

LAPPEENRANTA UNIVERSITY OF TECHNOLOGY

LUT School of Business and Management

Master's Degree Programme in Supply Management

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**SUPPLIER RELATIONS AS A SOURCE OF VALUE CREATION IN OMNI-CHANNEL
RETAIL**

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ABSTRACT

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The purpose of this master's thesis is to examine supplier relations as a source of value in the context of omni-channel retail. The main objective is to find out how omni-channel retail may have affected supplier relations as a source of value creation. Thus, this study aims at establishing a comprehensive view about the characteristics and challenges that define omni-channel retail. Also, the value creation logic and best suited supplier relations to meet the conditions of omni-channel retail are examined. This research is conducted as a qualitative multiple-case study by interviewing several case companies and one industry specialist. The study identifies omni-channel retail as a competitive, customer focused, complex and fast-paced business model that requires a flexible and integrated supply chain. The empirical findings suggest inventory management and seamless order fulfillment to challenge retailers the most. Moreover, channel integration and IT compatibility are emphasized as root causes of supply chain challenges. Value is created through cross-channel synergies by coordinating and integrating supply chain activities. The study shows that supplier relations have become significant sources of value created to consumers by increasingly generating long-term value through commitment, supply chain development and close collaboration with retailers. Although retail requires a mixed sourcing portfolio, relational supplier relationships are best suited to meet the identified supply chain challenges of omni-channel retail. A hybrid sourcing model enables retailers to answer supply chain complexity, uncertainty and competitiveness.

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Tämän Pro-gradu -tutkielman tarkoitus on selvittää, miten omnikanavainen vähittäiskauppa on vaikuttanut toimittajasuhteisiin arvon luojina. Tutkimus pyrkii tunnistamaan omnikanavaisen vähittäiskaupan ominaisuuksia ja haasteita muodostaakseen kattavan kuvan omnikanavaisesta vähittäiskaupasta liiketoimintaympäristönä. Lisäksi tutkimuksessa käsitellään arvon luontia toimitusketjun näkökulmasta. Tavoitteena on myös arvioida minkälaiset toimittajasuhteet parhaiten soveltuvat vastaamaan liiketoimintamallin ja ympäristön asettamiin vaatimuksiin. Tutkimus on toteutettu kvalitatiivisena tapaustutkimuksena. Empiirinen tutkimus suoritettiin haastattelemalla neljää vähittäiskauppaa ja yhtä alan asiantuntijaa. Tutkimus tunnistaa omnikanavaisen vähittäiskaupan nopeatempoiseksi, asiakaslähtöiseksi, erittäin kilpailulliseksi ja monimuotoiseksi liiketoimintamalliksi, joka vaatii joustavaa ja integroitua toimitusketjua. Empiirinen tutkimus osoittaa varastonhallinnan ja saumattomat prosessit suurimmiksi haasteiksi. Kanavien integrointi, IT järjestelmät ja niiden yhteensopivuus ovat omnikanavaisen toimitusketjun haasteellisuuden juurisyytä. Arvo syntyy kanavien synergiasta ja saumattomasta toimitusketjusta, johon toimittajilla on merkittävä vaikutus. Tutkimus tuo esille toimittajasuhteiden merkityksen arvon luojina pitkällä aikavälillä ja osoittaa hybridi hankintamallin parhaiten vastaavan omnikanavaisen vähittäiskaupan vaatimuksiin. Vaikka läheiset toimittajasuhteet ja yhteinen kehitystyö osoittautuvat tarpeellisiksi omnikanavaisessa vähittäiskaupassa, kaippaa toimiala edelleen erilaisia toimittajasuhteita.

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In Espoo, 31th of January 2019

lida Sarén

TABLE OF CONTENTS

1. INTRODUCTION	8
1.1 Background.....	8
1.2 Research questions and objectives	11
1.3 Conceptual framework.....	12
1.4 Definitions of key concepts	14
1.5 Delimitations	17
1.6 Research Methodology.....	18
1.7 Structure of the thesis.....	19
2. THE ROLE OF SUPPLIERS IN VALUE CREATION.....	20
2.1 Buyer-supplier relationship options.....	21
2.1.1 <i>Relationship continuum</i>	22
2.1.2 <i>Sourcing business models</i>	24
2.2 Value creation.....	25
2.2.1 <i>Value co-creation in supplier relations</i>	27
2.2.2 <i>Relational capabilities as a competitive advantage</i>	29
2.3 Value creation potential of supply management.....	29
3. OMNI-CHANNEL RETAIL.....	33
3.1 Retail business model.....	35
3.1.1 <i>Business model elements</i>	36
3.1.2 <i>Business model innovation and adaptability</i>	37
3.1.3 <i>Value creation in the omni-channel retail business model</i>	38
3.2 Barriers to omni-channel success.....	40
3.2.1 <i>Distribution system and order fulfillment</i>	41
3.2.2 <i>IT-enabled integration</i>	48
3.2.3 <i>Supplier relationship management</i>	49
3.3 Supplier relations in omni-channel retail.....	51
4. RESEARCH METHODOLOGY AND DATA COLLECTION	54
4.1 Qualitative Multiple-case study	54
4.2 Data collection	55
4.3 Data analysis	57
4.4. Reliability and validity	58
4.5 Case companies	59

