perspectives of the buying and the supplying organization are compared and the insights from these comparisons were helpful to our contact persons of the participating companies. The visual displays of relationship variables and the development of scores on these items for both the buyer and the supplier contributed to their understanding of the state of and developments in their collaborative relationship. Especially situations where perceptions of the buyer and the supplier move in opposite directions seem an attractive research area. The main challenge for this type of research will be to determine a sample size large enough to compare multiple perspectives within collaborative relationships. In addition, there are also

opportunities for future research in comparing the views of boundary spanners in these collaborative relationships. It is also interesting to determine whether counterparts of the buying and the supplying organization have similar views on their business relationship, and subsequently to analyze the effects of different opinions at individual level on interorganizational relationship development.

BIBLIOGRAPHY

Abratt, R. and Kelly, P. M. (2002). Customer-supplier partnerships: Perceptions of a successful key account management program, *Industrial Marketing Management*, 31 (5), 467-476.

Akkermans, H., *Modelling with managers. Participative business modelling for effective strategic decision making*. TU Eindhoven, Dissertation, Eindhoven, 1995.

Akkermans, H., Bogerd, P. and Vos, B. (1999). Virtuous and vicious cycles on the road towards international supply chain management, *International Journal of Operations & Production Management*, 19 (5/6), 565-582.

Akkermans, H., Bogerd, P. and Doremalen, J. v. (2004). Travail, transparency and trust: A case study of computer-supported collaborative supply chain planning in high-tech electronics, *European Journal of Operations Research*, 153 (2), 445-456.

Andersen, P. H. and Christensen, P. R. (2000). Inter-partner learning in global supply chains: lessons from NOVO Nordisk, *European Journal of Purchasing & Supply Management*, 6 (2), 105-116.

Andersen, P. H. and Kumar, R. (2006). Emotions, trust and relationship development in business relationships: A conceptual model for buyer-seller dyads, *Industrial Marketing Management*, 35 (4), 522-535.

Anderson, E. and Weitz, B. (1992). The use of pledges to build and sustain commitment in distribution channels, *Journal of Marketing Research*, 8 (4), 18-34.

Anderson, E. and Jap, S. D. (2005). The dark side of close relationships, *MIT Sloan Management Review*, 46 (3), 75-82.

Anderson, J. C. and Narus, J. A. (1984). A model of distributor firm and manufacturer firm working partnerships, *Journal of Marketing*, 48 (3), 62-74.

Anderson, J. C. and Narus, J. A. (1990). A model of distributor firm and manufacturer firm working partnerships, *Journal of Marketing*, 54 (1), 42-58.

Anderson, J. C., Håkansson, H. and Johanson, J. (1994). Dyadic business relationships within a business network context, *Journal of Marketing*, 58 (4), 1-15.

Anderson, J. C., Zerrillo Sr, P. C. and Wang, L. O. (2006). Estimating firm-specific and relational properties in interorganizational relationships in marketing, *Journal of Business to Business Marketing*, 13 (4), 29-67.

Ariño, A. and De la Torre, J. (1998). Learning from failure: Towards an evolutionary model of collaborative ventures, *Organization Science*, 9 (3), 306-325.

Ariño, A. (2003). Measures of strategic alliance performance: An analysis of construct validity, *Journal of International Business Studies*, 34 (1), 66-79.

Armstrong, J. S. and Overton, T. S. (1977). Estimating nonresponse bias in mail surveys, *Journal of Marketing Research*, 14 (3), 396-402.

- Ashforth, B. E. and Saks, A. M. (1996). Socialization tactics: Longitudinal effects on newcomer adjustment, *Academy of Management Journal*, 39 (1), 149.
- Axelrod, R., *The evolution of cooperation*. Basic Books, New York, 1984.
- Baarda, D. B., De Goede, M. P. M. and Kalmijn, M., *Basisboek: Enqueteren en gestructureerd interviewen*. Wolters-Noordhoff bv, Groningen, 2000.
- Bagozzi, R. P. (2006). The role of social and self-conscious emotions in the regulation of business-to-business relationships in salesperson-customer interactions, *Journal of Business & Industrial Marketing*, 21 (7), 453-457.
- Baker, T. L., *Doing social research*. McGraw-Hill, Singapore, 1999.
- Baker, W. E. and Sinkula, J. M. (2005). Environmental marketing strategy and firm performance: Effects on new product performance and market share, *Academy of Marketing Science*, 33 (4), 461-475.
- Barnes, B. R., Naude, P. and Michell, P. (2007). Perceptual gaps and similarities in buyer-seller dyadic relationships, *Industrial Marketing Management*, 36 (5), 662-675.
- Barratt, M. (2004). Unveiling enablers and inhibitors of collaborative planning, *International Journal of Logistics Management*, 15 (1), 73-90.
- Bell, G. G., Oppenheimer, R. J. and Bastien, A. (2002). Trust deterioration in an international buyer-supplier relationship, *Journal of Business Ethics*, 36 (1/2), 65-78.
- Bendapudi, N. and Leone, R. P. (2002). Managing business-to-business customer relationships following key contact employee turnover in a vendor firm, *Journal of Marketing*, 66 (2), 83-101.
- Bensaou, M. (1999). Portfolios of buyer-supplier relationships, *Sloan Management Review*, 40 (4), 35-44.
- Bettencourt, L. A., Ostrom, A. L., Brown, S. W. and Roundtree, R. I. (2002). Client co-production in knowledge-intensive business services, *California Management Review*, 44 (4), 100-128.
- Blumberg, B. F. (2001). Cooperation contracts between embedded firms, *Organization Studies*, 22 (5), 825-852.
- Boeije, H., *Analyseren in kwalitatief onderzoek: Denken en doen*. Boom Onderwijs, Amsterdam, 2005.
- Boyer, K. K. and Verma, R. (2000). Multiple raters in survey-based operations management research: A review and tutorial, *Production and Operations Management*, 9 (2), 128-140.
- Campbell, D. T. (1955). The informant in quantitative research, *The American Journal of Sociology*, 60 (4), 339-342.
- Cannon, J. P. and Perreault Jr., W. D. (1999). Buyer-seller relationships in business markets, *Journal of Marketing Research*, 36 (4), 439-460.
- Capron, L. and Hulland, J. (1999). Redeployment of brands, sales forces, and general marketing management expertise following horizontal acquisitions: A resource-based view, *Journal of Marketing*, 63 (2), 41-54.
- Carter, P. L., Carter, J. R., Monczka, R. M., Blascovich, J. D., Slaughter, T. H. and Markham, W. J., *Succeeding in a dynamic world: Supply management in the decade ahead*, CAPS Research Institute for Supply Management, 2007.

- Chandrashekar, M., Rotte, K., Tax, S. S. and Grewal, R. (2007). Satisfaction strength and customer loyalty, *Journal of Marketing Research*, 44 (1), 153-163.
- Corsten, D. and Kumar, N. (2005). Do suppliers benefit from collaborative relationships with large retailers? An empirical investigation of efficient consumer response adoption., *Journal of Marketing*, 69 (3), 80-94.
- Cousins, P. D., Handfield, R. B., Lawson, B. and Petersen, K. J. (2006). Creating supply chain relational capital: The impact of formal and informal socialization processes, *Journal of Operations Management*, 24 (6), 851-863.
- Cousins, P. D. and Menguc, B. (2006). The implications of socialization and integration in supply chain management, *Journal of Operations Management*, 24 (5), 604-620.
- Cousins, P. D., Lawson, B. and Squire, B. (2008). Performance measurement in strategic buyer-supplier relationships, *International Journal of Operations & Production Management*, 28 (3), 238-258.
- Crosby, L. A., Evans, K. R. and Cowles, D. (1990). Relationship quality in services selling: An interpersonal perspective, *Journal of Marketing*, 54 (3), 68-81.
- Czepiel, J. A. (1990). Service encounters and service relationships: Implications for research, *Journal of Business Research*, 20 (1), 13-21.
- Das, A. and Handfield, R. B. (1997). A meta-analysis of doctoral dissertations in purchasing, *Journal of Operations Management*, 15 (2), 101-121.
- De Rond, M. and Bouchikhi, H. (2004). On the dialectics of strategic alliances, *Organization Science*, 15 (1), 56-69.
- De Ruyter, K., Moorman, L. and Lemmink, J. (2001). Antecedents of commitment and trust in customer-supplier relationships in high technology markets, *Industrial Marketing Management*, 30 (3), 271-286.
- Del Bosque Rodríguez, I. R., Agudo, J. C. and Gutiérrez, H. S. M. (2006). Determinants of economic and social satisfaction in manufacturer-distributor relationships, *Industrial Marketing Management*, 35 (6), 666-675.
- Doney, P. M. and Cannon, J. P. (1997). An examination of the nature of trust in buyer-seller relationships, *Journal of Marketing*, 61 (2), 35-51.
- Doz, Y. (1996). The evolution of cooperation in strategic alliances: Initial conditions or learning processes, *Strategic Management Journal*, 17 (Special Issue), 55-83.
- Duffy, R. and Fearne, A. (2004). The impact of supply chain partnerships on supplier performance, *International Journal of Logistics Management*, 15 (1), 57-71.
- Duffy, R. S. (2008). Towards a better understanding of partnership attributes: An exploratory analysis of relationship type classification, *Industrial Marketing Management*, 37 (2), 228-244.
- Dwyer, F. R., Schurr, P. H. and Oh, S. (1987). Developing buyer-seller relationships, *Journal of Marketing Research*, 51 (2), 11-27.
- Dyer, J. H., *Collaborative advantage: Winning through extended enterprise networks*. Oxford University Press, New York, 2000.

- Dyer, J. H. and Chu, W. (2003). The role of trustworthiness in reducing transaction costs and improving performance: Empirical evidence from the United States, Japan, and Korea, *Organization Science*, 14 (1), 57-68.
- Dyer, J. H. and Hatch, N. W. (2004). Using supplier networks to learn faster, *MIT Sloan Management Review*, 45 (3), 57-63.
- Dyer, J. H. and Hatch, N. W. (2006). Relation-specific capabilities and barriers to knowledge transfers: Creating advantage through network relationships, *Strategic Management Journal*, 27 (8), 701-719.
- Eggert, A., Ulaga, W. and Schultz, F. (2006). Value creation in the relationship life cycle: A quasi-longitudinal approach, *Industrial Marketing Management*, 35 (1), 20-27.
- Eisenhardt, K. M. and Martin, J. A. (2000). Dynamic capabilities: What are they? *Strategic Management Journal*, 21 (10/11), 1105-1121.
- Eisenhardt, K. M. and Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges, *Academy of Management Journal*, 50 (1), 25-32.
- Ellram, L. M. and Hendrick, T. E. (1995). Partnering characteristics: A dyadic perspective, *Journal of Business Logistics*, 16 (1), 41-64.
- Emerson, R. (1962). Power-dependence relations, *American Sociological Review*, 26 31-41.
- Feldman, D. C. (1981). The multiple socialization of organization members, *Academy of Management Review*, 6 (2), 309-318.
- Ford, D. (1984). Buyer/Seller relationships in international industrial markets, *Industrial Marketing Management*, 13 (2), 101-112.
- Fornell, C. and Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error, *Journal of Marketing Research*, 18 (1), 39-50.
- Fynes, B. and Voss, C. (2002). The moderating effect of buyer-supplier relationships on quality practices and performance, *International Journal of Operations & Production Management*, 22 (6), 589-613.
- Fynes, B., De Búrca, S. and Marshall, D. (2004). Environmental uncertainty, supply chain relationship quality and performance, *Journal of Purchasing and Supply Management*, 10 (4/5), 179-190.
- Fynes, B., Voss, C. and De Búrca, S. (2005a). The impact of supply chain relationship dynamics on manufacturing performance, *International Journal of Operations & Production Management*, 25 (1), 6-19.
- Fynes, B., Voss, C. and De Búrca, S. (2005b). The impact of supply chain relationship quality on quality performance, *International Journal of Production Economics*, 96 (3), 339-354.
- Fynes, B., De Búrca, S. and Mangan, J. (2008). The effect of relationship characteristics on relationship quality and performance, *International Journal of Production Economics*, 111 (1), 56-69.
- Ganesan, S. (1994). Determinants of long-term orientation in buyer-seller relationships, *Journal of Marketing*, 58 (2), 1-19.
- Garbarino, E. and Johnson, M. S. (1999). The different roles of satisfaction, trust, and commitment in customer relationships, *Journal of Marketing*, 63 (2), 70-87.

