Inter-Firm Relationship Management: Activity Coordination, Resource Configuration, Trust Building, and Network Orchestration

vorgelegt von

Yoritoshi Hara, MCom

aus

Nagano, Japan

Berlin, 2020

Gedruckt mit der Genehmigung des Fachbereichs Wirtschaftswissenschaft der Freien Universität Berlin.

Dekan: Prof. Dr. Dieter Nautz

Erstgutachter: Prof. a.D. Dr. Dr. h.c. Michael Kleinaltenkamp
                   Freie Universität Berlin

Zweitgutachter: Prof. Dr. Jörg Sydow
                   Freie Universität Berlin

Tag der Disputation: 27.08.2020

Declaration of Academic Integrity

I (Yoritoshi Hara) hereby confirm that this dissertation is all my own work, and that if any material by others in books, articles, theses, and on the Internet has been copied or in any other way used, all references have been acknowledged and fully cited.

Declaration of Co-Authorship and Publications

I (Yoritoshi Hara) hereby state that I have utilized the following published articles including the works with the co-authors listed below for this dissertation:

1. Yoritoshi Hara (2019). Integrated marketing channel relationships: Integration dimensions and channel performance. *Journal of Business and Industrial Marketing*, 34(6), 1360–1373.
   https://doi.org/10.1108/JBIM-01-2018-0050

   Contribution
   This is my single-authored article.

2. Yonghoon Choi and Yoritoshi Hara (2018). The performance effect of inter-firm adaptation in channel relationships: The roles of relationship-specific resources and tailored activities. *Industrial Marketing Management*, 70, 46-57.
   https://doi.org/10.1016/j.indmarman.2017.05.007

   Contribution
   I was responsible for writing the theoretical section and building the research model. Choi conducted the empirical test and wrote the methodology and results sections. Choi and I interpreted the results and wrote the discussion and conclusion sections.

3. Hajime Kobayashi, Yoritoshi Hara, and Tetsuya Usui (2017). Trust building process for new market entrants: A case study of a Japanese cosmetics company's business expansion in China. *Journal of Business and Industrial Marketing*, 32(6), 801–812.
   https://doi.org/10.1108/JBIM-06-2015-0108

Contribution

Kobayashi and I wrote the sections related to theoretical background, methodology, and overview of the case. Usui was responsible for describing the analysis and findings. All authors conducted the case analysis, interpreted the results, and wrote the conclusion.

4. Yoritoshi Hara, Takahiro Endo, and Hajime Kobayashi (2015). The hidden abode of network orchestration: The case of de-legitimated diesel cars in Japan. *Industrial Marketing Management*, 49, 15-21.
https://doi.org/10.1016/j.indmarman.2015.06.001

Contribution

Endo and I conducted the analysis and wrote this final version. Kobayashi was involved in the research project from the beginning and provided theoretical ideas for the study.

Table of Contents

viii

Acknowledgements

I would like to express my deepest gratitude to Prof. a.D. Dr. Dr. h.c. Michael Kleinaltenkamp for supervising my dissertation. His invaluable suggestions and feedback have sharpened the theoretical framework to incorporate the four empirical studies I conducted. His encouragement has also led me to complete this work. I would also like to thank Prof. Dr. Jörg Sydow, acting as a second supervisor for my thesis and Prof. Dr. Martin Gersch. Their workshops have provided me with numerous inspiring insights. I am sincerely grateful to everyone at the Marketing Department, in particular, Prof. Dr. Sascha Raithel and Laura Elgeti, for all the inspiring discussions and the great research environment.

We have been facing the unprecedented pandemic crisis around the world in 2020. I owe sincere thanks to the Doctoral Board of the School of Business and Economics who flexibly responded to this serious situation in the best interests of the doctoral students to carry out the relevant procedures.

My dissertation consists of four essays based on my articles published over the past five years. I would like to express my great appreciation to my co-authors: Prof. Yonghoon Choi (Doshisha University), Prof. Hajime Kobayashi (Meiji University), Prof. Tetsuya Usui (Nihon University), and Dr. Takahiro Endo (Hitotsubashi University) for many fruitful discussions and productive cooperation.

Finally, I thank my family for their enduring support and encouragement. I could not have completed this dissertation without them.

Abstract

The main purpose of this dissertation is to examine how inter-firm relationships are formed and maintained to improve relationship performance. Much of the research on inter-organizational relationships has been conducted by marketing channel researchers based on transaction cost economics as well as the industrial marketing and purchasing (IMP) group researchers who commonly adopt the so-called context perspective, assuming relationships as distinct antecedents of performance outcomes. A framework unique to the IMP group is the activities–resources–actors (ARA) model, which posits three layers, or dimensions, characterizing relationships: activity links, resource ties, and actor bonds. This dissertation consists of the four studies that draw on the ARA framework to investigate the performance effects of activity coordination, resource configuration, trust building, and network orchestration.

First, activity coordination is a main issue in the activity-link dimension. Coordination among firms' activities is facilitated by inter-firm interaction and information sharing. Study 1 addresses how activity coordination promotes relationship performance. Second, the resource-tie layer is related to resource configuration. Study 2 empirically tests the performance effects of resource configuration across organizations. Third, actor bonds are associated with the concepts of trust and commitment between companies. Study 3 provides a case analysis of inter-firm trust development. Finally, as the ARA model is a framework for analyzing not only business relationships but also networks, Study 4 focuses on the issue of establishing and managing inter-organizational networks to investigate a case of a trap in network orchestration.

Zusammenfassung

Der Hauptzweck dieser Dissertation ist es zu untersuchen, wie zwischenbetriebliche Beziehungen gebildet und gepflegt werden, um ihren Erfolg zu verbessern. Zwei Richtungen prägen die Forschung zu inter-organisationalen Beziehungen bislang: Erstens Arbeiten auf der Grundlage der Transaktionskostenökonomik, die sich im Wesentlichen auf Absatzkanal-Phänomene konzentriert haben, und zweitens die Arbeiten der "Industrial Marketing and Purchasing Group" (IMP), die üblicherweise eine Kontextperspektive einnehmen und welche die Merkmale der Geschäftsbeziehungen als Antezedenzien ihres Erfolgs ansehen. Prägend für die IMP-Gruppe ist dabei das Aktivitäten-Ressourcen-Akteure (ARA)-Modell, das drei Schichten oder Dimensionen aufweist, anhand derer Beziehungen charakterisiert werden: Verknüpfungen von Aktivitäten und Ressourcen sowie die Bindungen der Akteure. Basierend auf diesem ARA-Framework beinhaltet die vorliegende Dissertation vier Studien, welche die Auswirkungen von Aktivitätskoordination, Ressourcenkonfigurationen, Vertrauensbildung und Netzwerkorchestrierung auf den Erfolg von Geschäftsbeziehungen untersuchen.

Die Koordination von Aktivitäten verschiedener Unternehmen wird durch die Interaktion zwischen den Unternehmen sowie deren Informationsaustausch erleichtert. Studie 1 befasst sich deshalb mit der Frage, wie die Koordination von Aktivitäten den Erfolg von Beziehungen fördert. Darüber hinaus steht die Ebene der Ressourcenbindung in Zusammenhang mit der Ressourcenkonfiguration. Aus diesem Grund wird in Studie 2 empirisch getestet, wie sich die Performance-Effekte der Ressourcenkonfiguration in verschiedenen Organisationen auswirken. Akteursbindungen werden zudem mit den Konzepten des Vertrauens und des Commitments zwischen Unternehmen in Verbindung gebracht. Vor diesem Hintergrund umfasst Studie 3 eine Fallstudie der Entwicklung von Vertrauen zwischen Unternehmen. Schließlich ist das ARA-Modell als Rahmen nicht nur für die Analyse von Geschäftsbeziehungen, sondern auch von Netzwerken geeignet. Studie 4 konzentriert sich deshalb auf die Frage des Aufbaus und der Pflege von inter-organisatorischen Netzwerken, um einen Fall einer unzureichenden Netzwerkorchestrierung zu untersuchen.

List of Figures

List of Tables

Abbreviations

ARA	Activities–resources–actors
AVE	Average variance extracted
B2B	Business-to-business
B2C	Business-to-consumer
CMV	Common method variance
CR	Composite reliability
HSV	Highest shared variance
IMP	Industrial marketing and purchasing
NIE	New institutional economics
TCE	Transaction cost economics
TMG	Tokyo metropolitan government
VIF	Variance inflation factor

1. Introduction

1.1. Theoretical background

The aim of this dissertation is to investigate how inter-firm relationships are formed and maintained to improve relationship performance, such as value creation in relationships. In the field of relationship marketing, there are several distinct research traditions that view inter-firm relationships or networks as the decisive context for value creation (Kleinaltenkamp & Ehret, 2006). These context views of relationship marketing have drawn, to some degree, on new institutional economics (NIE), including transaction cost economics (TCE), to explain why organizations build tight relationships with other organizations (Kleinaltenkamp & Ehret, 2006; Kleinaltenkamp & Jacob, 2002). TCE, which focuses on the governance-mechanism choice, defines inter-firm relationships as mixed forms that have the characteristics of both the market and hierarchy. Based on this perspective, difficulties with market transactions caused by asset specificity, uncertainty, and so forth will require firms to select more hierarchical governance modes (Williamson, 1975, 1985). Thus, transactional difficulties induce inter-firm relationships as mixed modes rather than the pure market.

Much of the research on inter-organizational relationships has been conducted by marketing channel researchers based on TCE (see e.g., Geyskens *et al.*, 2006; Rindfleisch & Heide, 1997) as well as the industrial marketing and purchasing (IMP) group researchers (see e.g., Ford *et al.*, 2011; Håkansson & Snehota, 1995). These researchers commonly adopt the so-called context perspective, assuming relationships as distinct antecedents of performance outcomes such as value creation and cost saving (Kleinaltenkamp & Ehret, 2006). However, several differences exist between the two research groups. Most IMP studies adopt qualitative research methods, mainly case studies. They are oriented to holistically capture business-to-business (B2B) relationships and networks. A framework unique to the IMP group is the activities–resources–actors (ARA) model, which posits three layers, or dimensions, characterizing relationships: activity links, resource ties, and actor bonds (Ford *et al.*, 2011; Håkansson & Snehota, 1995), as illustrated in Figure 1.1. On the other hand, studies on marketing channels draw upon TCE to focus on the roles of trust, commitment, and norms in relationships, and they perform quantitative analyses using survey data (Geyskens *et al.*, 1998, Geyskens *et al.*, 1996; Heide & John, 1992). These studies on marketing channels are essentially quantitative research orientated. In

addition, due to its basis in TCE, marketing channel research is in line with the economics tradition of methodological individualism as a form of reductionism (Arrow, 1994).

Figure 1.1 ARA dimensions and scope of the dissertation
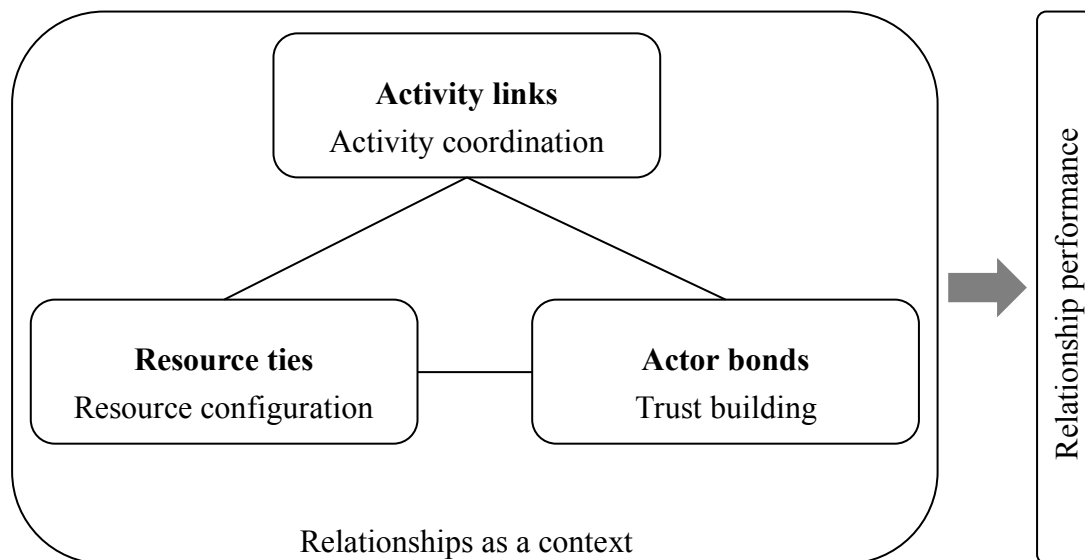
Indeed, both research groups have significantly contributed to the literature on B2B marketing. Nevertheless, they have made little headway towards furthering the theoretical and empirical development of the field. By reviewing studies on marketing channels based on TCE, it was found that the research models of earlier empirical studies focus on the relations between exchange-context factors, such as asset specificity and uncertainty, and business relationships as a governance form, as Geyskens *et al.* (2006) pointed out. They rarely address the performance effects of the interactions between exchange-context attributes and relationship forms; although, there has been a recent increase in studies that deal with several performance variables as dependent variables. In addition, few empirical studies holistically investigate the relationships among contextual attributes, marketing strategy factors, and governance forms (Ghosh & John, 1999).

On the other hand, IMP researchers tend to holistically address how firms form business relationships and networks. They posit that relationship and network formation will affect business performance. Nevertheless, IMP research fails to successfully explain the causal path from relationship formation to business performance. These researchers often adopt a qualitative case study approach. Thus, few studies test

hypotheses based on the ARA model that comprehensively capture B2B relationships. Although the knowledge that is acquired from case studies is significant for theory building (Eisenhardt, 1989), quantitative empirical studies are required to test and generalize that knowledge. This dissertation intends to bridge the gap between the conceptual and empirical knowledge about the ARA model.

Marketing channel and IMP research complement each other. The main purpose of this dissertation is to build hypotheses based on the comprehensive ARA framework from the IMP research group and to empirically test them by employing the quantitative research methods often used in marketing channel research. However, it is noted that this dissertation does not intend to test the model per se. As per Håkansson (2009), it might be difficult (or impossible) to test the ARA model holistically because it was not created for quantitative empirical studies. Thus, the studies in this dissertation intend to utilize the insights of the framework to establish more comprehensive research models for studying marketing channel relationships than those developed by previous marketing-channel research. Figure 1.1 shows the scope of this dissertation in addition to the ARA dimensions. Works related to this first purpose of the dissertation are used to constitute the chapters for Studies 1 and 2, which focus on the issues of activity coordination and resource configuration in the ARA framework. In contrast, many quantitative empirical studies on the issue of trust in the actor bond dimension have already been conducted in the marketing channel research field. However, the issue has been little studied in the IMP research. Thus, Study 3 is a qualitative study to address the issue of trust building processes. A longitudinal case-study method is appropriate for this study because it focuses on the processes by which trust develops. Finally, in line with the traditional IMP network approach, Study 4 is conducted to address the issue of network management. A network approach is required for this study because it involves networks of various types of actors.