5. EMPIRICAL FINDINGS AND ANALYSIS	62
5.1 Omni-channel retail characteristics and objectives.....	62
5.2 Supply chain challenges of omni-channel retail.....	64
5.2.1 <i>Inventory management</i>	65
5.2.2 <i>Seamless omni-channel operations</i>	66
5.2.3 <i>Advanced technology and IT-systems</i>	67
5.3 The state of retail business.....	69
5.4 Supplier relations and value creation in omni-channel retail	70
5.4.1 <i>Towards close cooperation</i>	71
5.4.2 <i>Omni-channel value creation</i>	73
5.4.3 <i>Value co-creation</i>	75
5.5 Supplier relations as a competitive advantage	76
6. DISCUSSION AND CONCLUSIONS	79
6.1 Summary of the research findings	79
6.2 Managerial and theoretical contributions	85
6.3 Limitations and direction for future research.....	85
REFERENCES	87
ELECTRONIC REFERENCES.....	100

APPENDICES

Appendix 1. Interview Questions

Appendix 2. Specialist interview questions

LIST OF FIGURES

Figure 1. The framework of this thesis

Figure 2. Sourcing business models

Figure 3. Value generating dimensions of supply management

Figure 4. Omni-channel order fulfilment options

Figure 5. Forward order fulfillment options

Figure 6. Case companies' sales in and number of stores in 2017

Figure 7. Store infrastructure of case retailers

Figure 8. Supply chain challenges of omni-channel retail

Figure 9. Characteristics of today's business environment

Figure 10. Main entities of supply chain challenges in omni-channel retail

LIST OF TABLES

Table 1. Definitions of omni-channel retail

Table 2. The conducted case company interviews

1. INTRODUCTION

This thesis studies supplier relations as a source of value creation in the context of omni-channel retail. As a recent phenomenon, omni-channel retail is examined from the supply chain perspective. The aim of this thesis is to understand the role of suppliers as value creators in today's economy. More precisely, the study strives to explore supplier relations and their management in the light of value creation in the retail industry. The objective is to learn more about the relevant characteristics and preconditions of omni-channel retail and to find out what kind of supplier relations are suited to meet the conditions of omni-channel retail. First this introduction chapter introduces the background of the topic and presents the research questions and objectives. After explaining the conceptual framework, the key concepts and delimitations are defined. Lastly, the research methodology of the research and the structure of the thesis are presented.

1.1 Background

Business models change as the environment changes. Companies have to adjust to changes in the environment they operate in. This has led to re-evaluating strategies and business models (Raju & Singh 2018). As other industries, also retail has been forced to change along the dynamic environment characterized by technology, network connectiveness and ever more demanding consumers. The landscape of retail has changed dramatically in scope and unexpected in nature (Sorescu, Framback, Singh, Rangaswamy & Bridges 2011; Von Briel 2018). When the Internet transformed business in the 1990s, store-based retail was predicted to be completely replaced by online retailers (Zhang, Farris, Irvin, Kushwaha, Steenburghe & Weitzf 2010). Instead, the retail industry adopted a new more complex business model, which encompasses multiple channels integrated with each other (Yrjölä 2014). Technology and customer-driven changes in the marketplace have created omni-channel retail which enables to expand markets and improve operational efficiency (Xia & Zhang 2010; Piotrowicz & Cuthbertson 2014; Ishfaq, Defee & Gibson 2016; Chen, Cheung & Tan 2018).

The diffusion of advanced mobile technologies enables consumers to gather more information and data about offerings (Gummerus & Pihlström 2011; Piotrowicz & Cuthbertson 2014). Technology has also brought businesses new ways to track information (Chen et al. 2018; Luo, Fan & Zhang 2016). The rapidly changing business environment

and enormous competition creates a need to constantly monitor the range of channels to improve performance (Ailawadi & Farris 2017; Ishfaq et al. 2016). Previously the challenge was to determine the right and most competitive distribution channel. Nowadays retailers face the problem of integrating all different channels. Retailers are now only discovering the need for technological improvements and strategy re-evaluation. It is believed that technological innovations will further change the retail landscape in the future (Brynjolfsson, Hu & Rahman 2013; Saarijärvi, Mitronen & Yrjölä 2014; Von Briel 2018). Eventually traditional store-based retailers will be forced to move into omni-channel retailing in order to stay in competition (Ishfaq et al. 2016; Von Briel 2018). As an emerging and very current trend, research of omni-channel commerce is justifiable.