- Geyskens, I., Steenkamp, J. E. M., Scheer, L. K. and Kumar, N. (1996). The effects of trust in interdependence on relationship commitment: A trans-Atlantic study, *International Journal of Research in Marketing*, 13 303-317.
- Geyskens, I., Steenkamp, J.-B. E. M. and Kumar, N. (1999). A meta-analysis of satisfaction in marketing channel relationships, *Journal of Marketing Research*, 36 (2), 223-238.
- Geyskens, I., Steenkamp, J.-B. E. M. and Kumar, N. (2006). Make, buy, or ally: A transaction cost theory meta-analysis, *Academy of Management Journal*, 49 (3), 519-543.
- Ghoshal, S. and Bartlett, C. A. (1988). Creation, adoption, and diffusion of innovations by subsidiaries of multinational corporations, *Journal of International Business Studies*, 19 (3), 365-388.
- Glaser, B. G., *Theoretical sensitivity: Advances in the methodology of grounded theory*. Sociology Press, Mill Valley, CA, 1978.
- Goffin, K., Lemke, F. and Szwejczewski, M. (2006). An exploratory study of 'close' supplier-manufacturer relationships, *Journal of Operations Management*, 24 (2), 189-209.
- Griffith, D. A., Harvey, M. G. and Lusch, R. F. (2006). Social exchange in supply chain relationships: The resulting benefits of procedural and distributive justice, *Journal of Operations Management*, 24 (2), 85-96.
- Gulati, R. (1995). Social structure and alliance formation patterns: A longitudinal analysis, *Administrative Science Quarterly*, 40 (4), 619-652.
- Gulati, R. and Sytch, M. (2007). Dependence asymmetry and joint dependence in interorganizational relationships: Effects of embeddedness on a manufacturer's performance in procurement relationships, *Administrative Science Quarterly*, 52 (1), 32-69.
- Gundlach, G. T., Achrol, R. S. and Mentzer, J. T. (1995). The structure of commitment in exchange, *Journal of Marketing*, 59 (1), 78-92.
- Gupta, A. K. and Govindarajan, V. (1991). Knowledge flows and the structure of control within multinational corporations, *Academy of Management Review*, 16 (4), 768-792.
- Gupta, A. K. and Govindarajan, V. (2000). Knowledge flows within multinational corporations, *Strategic Management Journal*, 21 (4), 473-496.
- Håkansson, H., *Industrial marketing and purchasing of industrial goods: An interaction approach*. John Wiley & Sons, Ltd., Chichester, UK, 1982.
- Halldórsson, Á. and Skjøtt-Larsen, T. (2006). Dynamics of relationship governance in TPL arrangements - A dyadic perspective, *International Journal of Physical Distribution & Logistics Management*, 36 (7), 490-506.
- Hallén, L., Johanson, J. and Seyed-Mohammed, N. (1991). Interfirm adaptation in business relationships, *Journal of Marketing*, 55 (2), 29-37.
- Hamel, G. (1991). Competition for competence and inter-partner learning within international strategic alliances, *Strategic Management Journal*, 12 (Special Issue), 83-103.
- Hardy, C., Lawrence, T. B. and Grant, D. (2005). Discourse and collaboration: The role of conversations and collective identity, *Academy of Management Review*, 30 (1), 58-77.
- Harker, M. and Harker, D. (1998). The role of strategic selling in the company turnaround process, *The Journal of Personal Selling & Sales Management*, 18 (2), 55-67.

- Harzing, A.-W. and Noorderhaven, N. (2006). Knowledge flows in MNCs: An empirical test and extension of Gupta and Govindarajan's typology of subsidiary roles, *International Business Review*, 15 (3), 195.
- Heide, J. B. and John, G. (1988). The role of dependence balancing in safeguarding transaction-specific assets in conventional channels, *Journal of Marketing*, 52 (1), 20-35.
- Heide, J. B. and John, G. (1990). Alliances in industrial purchasing: The determinants of joint action in buyer-supplier relationships, *Journal of Marketing Research*, 27 (1), 24-36.
- Heide, J. B. and John, G. (1992). Do norms matter in marketing relationships? *Journal of Marketing*, 56 (2), 32-44.
- Heide, J. B. (1994). Interorganizational governance in marketing channels, *Journal of Marketing*, 58 (1), 71-85.
- Hibbard, J. D., Kumar, N. and Stern, L. W. (2001). Examining the impact of destructive acts in marketing channel relationships., *Journal of Marketing Research*, 38 (1), 45-61.
- Hipkin, I. and Naudé, P. (2006). Developing effective alliance partnerships, *Long Range Planning*, 39 (1), 51-69.
- Homburg, C., Workman Jr., J. P. and Jensen, O. (2002). A configurational perspective on key account management, *Journal of Marketing*, 66 (2), 38-60.
- House, R. G. and Stank, T. P. (2001). Insights from a logistics partnership, *Supply Chain Management*, 6 (1), 16-20.
- Hutjes, J. M. and Van Buuren, J. A., *De gevalsstudie: Strategie van kwalitatief onderzoek*. Boom, Meppel, 1996.
- Hutt, M. D., Stafford, E. R., Walker, B. A. and Reingen, P. H. (2000). Defining the social network of a strategic alliance, *Sloan Management Review*, 41 (2), 51-62.
- Hutzschenreuter, T. and Kleindienst, I. (2006). Strategy-process research: What have we learned and what is still to be explored, *Journal of Management*, 32 (5), 673-720.
- Ireland, R. D., Hitt, M. A. and Vaidyanath, D. (2002). Alliance management as a source of competitive advantage, *Journal of Management*, 28 (3), 413-446.
- Ivens, B. S. (2004). How relevant are different forms of relational behavior? An empirical test based on Macneil's exchange framework, *Journal of Business & Industrial Marketing*, 19 (4/5), 300-309.
- Ivens, B. S. (2005). Flexibility in industrial service relationships: The construct, antecedents, and performance outcomes, *Industrial Marketing Management*, 34 (6), 566-576.
- Ivens, B. S. and Pardo, C. (2007). Are key account relationships different? Empirical results on supplier strategies and customer reactions, *Industrial Marketing Management*, 36 (4), 470.
- Janowicz-Panjaitan, M. and Noorderhaven, N. G. (2008). Formal and informal interorganizational learning within strategic alliances, *Research Policy*, 37 (8), 1337.
- Jap, S. D. and Ganesan, S. (2000). Control mechanisms and the relationship life cycle: Implications for safeguarding specific investments and developing commitment, *Journal of Marketing Research*, 37 (2), 227-245.

- Jap, S. D. (2001). 'Pie sharing' in complex collaboration contexts, *Journal of Marketing Research*, 38 (1), 86-99.
- Jap, S. D. and Anderson, E. (2003). Safeguarding interorganizational performance and continuity under ex post opportunism, *Management Science*, 49 (12), 1684-1701.
- Jap, S. D. and Anderson, E. (2007). Testing a life-cycle theory of cooperative interorganizational relationships: Movement across stages and performance, *Management Science*, 53 (2), 260-275.
- Jeffries, F. L. and Reed, R. (2000). Trust and adaptation in relational contracting, *Academy of Management Review*, 25 (4), 873-882.
- John, G. and Reve, T. (1982). The reliability and validity of key informant data from dyadic relationships in marketing channels, *Journal of Marketing Research*, 19 (4), 517-524.
- Johnston, D. A., McCutcheon, D. M., Stuart, F. I. and Kerwood, H. (2004). Effects of supplier trust on performance of cooperative supplier relationships, *Journal of Operations Management*, 22 (1), 23-38.
- Jones, G. R. (1986). Socialization tactics, self-efficacy, and newcomers' adjustments to organizations, *Academy of Management Journal*, 29 (2), 262-279.
- Jonker, J. and Pennink, B. J. W., *De kern van methodologie*. Van Gorcum, Assen, 2004.
- Kale, P., Singh, H. and Perlmutter, H. (2000). Learning and protection of proprietary assets in strategic alliances: Building relational capital, *Strategic Management Journal*, 21 (3), 217-237.
- Kale, P., Dyer, J. H. and Singh, H. (2002). Alliance capability, stock market response, and long-term alliance success, *Strategic Management Journal*, 23 (8), 747-767.
- Kalwani, M. U. and Narayandas, N. (1995). Long-term manufacturer-supplier relationships: Do they pay off for supplier firms? *Journal of Marketing*, 59 (1), 1-16.
- Kamann, D.-J. F., Snijders, C., Tazelaar, F. and Welling, D. T. (2006). The ties that bind: Buyer-supplier relations in the construction industry, *Journal of Purchasing and Supply Management*, 12 (1), 28-38.
- Kaufmann, L. and Carter, C. R. (2006). International supply relationships and non-financial performance - A comparison of U.S. and German practices, *Journal of Operations Management*, 24 (5), 653-675.
- Kim, C. and Lee, H. (1997). Development of family triadic measures for children's purchase influence, *Journal of Marketing Research*, 34 (3), 307-321.
- Krause, D. R., Handfield, R. B. and Tyler, B. B. (2007). The relationships between supplier development, commitment, social capital accumulation and performance improvement, *Journal of Operations Management*, 25 (2), 528-545.
- Krishnan, R., Martin, X. and Noorderhaven, N. G. (2006). When does trust matter to alliance performance? *Academy of Management Journal*, 49 (5), 894-917.
- Kumar, N., Stern, L. W. and Anderson, J. C. (1993). Conducting interorganizational research using key informants, *Academy of Management Journal*, 36 (6), 1633-1651.
- Kumar, N., Scheer, L. K. and Steenkamp, J. E. M. (1995). The effects of supplier fairness on vulnerable resellers, *Journal of Marketing Research*, 32 (1), 54-65.

- Kwon, I.-W. G. and Suh, T. (2004). Factors affecting the level of trust and commitment in supply chain relationships, *Journal of Supply Chain Management*, 40 (2), 4-14.
- Lambe, C. J., Wittmann, C. M. and Spekman, R. E. (2001). Social exchange theory and research on business-to-business relational exchange, *Journal of Business to Business Marketing*, 8 (3), 1-36.
- Lambe, C. J., Spekman, R. E. and Hunt, S. D. (2002). Alliance competence, resources, and alliance success: Conceptualisation, measurement, initial test, *Academy of Marketing Science*, 30 (2), 141-158.
- Langley, A. (1999). Strategies for theorizing from process data, *Academy of Management Review*, 24 (4), 691-710.
- Langley, A. (2007). Process thinking in strategic organization, *Strategic Organization*, 5 (3), 271-282.
- Larzelere, R. E. and Huston, T. L. (1980). The dyadic trust scale: Toward understanding interpersonal trust in close relationships, *Journal of Marriage and the Family*, 42 (3), 595-604.
- Lau, G. T. and Goh, M. (2005). Buyer-seller relationships in the PCB industry, *Supply Chain Management*, 10 (3/4), 302-312.
- Liker, J. K. and Choi, T. Y. (2004). Building deep supplier relationships, *Harvard Business Review*, 82 (12), 104-113.
- Luo, Y. (2008). Procedural fairness and interfirm cooperation in strategic alliances, *Strategic Management Journal*, 29 (1), 27-46.
- Macneil, I. R. (1980). Power, contract, and the economic model, *Journal of Economic Issues*, 14 (4), 909-923.
- Miles, M. B. and Huberman, A. M., *Qualitative data analysis: An expanded sourcebook*. Sage Publications, Thousand Oaks, 1994.
- Min, S., Roath, A. S., Daugherty, P. J., Genchev, S. E. and Richey, R. G. (2005). Supply chain collaboration: What's happening? *International Journal of Logistics Management*, 16 (2), 237-256.
- Mohr, J. and Spekman, R. (1994). Characteristics of partnership success: Partnership attributes, communication behavior, and conflict resolution techniques, *Strategic Management Journal*, 15 (2), 135-152.
- Mohr, L. B., *Explaining organizational behavior: The limits and possibilities of theory and research*. Jossey-Bass, San Francisco, 1982.
- Moorman, C., Zaltman, G. and Deshpande, R. (1992). Relationships between providers and users of market research: The dynamics of trust within and between organizations, *Journal of Marketing Research*, 29 (3), 314-328.
- Morgan, N. A., Zou, S., Vorhies, D. W. and Katsikeas, C. S. (2003). Experiential and informational knowledge, architectural marketing capabilities, and the adaptive performance of export ventures: A cross-national study, *Decision Sciences*, 34 (2), 287-321.
- Morgan, R. M. and Hunt, S. D. (1994). The commitment-trust theory of relationship marketing, *Journal of Marketing*, 58 (3), 20-38.
- Muthusamy, S. K. and White, M. A. (2005). Learning and knowledge transfer in strategic alliances: A social exchange view, *Organization Studies*, 26 (3), 415-441.