1.2. Some methodological issues

The empirical studies in this dissertation are based on the following two perspectives: IMP and TCE. Before conceptualizing a framework for consolidating the two perspectives to be used in the studies in this dissertation, a discussion regarding some of the methodological issues that arise when combining the different approaches is required.

Håkansson and Snehota (1995) acknowledge that they treat problems with relationship governance in a manner similar to TCE. However, they recognize a certain

point on which their approach differs from TCE. TCE defines each relationship or transaction as the basic unit of analysis (Williamson, 1993a). According to Håkansson and Snehota (1995), while TCE assumes that each relationship is isolated from others, the IMP network approach assumes that business relationships mutually affect each other (Håkansson & Snehota, 1995). They argue that the overall market performance of a firm depends on its individual relationships; performance in a relationship is affected by performance in other relationships. One might think that this idea might lead to a kind of holism that could conflict with TCE, which adopts a reductionist position.

Nevertheless, it can be argued that this difference is not a strong obstacle to combining the two approaches. Although reductionism has been criticized, most researchers in business studies explain some object by reducing it to a simpler level. For example, we can operationalize the effects among different relationships as influences among variables at simpler levels including resource configuration, practices, and trust in each relationship. Inherently, the ARA is a framework for explaining complex phenomena by reducing them to activity links, resource ties, and actor bonds at simpler levels. In the same manner, previous studies based on TCE conceptualize or operationalize other relationships as an environmental or contextual factor that affects the focal relationship. Thus, in this respect, the two perspectives are complements rather than substitutes.

Another methodological issue that should be discussed is the different means of reasoning: calculative or non-calculative reasoning. The issue of how to deal with the notion of "trust" is a good example to explain this difference. In TCE, which adopts the calculative economic reasoning that prevails in most economic approaches, trust is a label for a certain class of behavior or a particular action or strategy that is associated with the term "risk" (Williamson, 1993b; Craswell, 1993). TCE refers to contractual safeguards to protect transacting parties from others' opportunism, which imply calculative trust. (Williamson, 1993). Instead of this notion of calculative trust in TCE, IMP researchers seem interested in non-calculative trust based on social norms. As Håkansson and Snehota (1995) argue, trust is built based on informal bonds and personal connections among actors. In the theory developed by Håkansson and Snehota (1995), trust is the third governance mechanism that substitutes for markets and hierarchies, as behaviorists such as Granovetter (1985) and Bradach and Eccles (1989) assume. Interestingly, the calculative and non-calculative views can complement one another rather than serves as substitutes (Craswell, 1993). Williamson assumes that social factors, such as socialization, social approval, and sanctions, "are best accounted for by treating them as part of the environment within which all calculations take place"

(Craswell, 1993, p. 495). On the other hand, Williamson also "leaves open the possibility that non-calculative forces)—tradition, ethnocentrism, religion, and the like—might provide superior explanations of a culture's norms and that non-calculative sociological or psychological theories might therefore have a place in the social sciences" (Craswell, 1993, p. 496).

In fact, in conceptualizing trust, prior studies have been based on both of the calculative and non-calculative views. This is reflected by several trust typologies developed in previous studies. For example, McAllister (1995) categorizes trust into cognitive-based and affective-based types. Cognitive trust is based on rational judgement according to the partners' competence, honesty, and reliability, while affective trust consists of non-calculative emotional bonds between exchange partners. Prior research on trust has associated affective trust as well as cognitive trust with firm performance because trust is assumed to play a role in saving transaction costs. Seemingly non-calculative behavior can be explained according to calculative reasoning by associating it with performance. In this respect, it can be argued that the IMP group's notion of trust and TCE's calculative reasoning complement each other.

IMP and TCE probably take their position in the middle of the continuum from the calculativeness to the non-calculativeness. Indeed, TCE builds the theory based on the assumption of bounded rationality. Obviously, TCE keeps a distance from neo-classical economics whose assumption is referred to as the homo economicus. On the other hand, IMP are to some extent open to the calculative reasoning. In fact, Håkansson and Snehota (1995) address what the market performance of a company, such as sales volumes, market share, profits, and growth, is dependent on. In order to establish hypotheses or propositions regarding the performance effects of relationship formation, calculative reasoning, the so-called principle of efficiency, is useful. The lens of calculativeness has enabled previous marketing-channel studies to hypothetically draw paths from co-alignments between contextual factors and governance attributes to several performance variables, including flexibility (Heide, 1994), profit (Jap, 1999), competitive advantage (Jap, 1999), channel performance (Choi & Hara, 2018; Samaha *et al.*, 2011), and the like.

1.3. Research gaps bridged by this dissertation

The IMP network approach addresses the issues of how to connect and mutually fit various activities and heterogeneous resources across firms and how to develop cooperative posture and coordination mechanisms in relationships (Håkansson &

5

Snehota, 1995). The ARA model is a framework for examining these issues. Appendix A provides an overview of prior studies focusing on any of the ARA dimensions: activity links, resource ties, and actor bonds. Through a review of the literature, the main research topics and findings of previous studies are recognized. As a result, research gaps are identified along each of the dimensions.

First, with reference to activity links, previous research has been primarily interested in the coordination of various activities across companies as well as the interdependence between their activities. Activity coordination is a main issue in the activity-link dimension (Crespin-Mazet *et al.*, 2014, Insanic & Gadde, 2014; Lundberg & Anderson, 2012; Olsson *et al.*, 2013; Veludo *et al.*, 2004). Inter-firm interaction and information sharing facilitate coordination among the activities of different firms in a network (Insanic & Gadde, 2014). Activity coordination promotes firm performance, including access to further resources for R&D development (Lundberg & Anderson, 2012). Several studies report on the roles of particular actors in coordinating the activities of network members (Crespin-Mazet *et al.*, 2014; Olsson *et al.*, 2013). Previous studies have obviously focused on activity coordination among firms as the main research topic related to the activity link because this research topic is considered to be critical. However, few studies examine how inter-firm coordination affects firm or relationship performance; although, each of these studies deals with a single case or several cases of inter-firm networks that seem successful. Thus, quantitative empirical research in the performance effects of inter-firm coordination needs to be conducted. This gap leads to Study 1 in this dissertation.

Second, the resource-tie layer is a dimension of the ARA model used to characterize the combination of resources (Håkansson & Snehota, 1995). Resources companies can access to and control over are a key source of competitive advantage for them (Grant, 1996; Håkansson & Snehota, 1995). Because firms are only partially capable of forming the required resource constellations, they must cooperate with others. Different approaches to combining and coordinating the counterparties' heterogeneous resources will affect relationship performance (Ivens *et al.*, 2009; Mouzas & Ford, 2012; Nyström, 2012; Ritter & Gemünden, 2003). The issue of resource configuration across firms has attracted interest of researchers in B2B marketing. However, comparatively, most existing studies focus on the issue within organizations. Although there are quantitative empirical studies focusing on the issue within organizations, few are conducted to empirically test the performance effects of resource integration across organizations. This research gap is bridged by Study 2.

Third, actor bonds develop through two different, but closely intertwined, processes: construction of identity and formation of trust and commitment (Håkansson & Snehota, 1995). The concepts of trust and commitment have drawn the interest of various researchers in a wide range of business studies. In the IMP research, several studies also address inter-firm trust (Partanen *et al.*, 2008; Veludo *et al.*, 2004; Westerlund & Svahn, 2008). However, existing studies in the IMP tradition have mainly focused on the resource-tie and/or activity-link layer while fewer case studies deal with the actor layer (Perna *et al.*, 2012; Ciabuschi *et al.*, 2012; Huemer, 2013). Study 3 is associated with this gap.

Finally, the ARA model is a framework for analyzing business networks as well as inter-firm relationships. IMP researchers have traditionally attempted to understand business networks as a self-organizing system emerging outside of anyone's control (Håkansson & Ford, 2002; Wilkinson & Young, 2002). In the last decade, however, more studies have focused on an intentional mode wherein actors can manage and coordinate business networks to some extent (Möller & Rajala, 2007; Möller *et al.*, 2005). In line with this research trend, Study 4 attempts to examine how intentional actions affect business networks using a case of a network-orchestration failure caused by peripheral actors in a business network.

1.4. Structure of the dissertation

The studies in the dissertation are in accordance with the three dimensions of the ARA framework: activity links, resource ties, and actor bonds. The dissertation consists of essays reporting four studies. Study 1 is associated with the activity-link dimension and addresses activity coordination across firms. In this study, several hypotheses regarding inter-firm integration, as an issue of coordination, are built and tested empirically. Study 2 is aligned with the resource-tie dimension and focuses on the roles of resources in inter-firm governance. Studies 1 and 2 are quantitative studies using survey data. Study 3 provides a longitudinal case analysis that addresses trust building processes. Finally, in contrast to Studies 1, 2, and 3, Study 4 focuses on the issue of establishing and managing inter-organizational networks and attempts an analysis at the network level rather than the relationship level. It investigates a case of a trap in network orchestration.

Table 1.1 provides an overview of the studies in the dissertation and shows the related dimension, main research focus, research questions, methodology, and main findings of each study.

Table 1.1 Overview of the studies

	Dimension	Main research focus	Research question	Methodology	Main findings
Study 1	Activity links: Activity coordination	The two different types of inter-firm integration: coordination and authority Their performance effects	How different are the performance effects between coordination and authority integration? What factors moderate the path from the two types of integration to performance?	Quantitative empirical study	The two types of inter-firm integration have different roles in improving performance. Coordination integration has a direct performance effect. High (low) coordination integration matches high (low) product uniqueness. Greater coordination integration mitigates demand uncertainty, while authority integration has a significant role in moderating behavioral uncertainty.
Study 2	Resource ties: Resource configuration	Resource configuration across firms Resources as alternative inter-firm governance mechanisms	How should firms combine their resources with the other firms' in relationships? What resource can play a role as a governance form?	Quantitative empirical study	Marketing channel capabilities serve as a governance mechanism moderating the paths from relationship-specific resources to performance. Exploitation capacities can also serve as an alternative governance mechanism so that they could reduce environmental uncertainty.

	Dimension	Main research focus	Research question	Methodology	Main findings
Study 3	Actor bonds: Trust building	Trust building processes Three trust bases: Institutional, cognitive, and affective trust	How does trust develop in inter-firm relationships? How are the three trust bases interrelated during trust building?	Single longitudinal case study	Institutional trust generates an initial expectation of continued interaction with a partner and functions as a basis for supporting the development of cognitive and affective trust. Cognitive trust helps to attract many parties to the relevant business context. It takes a long time to build affective trust because it gradually accumulates from the past experience.
Study 4	Inter-firm networks	Network orchestration	How do actors other than hub organizations affect network orchestration? How is a failure of network orchestration caused?	Single case study and qualitative content analysis	By examining a failure of network orchestration, it was found that peripheral actors in industrial networks, such as political actors, can disable network orchestration; offerings and technologies related to networks could be stigmatized.

2. Study 1: Inter-firm integration as a form of activity coordination

This chapter is based on the single-authored article entitled "Integrated marketing channel relationships: Integration dimensions and channel performance" (*Journal of Business and Industrial Marketing*, 34(6), 2019, 1360–1373).

https://doi.org/10.1108/JBIM-01-2018-0050

The texts, tables, and figures of this chapter exist in the printed version of this dissertation.

3. Study 2: Resources for inter-firm governance[1]

3.1. Introduction

Resource availability and control is a source of competitive advantage for companies (Håkansson & Snehota, 1995). However, no firm can have all the needed resources without buying them. Thus, it is important to effectively combine and integrate heterogeneous resources in a business network. To attain synergy of combined resources across companies, firms have to build and manage relationships with each other. Resource combination that companies can access is a critical source of their competitive advantage (Grant, 1991; Håkansson & Snehota, 1995). Additionally, the relationship performance relies on how firms combine and coordinate their heterogeneous resources in their relationships (Ivens *et al.*, 2009; Mouzas & Ford, 2012; Nyström, 2012; Ritter & Gemünden, 2003).

How should firms combine their resources with those of other firms in inter-firm relationships? This study aims at investigating the configuration or co-alignment between resources of different firms to enhance performance in marketing channel relationships. Additionally, the characteristics of a firm's resources change over time. For example, as B2B relationships develop, the firms' resources become specific to the relationships (Ford *et al.*, 2011; Håkansson & Snehota, 1995 Hallén *et al.*, 1991; Metcalf *et al.*, 1991). From the viewpoint of the IMP-ARA framework, exploiting the firm's resources that are specific to its relationships with counterparts (i.e., so-called relationship-specific resources) could play an important role in improving performance. Therefore, this study investigates what characteristics of resources affect performance as well as how the configuration of resources across firms is associated with business outcomes in marketing channel relationships.

Regarding relationship-specific resources, previous studies based on the TCE literature (Williamson, 1985) and the organization-design view (Langlois, 2002; Langlois & Robertson, 1995; Sanchez & Mahoney, 1996) emphasize the dark side of relationship-specific resources—that is, the cause of transaction and coordination

---

[1] The data set utilized for Study 2 and the description in "3.2.1. Relationship-specific resources and performance" in this chapter are based on those in the article co-authored with Y. Choi, which is entitled "The performance effect of inter-firm adaptation in channel relationships: The roles of relationship-specific resources and tailored activities" (*Industrial Marketing Management* (IMM), 70, 2018, 46-57, https://doi.org/10.1016/j.indmarman.2017.05.007). However, the research model and the tested hypotheses in Study 2 is fully changed so that Study 2 can be recognized to be different and independent from the study in the IMM article.

difficulties (Choi & Hara, 2018). Moreover, this study clarifies the benefits of the specific resources, namely, the performance-enhancement effect.

Furthermore, this study assumes that firm resources improve or undermine the performance effects of them each other. In other words, it is assumed that interactions among resources affect performance, as a resource moderates the performance effect of another. IMP researchers have assumed the complementarity or combination of the resources of two different firms in a B2B relationship and the dependence of relationship performance on the nature of the combination (Håkansson & Snehota, 1995; Ivens *et al.*, 2009; Mouzas & Ford, 2012; Nyström, 2012; Ritter & Gemünden, 2003). The research model of this study incorporates the role of marketing channel capabilities in moderating the path from resource specificity to relationship performance. The study also investigates the role of exploitation capacities that comprise partially absorptive capacities (Cohen & Levinthal, 1990) in reducing environmental uncertainty.