- Narayandas, D. and Rangan, S. (2004). Building and sustaining buyer-seller relationships in mature industrial markets, *Journal of Marketing*, 68 (3), 63-77.
- Narayandas, D. (2005). Building loyalty in business markets, *Harvard Business Review*, 83 (9), 131-140.
- Noordewier, T. G., John, G. and Nevin, J. R. (1990). Performance outcomes of purchasing arrangements in industrial buyer-vendor relationships, *Journal of Marketing*, 54 (4), 80-93.
- Nooteboom, B., *Trust. Forms, foundations, functions, failures and figures*. Edward Elgar, Cheltenham, 2002.
- Ouchi, W. G. (1979). A conceptual framework for the design of organizational control mechanisms, *Management Science*, 25 (9), 833-848.
- Palmatier, R. W., Dant, R. P., Grewal, D. and Evans, K. R. (2006). Factors influencing the effectiveness of relationship marketing: A meta-analysis, *Journal of Marketing*, 70 (4), 136-153.
- Palmatier, R. W., Dant, R. P. and Grewal, D. (2007). A comparative longitudinal analysis of theoretical perspectives of interorganizational relationship performance, *Journal of Marketing*, 71 (4), 172-194.
- Parkhe, A. (1993). Strategic alliance structuring: A game theoretic and transaction cost examination of interfirm cooperation, *Academy of Management Journal*, 36 (4), 794-829.
- Parsons, A. L. (2002). What determines buyer-seller relationship quality? An investigation from the buyer's perspective, *Journal of Supply Chain Management*, 38 (2), 4-12.
- Paulraj, A., Lado, A. A. and Chen, I. J. (2008). Inter-organizational communication as a relational competency: Antecedents and performance outcomes in collaborative buyer-supplier relationships, *Journal of Operations Management*, 26 (1), 45-64.
- Pentland, B. T. (1999). Building process theory with narrative: From description to explanation, *Academy of Management Review*, 24 (4), 711-724.
- Perrone, V., Zaheer, A. and McEvily, B. (2003). Free to be trusted? Organizational constraints on trust in boundary spanners, *Organization Science*, 14 (4), 422-439.
- Pettigrew, A. M. (1992). The character and significance of strategy process research, *Strategic Management Journal*, 13 (Special Issue), 5-16.
- Pettigrew, A. M., Woodman, R. W. and Cameron, K. S. (2001). Studying organizational change and development: Challenges for future research, *Academy of Management Journal*, 44 (4), 697-713.
- Pfeffer, J. and Salancik, G. R., *The external control of organizations: A resource dependence perspective*. Harper & Row, New York, 1978.
- Phillips, D. L. and Clancy, K. J. (1972). Some effects of "social desirability" in survey studies, *American Journal of Sociology*, 77 (5), 921-940.
- Phillips, L. W. (1981). Assessing measurement error in key informant reports: A methodological note on organizational analysis in marketing, *Journal of Marketing Research*, 18 (4), 395-415.
- Poppo, L., Zhou, K. Z. and Ryu, S. (2008). Alternative origins to interorganizational trust: An interdependence perspective on the shadow of the past and the shadow of the future, *Organization Science*, 19 (1), 39-55.

- Rauyruen, P. and Miller, K. E. (2007). Relationship quality as a predictor of B2B customer loyalty, *Journal of Business Research*, 60 (1), 21-31.
- Rempel, J. K. and Holmes, J. G. (1986). How do I trust thee? *Psychology Today*, 20 (2), 28-34.
- Rhodes, C. and Brown, A. D. (2005). Narrative, organizations and research, *International Journal of Management Reviews*, 7 (3), 167-188.
- Rinehart, L. M., Eckert, J. A., Handfield, R. B., Page Jr., T. J. and Atkin, T. (2004). An assessment of supplier-customer relationships, *Journal of Business Logistics*, 25 (1), 25-62.
- Ring, P. S. and Van de Ven, A. (1994). Developmental processes of cooperative interorganizational relationships, *Academy of Management Review*, 19 (1), 90-118.
- Rokkan, A. I., Heide, J. B. and Wathne, K. H. (2003). Specific investments in marketing relationships: Expropriation and bonding effects, *Journal of Marketing Research*, 40 (2), 210-224.
- Ross, J. W. T. and Robertson, D. C. (2007). Compound relationships between firms, *Journal of Marketing*, 71 (3), 108-123.
- Rotter, J. B. (1967). A new scale for the measurement of interpersonal trust, *Journal of Personality*, 35 (4), 651-665.
- Rotter, J. B. (1980). Interpersonal trust, trustworthiness and gullibility, *American Psychologist*, 26 1-7.
- Ryals, L. (2005). Making customer relationship management work: The measurement and profitable management of customer relationships, *Journal of Marketing*, 69 (4), 252-261.
- Sako, M. and Helper, S. (1998). Determinants of trust in supplier relations: Evidence from the automotive industry in Japan and the United States, *Journal of Economic Behavior & Organization*, 34 (3), 387-417.
- Schotanus, F., *Horizontal cooperative purchasing*. University of Twente, Dissertation, Enschede, 2007.
- Selnes, F. and Sallis, J. (2003). Promoting relationship learning, *Journal of Marketing*, 67 (3), 80-95.
- Seppänen, R., Blomqvist, K. and Sundqvist, S. (2007). Measuring inter-organizational trust--a critical review of the empirical research in 1990-2003, *Industrial Marketing Management*, 36 (2), 249-265.
- Sharfman, M. (1998). On the advisability of using CEOs as the sole informant in strategy research, *Journal of Managerial Issues*, 10 (3), 373-392.
- Siggelkow, N. (2007). Persuasion with case studies, *Academy of Management Journal*, 50 (1), 20-24.
- Slobodow, B., Abdullah, O. and Babuschak, W. C. (2008). When supplier partnerships aren't, *MIT Sloan Management Review*, 49 (2), 77-83.
- Smith, J. B. and Barclay, D. W. (1997). The effects of organizational differences and trust on the effectiveness of selling partner relationships, *Journal of Marketing*, 61 (1), 3-21.
- Smith, J. B. (1998). Buyer-seller relationships: Similarity, relationship management, and quality, *Psychology and Marketing*, 15 (1), 3-21.
- Sollner, A. (1999). Asymmetrical commitment in business relationships, *Journal of Business Research*, 46 (3), 219-233.

- Spekman, R. E. and Carraway, R. (2006). Making the transition to collaborative buyer-seller relationships: An emerging framework, *Industrial Marketing Management*, 35 (1), 10-19.
- Spina, G. and Zotteri, G. (2000). The implementation process of customer-supplier partnership, *International Journal of Operations & Production Management*, 20 (10), 1164-1182.
- Storey, J., Emberson, C. and Reade, D. (2005). The barriers to customer responsive supply chain management, *International Journal of Operations & Production Management*, 25 (3), 242-260.
- Storey, J., Emberson, C., Godsell, J. and Harrison, A. (2006). Supply chain management: Theory, practice and future challenges, *International Journal of Operations & Production Management*, 26 (7), 754-774.
- Strauss, A. and Corbin, J., *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Sage Publications, Thousand Oaks, 1998.
- Svensson, G. (2006). Multiple informants and asymmetric interactions of mutual trust in dyadic business relationships, *European Business Review*, 18 (2), 132-152.
- Tatikonda, M. V. and Montoya-Weiss, M. M. (2001). Integrating operations and marketing perspectives of product innovation: The influence of organizational process factors and capabilities on development performance, *Management Science*, 47 (1), 151-172.
- Tazelaar, F. (2007). With a little help from your friends (and neighbors): A potentially faster way to accumulate knowledge in the field of purchasing and supply, *Journal of Purchasing and Supply Management*, 13 (3), 196-198.
- Teece, D. J., Pisano, G. and Shuen, A. (1997). Dynamic capabilities and strategic management, *Strategic Management Journal*, 18 (7), 509-533.
- Tellefsen, T. and Thomas, G. P. (2005). The antecedents and consequences of organizational and personal commitment in business service relationships, *Industrial Marketing Management*, 34 (1), 23-37.
- Teo, T. S. H. and King, W. R. (1997). An assessment of perceptual differences between informants in information systems research, *Omega, International Journal of Management Science*, 25 (5), 557-566.
- Thibaut, J. W. and Kelley, H. H., *The social psychology of groups*. Wiley, New York, 1959.
- Tsai, W. and Ghoshal, S. (1998). Social capital and value creation: The role of intrafirm networks, *Academy of Management Journal*, 41 (4), 464-476.
- Tsai, W. (2002). Social structure of "coopetition" within a multiunit organization: Coordination, competition, and intraorganizational knowledge sharing, *Organization Science*, 13 (2), 179-190.
- Tuttle, M. (2002). A review and critique of Van Maanen and Schein's "Toward a theory of organizational socialization" and implications for human resource development, *Human Resource Development Review*, 1 (1), 66-90.
- Ulaga, W. (2003). Capturing value creation in business relationships: A customer perspective, *Industrial Marketing Management*, 32 (8), 677-693.
- Ulaga, W. and Eggert, A. (2006). Value-based differentiation in business relationships: Gaining and sustaining key supplier status, *Journal of Marketing*, 70 (1), 119-136.
- Vaaland, T. I. (2006). When conflict communication threatens the business relationship: Lessons from the Balder story, *Journal of Business to Business Marketing*, 13 (2), 3-27.

- Van Bruggen, G. H., Lilien, G. L. and Kacker, M. (2002). Informants in organizational marketing research: Why use multiple informants and how to aggregate responses, *Journal of Marketing Research*, 39 (4), 469-478.
- Van de Ven, A. H. (1992). Suggestions for studying strategy process: A research note, *Strategic Management Journal*, 13 (Special Issue), 169-188.
- Van de Ven, A. H. and Poole, M. S. (2005). Alternative approaches for studying organizational change, *Organization Studies*, 26 (9), 1377-1404.
- Van de Vijver, M. and Vos, B. (2006a). The F-35 Joint Strike Fighter as a source of innovation and employment: Some interim results, *Defence and Peace Economics*, 17 (2), 155-159.
- Van de Vijver, M. and Vos, B., Samenwerkingsverbanden met belangrijke leveranciers: Een verkennende studie naar gewoontes in verschillende industrieën, in *Van Inkoop naar Ondernemen*, H. Van den Hoogen and S. Santema, NEVI, Zoetermeer, 2006b.
- Van de Vijver, M. and Ivens, B. S. (2007). An empirical analysis of multiple respondents' perceptual gaps in dyadic research on buyer-seller relationships. In: *23rd IMP Conference*, Manchester, UK,
- Van de Vijver, M. and Vos, B. (2007). Improving competitive positioning in the aerospace industry: A case study of Dutch participation in the F-35 Lightning II (JSF) programme, *Defence and Peace Economics*, 18 (6), 509-517.
- Van de Vijver, M., Vos, B. and Akkermans, H. (2008). A tale of two partnerships: Socialization in the development of buyer-supplier relationships. In: *EurOMA Conference*, Groningen, The Netherlands,
- Van Maanen, J. and Schein, E. H., *Toward a theory of organizational socialization*. JAI Press Inc., Greenwich, CT, 1979.
- Vandaele, D., Rangarajan, D., Gemmel, P. and Lievens, A. (2007). How to govern business services exchanges: Contractual and relational issues, *International Journal of Management Reviews*, 9 (3), 237-258.
- Vereecke, A. and Muylle, S. (2006). Performance improvement through supply chain collaboration in Europe, *International Journal of Operations & Production Management*, 26 (11), 1176-1198.
- Voss, C., Tsikriktsis, N. and Frohlich, M. (2002). Case research in operations management, *International Journal of Operations & Production Management*, 22 (2), 195-219.
- Wagner, B. A., Macbeth, D. K. and Boddy, D. (2002). Improving supply chain relations: An empirical case study, *Supply Chain Management*, 7 (3/4), 253-264.
- Ward, P. T., McCreery, J. K., Ritzman, L. P. and Sharma, D. (1998). Competitive priorities in operations management, *Decision Sciences*, 29 (4), 1035-1046.
- Welling, D. T. and Kamann, D.-J. F. (2001). Vertical cooperation in the construction industry: Size does matter, *Journal of Supply Chain Management*, 37 (4), 28-33.
- Wengler, S., Ehret, M. and Saab, S. (2006). Implementation of key account management: Who, why, and how? An exploratory study on the current implementation of key account management programs, *Industrial Marketing Management*, 35 (1), 103-112.
- Wilson, D. T. (1995). An integrated model of buyer-seller relationships, *Journal of the Academy of Marketing Science*, 23 (4), 335-345.

Yin, R. K., *Case study research: Design and methods, Third edition*. Sage Publications, Thousand Oaks, 2003.

Zaheer, A., McEvily, B. and Perrone, V. (1998). Does trust matter? Exploring the effects of interorganizational and interpersonal trust on performance, *Organization Science*, 9 (2), 141-159.

Zerbini, F. and Castaldo, S. (2007). Stay in or get out the Janus? The maintenance of multiplex relationships between buyers and sellers, *Industrial Marketing Management*, 36 (7), 941-954.

Zhou, N., Zhuang, G. and Yip, L. S.-c. (2007). Perceptual difference of dependence and its impact on conflict in marketing channels in China: An empirical study with two-sided data, *Industrial Marketing Management*, 36 (3), 309-321.

Zirpoli, F. and Caputo, M. (2002). The nature of buyer-supplier relationships in co-design activities: The Italian auto industry case, *International Journal of Operations & Production Management*, 22 (12), 1389-1410.

Zollo, M. and Winter, S. G. (2002). Deliberate learning and the evolution of dynamic capabilities, *Organization Science*, 13 (3), 339-353.

APPENDICES

APPENDIX I³⁷ RESEARCH ON COLLABORATION IN BUYER-SUPPLIER RELATIONSHIPS: 2000 – 2006

	Reference	Journal	Research method	Research perspective	Unit of analysis	Long.	Contribution
1	Andersen and Christensen (2000)	JPSM	Case study	Buyer	Interorganizational	Yes	Examining inter-partner learning in a collaborative BSR.
2	Andersen and Kumar (2006)	IMM	Case study	Buyer	Interpersonal and interorganizational	No	Developing propositions to highlight the importance of emotions on interpersonal relationships in BSRs.
3	Anderson and Jap (2005)	SMR	Mixed	Dyadic	Interpersonal and interorganizational	Yes	Identifying factors that make partnerships vulnerable for deterioration.
4	Auh and Shih (2005)	JBBM	Survey	Supplier	Interorganizational	No	Examining the effects of relationship quality and exchange satisfaction on customer loyalty.
5	Aviv (2001)	MS	Simulation / modelling	Relationship	Interorganizational	-	Improving insight in the use of collaborative forecasting in supply chains.
6	Bagozzi (2006)	JBIM	Conceptual	Dyadic	Interpersonal	-	Examining the role of emotions in salesperson-customer interactions.
7	Barnes et al. (2005)	JBBM	Mixed	Dyadic	Interorganizational	No	Exploring commitment and dependency in dyadic relationships.
8	Bendapudi and Leone (2002)	JM	Mixed	Dyadic	Interpersonal	No	Examining the value of relationships between key contact persons across the dyad.
9	Bennett and Gabriel (2001)	JBIM	Survey	Buyer	Interorganizational	No	Examining the role of reputation on relationships in the shipping industry.
10	Benton and Maloni (2005)	JOM	Survey	Supplier	Interorganizational	No	Testing the influences of supply chain power on supplier satisfaction.
11	Bettencourt et al. (2002)	CMR	Mixed	Dyadic	Interpersonal and interorganizational	No	Analysing client co-production in knowledge intensive business services.

³⁷ Articles listed in this appendix are only included in the bibliography when they have been used in the main text.

12	Bhatnagar and Viswanathan (2000)	IJPDLM	Case study	Dyadic	Interorganizational	No	Describing re-engineering success of a logistics partnership.
13	Bonner and Calantone (2005)	IMM	Survey	Buyer	Interorganizational	No	Exploring the role of buyer attentiveness in BSRs.
14	Buvik and Halskau (2001)	JPSM	Survey	Buyer	Interorganizational	No	Examining the buyer's role in JIT relationships.
15	Buvik and John (2000)	JM	Survey	Buyer	Interorganizational	No	Studying vertical coordination as response to external uncertainty.
16	Canning and Hammer-Lloyd (2002)	JBIM	Case study	Dyadic	Interorganizational	No	Modelling the adaptation process in interactive business relationships.
17	Cannon and Homburg (2001)	JM	Survey	Buyer	Interorganizational	No	Developing a model that explains how supplier behaviors affect customer firm costs.
18	Chauhan and Proth (2005)	IJPE	Simulation / modelling	Relationship	Interorganizational	-	Modelling a provider-retailer partnership to maximize combined profit and sharing the profit.
19	Cooray and Ratnatunga (2001)	LRP	Case study	Supplier	Interorganizational	No	Examining key issues in managing Western-Japanese partnerships.
20	Coote et al. (2003)	IMM	Survey	Buyer	Interorganizational	No	Examining role of commitment in non-Western industrial marketing relationships.
21	Corbett and DeCroix (2001)	MS	Simulation / modelling	Relationship	Interorganizational	-	Developing a model to analyse the effects of shared savings contracts in purchasing indirect materials.
22	Corsten and Felde (2005)	IJPDLM	Survey	Buyer	Interorganizational	No	Investigating under which condition collaboration with key suppliers is beneficial for buyers.
23	Corsten and Kumar (2005)	JM	Survey	Supplier	Interorganizational	No	Examining supplier benefits from collaborative relationships with large retailers.
24	Cousins and Crone (2003)	IJOPM	Mixed	Dyadic	Interorganizational	No	Examining the implementation of obligation contracting as a mode of governance.
25	Cousins and Menguc (2006)	JOM	Survey	Buyer	Interorganizational	No	Examining implications of socialization and integration in SCM.
26	Das et al. (2006)	JOM	Survey	Buyer	Interorganizational	No	Examining an optimal configuration of supplier integration.
27	Dowlatshahi (2000)	IJPE	Case study	Dyadic	Interorganizational	No	Examining collaboration in supplier relations at strategic, tactical and operational level.

28	Duffy and Fearne (2004)	IJLM	Survey	Supplier	Interorganizational	No	Examining the impact of partnerships on supplier performance.
29	Dunn and Young (2004)	JSCM	Case study	Dyadic	Interorganizational	No	Describing several examples of companies enhancing their supplier relations.
30	Dyer and Chu (2000)	JIBS	Survey	Supplier	Interorganizational	No	Examining determinants of trust in automaker-supplier relationships in Japan - US - Korea.
31	Dyer and Chu (2003)	OS	Survey	Supplier	Interorganizational	No	Examining the role of trustworthiness in improving performance in BSRs.
32	Eggert and Helm (2003)	IMM	survey	Buyer	Interorganizational	No	Exploring the impact of transparency on business relations.
33	Eggert et al. (2006)	IMM	Survey	Buyer	Interorganizational	No	Exploring the role of relationship life cycle in relationship value creation.
34	Forker and Stannack (2000)	JPSM	Survey	Dyadic	Interorganizational	No	Examining differences in level of understanding between buyer and supplier in different types of relationships.
35	Frankel et al. (2002)	IJLM	Case study	Dyadic	Interorganizational	No	Illustrating succesful collaboration in the grocery supply chain.
36	Fynes and Voss (2002)	IJOPM	Survey	Buyer	Interorganizational	No	Exploring the linkage between quality management and buyer-supplier relationships.
37	Fynes et al. (2004)	JPSM	Survey	Supplier	Interorganizational	No	Development of a model of environmental uncertainty, SC relationship quality and performance.
38	Fynes et al. (2005a)	IJOPM	Survey	Supplier	Interorganizational	No	Investigation of SC relationships on performance measures.
39	Fynes et al. (2005b)	IJPE	Survey	Supplier	Interorganizational	No	Examination of SC relationship quality on quality performance.
40	Gibson et al. (2002)	IJPDLM	Survey	Dyadic	Interorganizational	No	Examining shipper and carrier perceptions of shipper-carrier partnerships.
41	Goffin et al. (2006)	JOM	Other	Buyer	Interorganizational	No	Establishing a framework of attributes of 'close relationships'.
42	Goodman and Dion (2001)	IMM	Survey	Buyer	Interorganizational	No	Identifying determinants of commitment in distributor - manufacturer relationships.
43	Griffith et al. (2000)	JIBS	Survey	Supplier	Interorganizational	No	Examining differences in the trust-commitment relationship across cultures.

44	Griffith et al. (2006)	JOM	Survey	Buyer	Interorganizational	No	Study supply chain relationships by using social exchange theory.
45	Halldorsson and Skjott-Larsen (2005)	IJPDLM	Case study	Dyadic	Interorganizational	Yes	Studying governance dynamics of a buyer-logistics service provider relationship.
46	Handfield and Bechtel (2002)	IMM	Survey	Buyer	Interorganizational	No	Identifying the role of trust and (asset) investments on developing responsiveness.
47	Hartley (2000)	JSCM	Case study	Supplier	Interorganizational	No	Examining supplier involvement in value analysis in the automobile industry.
48	Hausman (2001)	JBIM	Survey	Buyer	Interorganizational	No	Studying the impact of relationship strength on relationship performance.
49	Hibbard et al. (2001)	JMR	Survey	Dyadic	Interorganizational	No	Examining the impact of destructive acts in marketing channel relationships.
50	Holmlund-Rytkönen and Strandvik (2005)	JBIM	Case study	Dyadic	Interorganizational	No	Examining the role of stress in business relationships.
51	Homburg et al. (2003a)	JBBM	Survey	Buyer	Interorganizational	No	Examining the effect of partner similarity on cooperation.
52	House and Stank (2001)	SCM	Case study	Relationship	Interorganizational	No	Providing insights from a logistics partnership.
53	Huiskonen and Pirttilä (2002)	IJPE	Case study	Supplier	Interorganizational	No	Examining the coordination of activities in a logistics outsourcing relationship.
54	Huntley (2006)	IMM	Survey	Buyer	Interorganizational	No	Conceptualising and measuring relationship quality in BSRs.
55	Ivens (2004)	JBIM	Survey	Buyer	Interorganizational	No	Studying how supplier behaviors affect customer-perceived relationship quality.
56	Ivens (2005)	IMM	Survey	Buyer	Interorganizational	No	Examining the role of flexibility on the quality of business relationships.
57	Ivens (2006)	JBIM	Survey	Buyer	Interorganizational	No	Analysing roles of relational norms in long-term business relationships.
58	Janda et al. (2002)	IMM	Survey	Buyer	Interorganizational	No	Examining the effect between buyer relational orientation and buyer satisfaction.
59	Jap and Anderson (2003)	MS	Survey	Dyadic	Interpersonal and interorganizational	Yes	Examining the influence of relational safeguards on relationship performance under different levels of opportunism.

60	Jap and Ganesan (2000)	JMR	Survey	Buyer	Interorganizational	No	Examining the development of adaptation and commitment and its effects on performance in different stages of business relationships.
61	Jeffries and Reed (2000)	AMR	Conceptual	Dyadic	Interpersonal	-	Exploring the interaction between cognitive and affective trust with negotiator's motivation.
62	Johnston et al. (2004)	JOM	Survey	Dyadic	Interorganizational	No	Analysis of the effect of supplier trust on performance of cooperative relationships.
63	Jonsson and Zineldin (2003)	SCM	Survey	Buyer	Interorganizational	No	Determining how to achieve satisfactory Interorganizational relationships.
64	Kamann et al. (2006)	JPSM	Survey	Buyer	Interpersonal and interorganizational	No	Examining the influence of shared past and future on problems in buyer-supplier relationships.
65	Kannan and Tan (2006)	IJPDLM	Survey	Buyer	Interorganizational	No	Analysing the impact of buyer-supplier engagement and supplier selection on performance.
66	Kaufman and Carter (2006)	JOM	Survey	Buyer	Interorganizational	No	Examining international supply relationships and non-financial performance.
67	Kim and Hsieh (2003)	JMR	Survey	Buyer	Interorganizational	No	Understanding the effect of interdependence on outcome variables in distributor-supplier relationships.
68	Kim and Oh (2005)	SCM	Simulation / modelling	Dyadic	Interorganizational	-	Assessing the impact of joint-decision making by buyer and supplier on their collaboration performance.
69	Kingshott (2006)	IMM	Survey	Buyer	Interorganizational	No	Examining the role of psychological contracts in BSRs.
70	Knemeyer and Murphy (2004)	JSCM	Survey	Buyer	Interorganizational	No	Evaluating the link between relationship marketing and performance in 3PL arrangements.
71	Kotabe et al. (2003)	SMJ	Survey	Supplier	Interorganizational	No	Examining the role of link duration and relational assets on supplier performance in BSRs.
72	Kwon and Suh (2004)	JSCM	Survey	-	Interorganizational	No	Examining factors affecting trust and commitment in supply chain relationships.
73	Lai et al. (2005)	IJPE	Survey	Supplier	Interorganizational	No	Examining the effect of relationship stability on commitment to quality.
74	Lajarra and Lillo (2004)	SCM	Survey	Buyer	Interorganizational	No	Describing cooperative relationships between SMEs and suppliers.