The theoretical background of this study is discussed in the next part, and the hypotheses are presented through a relevant literature review. The research method section explains the procedures of collection and analysis of data, which is followed by the analysis results. The theoretical and managerial contributions and limitations of this study are finally discussed.

3.2. Review of Literature

3.2.1. Relationship-specific resources and performance

The IMP network approach emphasizes that interactions between heterogeneous resources across firms affect the relationship performance (Håkansson & Snehota, 1995; Ivens *et al.*, 2009; Mouzas & Ford, 2012; Nyström, 2012; Ritter & Gemünden, 2003). In other words, owing to the complementarity of the resources of two different firms in a B2B relationship, the relationship performance depends on the combination of their resources, with the adaptation concept in the network approach being critical. As inter-firm adaptation in B2B relationships develops over time, the firms' resources will become specific to the relationships (Ford *et al.*, 2011; Håkansson & Snehota, 1995). Thus, at first, this study investigates how relationship-specific resources of wholesalers' resources specific to their transacting manufacturers influence relationship performance.

Table 3.1 summarizes explanations of the perspectives that relate to the performance effects of relationship-specific resources. Relationship-specific resources refer to site, physical, human, and dedicated assets in support of a particular relationship, which are less valuable to alternative relationships (Williamson, 1985). In TCE, it is

assumed that the relationship-specific resources or assets cause the hold-up problem and increase transaction costs due to the actors' opportunism (Klein *et al.*, 1978; Williamson, 1979). In this sense, TCE emphasizes a negative aspect. In other words, the logic of TCE is that specific resources raise the problem of higher transaction costs in inter-firm relationships, which in turn leads to vertical integration to reduce the costs. In marketing channel relationships, the wholesalers and retailers often invest in various facilities including distribution centers and training sales forces that are specific to particular manufacturers. Moreover, the empirical studies in the early marketing-channel literature demonstrate the positive relationship between relationship-specific resources and vertical integration (e.g., Anderson, 1985; John & Weitz, 1988; Klein *et al.*, 1990). These studies focus on the drawbacks of relationship-specific resources, namely the lock-in effects, to explain why vertical integration occurs.

Table 3.1 The performance effects of relationship-specific resources

Perspectives	Emphasized aspects	Explanation	Authors
ARA model	Positive	Relationship-specific resources facilitate inter-firm adaptation, thus enhancing the relationship performance. Additionally, adaptation leads to unique resource combinations that improve the resource value in a relationship.	Ford *et al.* (2011), Håkansson & Snehota (1995), Metcalf *et al* (1991)
TCE	Negative	The transaction-specific assets cause the hold-up problem and increase transaction costs, resulting in vertical integration.	Klein *et al.* (1978), Williamson (1975, 1979, 1985)
Earlier marketing-channel literature	Negative	The level of vertical integration will likely increase as the level of relationship-specific resources increases within the marketing channels, due to increasing transaction costs.	Anderson (1985), John & Weitz (1988), Klein *et al.* (1990)
Later marketing-channel literature	Positive	The relationship-specific resources influence relationship performance positively, since they induce operational cost reduction and/or value enhancement.	Brown *et al.* (2009), Ghosh & John (1999, 2005), Heide & John (1988), Jap (1999)

Nevertheless, some studies on B2B marketing report the bright side of relationship-specific resources. For example, the relationship-specific resources can have bonding effects to strengthen the ties between buyers and sellers because they increase the relational value and switching costs (Geiger *et al.*, 2012). Studies based on the ARA model assume that as B2B relationships develop, they become characterized by mutual dependency between firms, resource specificity, and difficulties in changing partners (Möller & Halinen, 2000). Additionally, the transacting actors' resources in an inter-firm relationship become so specific to each other that they adapt to one another (Ford *et al.*, 2011; Metcalf *et al.*, 1991). The inter-firm adaptation and close interactions have a positive impact on value enhancement, such as collaborative innovation and value creation (Håkansson, 1987). Furthermore, adaptation, which is a dynamic process where unique resource combinations develop, could improve the resource value within a relationship (Håkansson & Snehota, 1995; Mouzas & Ford, 2012). In other words, as per the IMP studies, the relationship-specific resources facilitate the relationship performance. The marketing channel literature also acknowledges the effect of relationship-specific resources on relationship performance, as specific resources can create more value than non-specific ones can (Brown *et al.*, 2009; Ghosh & John, 1999; Ghosh & John 2005; Heide & John, 1988; Jap 1999).

The positive performance effects of relationship-specific resources are categorized into two effects: the operation-cost reduction and the value enhancement of offerings (Brown *et al.*, 2009; Ghosh & John, 1999). That is, the relationship-specific physical and human resources in the production and distribution processes will reduce the operational costs. Additionally, using specific resources in collaboration enables firms to add value to their products and services. Thus, the relationship-specific resources in marketing channel relationships could also contribute to the channels' ability to provide customers with higher quality products and services, or comparable-quality products and services at lower prices (Brown *et al.*, 2009; Ghosh & John 2005).

H_1: The relationship-specific resources developed by wholesalers are positively related to the channel performance in marketing channel relationships.

3.2.2. Marketing channel capabilities and performance

The resource-based view assumes that valuable and rare resources offer competitive advantage (Barney, 1991), with resources specific to individual firms being especially important in this regard (Grant, 1991). Several types of resources exist: tangible and intangible resources (Wernerfelt, 1984), and property-based and knowledge-based

resources (Miller & Shamsie, 1996), financial resources, physical resources, human resources, technological resources, reputation, and organizational resources (Grant, 1991). Moreover, marketing capabilities are also important resources for improving firm performance (Morgan *et al.*, 2009; Vorhies & Morgan, 2005). This study focuses on marketing capabilities associated with channel management, selling, and market power of manufacturers, which are defined as marketing channel capabilities.

Morgan *et al.* (2009) and Vorhies and Morgan (2005) demonstrate that marketing channel capabilities contribute to firm performance. Manufacturers with marketing channel capabilities and consumer loyalty can also gain dominant market power that leads to inducing cooperative efforts from channel members (Palmatier *et al., 2014*; Anderson & Narus, 1990). Reibstein and Farris (1995) found that relationships between the brand share and retail distribution show a convex pattern, as the market share cumulatively enlarges with the increase in retail distribution. That is, the market share of large-share brands gains more share points per percentage of distribution than small-share brands. The evidence shows that market share is an important source of competitive advantage for manufacturers.

Moreover, manufacturers with a high degree of market power can effectively manage their relationships with intermediaries without high transaction costs, since the processes associated with bargaining, assembling information, and coordinating channel relationships can be facilitated by their market power (Coughlan *et al*, 2001). In terms of both developing and managing marketing channels effectively and efficiently, marketing channel capabilities are hypothesized to relate positively to business performance.

H$_2$: The marketing channel capabilities of manufacturers are positively related to channel performance in the marketing channel relationships.

3.2.3. Marketing channel capabilities for governance

Relationship-specific resources (assets) have been well-researched in the TCE literature, as they can affect the performance of the firms involved in the relationships negatively or positively, through the lock-in, bonding, and performance effects (Brown *et al.*, 2009; Rokkan *et al.*, 2003). A lock-in situation is created by specific resources because they are less valuable for alternative uses outside a particular relationship, with the opportunism of transacting parties in a lock-in situation posing a transaction difficulty to the extent to which a certain exchange is supported by specific resources. A firm investing in specific resources faces the hold-up problem, as its counterpart has the

ability to appropriate the rent generated from the resources opportunistically (Klein *et al.*, 1978). Furthermore, the situation causes the bargaining problem of splitting joint value in a small-numbers exchange, leading to increasing transaction costs (Williamson, 1979).

The TCE literature assumes that vertical integration with centralized authority has a role in reducing transaction costs. However, several studies report that alternative measures for governance could effectively reduce the transaction costs. For example, market power could play a role as a governance mechanism. Even in the case of high-resource specificity, firms with a high degree of market power tend to use unintegrated channels. Shervani *et al.* (2007) found empirical evidence that market power acts a deterrent to opportunism and that high resource specificity is significantly related to a high degree of forward integration, only when a firm's market power is low.

The IMP network approach argues that the firms' performance depends on how they combine their resources with those of their partners to create value (Ivens *et al.*, 2009; Nyström, 2011; Ritter & Gemünden, 2003). Following the assumption of Shervani *et al.* (2007), firms with a high degree of market power do not have to make a forward integration, even in exchange relationships characterized by high asset specificity. Similarly, this study assumes that the rising transaction costs caused by relationship-specific resources could weaken as marketing channel capabilities increase. In other words, high marketing channel capabilities can moderate the negative effects of resource specificity. On the other hand, marketing channel capabilities cannot weaken the value-enhancing effects of the relationship-specific resources. Thus, the total performance effects of specific resources will strengthen as the degree of marketing channel capabilities increases.

H$_3$: The positive effects of relationship-specific resources on channel performance will likely be greater as the marketing channel capabilities increase.

Environmental uncertainty causes several problems including market imperfection and contract enforcement difficulties (Williamson 1985). Additionally, uncertainty causes difficulty in adaptation to changing environments and requires firms to promote information sharing and processing (Geyskens *et al.,* 2006). In the case of unforeseen contingencies, the transacting parties could face conflicts with their counterparties due to different interpretation of the environments (John & Weitz, 1988). Thus, firms will seek to internalize their transactions to reduce environmental uncertainty (Williamson, 1985).

In marketing channel relationships, manufacturers rely on intermediaries and retailers to obtain the consumer's market information. Thus, manufacturers have to enhance the information flow in the marketing channels. Although an integrated channel is appropriate for facilitating information sharing (John & Weitz, 1988), vertical integration is not the only measure to overcome transaction difficulties as mentioned early (Shervani *et al.*, 2007). Since marketing channel capabilities have a role in resolving difficulties arising from resource specificity, they are assumed to contribute to uncertainty reduction.

H$_4$: The negative effects of demand uncertainty on channel performance will be moderated by marketing channel capabilities.

3.2.4. Exploitation capacities and performance

In recent years, the effects of firms' capabilities on their performance have drawn the attention of marketing researchers (Krasnikov & Jayachandran, 2008). The way by which knowledge-based resources are leveraged will significantly influence relationship performance (Mouzas & Ford, 2012). Further, the concept of absorptive capacities, which refers to the ability to acquire, assimilate, transform, and exploit knowledge from outside sources, play an important role in marketing activities (Cohen & Levinthal, 1990; Ghosh *et al.*, 2006; Zahra & George, 2002). It is critical for manufacturers to acquire downstream knowledge and information in marketing channels and to exploit them for product development and improvement. Originally, Cohen and Levinthal (1990) emphasized exploitation among several aspects of absorptive capacities. Exploitation capacity refers to a firm's organizational capability to exploit knowledge acquired from external sources to foster product and process innovation (Cohen & Levinthal, 1990; Zahra & George, 2002). In particular, the exploitation capacities are crucial for manufacturers' successful development and implementation of marketing strategies.

Studies on knowledge management acknowledge that sharing knowledge across, as well as within, companies is critical for innovation (Grant, 1996; Kogut & Zander, 1992; Szulanski, 1996). Knowledge is shared among various operational units and exploited for planning and implementing product development, production, logistics, and sales (Calantone *et al.*, 2002). Manufacturers with exploitation capacities can share knowledge with their channel partners effectively and efficiently, and leverage the acquired knowledge to develop and improve their products and processes. Thus, the

manufacturers' exploitation capacities are assumed to contribute to enhancing the value created in marketing channels.

H_5: The exploitation capacities of manufacturers are positively related to channel performance in the marketing channel relationships.

3.2.5. Exploitation capacities under uncertainty

The TCE literature assumes that environmental uncertainty increases transaction difficulties, and suggests that the transaction costs, caused by uncertainty, can be weakened as the level of vertical integration increases (Williamson, 1979, 1985). If manufacturers have exploitation capacities, which refer to the organizational capacity to obtain and exploit knowledge and information from their downstream channel partners (Cohen & Levinthal, 1990; Ghosh *et al.*, 2006), they could effectively cope with the fluctuation in the market demand and ensure that their products and channel services meet their customers' needs, even without using hierarchical channels (Choi & Hara, 2018).

In other words, the exploitation capacities serve as an alternative governance mechanism so that they could reduce environmental uncertainty. In line with the above discussion, it is assumed that without using integrated channels, manufacturers with superior exploitation capacities could reduce the substantial transaction costs that accrue under a high degree of uncertainty.

H_6: The negative effects of demand uncertainty on channel performance will be moderated by the exploitation capacities.

The research model of this study is illustrated in Figure 3.1, with the arrows representing the causalities between the constructs in the model. All the causal relationships between the variables are predicted to be positive.

3.3. Methodology

3.3.1. Data collection

In order to conduct a series of empirical analyses, this study used the data set based on survey data from Japanese manufacturing companies. The survey data was also used for the study in the previous chapter of this dissertation—that is, Study 1: Inter-firm integration as a form of activity coordination. With reference to the data source, the

number and overviews of samples, and the non-response-bias and key-informant-bias checks, see the prier chapter.