75	Lambert and Knemeyer (2004)	HBR	Case study	Dyadic	Interorganizational	No	Presenting a partnership tool which allows companies the viability of a BS partnership.
76	Larson et al. (2005)	JSCM	Survey	Buyer	Interorganizational	No	Examining differences in collaboration between large and small suppliers.
77	Lau and Goh (2005)	SCM	Case study	Dyadic	Interorganizational	Yes	Capturing development in BSRs in the Asian printed circuit boards industry.
78	Lee et al. (2000)	MS	Simulation / modelling	Relationship	Interorganizational	-	Identifying the value of information sharing in two-level supply chains.
79	Lemke et al. (2003)	IJPDLM	Other	Buyer	Interorganizational	No	Exploring distinguishing features of supplier-manufacturer partnerships.
80	Leonidou (2006)	IMM	Survey	Supplier	Interorganizational	No	Examining inhibiting factors of relationship quality.
81	Liker and Choi (2004)	HBR	Case study	Dyadic	Interorganizational	No	Examining succesfull relationship building by Japanese automakers in North-America.
82	McIvor and McHugh (2000)	JSCM	Case study	Dyadic	Interorganizational	No	Examining changes within organizations as a result of moving towards collaborative relationships.
83	Min et al. (2006)	IJLM	Mixed	-	Interorganizational	No	Identifying antecedents, elements, and consequences of collaboration.
84	Morris and Carter (2005)	JSCM	Survey	Buyer	Interorganizational	No	Extending the KMV model with a performance dimension.
85	Mudambi et al. (2004)	LRP	Mixed	Buyer	Interorganizational	No	Examining the development of cooperative relationships by UK-based SMEs.
86	Myhr and Spekman (2005)	JBIM	Survey	Buyer	Interorganizational	No	Examining how collaboration can be achieved under varying circumstances.
87	Narayandas (2005)	HBR	Case study	Relationship	Interorganizational	No	Illustrating benefits of building loyalty in business relationships.
88	Narayandas and Rangan (2004)	JM	Case study	Dyadic	Interpersonal and interorganizational	Yes	Examining evolution of BSRs in mature industrial markets.
89	Nesheim (2001)	JPSM	Survey	Buyer	Interorganizational	No	Studying antecedents of collaborative relationships with suppliers.
90	Palmatier et al. (2006)	JM	Conceptual	-	Interorganizational	No	Meta-analytical study of factors influencing effectiveness of relationship marketing.
91	Parsons (2002)	JSCM	Survey	Buyer	Interpersonal and interorganizational	No	Investigation of aspects that determine buyer-seller relationship quality.

92	Perrone et al. (2003)	OS	Survey	Dyadic	Interpersonal	No	Examining the effect of role autonomy on Interpersonal trust (between boundary spanners).
93	Petersen et al. (2005)	JSCM	Survey	Buyer	Interorganizational	No	Examining factors influencing effectiveness of collaborative planning.
94	Plambeck and Taylor (2006)	MS	Simulation / modelling	Relationship	Interorganizational	-	Modelling repeated interaction and performance in a dynamic setting.
95	Prahinski and Benton (2004)	JOM	Survey	Supplier	Interorganizational	No	Determining suppliers perception of buyer evaluation communication strategies and its impact on performance.
96	Razzaque and Boon (2003)	JBBM	Survey	buyer	Interorganizational	No	Determining joint effects of dependence and trust on relational outcomes.
97	Rexha (2000)	JBBM	Conceptual	Supplier	Interorganizational	No	Developing a theoretical framework of a supplier's role in building long-term BSRs.
98	Rodriguez et al. (2006)	IMM	Survey	Buyer	Interorganizational	No	Examining determinants of economic and social satisfaction.
99	Rokkan et al. (2003)	JMR	Survey	Dyadic	Interorganizational	No	Examining the effect of specific investments on (opportunistic) behavior in BSRs.
100	Ruyter, de, et al. (2001)	IMM	Mixed	Buyer	Interorganizational	No	Identifying antecedents of trust and commitment in high-tech electronics.
101	Ryssel et al. (2004)	JBIM	Survey	Buyer	Interorganizational	No	Highlighting the role of IT in creating value in business relationships.
102	Sahin and Robinson (2005)	JOM	Simulation / modelling	Relationship	Interorganizational	-	Investigation of the impact of information sharing and coordination in make-to-order supply chains.
103	Sanders (2005)	JSCM	Survey	Supplier	Interorganizational	No	Examining the effects of IT alignment in BSRs on supplier performance.
104	Selnes and Sallis (2003)	JM	Survey	Dyadic	Interorganizational	No	Examining how the learning capability of relationships affects relationship performance.
105	Sheu et al. (2006)	IJOPM	Case study	Buyer	Interorganizational	No	Identifying determinants of collaboration in supplier-retailer collaboration.
106	Simatupang and Sridharan (2005)	IJPDLM	Survey	Dyadic	Interorganizational	No	Proposition of instrument to measure extent of collaboration in a supply chain.
107	Skarmeas and Katsikeas (2001)	IMM	Survey	Buyer	Interorganizational	No	Determining drivers of superior performance in cross-cultural importer-exporter relationships.

108	Skarmeas et al. (2002)	JIBS	Survey	Buyer	Interorganizational	No	Examining commitment and performance in cross-cultural BSRs.
109	Spekman and Carraway (2006)	IMM	Conceptual	Relationship	Interorganizational	-	Developing an emerging framework for the transition towards collaborative buyer-seller relationships.
110	Spina and Zotteri (2000)	IJOPM	Case study	Dyadic	Interorganizational	Yes	Exploration of the implementation process of customer-supplier partnership.
111	Storey et al. (2005)	IJOPM	Case study	Dyadic	Interorganizational	Yes	Highlighting challenges in creating and maintaining collaborative relationships.
112	Subramani and Venkatraman (2003)	AMJ	Mixed	Dyadic	Interorganizational	No	Examining governance strategies in safeguarding relationship specific investments.
113	Suh and Kwon (2006)	IMM	Survey	buyer	Interorganizational	No	Examining the relation between relationship specific investments and trust.
114	Tellefsen and Thomas (2005)	IMM	Survey	Buyer	Interpersonal and interorganizational	No	Studying antecedents and consequences of organizational and personal commitment.
115	Tuten and Urban (2001)	IMM	Survey	Buyer	Interorganizational	No	Identifying antecedents to the formation and success of partnerships.
116	Ulaga (2003)	IMM	Case study	Buyer	Interpersonal and interorganizational	No	Identifying drivers of value creation in BSRs.
117	Ulaga and Eggert (2006)	JM	Mixed	Buyer	Interorganizational	No	Examining how suppliers can differentiate as key suppliers to a customer company.
118	Vaaland (2006)	JBBM	Case study	Dyadic	Interorganizational	Yes	Exploring communication strategies in conflicts in business relationships.
119	Van Donk and Van der Vaart (2004)	JPSM	Case study	Supplier	Interorganizational	No	Developing propositions about integrative practices in BSRs.
120	Van Donk and Van der Vaart (2005)	IJPE	Case study	Buyer	Interorganizational	No	Examining the level and scope of integration in BSRs with varying levels of uncertainty.
121	Wagner (2003)	JSCM	Mixed	Buyer	Interorganizational	No	Examining the extent of supplier integration in different phases of the relationship.
122	Wagner et al. (2002)	SCM	Case study	Dyadic	Interorganizational	Yes	Describing the succesful development of a BSR.
123	Walter and Ritter (2003)	JBIM	Survey	Supplier	Interorganizational	No	Examining the influence of adaptation, trust and commitment on value creation in relationships.

124	Walter et al. (2003)	IMM	Survey	Buyer	Interorganizational	No	Examining the impact of relationship functions on relationship quality.
125	Weber (2000)	JBIM	Case study	Buyer	Interorganizational	No	Examining how partnering with distributors can improve distributor competitiveness and firm performance.
126	Welling and Kamann (2001)	JSCM	Simulation / modelling	Dyadic	Interpersonal and interorganizational	No	Exploring the influence of personal contacts and firm size on vertical cooperation.
127	Whipple and Frankel (2000)	JSCM	Survey	Dyadic	Interorganizational	No	Examining key factors influencing strategic alliance success.
128	Wilson and Nielson (2000)	JBBM	Survey	Supplier	Interorganizational	No	Determining conceptual elements of cooperation to improve relational behavior.
129	Wong et al. (2005)	IMM	Survey	Dyadic	Interorganizational	No	Developing a model of the influence of commitment and cooperative goal interdependence on long-term relationships.
130	Yilmaz et al. (2005)	IMM	Survey	Buyer	Interorganizational	No	Determination of joint and interactive effects of trust and (inter)dependence.
131	Yu et al. (2006)	IMM	Survey	Supplier	Interorganizational	No	Investigation how to design governance mechanisms to encourage transaction-specific investments.
132	Zhang et al. (2003)	JIBS	Survey	Buyer	Interorganizational	No	Examining the influence of governance by relational norms on competitiveness in the export market.
133	Zhao and Cavusgil (2006)	IMM	Survey	Dyadic	Interorganizational	No	Examining the impact of supplier market orientation on manufacturer trust.

APPENDIX II SURVEY INSTRUMENT

Items in bold are those used for analysis in Chapter 6

Item	Description	Adapted from
1	Our Company expects the relationship to last a long time	Heide and John 1990
2	Our Company feels loyal to Our Partner	Anderson and Weitz 1992
3	Our Partner's senior management is committed to this relationship	Lambe et al. 2002
4	Our Company's senior management is committed to this relationship	Lambe et al. 2002
5	Our Partner is dependent on Our Company	Rinehart et al. 2004
6	Our Company is dependent on Our Partner	Rinehart et al. 2004
7	Our Partner devotes considerable time and effort into making this relationship work	Smith and Barclay 1997; Smith 1998
8	Our Company devotes considerable time and effort into making this relationship work	Smith and Barclay 1997; Smith 1998
9	Our Company is generally willing to change plans and procedures when requested by Our Partner	Ford 1984
10	Our Partner is generally willing to change plans and procedures when requested by Our Company	Ford 1984
11	Our Partner shares proprietary information with Our Company	Mohr and Spekman 1994
12	Our Company shares proprietary information with Our Partner	Mohr and Spekman 1994
13	Communication with Our Partner is timely	Mohr and Spekman 1994
14	Communication with Our Partner is accurate	Mohr and Spekman 1994
15	Communication with Our Partner is complete	Mohr and Spekman 1994
16	Communication with Our Partner is credible	Mohr and Spekman 1994
17	Our Partner informs Our Company about events or changes that may affect Our Company	Heide and John 1992
18	Our Company informs Our Partner about events or changes that may affect Our Partner	Heide and John 1992
19	Our Partner helps out Our Company when needed	Anderson and Narus 1990
20	Our Company helps Our Partner out when needed	Anderson and Narus 1990
21	There is close interaction between the partners at multiple levels	Kale et al. 2000
22	Our Company is trustworthy in this relationship	Crosby et al. 1990
23	Our Partner is trustworthy in this relationship	Crosby et al. 1990
24	Based on past experience, Our Company has confidence that Our Partner keeps its promises	Rempel and Holmes 1986
25	I have faith in my contact person to look out for Our Company's interests	Rempel and Holmes 1986
26	This buyer supplier relationship is characterized by a high level of trust	Larzelere and Huston 1980

27	Our Partner has a good understanding of Our Company's problems	Mohr and Spekman 1994
28	Our Company has a good understanding of Our Partner's problems	Mohr and Spekman 1994
29	There are often disagreements between Our Company and Our Partner	Zaheer et al. 1998
30	There are often disagreements between me and my contact person	Zaheer et al. 1998
31	In this buyer supplier relationship, the parties work together to solve problems	Mohr and Spekman 1994
32	There is two-way communication while resolving conflicts	Kale et al. 2000
33	This buyer supplier relationship is characterized by a harmonious relationship between the partners	Kale et al. 2002
34	Our Partner is pro-active in looking for opportunities to improve its relationship with Our Company	added on request by contact persons
35	Our Company is pro-active in looking for opportunities to improve its relationship with Our Partner	added on request by contact persons
36	Our Company is satisfied with the results of this buyer supplier relationship in terms of financial performance	Fynes et al. 2005b
37	Our Company is satisfied with the results of this buyer supplier relationship in terms of quality performance	Fynes et al. 2005b
38	Our Company is satisfied with the results of this buyer supplier relationship in terms of delivery performance	Fynes et al. 2005b
39	Our Company is satisfied with the results of this buyer supplier relationship in terms of flexibility performance	Fynes et al. 2005b
40	Overall, Our Company is satisfied with the results of this specific buyer supplier relationship	Ariño 2003
41	Overall, I think Our Partner is satisfied with the results of this specific buyer supplier relationship	Ariño 2003

APPENDIX III RESPONSE RATES SURVEY AND INTERVIEWS

	BUYER A1	SUPPLIER B	BUYER A2	SUPPLIER C	TOTAL
2005					
# surveys sent out	21	16	16	15	68
# surveys received	19	15	12	15	61
response % survey	90%	94%	75%	100%	90%
# interviews	19	15	12	15	61
response % interviews	90%	94%	75%	100%	90%
2006					
# surveys sent out	21	15	23	18	77
# surveys received	18	12	13	15	58
response % survey	86%	80%	57%	83%	75%
# interviews	17	12	12	15	56
response % interviews	81%	80%	52%	83%	73%
2007					
# surveys sent out	20	17	20	13	70
# surveys received	15	13	10	10	48
response % survey	75%	76%	50%	77%	69%
# interviews	12	12	8	8	40
response % interviews	60%	71%	40%	62%	57%
All years					
# surveys sent out	62	48	59	46	215
# surveys received	52	40	35	40	167
response % survey	84%	83%	59%	87%	78%
# interviews	48	39	32	38	157
response % interviews	77%	81%	54%	83%	73%

APPENDIX IV

CODING SCHEME

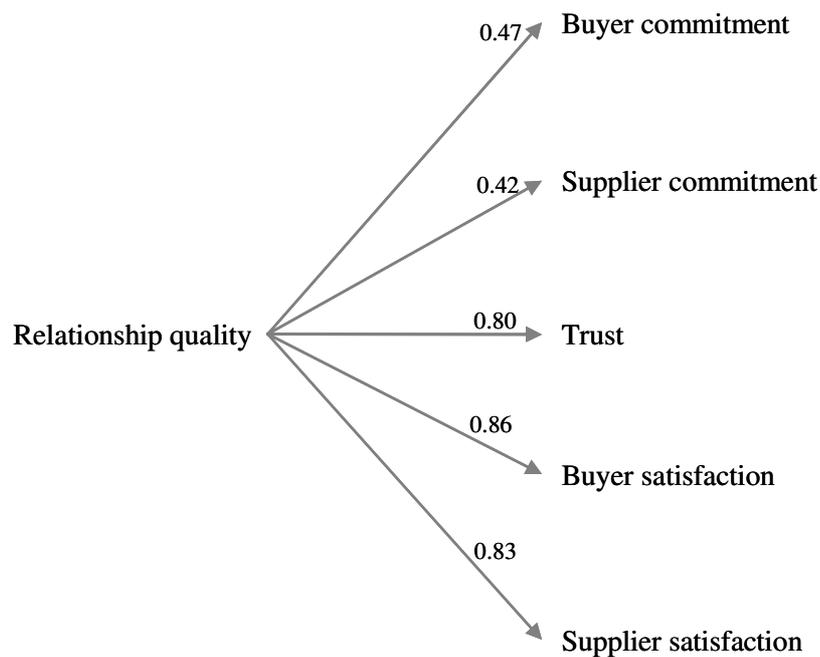
CODE	DESCRIPTION
ADAPTATION	Adaption occurs when suppliers adapt to the needs of specific important customers and vice versa (Hallén et al. 1991, Fynes and Voss 2002)
COMMITMENT	An exchange partner believing that an ongoing relationship with an exchange partner is so important as to warrant maximum efforts to maintain it (Morgan and Hunt 1994, pp. 23)
Affective commitment	The extent to which channel members <i>like</i> to maintain their relationship with their partners” (Geyskens et al. 1996, pp. 303).
Calculative commitment	The extent to which channel members perceive the need to maintain a relationship given the significant anticipated termination or switching costs associated with leaving” (Geyskens et al. 1996, pp. 304)
COMMUNICATION	
Communication quality	Quality of communication is assessed by considering the following aspects: timeliness, accurateness, adequateness, completeness, and credibility (Mohr and Spekman 1994)
Information sharing	The extent to which critical, often proprietary, information is communicated to one’s partner (Mohr and Spekman 1994, pp. 139)
Participation	Participation refers to the extent to which partners engage jointly in planning and goal setting (Mohr and Spekman 1994, pp. 139)
CONFLICT	The level of tension, frustration, and disagreement in the relationship when one partner perceives that the other partner is engaged in behavior that is preventing or impeding it from achieving its goals (adapted from Geyskens et al. 1999)
COOPERATION	Situations in which parties work together to achieve mutual goals (Morgan and Hunt 1994, pp. 26)
Socialization	The level of interaction between, and communication of, various actors within and between organizations, which leads to the building of personal familiarity, improved communication and problem solving (Gupta and Govindarajan 2000; Cousins and Menguc 2006, pp. 607), mechanisms of socialization include joint team working, (problem solving) workshops, supplier conferences etc. enabling companies to build relation specific assets (Cousins and Menguc 2006)
DEPENDENCY	The need to maintain the channel relationship to achieve desired goals (Ganesan 1994, pp. 4)
LOYALTY	The perceived likelihood that a partner will (not) terminate the relationship in the (near) future (based on Morgan and Hunt 1994, in line with Narayandas 2005).
PERFORMANCE ³⁸	
Delivery performance	Delivery performance has two elements: (1) reliability of delivery, which is the ability to deliver when promised, and (2) delivery speed, which refers to the time needed to deliver (Krause et al. 2007)
Financial performance	Cost-related categories including (direct) (production / service) costs, productivity, capacity utilization, and inventory costs (adapted from Ward et al. 1998)

³⁸ The distinction between delivery, financial, flexibility and quality performance is quite common in the operations management literature. However, these definitions are mostly developed for manufacturing settings and to single companies. Nevertheless, we have used these various performance types in order to distinguish between different aspects of performance within relationships

Flexibility performance	Ability to meet changes in quantity requirements, provide timely delivery of products / services on short notice, and produce smaller production runs at more frequent intervals (adapted from Krause et al. 2007)
Quality performance	When referring to the quality of product / service delivery, in production settings normally related to design and conformance quality (e.g. Fynes et al. 2005b)
SATISFACTION	A positive affective state resulting from the appraisal of a firm's working relationship with another firm (Geyskens et al. 1999)
TRUST	An expectation held by agent that its trading partner will behave in a mutually acceptable manner (including an expectation that neither party will exploit the other's vulnerabilities) (Sako and Helper 1998, pp. 388)
Competence trust	Extent to which the other party is capable of doing what it says it will do (ad. Sako and Helper 1998, pp. 388)
Contractual trust	Extent to which the other party carries out its contractual agreements (ad. Sako and Helper 1998, pp. 388)
Goodwill trust	Extent to which the other party makes an open-ended commitment to take initiatives for mutual benefit while refraining from unfair advantage taking (ad. Sako and Helper 1998, pp. 388)
<i>SPECIFIC CODES FROM RESEARCH QUESTIONS / CONTACT PERSONS</i>	
INTRA-FIRM DIFFERENCE	When referring to intra-firm differences on a specific aspect of collaboration
INTERPERSONAL DIFFERENCE	There is a difference in interpretation on aspects of the relationship at a personal level
INTERORGANIZATIONAL DIFFERENCE	There is a difference in interpretation on aspects of the relationship at an organizational level
PERSONAL INFLUENCE	The importance of persons and personalities in the relationship between the buying and supplying company
PRO-ACTIVITY	The extent of pro-active behavior by one of the parties in the relationship
<i>ADDED IN CODING PROCESS</i>	
COOPERATION STRUCTURE	When referring to the effects of the relationship structure on the collaboration between the companies. (e.g. account management, joint KPIs).
SHADOW OF THE PAST	Historical influences of prior interaction influencing the current relationship between companies.
SHADOW OF THE FUTURE	The bond between the future benefits a firm / relationship anticipates and its present actions (Parkhe 1993).
PARTNERSHIP	Perception or comment of the informant on the partnership between the companies

APPENDIX V RELATIONSHIP QUALITY

In addition to the correlation matrix, the survey data have also been used to examine the extent to which the five survey items central to Chapter 6 are elements of the overall construct of relationship quality. For this purpose, buyer and supplier data are combined and a factor analysis was conducted (n = 167).



Chi-square = 49.15, df = 5, P-value = 0.00000, RMSEA = 0.231, SRMR = 0.098, CFI = 0.89, NNFI = 0.77

These results show high factor loadings of the items on trust and satisfaction. The loadings of the items on commitment are remarkably lower. As a result, the fit statistics do not support the 1-factor model, as shown in the Chi-square, RMSEA, SRMR, CFI, and NNFI scores. Possibly, this observation is caused by the focus on senior management commitment, rather than including various aspects of commitment.

SAMENVATTING (SUMMARY IN DUTCH)

Aanleiding

Steeds meer bedrijven beschouwen relaties met andere bedrijven als belangrijk element van hun (internationale) concurrentiepositie. Een bekend voorbeeld is de wijze waarop Toyota samen met haar leveranciers een netwerk van organisaties heeft gecreëerd, gekenmerkt door hogere kwaliteit en lagere kosten. In dit netwerk zijn leveranciers essentieel voor het ontwikkelen en verbeteren van de verschillende processen en producten, waardoor Toyota een belangrijk concurrentievoordeel in de internationale automarkt bezit. In toenemende mate wordt ook door bedrijven in andere bedrijfstakken een onderscheid gemaakt tussen verschillende soorten leveranciers in een poging zo veel mogelijk waarde uit deze relaties te halen. Zo hebben bijvoorbeeld ook Boeing en IBM ‘preferred supplier’ programma’s opgezet. Ook Nederlandse bedrijven in verschillende bedrijfstakken trachten door middel van samenwerking met leveranciers het resultaat van het eigen bedrijf te verbeteren. In hoofdstuk 2 van dit proefschrift worden illustraties gegeven van bijvoorbeeld de samenwerking tussen een telecombedrijf en haar IT leverancier, en van een bedrijf in de olie en gasindustrie in een samenwerking gericht op het exploreren van nieuwe gasvelden.

Dit proefschrift richt zich specifiek op de vraag hoe samenwerking tussen internationale bedrijven en hun leveranciers zich ontwikkelt over de tijd. Essentieel is dat het hierbij gaat om een langdurige relatie tussen beide partijen. Het accent ligt op relaties die zowel van belang zijn voor de klant als voor de leverancier. Het onderzoek is onderscheidend door de ontwikkeling van dergelijke relaties over een langere tijd te volgen (drie opeenvolgende jaren), en door het tegelijkertijd bestuderen van het klant- en het leveranciersperspectief. Verder zijn er op meerdere niveaus binnen de participerende organisaties gegevens verzameld. De centrale vraagstelling van het proefschrift luidt:

Hoe ontwikkelen samenwerkingsrelaties tussen een klant- en een leveranciersorganisatie zich over de tijd?

Theoretische achtergrond

In hoofdstuk 3 is een uitgebreide literatuurstudie gepresenteerd naar onderzoek over samenwerking in klant-leverancier relaties in de onderzoeksdomeinen marketing, operations management, en strategisch management. In totaal zijn 29 internationale tijdschriften onderdeel geworden van de review studie. Alle inhoudsopgaven in de periode van 2000 tot 2006 zijn door de auteur van het proefschrift en door een collega onderzoeker (verspreid over andere universiteiten binnen Nederland) doorgenomen. Elk van hen beoordeelde op basis van de titel of dit onderwerp over samenwerking handelde. De geselecteerde artikelen zijn vervolgens naast elkaar gelegd en

verschillen besproken om tot een eerste lijst van titels te komen die mogelijk als onderwerp klant-leverancier samenwerking hebben. Deze 960 artikelen zijn vervolgens doorgenomen door de auteur van het proefschrift met specifieke aandacht voor de samenvatting, onderzoeksmethode en conclusie in het artikel. Voor 10 van de 29 tijdschriften, verdeeld over de eerder genoemde 3 onderzoeksdomeinen, zijn deze artikelen eveneens doorgenomen door een van de promotoren om de betrouwbaarheid van de analyse te verhogen. Uiteindelijk zijn 133 artikelen geïdentificeerd die in de periode van 2000 tot 2006 een of meerdere aspecten van klant-leverancier samenwerking bestuderen (zie Appendix I).