Figure 3.1 Research model
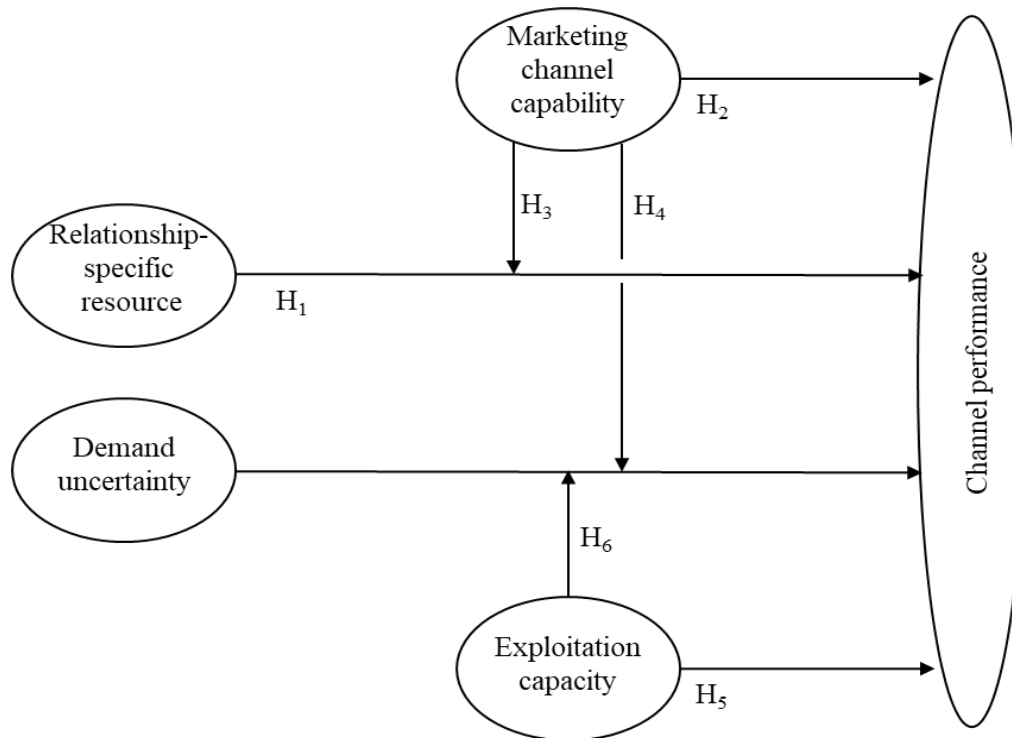
Hypotheses related to the direct effects of resources on performance: H_1, H_2, and H_5
Hypotheses related to the governance roles of resources: H_3, H_4, and H_6

3.3.2. Measures

Multi-item measures were used to operationalize all the focal theoretical variables. Each item was scaled by seven-point Likert scales (1 = "strongly disagree," and 7 = "strongly agree").

Channel performance. This is a construct that consists of the items of the construct of differentiation capability introduced by Ghosh and John (2009). This variable captures the extent to which the wholesalers' marketing activities contribute to improving the customers' perception regarding the product differentiation, product image, and product reliability.

Relationship-specific resource. This scale measures the intermediaries' relationship-specific resources. It is a well-established construct in the marketing channel literature. Specific resources or assets that are uniquely dedicated to particular relationships are commonly observed in channel relationships. For example, channel

members often invest in training to distribute the products of particular manufacturers (e.g., Anderson, 1985; Anderson & Weitz, 1992; Heide & John, 1988; Jap & Ganesan, 2000). Similarly, manufacturers often invest in helping and supporting particular resellers (e.g., Ganesan, 1994). The construct consists of two types of items: human (knowledge-based) and physical resources (e.g., Anderson, 1985, 1988; Anderson & Weitz, 1992; Heide & John, 1990). Each of the two types includes two items, respectively.

Marketing channel capability. This scale is composed of three items to measure the market power (Shervani *et al.*, 2007) and capabilities associated with channel management and selling (Morgan *et al.*, 2009; Vorhies & Morgan, 2005).

Exploitation capacity. This is a construct that captures the ability to leverage knowledge obtained from external sources for the development and improvement of products and processes, following Ghosh *et al.* (2006). Similar to the marketing channel capability scale, exploitation capacity is also a manufacturer's capability, which refers to an ability to transfer the downstream knowledge and information within, as well as across, organizations, and to exploit them for developing and improving the products and processes.

Demand uncertainty. This scale refers to the extent to which firms cannot know and predict variations in the demand quantity and timing, being a part of environmental uncertainty. It is associated with the unpredictable nature of customers' needs, sales, market growth, and competitors' strategies (Geyskens *et al.*, 1998; John & Weitz, 1988; Kumar *et al.*, 1995).

Tables 3.2 shows the descriptive statistics of all the measures and the correlations between every construct pair.

Table 3.2 Descriptive statistics and correlations

Constructs	M	SD	Correlations					
			1	2	3	4	5	6
1. Channel performance	3.53	1.16	1					
2. Relationship-specific resource	3.73	1.23	.29**	1				
3. Marketing channel capability	4.50	1.04	.26**	-.17	1			
4. Exploitation capacity	4.39	1.11	.24**	.10	.47**	1		
5. Demand uncertainty	3.35	1.09	-.07	.19**	-.18**	-.05	1	
6. Firm age	73.88	29.03	.03	-.05	.02	.02	-.14**	1

*$p < .05$.

**$p < .01$.

45

3.3.3. Common method bias assessment

The issue of common method bias can occur when information on two or more constructs is collected from identical informants (Podsakoff & Organ, 1986). Since the data regarding the dependent and independent variables in this analysis were collected from a single informant, the possibility of a common method bias has to be evaluated. A Harman's one-factor test was performed to assess the extent to which a common method bias was present in the data. The results of the exploratory factor analysis of all items in the research model show that five factors have eigenvalues greater than one and that the first factor accounts for only 23% of the total variance (72%). According to Podsakoff and Organ (1986), the results show no evidence of the threat of the issue.

3.3.4. Analysis method

A hypothesis test was performed following a measure validity assessment. To evaluate the measurement model of this analysis, a confirmatory factor analysis was conducted. According to the procedures recommended by Fornell and Larcker (1981), the convergent and discriminant validity of the multi-item constructs was evaluated.

The hypotheses of this study were tested using the ordinary least squares regression. The full model is statistically expressed as follows:

$$\text{Channel performance} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_1 X_2 + \beta_6 X_2 X_4 + \beta_7 X_3 X_4 + \text{control variables} + \varepsilon,$$

where

X_1 = Relationship-specific resource

X_2 = Marketing channel capability

X_3 = Exploitation capacity

X_4 = Demand uncertainty.

Since the regression is conducted with interaction terms, the potential threat of multicollinearity between the main effects and the interaction terms has to be mitigated. Following Aiken and West (1991), all predictors constituting the interaction terms were mean-centered to reduce multicollinearity among the predictors and interaction terms.

3.4. Results

3.4.1. Confirmatory factor analysis

To validate the measurement properties of the multi-item scales, a confirmatory factor analysis was performed. All the factor loadings are significant. The fit indexes are almost acceptable (Bagozzi & Yi, 1988: χ^2 = 409.181; df = 125; p < .01; CFI = .918; GFI = .896; RMSEA = .078). Additionally, the convergent and discriminant validity of the constructs had to be checked. As Table 3.3 shows, Cronbach's alpha for each multi-item construct is greater than .70. The values of CR for all our scales exceed the threshold of .60. The values of AVE for the constructs of marketing channel capability and exploitation capacity do not exceed .50. However, since the AVE values for marketing channel capability (.481) and exploitation capacity (.499) are only slightly below .50, it can be considered that the convergent validity of the constructs is adequate (Fornell & Larcker, 1981). To assess discriminant validity, this study compared the AVE of each latent variable to the shared variance of that variable with each of the other variables. No HSV exceeds the relevant AVE (see Table 3.3). Therefore, the discriminant validity is satisfied (Fornell & Larcker, 1981) despite the small differences between the AVE and HSV for the marketing channel capability and exploitation capacity measures.

Table 3.3 Results of the confirmatory factor analysis

Construct	Number of Items	Range of Std. λ	α	CR	AVE	HSV
Channel performance	3	.81-.95	.904	.755	.740	.112
Relationship-specific resource	4	.60-.89	.845	.829	.730	.099
Marketing channel capability	4	.59-.88	.814	.768	.481	.413
Exploitation capacity	3	.67-.76	.754	.739	.499	.413
Demand uncertainty	4	.74-.89	.880	.806	.525	.054

χ^2 = 409.181; df = 125; p < .01; CFI = .918; GFI = .896; RMSEA = .078

α: Cronbach's alpha; CR: composite reliability; AVE: average variance extracted;

HSV: highest shared variance; Std. λ: standardized factor loadings.

3.4.2. Hypothesis testing

The hypotheses suggest that the relationship-specific resources, marketing channel capabilities, and exploitation capacities will have positive effects on the channel performance manufacturers perceive (H_1, H_2, and H_5). It is also predicted that marketing channel capability will have a role as a governance mechanism moderating the paths from relationship-specific resource and demand uncertainty to performance (H_3 and H_4),

and that exploitation capacity moderates the relationship between demand uncertainty and performance (H_6). Table 3.4 shows the estimated results.

Table 3.4 Regression results

Variables	Model 1		Model 2		Hypotheses
	β^a	SE^b	β^a	SE^b	
Constant	3.439**	.153	3.399**	.151	
Main effects					
Relationship-specific resource (RSR)	.277**	.046	.261**	.046	H_1 (supported)
Marketing channel capability (MCC)	.218**	.061	.235**	.061	H_2 (supported)
Exploitation capacity (EC)	.119*	.057	.123*	.057	H_5 (supported)
Demand uncertainty (DU)	-.080	.054	-.093†	.053	
Interaction effects					
RSR × MCC			.109**	.041	H_3 (supported)
DU × MCC			-.141**	.035	H_4 (Rejected)
DU × EC			.117*	.051	H_6 (supported)
Control variables					
Firm age	.001	.002	.002	.002	
F	14.690		11.076		
R^2	.168		.197		
Adjusted R^2	.156		.179		

Dependent variable: Channel performance

[a] Unstandardized coefficients

[b] Standard errors

† $p < .1$

* $p < .05$

** $p < .01$

Two models were estimated using the ordinary least squares regression. Model 1 is the base model, including relationship-specific resource, marketing channel capability, and exploitation capacity as core independent variables and control variables. In Model 2, the interaction terms (relationship-specific resource × marketing channel capability, marketing channel capability × demand uncertainty, and exploitation capacity × demand uncertainty) are added. The estimated results show that relationship-specific resource

has a significant positive influence on channel performance, thus supporting H_1 (β = .277, $p < .01$ in Model 1 and $\beta = .261$, $p < .01$ in Model 2). Marketing channel capability, another core predictor in H_2, also shows a significant positive relationship with channel performance, thus supporting H_2 ($\beta = .218$, $p < .01$ in Model 1 and $\beta = .235$, $p < .01$ in Model 2). Additionally, exploitation capacity is positively related to performance, thus supporting H_5 ($\beta = .119$, $p < .05$ in Model 1 and $\beta = .123$, $p < .05$ in Model 2). Therefore, the prediction that relationship-specific resource, marketing channel capability, and exploitation capacity improve channel performance is supported.

From Table 3.4, the full model (Model 2) explains 18 % of the variance in channel performance, with the explanatory power of the model significantly increasing compared to Model 1 ($\Delta R^2 = .023$, $p < .01$). Moreover, the interaction between relationship-specific resource and marketing channel capability positively influences the channel performance, thus supporting H_3 ($\beta = .109$, $p < .01$). Although H_4 predicts that the coefficient of the interaction term between marketing channel capability and demand uncertainty will be positive, the estimated results show that the coefficient is significantly negative. Thus, H_3 was not supported. Finally, the coefficient of the interaction term between exploitation capacity and demand uncertainty is found to be positive, thus supporting H_6 ($\beta = .117$, $p < .05$).

Since the interaction terms for H_3 and H_6 were significant, the slopes of interactions were calculated following the simple slope test procedure presented by Aiken and West (1992) and Holmbeck (2002). These tests involve estimating the slopes of the relationships between the independent variables and channel performance at high and low levels of moderators (i.e., at one standard deviation above and below the means). With reference to H_3, which hypothesizes the interaction effect of relationship-specific resource and marketing channel capability on channel performance, the results plotted in Figure 3.2 show that the simple slope of the high marketing channel capability group is steeper than that of the low group, implying that high (low) marketing channel capability fits with a high (low) level of relationship-specific resource. Relationship-specific resources also have positive effects on the channel performance of both the groups of marketing channel capability. With regard to the post-hoc probing of the interaction of demand uncertainty × exploitation capacity (H_6), high exploitation capacity is co-aligned with high demand uncertainty, and vice versa, as shown in Figure 3.3.

Figure 3.2 The effect of marketing channel capability × relationship-specific capability on performance (H_3)
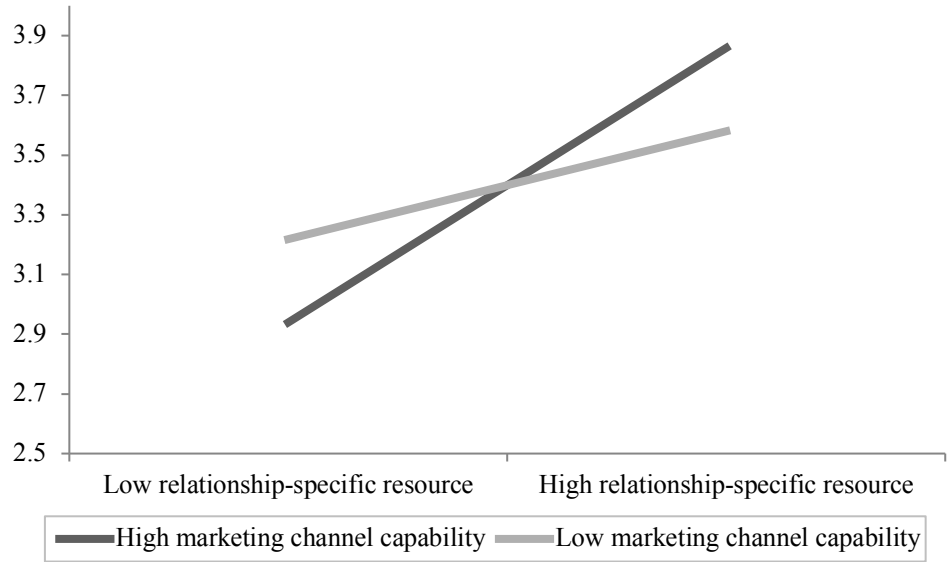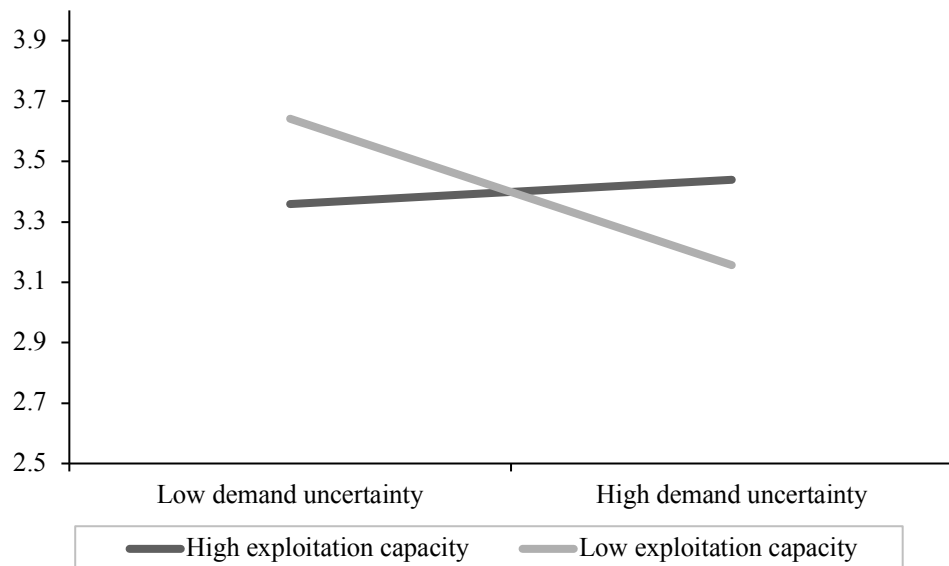

Figure 3.3 The effect of exploitation capacity × demand uncertainty on performance (H_6)

3.5. Discussion

3.5.1. Theoretical contributions

This study investigates the issue of resource configuration across firms, that is, how firms combine their resources with those of their counterparts in business relationships. It aims to clarify the role of resources in improving the relationship performance, namely, how different characteristics of resources affect performance in inter-firm relationships. Resources are categorized in terms of several dimensions, such as physical- or -knowledge-based, specific or non-specific, and so forth. This study focuses on relationship-specific resources and firm capabilities including knowledge-based resources.

The findings support the hypothesized effects of the marketing channel capabilities and exploitation capacities of manufacturers and the relationship-specific resources of their partner wholesalers on the differentiation of the manufacturers' products. As firms rarely create value in isolation, and cooperation between firms has become prevalent (Webster, 1992), the results imply that the resources of both parties in a relationship significantly improve the relationship performance as a joint benefit. This study contributes to the literature on resource configuration and B2B marketing by clarifying the performance effects of resources of both parties in relationships.

More importantly, this study aims to investigate the performance effects of resource combination based on the assumption of the ARA model that the performance effects of one firm's resources depend on the resources of the other party in the relationship. It focuses on the combination of the wholesalers' relationship-specific resources and the manufacturers' marketing channel capabilities. Few studies have investigated the configuration of resources for both parties in relationships, while most of them focused on resource configuration within companies. The findings of this study support the ARA model framework's assumption that the nature of combinations of heterogeneous resources of different firms significantly affects the relationship performance. Therefore, it deepens our understanding of resource configurations across companies in B2B relationships.

Furthermore, this study examines the roles of resources as a governance mechanism across companies, finding that marketing channel capabilities play a role as an alternative governance mechanism in inter-firm relationships. As mentioned above, the capabilities moderate the path from relationship-specific resources to channel performance, although the results do not support the moderating role of the capabilities in the relationship between demand uncertainty and channel performance (H_4).

51

Additionally, the findings of this study imply that exploitation capacities, which refer to the capacities to leverage downstream knowledge and information for developing and improving the products and processes, contribute to mitigating the demand uncertainty. Previous studies on marketing channels have found several governance structures that are alternative to hierarchies, such as power, influence, and dependence (Heide & John, 1988; Payan & McFarland, 2005, Shervani *et al.*, 2007). Thus, this study also contributes to the inter-organizational governance literature.

3.5.2. Limitations and future research

This study has several limitations. First, it utilizes the same data set (i.e., Japanese manufacturing companies) of Study 1, even though the data used in this study include several variables that are not used for Study 1. In other words, the limitations regarding the data collection that are mentioned in the chapter for Study 1 are also true for this study.

Second, the research model includes only one aspect of performance, that is, product differentiation as the dependent variable. Future research is required to examine the effects of resource configuration on other performance factors such as financial outcomes and operational efficiency.

Finally, previous studies suggest that some relational governance factors such as relational norms and trust mitigate the transaction costs and difficulties. Future research should explore other dimensions of the ARA model, that is, the actor-bond dimension, including the issues of commitment and trust. The study in the following chapter addresses these issues.

3.6. Conclusion

This study addressed the two main issues: how adaptation across firms in terms of resource affects relationship performance and how resource combination between companies influence performance. First, the analytical results show that as adaptation develops in terms of resources, that is, resources become relationship-specific, relational performance increases. The tested hypothesis was presented on the basis of a critical review of the transaction-cost and organization-design views that are the dominant approaches address issues in inter-organizational governance. This study also explored inter-firm governance mechanisms alternative to vertical integration. It investigated the role of marketing channel capabilities and exploitation capacities as a governance mechanism.

Second, according to the IMP assumption that relationship performance depends on resource complementarity and resource combination between companies, a hypothesis regarding the path from combination between relationship-specific resources and marketing channel capabilities to relational performance. In addition, the performance effect of fit between exploitation capacities and demand uncertainty as an environmental factor was statistically supported in the analysis. These are contributions of this study to the literature on inter-organizational relationships.

Finally, several issues remain for future research. Obviously, there is no limit of resource combination. It is important to focus on some particular dimensions of resources. For example, this study focused on the role of resources as an alternative governance mechanism. An immediate purpose of future research is also to find other resources for inter-firm governance except marketing channel capabilities and exploitation capacities.

4. Study 3: Trust building processes in inter-firm relationships

This chapter is based on the article co-authored with H. Kobayashi and T. Usui, which is entitled "Trust building process for new market entrants: A case study of a Japanese cosmetics company's business expansion in China" (*Journal of Business and Industrial Marketing*, 32(6), 2017, 801–812).

https://doi.org/10.1108/JBIM-06-2015-0108

The texts, tables, and figures of this chapter exist in the printed version of this dissertation.

5. Study 4: A network approach into a trap in network orchestration

This chapter is based on the article co-authored with T. Endo and H. Kobayashi, which is entitled "The hidden abode of network orchestration: The case of de-legitimated diesel cars in Japan" (*Industrial Marketing Management*, 49, 2015, 15-21).

The texts, tables, and figures of this chapter exist in the printed version of this dissertation.

6. Conclusion

6.1. Theoretical contributions to the literature on B2B marketing and marketing channels

The four studies in this dissertation aimed to examine inter-firm relationship management along the three dimensions of the ARA framework of the IMP network approach: activity links, resource ties, and actor bonds. The framework provides holistic insight into the issue of relationship management. The four studies focused on governance issues associated with relationship management. These studies were based on not only the IMP network approach but also the marketing channel research stream that relies on TCE. Through a comprehensive review of the literature associated with these perspectives, research gaps were identified in each of the three dimensions. Each study contributes to the literature on IMP and TCE by bridging these gaps.

First, Study 1 addressed the issue of activity coordination in the activity-link dimension. It distinguished the two aspects of inter-firm integration—coordination and authority—and demonstrated that each aspect plays a different role in improving channel performance. This leads to a contribution to the literature on firm boundaries in marketing channels and supply chains. Few prior studies have addressed both integration dimensions. This study attempted to explore the joint performance effects of governance forms, strategic factors, and environmental factors. It addressed the interactions of the two different integration dimensions with product positioning, as a strategic factor, and demand and behavioral uncertainty, as an environmental factor. Because few studies on marketing channels address the influence of both strategic and environmental factors on the choice of governance (Ghosh & John, 1999), this study has a significant contribution to these research fields. Particularly, Study 1 focused on the issue of complementarity between product strategies and governance forms. In other words, the study also dealt with the co-alignment between firms' product positioning strategies and their business models (Zott & Amit, 2008).

Second, Study 2 aimed to clarify the role of resources in improving the relationship performance. In particular, it addressed the issue of how firms combine their resources with those of their counterparts in inter-firm relationships. Resource configuration across firms has attracted the interest of researchers in the field of B2B marketing. Yet, although there are many quantitative empirical studies focusing on the issue within organizations, few studies empirically test the performance effects of resource

configuration across organizations. Study 2 investigated how the performance effects of one firm's resources depend on the resources of the other party in the relationship while also focusing on the co-alignment of the wholesalers' relationship-specific resources and the manufacturers' marketing channel capabilities. Thus, this study contributed to the literature on resource configuration in B2B marketing.

Another theoretical contribution of the study is that it addressed the governance roles of knowledge-based resources, including marketing channel capabilities and exploitation capacities, in improving channel performance. The findings imply that marketing channel capabilities strengthen the positive performance effect of relationship-specific resources and that exploitation capacities contribute to mitigating the negative effect of demand uncertainty on channel performance. A small number of prior studies have found several alternative governance structures, such as power, influence, and dependence (Heide & John, 1988; Payan & McFarland, 2005, Shervani *et al.*, 2007). Study 2 also deepened our understanding of governance mechanisms in inter-organizational relationships that are alternatives to hierarchies.

Third, the case analysis in Study 3 examined how the case firm developed the three trust components: institutional, cognitive, and affective. The findings show that the three trust bases have different roles in building trust in inter-firm relationships. In general, institutional factors, such as laws, reputational sanctions, and relationship-specific investments, function as deterrents to opportunism by transacting entities. In the case, the institutional trust component acted not only as a means of controlling opportunistic behavior but also as a basis for development of the cognitive and affective bases. Cognitive trust can be labeled as knowledge or competence-based trust. The institutional and cognitive trust bases functioned effectively at the early stage of the case firm' business expansion, which were the antecedents of affective trust. The results of this case analysis showed that it took longer to build affective trust due to the transaction history, the so-called shadow of the past. These findings contribute to the IMP research stream on inter-firm trust because existing studies mainly focus on issues related to activity coordination and resource configuration, while fewer case studies address actor-bond issues (Perna *et al.*, 2012; Ciabuschi *et al.*, 2012; Huemer, 2013).

Finally, although Studies 1, 2, and 3 dealt with dyadic relationships between firms, Study 4 focused on inter-firm networks composed of various actors. Traditionally, IMP researchers have viewed business networks as self-organizing systems emerging outside of anyone's control (Håkansson and Ford, 2002; Wilkinson and Young, 2002). However, more studies have recently attempted to understand business networks as an intentional mode wherein actors can affect the networks to some extent (Möller and

Rajala, 2007; Möller *et al.*, 2005). This view of networks as an intentional mode led to Study 4, which adopts the concept of network orchestration. Regarding research on network orchestration, most previous studies have dealt with only successful cases and have focused only on the major actors within the networks. Thus, by bridging the gap, this study contributes to the literature on B2B network management.

6.2. Limitations and future research

The quantitative empirical studies (Studies 1 and 2) in this dissertation collected survey data from manufacturers on the relationships between manufacturers and wholesalers in Japan. Due to the one-sided nature of the data, a CMV bias could be present. Although CMV bias was unlikely to be a problem in the data set used for Studies 1 and 2, future studies will collect dyadic data from both sides of relationship (both manufacturers and wholesalers); otherwise, secondary data must be utilized for the dependent variables and/or predictors. In addition, it is desirable to conduct comparative studies across countries in order to examine country-specific factors affecting relationship management. Because the data utilized for the studies in this dissertation were collected in only Japan, the analytical results might have been affected by factors specific to the country. For example, it is well-known that relational norms and trust are often observed as governance mechanisms alternative to the hierarchy in Japan rather than Western counties.

In Study 3, a case analysis regarding a trust-development process across firms was conducted. Although the longitudinal case study method employed in Study 3 was appropriate to demonstrate the trust building process, it is desirable to demonstrate the performance effects of inter-firm trust. Thus, future research should test them by establishing more comprehensive models that also include relationship attributes such as trust and commitment.

Network approaches are required to understand interactions among actors in business networks composed of various actors. Study 4 attempted to understand inter-firm networks holistically. However, its case analysis was limited to the short term in which diesel cars became illegitimate. It only examined the effects of this event on the network. Future studies need to conduct longitudinal case analyses to understand the processes by which business networks are organized, disorganized, and reorganized. Study 4 is also characterized by the use of text data. To examine changes in network logics that refer to the rationale behind actors' behavior and actions in industrial networks. (Håkansson and Snehota, 1995), content analyses using textual data from

mass media are useful. Future studies will also conduct content analyses to address the issue of how network logics change.

References

Aaboen, L., Dubois, A., & Lind, F. (2013). Strategizing as networking for new ventures. *Industrial Marketing Management*, 42(7), 1033–1041.

Achrol, R. S., & Stern, L. W. (1988). Environmental determinants of decision-making uncertainty in marketing channels. *Journal of Marketing Research*, 25(1), 36–50.

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting Interactions*. London: Sage.

Alchian, A. (1965). Some economics of property rights. *Il Politico*, 30(4), 816–829.

Aldrich, H. E. (1979). *Organizations and environments*, Englewood Cliffs, NJ: Prentice-Hall.

Alenius, E., Lind, J., & Strömsten, T. (2015). The role of open book accounting in a supplier network: Creating and managing interdependencies across company boundaries. *Industrial Marketing Management*, 45, 195–206.

Alfalla-Luqu, R., Marin-Garcia, J. A., & Medina-Lopez, C. (2015). An analysis of the direct and mediated effects of employee commitment and supply chain integration on organisational performance. *International Journal of production Economics*, 162, 242–257.

Aldrich, H. E., & Pfeffer, J. (1976). Environments of organizations. *Annual Review of Sociology*, 2, 79–105.

Anderson, E. (1985). The salesperson as outside agent or employee: A transaction cost analysis. *Marketing Science*, 4(3), 234–254.

Anderson, E. (1988). Transaction costs as determinants of opportunism in integrated and independent sales forces. *Journal of Economic Behavior & Organization*, 9(3), 247–264.

Anderson, E., & Coughlan, A. T. (1987). International market entry and expansion via independent or integrated channels of distribution. *Journal of Marketing*, 51(1), 71–82.

Anderson, P., Markendahl, J., & Mattsson, L.-G. (2011). Technical development and the formation of new business ventures: The case of new mobile payment and ticketing services. *IMP Journal*, 5(1), 23–41.

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

Anderson, E., & Weitz, B. A. (1986). Make-or-buy decisions: Vertical integration and marketing productivity. *Sloan Management Review*, Spring, 3–19.

Anderson, E., & Weitz, B. (1992). The use of pledges to build and sustain commitment in distribution channels. *Journal of Marketing Research*, 29(1), 18–34.

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

Arnott, D. C. (2007). Trust-current thinking and future research. *European Journal of Marketing*, 41(9-10), 981–987.

Arrow, K. J. (1994). Methodological individualism and social knowledge. *American Economic Review*, 84(2), 1–9.

Asanuma, B. (1989). Manufacturer–supplier relationships in Japan and the concept of relation-specific skill. *Journal of the Japanese & International Economies*, 3, 1–30.

Ataseven, C., & Nair, A. (2017). Assessment of supply chain integration and performance relationships: A meta-analytic investigation of the literature. *International Journal of Production Economics*, 185, 252–265.

Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74–94.

Balakrishnan, S., & Wernerfelt, B. (1986). Technical change, competition and vertical integration. *Strategic Management Journal*, 7(4), 347–359.

Baraldi, E., Gregori. G. L., & Perna, A. (2011). Network evolution and the embedding of complex technical solutions: The case of the Leaf House network. *Industrial Marketing Management,* 40(6), 838–852.

Baraldi, E., & Strömsten, T. (2009). Controlling and combining resources in networks — from Uppsala to Stanford, and back again: The case of a biotech innovation. *Industrial Marketing Management*, 38(5), 541–552.

Barney, J. B. (2002). *Gaining and sustaining competitive advantage* (2nd ed.). Prentice Hall.

Barney, J. B., & Hansen, M. H. (1994). Trustworthiness as a source of competitive advantage. *Strategic Management Journal*, 15, Winter Special Issue, 175–190.

Bayne, L., Schepis, D., & Purchase, S. (2017). A framework for understanding strategic network performance: Exploring efficiency and effectiveness at the network level. *Industrial Marketing Management*, 67, 134–147.

Bocconcelli, R., Murmura, F., & Pagano, A. (2018). Interacting with large customers: Resource development in small b2b suppliers. *Industrial Marketing Management*, 70, 101–112.

Bradach, J. B., & Eccles, R. G. (1989). Price, authority, and trust: From ideal types to plural forms. *Annual Review of Sociology*, 15, 97–118.

Brown, J. B., Crosno, J. L., & Dev, C. S. (2009). The effects of transaction-specific investments in marketing channels: The moderating role of relational norms. *Journal of Marketing Theory & Practice*, 17(4), 317–334.

Calantone, R. J., Cavusgil S. T., & Zhao, Y. (2002). Learning orientation, firm innovation capability, and firm performance. *Industrial Marketing Management*, 31(6), 515–524.

Calantone, R. J., Chan, K., & Cui, A. S. (2006). Decomposing product innovativeness and its effects on new product success. *Journal of Product Innovation Management*, 23(5), 408–421.

Campbell, N. C. G. (1985). An interaction approach to organizational buying behavior. *Journal of Business Research*, 13(1), 35–48.

Cao, M., & Zhang, Q. (2011). Supply chain collaboration: Impact on collaborative advantage and firm performance. *Journal of Operations Management*, 29(3), 163–180.

Chen, H., Mattioda, D. D., & Daugherty, P. J. (2007). Firm-wide integration and firm performance. *International Journal of Logistics Management*, 18(1), 5–21.

Choi, Y., & Hara, Y. (2018). The performance effect of inter-firm adaptation in channel relationships: The roles of relationship-specific resources and tailored activities. *Industrial Marketing Management*, 70, 46–57.

Choi, Y., Souiden, N., & Skandrani, H. (2012). The differential impact of trust types on interfirm relationships: Some empirical evidences from the Japanese eyeglass industry. *Asian Business & Management*, 11(5), 541–562.

Chua, R. Y. J., Ingram, P., & Morris, M. W. (2008). From the head and the heart locating cognition- and affect-based trust in manager's professional networks. *Academy of Management Journal*, 51(3), 436–452.

Ciabuschi, F., Perna, A., & Snehota, I. (2012). Assembling resources when forming a new business. *Journal of Business Research*, 65(2), 220–229.

Coase, R. (1937). The nature of the firm. *Economica*, 4, 386–405.

Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly*, 35(1), 128–152.

Costigan, R. D., Ilter, S. S., & Berman, J. J. (1998). A multi-dimensional study of trust in organizations. *Journal of Managerial Issues*, 10(3), 303–317.

Coughlan, A. T., Anderson, E., Stern, L. W., & El-Ansary, A. I. (2001). *Marketing channels* (6th ed.). Englewood Cliffs, NJ: Prentice Hall.

Cousins, P. D., & Menguc, B. (2006). The implications of socialization and integration in supply chain management. *Journal of Operations Management*, 24(5), 604–620.

Craswell, R. (1993). On the uses of "trust": Comment on Williamson, "calculativeness, trust, and economic organization." *Journal of Law & Economics*, 36, 487–500.

Crespin-Mazet, F., Grenier, C., Goglio-Primard, K., & Lombardoet, E. (2014). Developing a usage network: Combining business and non business resources to implement innovation. *IMP Journal*, 8(3), 133–149.

Crespin-Mazet, F., Havenvid, M. I., & Linné, Å. (2015). Antecedents of project partnering in the construction industry: The impact of relationship history. *Industrial Marketing Management*, 50, 4–15.

Crosno, J. L., & Dahlstrom, R. (2008). A meta-analytic review of opportunism in exchange relationships. *Journal of the Academy of Marketing Science*, 36(2), 191–201.

Davis, T. (1993). Effective supply chain management, *Sloan Management Review*, Summer, 35–46.

Devon, J., & Grayson, K. (2005). Cognitive and affective trust in service relationships. *Journal of Business Research*, 58(4), 500–507.

DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147–160.

Doney, P. M., Cannon, J. P., & Mullen, M. R. (1998). Understanding the influence of national culture on the development of trust. *Academy of Management Review*, 23(3), 601–620.

Dore, R. (1983). Goodwill and the spirit of market capitalism. *British Journal of Sociology*, 34(4), 459–482.

Dubois, A., & Gadde, L.-E. (2002). Systematic combining: An abductive approach to case research. *Journal of Business Research*, 55(7), 553–560.

Dubois, A., & Gadde, L.-E. (2014). Systematic combining: A decade later. *Journal of Business Research*, 67(6), 1277–1284.

Dyer, J. H. (1996). Does governance matter? Keiretsu alliances and asset as sources of specificity Japanese competitive advantage. *Organization Science*, 7(6), 649–666.

Dyer, J. H. (1997). Effective interfirm collaboration: How firms minimize transaction costs and maximize transaction value. *Strategic Management Journal*, 18(7), 535–556.

Dyer, W. G., & Wilkins, A. L. (1991). Better stories, not better constructs, to generate better theory: a rejoinder to Eisenhardt. *Academy of Management Review*, 16(3), 613–619.

Dwyer, F. R., Schurr, P. H., & Oh, S. (1987). Developing buyer–seller relationships. *Journal of Marketing*, 51(2), 11–27.

Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review*, 14(4), 532–550.

Eisenhardt, K. M. (1991). Better stories and better constructs: The case for rigor and comparative logic. *Academy of Management Review*, 16(3), 620–627.

Finch, J., Wagner, B., & Hynes, N. (2010). Trust and forms of capital in business-to-business activities and relationships. *Industrial Marketing Management*, 39(6), 1019–1027.

Finke, T., Gilchrist, A., & Mouzas, S. (2016). Why companies fail to respond to climate change: Collective inaction as an outcome of barriers to interaction. *Industrial Marketing Management*, 58, 94–101.

Flynn, B. B., Huo, B., & Zhao, X. (2010). The impact of supply chain integration on performance: A contingency and configuration approach. *Journal of Operations Management*, 28, 58–71.

Flyvbjerg, B. (2001). *Making Social Science Matter*. Cambridge University Press, Cambridge.

Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative Inquiry*, 12(2), 219–245.

Ford, D., Gadde, L.-E., Håkansson, H., & Snehota, I. (2011). *Managing business relationships* (3rd ed.). Chichester: Wiley.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.

Fynes, B., de Búrca, S., & Marshall, D. (2004). Environmental uncertainty, supply chain relationship quality and performance. *Journal of Purchasing & Supply Management*, 10(4–5), 179–190.

Ganesan, S. (1994). Determinants of long-term orientation in buyer-seller relationships. *Journal of Marketing*, 58(2), 1–19.

Geiger, I., Durand, A., Saab, S., Kleinaltenkamp, M., Baxter, R., & Lee. Y. (2012). The bonding effects of relationship value and switching costs in industrial buyer–seller relationships: An investigation into role differences. *Industrial Marketing Management*, 41(1), 82–93.

Geyskens, I., Steenkamp, J.-B. E. M., & Kumar, N. (1998). Generalizations about trust in marketing channel relationships using meta-analysis. *International Journal of Research in Marketing*, 15(3), 223–248.

Geyskens, I., Steenkamp, J.-B. E. M., & Kumar, N. (2006). Make, buy, or ally: A transaction cost theory meta-analysis. *Academy of Management Journal*, 49(3), 519–543.

Geyskens, I., Steenkamp, J.-B. E. M., Scheer, L. K., & Kumar, N. (1996). The effects of trust and interdependence on relationship commitment: A trans-Atlantic study. *International Journal of Research in Marketing*, 13(4), 303–317.

Ghosh, M., Dutta, S., & Stremersch, S. (2006). Customizing complex products: When should the vendor take control? *Journal of Marketing Research*, 43(4), 664–679.

Ghosh, M., & John, G. (1999). Governance value analysis and marketing strategy. *Journal of Marketing*, 63, Special Issue, 131–145.

Ghosh, M., & John, G. (2005). Strategic fit in industrial alliances: An empirical test of governance value analysis. *Journal of Marketing Research*, 42(3), 346–357.

Ghosh, M., & John, G. (2009). When should original equipment manufacturers use branded component contracts with suppliers? *Journal of Marketing Research*, 46(5), 597–611.

Ciabuschi, F. Perna, A., & Snehota, I. (2012). Assembling resources when forming a new business. *Journal of Business Research*, 65(2), 220–229.

Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly*, 35(1), 128–152.

Granovetter, M. (1985). Economic action and social structure: The problem of embeddedness. *American Journal of Sociology*, 91(3), 481–510.

Greenwood, R., Suddaby, R., & Hinings, C. R. (2002). Theorizing change: The role of professional associations in the transformation of institutionalized fields. *Academy of Management Journal*, 45(1), 58–80.

Grant, R. M. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal*, 17, Winter Special Issue, 109–122.

Gulati, R., & Shigh, H. (1998). The architecture of cooperation: Managing coordination costs and appropriation concerns in strategic alliances. *Administrative Science Quarterly*, 43(4), 781–814.

Håkansson, H. (1987). *Industrial technological development: A network approach*. London: Croom Helm.

Håkansson, H. (2009). Comments on "Actors, resources, activities and commitments". *Industrial Marketing Management*, 38(5), 562.

Håkansson, H., & Ford, D. (2002). How should companies interact in business networks? *Journal of Business Research*, 55(2), 133–139.

Håkansson, H., & Snehota, I. (1995). *Developing relationships in business networks*. London and New York: Routledge.

Hallén, L., Johanson, J., & Seyed-Mohammed, N. (1991). Interfirm adaptation in business relationships. *Journal of Marketing*, 55(2), 29–37.

Hara, Y. (2019). Integrated marketing channel relationships: Integration dimensions and channel performance. *Journal of Business & Industrial Marketing*, 34(6), 1360–1373.

Hara, Y., Endo, T., & Kobayashi, H. (2015). The hidden abode of network orchestration: The case of de-legitimated diesel cars in Japan. *Industrial Marketing Management*, 49, 15-21.

Hedvall, K., Dubois A., & Lind, F. (2016). Analysing an activity in context: A case study of the conditions for vehicle maintenance. *Industrial Marketing Management*, 58, 69–82.

Heide, J. B. (1994). Interorganizational governance in marketing channels. *Journal of Marketing*, 58(1), 71–85.

Heide, J. B., & 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., & 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., & John, G. (1992). Do norms matter in marketing relationships? *Journal of Marketing*, 56(2), 32–44.

Heide, J. B., & Stump, R. L. (1995). Performance implications of buyer-supplier relationships in industrial markets: A transaction cost explanation. *Journal of Business Research*, 32(1), 57–66.

Hendry, J., & Seidl, D. (2003). The structure and significance of strategic episodes: social systems theory and the routine practices of strategic change. *Journal of Management Studies*, 40(1), 175-196.

Holmbeck, G. N. (2002). Post-hoc probing of significant moderational and mediational effects in studies of pediatric populations. *Journal of Pediatric Psychology*, 27, 87–96.

Hon, A. H. Y., & Lu, L. (2010). The mediating role of trust between expatriate procedural justice and employee outcomes in Chinese hotel industry. *International Journal of Hospitality Management*, 29(4), 669–676.

Huang, M.-C., Yen, G.-F., & Liu, T.-C. (2014). Reexamining supply chain integration and the supplier's performance relationships under uncertainty. *Supply Chain Management: An International Journal*, 19(1), 64–78.

Huang, Y., & Wilkinson, I. F. (2013). The dynamics and evolution of trust in business relationships. *Industrial Marketing Management*, 42(3), 455–465.

Huemer, L. (2013). When in Rome, be(come) a Roman? An actor focus on identities in networks. *Industrial Marketing Management*, 42(7), 1112–1120.

Hurmelinna-Laukkanen, P., & Nätti, S. (2012). Network orchestration for knowledge mobility: The case of an international innovation community. *Journal of Business Market Management*, 5(4), 244–264.

Hurmelinna-Laukkanen, P., Olander, H., Blomqvist, K., & Panfilii, V. (2012). Orchestrating R&D networks: Absorptive capacity, network stability, and innovation appropriability. *European Management Journal*, 30(6), 552–563.

Insanic, I., & Gadde, L.-E. (2014). Organizing product recovery in industrial networks. *International Journal of Physical Distribution & Logistics Management*, 44(4), 260–282.

Ivens, B. S., Pardo, C., Salle, R., & Cova, B. (2009). Relationship keyness: The underlying concept for different forms of key relationship management. *Industrial Marketing Management*, 38(5), 513–519.

Jap, S. D. (1999). Pie-expansion efforts: Collaboration processes in buyer–supplier relationships. *Journal of Marketing Research*, 36(4), 461–475.

Jap, S. D., & 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.

Järvensivu, T., & Törnroos, J.-Å. (2010). Case study research with moderate constructionism: conceptualization and practical illustration. *Industrial Marketing Management*, 39(1), 100–108.

Jaspers, F., & van den Ende, J. (2006). The organizational form of vertical relationships: Dimensions of integration. *Industrial Marketing Management*, 35(7), 819–828.

Jiang, C. X., Chua, R. Y. J., Kotabe, M., & Murray, J. Y. (2011). Effects of cultural ethnicity, firm size, and firm age on senior executives' trust in their overseas business partners: Evidence from China. *Journal of International Business Studies*, 42(2), 1150–1173.

John, G., & Weitz, B. A. (1988). Forward integration into distribution: An empirical test of transaction cost analysis. *Journal of Law, Economics, & Organization*, 4(2), 337–355.