Kernartikelen in het proefschrift zijn de studies van Anderson en Jap (2005), Geyskens et al. (1999), Jap en Anderson (2007), en Narayandas en Rangan (2004). Het artikel van Anderson en Jap (2005) beschrijft mechanismen die het succes van succesvolle samenwerkingsrelaties kunnen ondermijnen. Narayandas en Rangan (2004) bestuderen drie verschillende samenwerkingsrelaties en bediscussiëren mechanismen die ten grondslag kunnen liggen aan de ontwikkeling van dergelijke relaties. Jap en Anderson (2007) bouwen voort op de werken van Dwyer et al. (1987) en Ring en Van de Ven (1994) door kenmerken van klant-leveranciersrelaties te vergelijken in verschillende ontwikkelingsfasen. Het artikel van Geyskens et al. (1999) is een meta-analyse over de rol van tevredenheid in ketens en vormt de basis voor het dynamische model van samenwerking dat gepresenteerd en besproken wordt in hoofdstuk 8.

Onderzoeksopzet

Het empirische deel van het onderzoek omvat een tweetal klant-leverancier relaties die onderdeel zijn van speciaal programma voor belangrijke leveranciers van de klantorganisatie, een zogenaamd 'key supplier program' (KSP). Dit programma bestaat uit een selecte groep leveranciers die een bepalende bijdrage kunnen hebben in de strategische plannen van de klantorganisatie. Key suppliers zijn van een andere orde dan voorkeursleveranciers ('preferred suppliers'). Van key suppliers wordt nadrukkelijk verwacht dat ze innovatief zijn en een actieve bijdrage geven aan de toekomstige ontwikkelingen van de klantorganisatie.

De twee gevolgde relaties die onderdeel uitmaken van het proefschrift betreffen de samenwerking tussen één klantorganisatie met een IT dienstverlener en een logistiek dienstverlener. In de periode van 2005 tot 2007 is de samenwerking tussen de bedrijven gevolgd door een combinatie van vragenlijst- en interviewonderzoek. Voor elk bedrijf zijn meerdere informanten benaderd om een zo volledig mogelijke afspiegeling van de verschillende deelgebieden van de samenwerking te garanderen. Dit betekent onder andere dat informanten op strategisch of tactisch niveau, in verschillende divisies, en in verschillende werelddelen werkzaam zijn. In de interviewanalyse zijn transcripten gecodeerd op verschillende aspecten van samenwerking en vervolgens zijn deze tekstsegmenten gereduceerd door het gebruik van verschillende soorten 'data displays' (Miles en Huberman, 1994). Het tweezijdige, multi-actor,

multi-level, longitudinale onderzoeksontwerp van deze studie levert een unieke dataset op en biedt de mogelijkheid om onderliggende mechanismen van samenwerking te bestuderen. Een specifieke uitwerking van het onderzoeksontwerp is uitgewerkt in hoofdstuk 5. In dit hoofdstuk wordt enerzijds een vergelijking gemaakt tussen informanten van de klant en de leverancier, en anderzijds tussen informanten op strategisch en tactisch niveau. Dit onderwerp sluit aan bij een brede, methodologische discussie over de waarde van één ten opzichte van meerdere informanten in empirisch onderzoek. De resultaten van het hoofdstuk tonen aan dat er verschillen bestaan tussen de percepties van de klantorganisatie en de leveranciersorganisatie over aspecten van samenwerking. Bovendien is er ook een verschil waarneembaar tussen informanten op een strategisch respectievelijk tactisch niveau. Deels kunnen deze verschillen verklaard worden uit het geven van sociaal wenselijke antwoorden (Phillips en Clancy, 1972). Een implicatie van deze bevindingen is dat het selecteren van informanten en de invloed van het kiezen van een of meerdere informanten in acht dient te worden genomen bij de interpretatie van de onderzoeksresultaten.

Empirische resultaten

Het centrale thema van het proefschrift is de ontwikkeling van samenwerking tussen klant en leverancier. Dit thema is uitgewerkt in de hoofdstukken 6 tot en met 8, waar ‘verschillende brillen’ worden gehanteerd om een meer gedetailleerd beeld te krijgen van de mechanismen die bij relatieontwikkeling een rol spelen. In hoofdstuk 6 wordt de ontwikkeling van samenwerkingsrelaties gevisualiseerd aan de hand van een aantal kwaliteitsindicatoren. Vanuit de bestaande academische literatuur vormen betrokkenheid, tevredenheid en vertrouwen (commitment, trust, en satisfaction) een goede graadmeter voor de kwaliteit van een relatie. In hoofdstuk 6 is een vergelijking gemaakt van de klant- en de leveranciersperceptie op elk van deze elementen. Meer specifiek, aan informanten van beide organisaties is gevraagd een schatting te maken van de eigen en de partner bijdrage aan de relatie. Een van de observaties is dat onderdeel zijn van een ‘key supplier’ programma geen garantie is voor een toename van de omzet. De waarde van dergelijke programma’s schuilt vooral in de interactie tussen de bedrijven (Ulaga en Eggert, 2006) en de positieve invloed van deze interactie op de kwaliteit van de relatie. Uit dit perspectief is ook te verklaren dat in een van de bestudeerde relaties er tegelijkertijd sprake is van een kleine stijging van een aantal kwaliteitsindicatoren en een sterke daling van de omzet.

Een ander perspectief is gekozen in hoofdstuk 7, gebaseerd op de in totaal 157 interviews met werknemers van de verschillende participerende organisaties. De focus ligt op de rol van socialisatie op de verbetering van communicatie binnen samenwerkingsrelaties. Socialisatie is een begrip afkomstig uit de organisatiewetenschappen en is daar vooral gebruikt voor het analyseren en verklaren van gedrag van individuele werknemers binnen organisaties. In recente toepassingen van socialisatie in de operations management literatuur is echter een andere eenheid van analyse gebruikt. Het begrip wordt in deze literatuur toegepast op processen tussen organisaties in plaats

van binnen organisaties. Het achterliggende idee is dat intensiever contact, in zowel formele als informele omgevingen, tussen werknemers van verschillende bedrijven een positief effect heeft op de communicatie tussen deze bedrijven, waardoor uiteindelijk ook de resultaten van de samenwerkingsrelatie positief worden beïnvloed. Uit de transcriptanalyse blijkt dat in de samenwerking met de logistiek dienstverlener deze relatie inderdaad bevestigd wordt. Dit is niet het geval voor de relaties tussen de klantorganisatie en de IT dienstverlener. In deze relatie wordt veel energie gestoken ter verbetering van de samenwerking, vooral in de vorm van workshops en brainstormsessies. Echter, negatieve ervaringen tussen de partijen uit het verleden neutraliseren het positieve effect van socialisatie op de kwaliteit van communicatie in die relatie.

Hoofdstuk 8 is ook gebaseerd op de analyses van het interviewmateriaal. In het hoofdstuk is allereerst een chronologische beschrijving gegeven van de ontwikkelingspaden van beide relaties ('narratives'). Narratief onderzoek is beschrijvend van aard en is waardevol in het ontdekken van patronen in een complex geheel van simultane verhaallijnen ('fabula'). In hoofdstuk 8 zijn deze verschillende fabula vervolgens gebruikt ter illustratie van een drietal (zichzelf versterkende) mechanismen welke gezamenlijk een dynamisch model van samenwerking vormen. De basis van het voorgestelde samenwerkingsmodel is een meta-analytische studie betreffende de rol van tevredenheid in ketens (Geyskens et al., 1999). Bijdragen van andere auteurs zijn gebruikt voor een verdere theoretische onderbouwing en voor het toevoegen van dynamische elementen aan het basismodel. De verschillende mechanismen die ten grondslag liggen aan de ontwikkeling van samenwerkingsrelaties worden beschreven door de 'loops' in dit model. In beide bestudeerde samenwerkingsrelaties bepalen meerdere, simultane processen in verschillende delen of lagen van de samenwerkingsrelatie de totaalontwikkeling van deze relaties. Dit dynamische perspectief is waardevol in het verbeteren van het begrip hoe samenwerkingsrelaties zich ontwikkelen, en vergroot ook het inzicht in het effect van mogelijke maatregelen in het verbeteren van dergelijke relaties.

Aanbevelingen voor het bedrijfsleven en gebieden voor toekomstig onderzoek

Een lange termijn, dynamisch perspectief op de ontwikkeling van samenwerkingsrelaties wordt nog niet vaak toegepast binnen het bedrijfsleven. Vaak ligt de nadruk in de praktijk nog op de inkoopprijs of op de mate waarin contractuele afspraken worden nageleefd. Uiteraard is een lange termijn perspectief op klant-leverancier relaties niet altijd noodzakelijk. Sterker nog, er zijn relatietypen waarbij hechte samenwerking niet noodzakelijk is en ook geen meerwaarde genereert. Dit proefschrift richt zich echter op lange termijn samenwerkingsrelaties. Voor dit specifieke type relaties biedt het dynamische model van samenwerking (hoofdstuk 8) de mogelijkheid om ontwikkelingen in klant-leveranciersrelaties over een langere termijn te volgen. Bovendien biedt het model inzicht in de samenhang van bepalende elementen in de ontwikkeling van samenwerkingsrelaties. Dit inzicht kan managers helpen in het stimuleren van de kwaliteit van de

samenwerking. Essentieel is hierbij dat zowel de klant- als de leveranciersorganisatie een relatieperspectief hanteren in plaats van primair denken vanuit het eigen belang. Naast het samenwerkingsmodel zijn ook het volgen van indicatoren van de kwaliteit van samenwerking (hoofdstuk 6) en het bewustzijn van de aanwezigheid en invloed van meerdere dynamische processen binnen één samenwerkingsrelatie (hoofdstukken 7 en 8) behulpzaam voor managers in het aansturen van deze relaties. Tenslotte, richt hoofdstuk 6 zich specifiek op de mogelijke meerwaarde van het opzetten van een 'key supplier' programma. Hierbij is voorzichtigheid geboden om te voorkomen dat de verwachtingen van de verschillende bedrijven niet overeen komen. De mogelijke meerwaarde van hechte samenwerking met 'key suppliers' ligt vooral in het gezamenlijk bedenken en uitwerken van product- en procesinnovaties. Deze selecte groep leveranciers is dan ook van belang in het realiseren van de strategische plannen van de klantorganisatie.

Toekomstig onderzoek over samenwerking in klant-leverancier relaties kan zich op verschillende gebieden richten. Ten eerste is meer onderzoek nodig naar stuurmechanismen in samenwerkingsrelaties. Systeemdynamische modellen kunnen hierbij een belangrijke bijdrage leveren. Bovendien kan via dergelijke modellen ook gekeken worden naar de invloed van externe factoren op samenwerkingsmodel. Hierbij kan bijvoorbeeld gedacht worden aan het modelleren van het aantal incidenten binnen een relatie en de zwaarte hiervan, en ook aan het toevoegen van resultaten van de samenwerking als bepalende factor van tevredenheid. Ten tweede is het interessant om de toegevoegde waarde van key supplier programma's nader te belichten. Hierbij kan specifieke aandacht uitgaan naar hoe binnen bestaande samenwerkingsrelaties op een gezamenlijke wijze innovatieve ideeën ontwikkeld kunnen worden. Een laatste aanbeveling voor toekomstig onderzoek is het gebruiken van meerdere informanten uit de klant- en de leveranciersorganisatie en het vergelijken van de perceptieverschillen tussen deze informanten. In het bijzonder is het vergelijken van verschillen op individueel niveau op de samenwerking tussen organisaties een veelbelovend gebied voor toekomstig onderzoek. De complexiteit zal nog verder toenemen wanneer ook rekening gehouden wordt met samenwerking tussen de bedrijven in verschillende geografische gebieden en verschillende bedrijfsonderdelen.