Jraisat, L., Gotsi, M., & Bourlakis, M. (2013). Drivers of information sharing and export performance in the Jordanian agri-food export supply chain: A qualitative study. International Marketing Review, 30(4), 323–356.

Kabadayi, S., Eyuboglu, N., & Thomas, G. P. (2007). The performance implications of designing multiple channels to fit with strategy and environment. *Journal of Marketing*, 71(4), 195–211.

Kim, S. K., Stump, R. L., & Oh, C. (2009). Driving forces of coordination costs in distributor–supplier relationships: Toward a middle-range theory. *Journal of the Academy of Marketing Science*, 37(4), 384–99.

Klein, B., Crawford, R. G., & Alchian, A. A. (1978). Vertical integration, appropriable rents, and the competitive contracting process. *Journal of Law & Economics*, 21(2), 297–326.

Klein, S., Frazier, G., & Roth, V. (1990). A transaction cost analysis model of channel integration in international markets. *Journal of Marketing Research*, 27(2), 196–208.

Kleinaltenkamp, M., & Ehret, M. (2006). The value added by specific investments: A framework for managing relationships in the context of value networks. *Journal of Business & Industrial Marketing*, 21(2), 65–71.

Kleinaltenkamp, M., & Jacob, F. (2002). German approaches to business-to-business marketing theory origins and structure. *Journal of Business Research*, 55(2), 149–155.

Kobayashi, H., Hara, Y., & Usui, T. (2017). Trust building process for new market entrants: A case study of a Japanese cosmetics company's business expansion in China. *Journal of Business & Industrial Marketing*, 32(6), 801–812.

Kogut, B., & Zander, U. (1992). Knowledge of the firm, combinative capabilities, and the replication of technology. *Organization Science*, 3(3), 383–397.

Krasnikov, A., & Jayachandran, S. (2008). The relative impact of marketing, research-and-development, and operations capabilities on firm performance. *Journal of Marketing*, 72(4), 1–11.

Kriz, A., and Keating, B. W. (2010). Business relationships in China: Lessons about deep trust. *Asia Pacific Business Review*, 16(3), 299–318.

Kumar, A., Heide, J. B., & Wathne, K. H. (2011). Performance implications of mismatched governance regimes across external and internal relationships. *Journal of Marketing*, 75(2), 1–17.

Kumar, N., Scheer, L.K., & Steenkamp, J.-B. E. M. (1995). The effects of supplier fairness on vulnerable resellers. *Journal of Marketing Research*, 32(1), 54–65.

Langlois, R. N. (2002). Modularity in technology and organization. *Journal of Economic Behavior & Organization*, 49(1), 19–37.

Langlois, R. N., & Robertson, P. L. (1995). *Firms, markets and economic change: A dynamic theory of business institutions*. London, UK: Routledge.

Lee, Y., & O'Connor, G. C. (2003). The impact of communication strategy on launching new products: The moderating role of product innovativeness. *Journal of Product Innovation Management*, 20(1), 4–21.

Lewicki, R. J., & Bunker, B. B. (1996). Developing and maintaining trust in work relationships. In R. M. Kramer & T. R. Tyler (Eds.), *Trust in organizations: frontiers of theory and research* (pp. 114–139). Sage, Thousand Oaks, CA.

Lewicki, R. J., McAllister, D. J., & Bies, R. J. (1998). Trust and distrust: new relationships and realities. *Academy of Management Review*, 23(3), 438–458.

Lindell, M. K., & Whitney, D. J. (2001). Accounting for common method variance in cross-sectional research designs. *Journal of Applied Psychology*, 86(1), 114–121.

Lindgreen, A., Palmer, R., Vanhamme, J., & Wouters, J. (2006). A relationship-management assessment tool: questioning, identifying, and prioritizing critical aspects of customer relationships. *Industrial Marketing Management*, 35(1), 57–71.

Luhmann, N. (1979). *Trust and power*. John Wiley and Sons, Chichester.

Luhmann, N. (1984). *Soziale systems*. Suhrkamp, Frankfult.

Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. *Academy of Management Review*, 20(3), 709–734.

Lundberg, H., & Anderson, E. (2012). Cooperation among companies, universities and local government in a Swedish context. *Industrial Marketing Management*, 41(3), 429–437.

Macneil, I. R. (1980). *The new social contract*, New Haven, CT: Yale University Press.

Malhotra, N. K., Kim, S. S., & Patil, A. (2006). Common method variance in IS research: A comparison of alternative approaches and a reanalysis of past research. *Management Science*, 52(12), 1865–1883.

McAllister, D. J. (1995). Affect- and cognition-based trust as foundations for interpersonal cooperation in organizations. *Academy of Management Journal*, 38(1), 24–59.

McCammon, B. C., Jr. (1970). Perspectives for distribution programming. In L. P. Bucklin (Ed.), *Vertical market systems* (pp. 32–51). Glenview, IL: Scott, Foresman.

Melo Brito, C. (2001). Towards an institutional theory of the dynamics of industrial networks. *Journal of Business & Industrial Marketing*, 16(3), 150–166.

Mentzer, J. T., Flint D. J., & Hult, T. M. (2001). Logistics service quality as a segment-customized process. *Journal of Marketing*, 65(4), 82–104.

Mentzer, J. T., Myers, M. B., & Cheung, M.-S. (2004). Global market segmentation for logistics services. *Industrial Marketing Management*, 33(1), 15–20.

Metcalf, L. E., Frear, C. R., & Kirshnan, R. (1992). Buyer–seller relationships: An application of the IMP interaction model. *European Journal of Marketing*, 26(2), 27–46.

Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83(2), 340–363.

Miles, R. E., & Snow, C. C. (1974). *Fit, failure, and the hall of fame*, Free Press, New York.

Miles, R. E., & Snow, C. C. (1978). *Organizational strategy, structure, and process*, New York: McGraw-Hill.

Miller, D., & Shamsie, J. (1996). The resource-based view of the firm in two environments: The Hollywood film studios from 1936 to 1965. *Academy of Management Journal*. 39(3), 519–543.

Möller, K. (2010). Sense-making and agenda construction in emerging business networks: How to direct radical innovation. *Industrial Marketing Management*, 39(3), 361–371.

Möller, K., & Halinen, A. (2000). Relationship marketing theory: Its roots and direction. *Journal of Marketing Management*, 16(1–3), 29–54.

Möller, K., & Rajala, A. (2007). Rise of strategic nets: New modes of value creation. *Industrial Marketing Management*, 36(7), 895–908.

Möller, K., Rajala, A., & Svahn, S. (2005). Strategic business nets: Their type and management. *Journal of Business Research*, 55(9), 1274–1284.

Möller, K., & Svahn, S. (2003). Managing strategic nets: A capability perspective. *Marketing Theory*, 3(2), 201–226.

Möller, K., & Svahn, S. (2009). How to influence the birth of new business fields: Network perspective. *Industrial Marketing Management*, 38(4), 450–458.

Mooi, E. A., & Gilliland D. I. (2013). How contracts and enforcement explain transaction outcomes. *International Journal of Research in Marketing*, 30(4), 395–405.

Morgan, N. A., Vorhies, D. W., & Mason, C. H. (2009). Market orientation, marketing capabilities, and firm performance. *Strategic Management Journal*, 30(8), 909–920.

Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58(3), 20–38.

Mouzas, S., & Ford, D. (2012). Leveraging knowledge-based resources: The role of contracts. *Journal of Business Research*, 65(2), 153–161.

Nätti, S., Hurmelinna-Laukkanen, P., & Johnston, W. J. (2014). Absorptive capacity and network orchestration in innovation communities: Promoting service innovation. *Journal of Business & Industrial Marketing*, 29(2), 173–184.

Ng, K.-Y., & Chua, R. Y. J. (2006). Do I contribute more when I trust more? Differential effects of cognition- and affect-based trust. *Management & Organization Review*, 2(1), 43–66.

Nooteboom, B., Berger, H., & Noorderhaven, N. G. (1987). Effects of trust and governance on relational risk. *Academy of Management Journal*, 40(2), 308–338.

Nyström, A-G. (2012). A commentary essay on "Resources prospectively: How actors mobilize resources in business settings." *Journal of Business Research*, 65(2), 175–176.

Oliver, C. (1990). Determinants of interorganizational relationships: integration and future directions. *Academy of Management Review*, 15(2), 241–265.

Olsson, R., Gadde, L.-E., & Hulthén, K. (2013). The changing role of middlemen. Strategic responses to distribution dynamics. *Industrial Marketing Management*, 42(7), 1131–1140.

O'Toole, T., & McGrath, H. (2018). Strategic patterns in the development of network capability in new ventures. *Industrial Marketing Management*, 70, 128–140.

Pagani, M., & Pardo, C. (2017). The impact of digital technology on relationships in a business network. *Industrial Marketing Management*, 67, 185–192.

Palmatier, R. W., Stern, L. W., & El-Ansary, A. I. (2014). *Marketing channel strategy* (8th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.

Paquin, R. L., & Howard-Grenville, J. (2013). Blind dates and arranged marriages: Longitudinal processes of network orchestration. *Organization Studies*, 34(11), 1623–1653.

Partanen, J., Möller, K., Westerlund, M., Rajala, R., & Rajala, A. (2008). Social capital in the growth of science-and-technology-based SMEs. *Industrial Marketing Management*, 37(5), 513–522.

Payan, J. M., & McFarland, R. G. (2005). Decomposing influence strategies: Argument structure and dependence as determinants of the effectiveness of influence strategies in gaining channel member compliance. *Journal of Marketing*, 69(3), 66–79.

Peng, M. W., & Luo, Y. (2000). Managerial ties and firm performance in a transition economy: The nature of a micro-macro link. *Academy of Management Journal*, 43(3), 486–501.

Perks, H., Kowalkowski, C., Witell, L., & Gustafsson, A. (2017). Network orchestration for value platform development. *Industrial Marketing Management*, 67, 106–121.

Perna, A., Baraldi, E., & Gregori, G. L. (2012). Exploring the conditions for marketing an innovative and unique customized solution: Mexus case study. *IMP Journal*, 6(1), 1–16.

Pfeffer, J., & Salancik, G.R. (1978). *The external control of organizations: A resource dependence perspective*, New York, NY: Harper and Row.

Pinheiro, M. L., Pinho, J. C., & Lucas, C. (2015). The outset of U-I R & D relationships: the specific case of biological sciences. *European Journal of Innovation Management*, 18(3), 282–306.

Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management*, 12(4), 531–544.

Poppo, L., Zhou, K. Z., & 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.

Ragin, C. C. (1999). The distinctiveness of case-oriented research. *Health Services Research*, 34(5), 1137–1151.

Ralston, P. M., Blackhurst, J., Cantor, D. E., & Crum, M. R. (2015). A structure-conduct-performance perspective of how strategic supply chain integration affects firm performance. *Journal of Supply Chain Management*, 51(2), 47–64.

Rao, H., Monin, P., & Duran, R. (2003). Institutional change in Toque Ville: Nouvelle cuisine as an identity movement in French gastronomy. *American Journal of Sociology*, 108(4), 795–843.

Rindfleisch, A., & Heide, J. B. (1997). Transaction cost analysis: Past, present, and future applications. *Journal of Marketing*, 61(4), 30–54.

Ritala, P., Hurmelinna-Laukkanen, P., & Nätti, S. (2012). Coordination in innovationgenerating business networks: The case of Finnish Mobile TV development. *Journal of Business & Industrial Marketing*, 27(4), 324–334.

Ritter, T., & Gemünden, H. G. (2003). Interorganizational relationships and networks: An overview. *Journal of Business Research*, 56(9), 691–697.

Rokkan, A, Heide, J. B., & Wathne, K. H. (2003). Specific investments in marketing relationships: Expropriation and bonding effects. *Journal of Marketing*, 40(2), 210–224.

Rousseau, D. M., Sitkin, S. B., Burt, R. S., & Camerer, C. (1998). Not so different at all: A cross discipline view of trust. *Academy of Management Review*, 23(3), 393–404.

Sako, M. (1992). *Prices, Quality and Trust: Inter-Firm Relations in Britain and Japan.* Cambridge University Press, Cambridge.

Sako, M. (1998). Does trust improve business performance? In C. Lane & R. Bachmann (Eds), *Trust within and between organizations: Conceptual issues and empirical applications* (pp. 88–117). Oxford University Press, London.

Samaha, S. A., Palmatier, R. W., & Dant, R. P. (2011). Poisoning relationships: Perceived unfairness in channels of distribution. *Journal of Marketing*, 75(3), 99–117.

Sanchez, R., & Mahoney, J. T. (1996). Modularity, flexibility, and knowledge management in product and organization design. *Strategic Management Journal*, 17, Winter Special Issue, 63–76.

Sande, J. B., & Haugland, S. A. (2015). Strategic performance effects of misaligned formal contracting: The mediating role of relational contracting. *International Journal of Research in Marketing*, 32(2), 187–94.

Schoenherr, T., & Swink, M. (2012). Revisiting the arcs of integration: Cross-validations and extensions. *Journal of Operations Management*, 30(1–2), 99–115.

Scott,W. R. (2008). *Institutions and organizations: Ideas and interests* (3rd ed.). Thousand Oaks, LA: Sage.

Shervani, T. A., Frazier, G., & Challagalla, G. (2007). The moderating influence of firm market power on the transaction cost economics model: An empirical test in a forward channel integration context. *Strategic Management Journal*, 28(6), 635–652.

Strang, D., & Meyer, J. W. (1993). Institutional conditions for diffusion. *Theory & Society*, 22(4), 487–511.

Su, C., Mitchell, R. K., & Sirgy, M. J. (2007). Enabling guanxi management in China: A hierarchical stakeholder model of effective guanxi. *Journal of Business Ethics*, 71(3), 301–319.

Suddaby, R., & Greenwood, R. (2005). Rhetorical strategies of legitimacy. *Administrative Science Quarterly*, 50(1), 35–67.

Sundquist, V., Hulthén, K., & Lars-Erik Gadde, L.-E. (2015). Economic consequences of alternative make-or-buy configurations. *Industrial Marketing Management,* 46, 98–107.

Sutcliffe, M. S., & Zaheer, A. (1998). Uncertainty in the transaction environment: An empirical test. *Strategic Management Journal*, 19(1), 1–23.

Szulanski, G. (1996). Exploring internal stickiness: Impediments to the transfer of best practice within the firm. *Strategic Management Journal*, 17, Winter Special Issue, 27–43.

Tschannen-Moran, M., & Hoy, W. K. (2000). A multidisciplinary analysis of the nature, meaning, and measurement of trust. *Review of Educational Research*, 70(4), 547–593.

Vanneste, B. S., Puranam, P., & Kretschmer, T. (2014). Trust over time in exchange relationships: Meta-analysis and theory. *Strategic Management Journal*, 35(12), 1891–1902.

Veludo, M. D. L., Macbeth, D. K., & Purchase, S. (2004). Partnering and relationships witin an international network context. *International Marketing Review*, 21(2), 142–157.

Venkatraman, N. (1989). The concept of fit in strategy research: Toward verbal and statistical correspondence. *Academy Management Review*, 14(3), 423–444.

Vorhies, D. W., & Morgan, N. A. (2005). Benchmarking marketing capabilities for sustainable competitive advantage. *Journal of Marketing*, 69(1), 80–94.

Walker, G, & Weber, D. (1984). A transaction cost approach to make-or-buy decisions. *Administrative Science Quarterly*, 29(3), 373–391.

Webster, F. E., Jr. (1992). The changing role of marketing in the corporation. *Journal of Marketing*, 56(4), 1–17.

Webber, S. S., & Klimoski, R. J. (2004). Client-project manager engagements, trust, and loyalty. *Journal of Organizational Behavior*, 25(8), 997–1013.

Westerlund, M., & Svahn, S. (2008). A relationship value perspective of social capital in networks of software SMEs. *Industrial Marketing Management*, 37(5) 492–501.

Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), 171–180.

Williamson, O. E. (1975). *Markets and hierarchies: Analysis and antitrust implications*. New York: Free Press.

Williamson, O. E. (1979). Transaction-cost economics: The governance of contractual relations. *Journal of Law & Economics*, 22(2), 233–261.

Williamson, O. E. (1985). *The economic institutions of capitalism*. New York: Free Press.

Williamson, O. E. (1991). Comparative economic organization: The analysis of discrete structural alternatives. *Administrative Science Quarterly*, 36(2), 269–296.

Williamson, O. E. (1993a). Transaction cost economics and organization theory *Industrial & Corporate Change*, 2(2), 107–156.

Williamson, O. E. (1993b). Calculativeness, trust, and economic organization. *Journal of Law & Economics*, 36(1), pp. 453-486.

Williamson, O. E. (2005). The economics of governance. *American Economic Review*, 95(2), 1–18.

Wilkinson, I. F., & Young, L. C. (1994). Business dancing: The nature and role of interfirm relations in business strategy. *Asia-Australia Marketing Journal*, 2(1), 67–79.

Wilkinson, I. F., & Young, L. C. (2002). On cooperating: firms, relations and networks. *Journal of Business Research*. 55(2), 123–132.

Wong, C. Y., Boon-itt, S., & Wong, C. W. Y. (2011). The contingency effects of environmental uncertainty on the relationship between supply chain integration and operational performance. *Journal of Operations Management*, 29(6), 604–615.

Yamagishi, T., Kikuchi, M., & Kosugi, M. (1999). Trust, gullibility, and social intelligence. *Asian Journal of Social Psychology*, 2(1), 145–161.

Yamagishi, T., & Yamagishi, M. (1994). Trust and commitment in the United States and Japan. *Motivation & Emotion*, 18(2), 129–166.

Yin, R. (1984). *Case study research*. Sage Publications, Beverly Hills, CA.

Yu, W., Jacobs, M. A., Salisbury, W. D., & Enns, H. (2013). The effects of supply chain integration on customer satisfaction and financial performance: An organizational learning perspective. *International Journal of Production Economics*, 146(1), 346–358.

Zahra, S. A., & George, G. (2002). Absorptive capacity: A review, reconceptualization, and extension. *Academy of Management Review*, 27(2), 185–203.

Zhou, K. Z., & Poppo, L. (2010). Exchange hazards, relational reliability, and contracts in China: The contingent role of legal enforceability. *Journal of International Business Studies*. 41(5), 861–881.

Zhou, K. Z., & Xu, D. (2012). How foreign firms curtail local supplier opportunism in China: Detailed contracts, centralized control, and relational governance. *Journal of International Business Studies*, 43(7), 677–692.

Zott, C., & Amit, R. (2008). The fit between product market strategy and business model: implications for firm performance. *Strategic Management Journal*, 29(1), 1–26.

Zur, A., Leckie, C., & Webster, C. M. (2012). Cognitive and affective trust between Australian exporters and their overseas buyers. *Australasian Marketing Journal*, 20(1), 73–79.

Appendix

Appendix A Examples of case studies utilizing the ARA model

Study	Method	Context	Underpinning dimension	Main findings
Veludo *et al.* (2004)	Single case study	Opel Portugal and its direct suppliers in Portugal	AL: Information sharing, flexibility, and coordination AB: Trust, dealer help, and continuity	The relationships are based on low levels of trust and high levels of flexibility in delivery. They are also mutually beneficial and are characterized by low coordination and absence of joint problem solving.
Partanen *et al.* (2008)	Multiple longitudinal case study	The networks of three SMEs in the bio-pharma, environmental, and software industries	RT: Knowledge, technology, marketing, and distribution AB: Personal relationships and trust-based ties	Importance of the following three types of networks and relationships varies across the growth phases: the knowledge, innovation, technology, and financing networks, the distributors, marketing, and reputation networks, and the multifunctional networks.
Westerlund & Svahn (2008)	Multiple case study	The relationships of eight SME software companies	AL: Flexibility and adaptability in collaborations RT: Knowledge, technology, marketing, and distribution AB: Perceived trust	The aspects of social capital creating value —cognitive, structural, and relational—vary according to the three types of relationships such as research and development, marketing and distribution, and business facilitation and support.
Baraldi & Strömsten (2009)	Single case study	The relationships of a small biotech company	RT: Resource combination and control	The three different control mechanisms are identified in the innovation process: action, result, and personnel controls. The controls in the case can be seen either general or specific, either open or closed, and either direct or indirect.

Study	Method	Context	Underpinning dimension	Main findings
Finch *et al.* (2010)	Multiple case study	The relationships of companies including a daily company and an advertising agency.	AL: Trust as a heuristic action RT: Resource mobilization AB: Social capital	Trust is fragile and vulnerable. The vulnerability has at least two sources: the uncertainties associated with the qualities of mobilized resources as well as counterparts. The findings also include interplays between economic and social capital in connection with trust.
Baraldi *et al.* (2011)	Single longitudinal case study	The network of an SME of the eco-sustainable technology	RT: Interfaces between tangible and intangible resources that transform new technologies into innovations	The three settings are involved in embedding an innovation: developing, producing, and using. Technology embedding is accompanied by downstream network expansion and upstream restrictions. Conflicts among actors increase in the producing and using. The more heterogeneous the shapes of a technology, the easier it will be to embed it in the three settings of developing, producing and using.
Anderson *et al.* (2011)	Single case study	The networks related to new mobile payment and ticketing services	AL: Activity patterns and activity interdependence RT: Resource combination AB: network structure of actors	Emergence of the mobile payment and ticketing services created new values, changed actors' roles, caused associated technological development. Additionally, it created new combinations of resources and cooperation patterns within and between networks.
Lundberg & Anderson (2012)	Single case study	Relationships between companies, government, and universities	AL: Joint activities RT: Resource sharing and development	Examining the wider business context including nonbusiness organizations enables identification of new dimensions for each ARA variable. Cooperative activities and sharing resources facilitate companies' access further resources for R&D development.

Study	Method	Context	Underpinning dimension	Main findings
Ciabuschi *et al.* (2012)	Single longitudinal case study	The relationships of an automotive venture	RT: Resource combination	Due to partial knowledge of how to combine resources, firms need to extensively adapt and interact with others to make resource combination workable.
Huemer (2013)	Single longitudinal case study	The networks of Chilean salmon farming	AB: Actors features	Based on the case study, the paper provides a conceptual framework and presents a synthesis of identity layers (actor features–activities) and processes (internal control–external influence).
Olsson *et al.* (2013)	Single case study	The operations of a global distributor of mobile phones in Sweden	AL: Activity coordination RT: Resource positioning AB: Actors position	Numerous value-generating opportunities are available for a middleman. The variety of middleman roles is explained by the ARA model.
Jraisat *et al.* (2013)	Multiple case study	Relationships between producers and exporters in export supply chains	AB: Information sharing	Information sharing in business relationships is positively related to performance of export supply chains. Long-term and joint planning tends to trigger sharing wider types of information. .
Insanic & Gadde (2014)	Single case study	Business networks in the PC industry	AL: Activity coordination RT: Resource combination	Interaction and information exchange among firms condition activity coordination and resource combination.

Study	Method	Context	Underpinning dimension	Main findings
Crespin-Mazet *et al.* (2014)	Single case study	The network supporting the actual use of AEDs	AL: Activity coordination RT: Resource combination	The paper introduces the concept "usage network" that reflects a plurality of actors such as public institutions, sponsors, associations, and opinion beyond users. The network actors combine their idiosyncratic resources to relate and interact with users. The actors transform the original innovative product and the resource combination to additional solutions. Moreover, the paper shows the roles of boundary actors in coordination of various actors' activities.
Pinheiro *et al.* (2015)	Single case study	The community of biological sciences in Portugal	AL: Activity interdependence AB: Trust, commitment, and shared interests	Shared interests and mutual benefits in university-industry relationships promote their activities. Trust and commitment are not ubiquitous at the outset, but develop as partners' interdependence grows.
Alenius *et al.* (2015)	Single case study	The supplier network of a large grocery retailer	RT: Resource combination	Open book accounting functions a tool for managing interdependencies between companies. It is used to affect indirect relationships as used for influencing the second tier suppliers. Additionally, it also has a role in new resource combination and in identification of new interfaces.
Crespin-Mazet *et al.* (2015)	Single case study	The network surrounding a proton therapy project in Sweden	RT: Resource adaptation	The choice to enter a partnering agreement seems mainly due to the project's functional challenge. Once a positive experience of project partnering gained, the subsequent choice of partners depends on high relational congruence. Adaptations of various resources of parties in a relationship creates benefits for both of them.

Continued.

Study	Method	Context	Underpinning dimension	Main findings
Sundquist *et al.* (2015)	Single case study	Relationships in the construction industry	AL: Activity interdependence RT: Resource exploitation AB: Relationship building	The paper investigates alternative approaches into make-or-buy decisions in the three respects of the ARA model: activity, resource, and actor layers. The conclusions show that what approach is the best depends on which aspects are considered most crucial in the specific contexts.
Finke *et al.* (2016)	Single case study	The public-private network for responses to climate change in Germany	AL: Collective actions AB: Tie strength	Companies fail to collectively respond to climate changes because of their multiple interests The multiplicity of interests includes the following sub-barriers: economic reasoning, weak actor bonds, and different perceptions of the rules of the game.
Hedvall *et al.* (2016)	Multiple case study	Networks of transport services	AL: Activity interdependence RT: Resource interdependence AB: Actor interdependence	The cross-case analysis identifies the three general dimensions in which the network settings differ. First, the buying firms' influence on the vehicles utilization differs. Second, the division of labor regarding coordination of vehicle operations differs. Third, the nature of the transport needs plays an important role in coordination of transport activities.
Bayne *et al.* (2017)	Multiple case study	The networks in Australian agri-business	AL: Developing activity patterns RT: Utilizing resource constellations AB: Building actor webs	Building actor webs and collective sensemaking are associated with strategic network effectiveness, whereas developing activity patterns and utilizing resource constellations contribute to network efficiency. There are potential trade-offs between network effectiveness and efficiency in relation to overall network performance.

Study	Method	Context	Underpinning dimension	Main findings
Pagani & Pardo (2017)	Multiple case study	Digitization in five different industrial sectors	AL: Activity coordination RT: Resource combination AB: Creating new bonds	This paper shows that the ARA model is useful to describe how changes proceed in networks. Its case studies on digital solutions for businesses identify the three types of digitalization: activity-links-, resource-ties-, and actor-bonds-centered.
Bocconcelli *et al.* (2018)	Single case study	The relationships of a small Italian supplier with large customers in the mechanical sector	RT: Resource coordination	The findings includes that resource development is associated with interaction processes among organizational units belonging to the supplier as well as its customers and that specific standardized and joint coordination mechanisms can effectively combine and integrate technical and organizational resources.
O'Toole & McGrath (2018)	Longitudinal and comparative case study	Strategizing of two new ventures in Ireland	AL: Activity interaction RT: Resource interaction AB: Actor interaction	The findings show two distinct approaches to strategizing for network capability development: emergent and deliberate. Further, nine patterns were identified in the two strategizing processes.

Appendix B Constructs and items for Studies 1 and 2

Channel performance	1. Channel's contribution to product differentiation
	2. Channel's contribution to improvement of customers' perception of the product image
	3. Channel's contribution to improvement of customers' perception of the product reliability

Coordination integration	1. Differentiated wholesalers' marketing and logistics activities for the products
	2. Customized wholesalers' marketing and logistics endeavors for the products
	3. Coordinated wholesalers' marketing and logistics endeavors for the products
	4. Relationship-specific wholesalers' marketing and logistics activities

Authority integration	1. Control over wholesalers' pricing
	2. Control over wholesalers' promotion
	3. Control over wholesalers' logistics
	4. Control over wholesalers' sales endeavors

Product uniqueness	1. Novel products
	2. Products with innovative technologies
	3. Remarkable product improvement
	4. Products with novel attributes
	5. Unique products

Demand uncertainty	1. Unpredictable consumer needs
	2. Unpredictable sales volume
	3. Unpredictable market growth
	4. Unpredictable competitors' actions

Behavioral uncertainty	1. Difficult assessment of wholesalers' sales performance
	2. Difficult observation of wholesalers' marketing and logistics endeavors.
	3. Difficult evaluation of wholesalers' activity efficiency

Relationship-specific resource	1. Specific facilities dedicated to distributing the products
	2. Relationship-specific tools and equipment
	3. Specific experience and skills
	4. Investments in personnel dedicated to selling the products

Marketing channel capability	1. High sales performance
	2. Capable sales forces
	3. High market share
	4. Capabilities for channel management and selling

Exploitation capacity	1. Cross-functional teams to exploit information from customer for product development
	2. knowledge systems to transfer our experience from one customer context to another
	3. Company-wide systems to help customers understand our technological capabilities

Appendix C List of interviews for Study 3

The table here is in the article co-authored with H. Kobayashi and T. Usui, which is entitled "Trust building process for new market entrants: A case study of a Japanese cosmetics company's business expansion in China" (*Journal of Business and Industrial Marketing*, 32(6), 2017, 801–812).

The table exists in the printed version of this dissertation.