LIST OF TABLES

Table 2-1 Description of buyer-supplier relationships.....	11
Table 2-2 Impediments in the development of buyer-supplier relationships	12
Table 2-3 Influencing tactics to enhance buyer-supplier relationships	14
Table 2-4 Influencing collaboration through structure and process.....	16
Table 3-1 Step-wise procedure of article selection	23
Table 3-2 Research method per research area.....	25
Table 3-3 Research perspective and unit of analysis per research method	26
Table 3-4 Most cited studies pre-2000.....	27
Table 4-1 Example of a level 1 conceptually clustered matrix	43
Table 4-2 Example of a level 2 thematic conceptual matrix	43
Table 4-3 Validity and reliability in this PhD study	44
Table 5-1 Survey items on commitment, trust, dependency, and satisfaction	58
Table 5-2 Dyadic comparison of perspectives on collaboration	59
Table 5-3 Intra-firm comparison of perspectives on collaboration	60
Table 6-1 Correlation matrix.....	67
Table 6-2 Normalized revenue development 2005 – 2007 (buying company data)	72
Table 7-1 Socialization and communication quality in relationship I (buyer A1 and supplier B)...	83
Table 7-2 Socialization and communication quality in relationship II (buyer A2 and supplier C) .	84

LIST OF FIGURES

Figure 1-1 Thesis structure.....	5
Figure 6-1 Relationship trust (2005 – 2007)	68
Figure 6-2 Senior management commitment in relationship I (A1 – B).....	69
Figure 6-3 Senior management commitment relationship II (A2 – C)	70
Figure 6-4 Overall satisfaction in relationship I (A1 – B)	71
Figure 6-5 Overall satisfaction in relationship II (A2 – C)	71
Figure 8-1 Proposed process model of relationship evolution	93
Figure 8-2 The dynamic effects of conflict, trust, and satisfaction	104
Figure 8-3 The reinforcing trust – commitment – satisfaction loop.....	106

CENTER DISSERTATION SERIES

CentER for Economic Research, Tilburg University, The Netherlands

No.	Author	Title	ISBN	Published
139	Arjen Slangen	Studies on the Determinants of Foreign Entry Mode Choices and Performance	90 5668 140 0	Feb 2005
140	Eric Dooms	Control in Multidivisional Firms: Control in Multidivisional Firms: Levels Issues and Internal Differentiation	90 5668 141 9	Mar 2005
141	Luuk van Kempen	Status Consumption and Poverty in Developing Countries	90 5668 000 5	Apr 2005
142	Qin Tu	Empirical Analysis of Time Preferences and Risk Aversion	90 5668 143 5	May 2005
143	Pierre-Carl Michaud	Dynamic Panel Data Models and Causality applications to Labor Supply, Health and Insurance	90 5668 142 7	May 2005
144	Dorota Piaskowska	Essays on Firm Growth and Value Creation	90 5668 144 3	Jun 2005
145	Rejie George Pallathitta	Corporate Governance and Firm Performance: An Analysis of Ownership Structure, Profit Redistribution and Diversification Strategies of Firms in India	90 5668 145 1	Jun 2005
146	Maria Louro	Leaving Pleasure: Positive Emotions and Goal-Directed Behavior	90 5668 146 X	Sepr 2005
147	Bas van Velzen	Cooperation in Networks and Scheduling	90 5668 147 8	Sep 2005
148	Marcel Dreef	Skill and Strategy in Games	90 5668 148 6	Sep 2005
149	Daniel Tecele Haile	Inequality, Redistribution and Growth: Theory and Evidence	90 5668 149 4	Sep 2005
150	Paul Driessen	Green Product Innovation Strategy	90 5668 150 8	Oct 2005
151	Evgenia Motchenkova	Optimal Enforcement of Competition Law	90 5668 151 6	Nov 2005
152	Simon Polbennikov	Modelling of and Empirical Studies on Portfolio Choice, Option Pricing, and Credit Risk	90 5668 152 4	Nov 2005
153	Benedikt Goderis	Financial Crises and Monetary Policy	90 5668 153 2	Nov 2005
154	Paulo V. Cunha	The Value of Cooperation: Studies on the Performance Outcomes of Interorganizational Alliances	90 5668 154 0	Dec 2005

No.	Author	Title	ISBN	Published
155	Mewael F. Tesfaselassie	Communication, Learning and Optimal Monetary Policy	90 5668 155 9	Dec 2005
156	Valentina Melnyk	Creating Effective Loyalty Programs Knowing What (Wo-)Men Want	90 5668 156 7	Dec 2005
157	Mark-Jan Boes	Index Options: Pricing, Implied Densities, and Returns	90 5668 157 5	Jan 2006
158	Martin Kahanec	Social Interaction in the Labor Market: Essays on Earnings Inequality, Labor Substitutability, and Segregation	90 5668 158 3	Feb 2006
159	Rekha Krishnan	When is trust produced and when does it matter? Taking a closer look at trust and alliance performance	90 5668 159 1	Mar 2006
160	Ieke le Blanc	Closing Loops in Supply Chain Management: Designing Reverse Supply Chains for End-of-life Vehicles	90 5668 160 5	Mar 2006
161	Maaïke van Krieken	Solving Set Participation Problems using Lagrangian Relaxation	90 5668 161 3	Mar 2006
162	Fleur Laros	Emotions in Consumer Research: An Application to Novel Food Product	90 5668 162 1	Mar 2006
163	Anna Nadolska	Learning to Expand Internationally: The Pace and Success of Foreign Acquisitions	90 5668 163 X	Feb 2006
164	Rossella Bargiacchi	Modelling and Testing Behavior in Applications to Climate Change	90 5668 164 8	Feb 2006
165	Lonneke Driessen	Simulation-based Optimization for Product and Process Design	90 5668 165 6	Apr 2006
166	Dantao Zhu	Essays on Financial Structure and Macroeconomic Performance	90 5668 166 4	Apr 2006
167	Ralf van der Lans	Brand Search	90 5668 167 2	Jun 2006
168	Annabel Sels	Foreign Direct Investment as an Entry Mode: An Application in Emerging Economies	90 5668 168 0	Jun 2006
169	Marieke Quant	Interactive Behavior in Conflict Situations	90 5668 169 9	Sep 2006
170	Marta Stryzowska	Essays on Auctions	90 5668 170 2	Sep 2006
171	Arantza Estévez-Fernández	Cooperative Behavior, Competition and Operations Research	90 5668 171 0	Sep 2006
172	Youwei Li	On Microscopic Simulation Models of Financial Markets	90 5668 172 9	Sep 2006

No.	Author	Title	ISBN	Published
173	Bart Husslage	Maximin Designs for Computer Experiments	90 5668 173	Nov 2006
174	Corrado di Maria	Choosing the Direction: Investment, the Environment, and Economic Development	90 5668 174 5	Nov 2006
175	Yue Wang	Essays on the Relevance and Use of Dirty Surplus Accounting Flows in Europe	90 5668 175 3	Nov 2006
176	Frans Cruijssen	Horizontal Cooperation in Transport and Logistics	90 5668 176 1	Dec 2006
177	Martijn de Jong	Response Bias in International Marketing Research	90 5668 177 X	October 2006
178	Marina Velikova	Monotone Models for Predication in Data Mining	90 5668 178 8	November 2006
179	Chendi Zhang	Ethics, Investments and Investor Behavior	90 5668 179 6	November 2006
180	Erwin Stinstra	The Meta-Model Approach for Simulation-Based Design Optimization	90 5668 180 X	November 2006
181	Andrey Vasnev	Local Sensitivity in Econometrics	90 5668 181 8	December 2006
182	Marina Martynova	The Market for Corporate Control and Corporate Governance Regulation in Europe;	90 5668 182 6	November 2006
183	Attila Korpos	Monetary Regimes in Open Economies	90 5668 183 4	November 2006
184	Emiliya Andonova Lazarova	Stability, Governance and Effectiveness: Essays on the Service Economy	90 5668 184 2	December 2006
185	Mohammed Ibrahim	Trust, Dependence and Interorganizational Systems	90 5668 185 0	December 2006
186	Marta Szymanowska	Essays on Rational Asset Pricing	90 5668 186 9	December 2006
187	Norbert Hári	Modeling Mortality: Empirical Studies on the Effect of Mortality on Annuity Markets	978 90 5668 187 7	January 2007
188	Kees Leune	Access Control and Service Oriented Architectures	978 90 5668 188 5	February 2007
189	Rita Coelho do Vale	Consumption Breakdown: On Avoiding and Embracing Temptations	978 90 5668 189 0	April 2007
190	Valeri Nikolaev	Financial Reporting, Debt Contracting and Valuation	978 90 5668 190 6	June 2007

No.	Author	Title	ISBN	Published
191	Berk Ataman	Managing Brands	978 90 5668 191 3	June 2007
192	Robert Rooderkerk	Optimizing Product Lines and Assortments	978 90 5668 192 0	June 2007
193	Alex Eapen	Essays on International Market Entry: Strategic Alliance Governance and Product Segment Entry	978 90 5668 193 7	June 2007
194	Bart Orriëns	On the development and management of adaptive business collaborations	978 90 5668 195 1	September 2007
195	Stephan Hollander	The Merits and Economic Consequences of Reputation: Three Essays	978 90 5668 196 8	October 2007
196	Yu Kuang	Incentive Effects of Performance-vested Stock Options	978 90 5668 197 5	October 2007
197	Ramon van den Akker	Integer-valued Time Series	978 90 5668 198 2	November 2007
198	Arne de Vet	The Effects of Thinking in Silence on Creativity and Innovation	978 90 5668 199 9	November 2007
199	Esther Eiling	Essays on International Finance and Asset Pricing	978 90 5668 200 2	November 2007
200	Hans Haans	Multi-Outlet/Multi-Format Grocery Retailing: Some Issues and Insights	978 90 5668 201 9	December 2007
201	Igor Lončarski	Essays on the Use of Convertible Bonds and Security Issuance Decision	978 90 5668 202 6	December 2007
202	Man-Wai Chow	A New Perspective on Punishments and Rewards in Marketing Channel Relationships	978 90 5668 203 3	December 2007
203	Peter Szilagyi	Corporate Governance and the Agency Costs of Debt and Outside Equity	978 90 5668 204 0	December 2007
204	Anne Gielen	Age-specific labor market dynamics	978 90 5668 205 7	January 2008
205	Willem Woertman	Learning in Consumer Choice	978 90 5668 206 4	January 2008
206	Alex Siem	Property Preservation and Quality Measures in Meta-Models	978 90 5668 207 1	January 2008
207	Jetske Bouma	Voluntary Cooperation in the Provision of a Semi-Public Good: Community-Based Soil and Water Conservation in Semi-Arid India	978 90 5668 208 8	February 2008

No.	Author	Title	ISBN	Published
208	Amarendra Sahoo	Essays on the Indian Economy: Competitive Pressure, Productivity and Performance	978 90 5668 209 5	February 2008
209	Judith Lammers	HIV/AIDS, Risk and Intertemporal Choice	978 90 5668 210 1	March 2008
210	Willemien Kets	Networks and Learning in Game Theory	978 90 5668 211 8	April 2008
211	Ralph Koijen	Essays on Asset Pricing	978 90 5668 212 5	April 2008
212	Yvonne Adema	The International Spillover Effects of Ageing and Pensions	978 90 5668 213 2	May 2008
213	Brenda González - Hermsillo	Transmission of Shocks Across Global Financial Markets: The Role of Contagion and Investors' Risk Appetite	978 90 5668 214 9	May 2008
214	Jia Liu	Brand and Automaticity	978 90 5668 215 6	June 2008
215	Leon Zolotoy	Empirical Essays on the Information Transfer Between and the Informational Efficiency of Stock Markets	978 90 5668 216 3	June 2008
216	Katya Vladislavleva	Model-based Problem Solving through Symbolic Regression via Pareto Genetic Programming	978 90 5668 217 0	September 2008
217	Stefano Moretti	Cost Allocation Problems Arising from Connection Situations in an Interactive Cooperative Setting	978 90 5668 218 7	October 2008
218	Sebastian Gryglewicz	Essays on Competition, Corporate Financing, and Investment: A Stochastic Dynamic Approach	978 90 5668 219 4	October 2008
219	Patricia Prüfer	Model Uncertainty in Growth Empirics	978 90 5668 220 0	October 2008
220	Vera Toepoel	A Closer Look at Web Questionnaire Design	978 90 5668 221 7	November 2008
221	Robert van Wessel	Realizing Business Benefits from Company IT Standardization	978 90 5668 222 4	November 2008
222	Carin van der Cruijssen	The Economic Impact of Central Bank Transparency	978 90 5668 223 1	November 2008
223	Hendri Adriaens	Financial Markets with Data-Driven Investment Decisions	978 90 5668 224 8	December 2008

No.	Author	Title	ISBN	Published
224	Edwin van der Werf	Climate Policy and Economic Dynamics: the Role of Substitution and Technological Change	978 90 5668 225 5	December 2008
225	Mario Schijven	Acquisition Capability Development: Behavioral and Cognitive Learning Perspectives	978 90 5668 226 2	December 2008
226	Viorel Roscovan	Essays on Banking and Asset Pricing	978 90 5668 227 9	December 2008
227	Günseli Tümer-Alkan	Essays on Banking	978 90 5668 228 6	December 2008
228	Anna-Katharina Wick	Conflicts, development and natural resources: An applied game theoretic approach	978 90 5668 229 3	December 2008
229	Yuping Jia	Essays on the Role of Managerial Type in Financial Reporting	978 90 5668 230 9	December 2008
230	Jiajia Cui	Essays on Pension Scheme Design and Risk Management	978 90 5668 231 6	January 2009
231	Mark van de Vijver	Collaboration in Buyer-Supplier Relationships	978 90 5668 232 3	January 2009