Value creation influences the way companies do business and thus has effect on business models (Zott, Amit & Massa 2011; Beattie & Smith 2013; Yrjölä 2014). The focus of the retail industry is shifting from a transaction-based model to focusing rather on superior value. Creating superior value has become a central element, since consumers demand for more individual products and services (Yrjölä 2014; Nelson & Nelson 2004). Moreover, consumers have become more value-conscious through poor economic situations (Berry, Bolton, Bridges, Meyer, Parasuraman & Seiders 2010). Advances in communication and information technologies have led to the decline of costs and thus to new ways of creating value (Zott et al. 2011). This in turn has enabled a more service-oriented value proposition (Saarijärvi et al. 2014). The increasingly customer-driven environment requires a more flexible supply chain. Sourcing is not only seen as procuring goods and services but as a value creating activity (Vitasek 2016a).

In general, the business environment has become more customer focused and literature has shifted emphasis from value capture to value creation (Zott et al. 2011). Thus, this thesis involves value creation as a main concept. The increase of customers' service expectations has significant implications on the perception of retailer's performance (Ishfaq et al. 2016) which therefore puts emphasis on consistent order fulfillment. Order fulfillment is a significant determinant of customer satisfaction (Xia & Zhang 2010) and thus should be given focus in research. This further supports the purpose of this study.

Also, the very recent concept of omni-channel is not fully acknowledged yet (Beck & Rygl 2015) although the progress from single to multi- and further to omni-channel retail is wide spread in literature. Academic research conducted on the concept of omni-channel is only starting to emerge (Saghiri, Wilding, Menab & Bourlakisa 2017; Shen, Li, Sun & Wang

2018). Both customer- and retailer-centric research has been conducted on omni-channel retail (Chen et al. 2018). However, there hardly is research focusing comprehensively on omni-channel retail from the supply chain perspective. Instead literature discusses themes such as customer behaviour, channel usage, customer channel switching behaviour and lock-in (Zhang et al. 2010; Verhoef, Neslin & Vroomen 2007; Hosseini, Merz, Röglinger & Wenninger 2018; Blom, Lange & Hess 2017). While the retail shopping environment is well studied, the supply chain perspective to this dynamic environment remains under researched. Based on this, it is necessary to further study omni-channel retail in the supply chain context. This research need is supported by Chen et al. (2018), who stress the significance of supply chain management in cross-channel integration.

In today's economy value creation is emphasized as the centre of business. Among other research has been conducted on the significance of supply chain management in value creation (Kähkönen & Lintukangas 2012). According to previous research supplier capabilities and buyer-supplier relationships can act as value drivers of customer perceived-value (Prior 2014; Keith, Vitasek, Manrodt & Kling 2016). Kähkönen and Lintukangas (2018) remind that research on the role of supply management in value creation has been mainly focusing on how the purchasing function generates added value. Thus, there is demand for studies researching the role on suppliers and supplier networks in value delivery. Changes in the retail industry have led to research on the relationships between retailers and end customers (Keeling, Keeling & McGoldrick 2013). Even though buyer-supplier relationships have been studied from numerous different approaches and contexts, there is still lack of research in the retailing context (Grewal, Roggeveen & Nordfält 2017).

Challenges of delivering value to consumers in a multi-channel business environment have been examined in various studies (Saghiri et al. 2017; Yrjölä 2014; Wiener, Hoßbach & Saunders 2018). However, there is lack of research on value delivery from the supply chain perspective in the retailing context. Sorescu et al. (2011) make a valuable proposition concerning the significance of suppliers in their research about innovation in the retail business model. Also, Ailawadi and Farris (2017) emphasize the role of suppliers in the context of omni-channel retail. However, their studies do not focus on value delivery. This thesis aims to fill the research gap, by providing an empirical study examining supplier relations as a source of value in the omni-channel retail context. All things considered, academic literature seems to be lacking in research on supplier relations in omni-channel retail.

1.2 Research questions and objectives

Considering the dynamics of the retail industry and the need to adapt to the constantly changing business environment there is no doubt that supplier relations have a strategic role in business. The objective of this study is to find out what kind of role supplier relations have in value creation in the evolving retailing context. Hence, this research aims to explain supplier relations and elements behind the relations as value creators in the context of omni-channel business. These considerations can be concluded into the main research question of this thesis:

How has omni-channel retail affected supplier relations as a source of value creation?

The main research problem is divided into few sub-questions. These aim to support the main research question. First of all, omni-channel retail is a very recent phenomenon, which makes the identification of main challenges and characteristics necessary. Understanding elements of omni-channel retail helps to determine suitable supplier relations and explain the value creation logic. Since the rise of e-commerce is seen as both a threat and opportunity to retailers (Handfield, Straube, Pfohl & Wieland 2013; Chen et al. 2018), it is important to understand and identify challenges and potential improvement possibilities. The objective is to learn more about the relevant elements of omni-channel retailing from the supply chain perspective:

What characteristics and challenges define the omni-channel retail business model?

Changes in the business environment have an impact on the development of business models, customer experience and supplier relationships (Piotrowicz & Cuthbertson 2014). Thus, it can be argued that adapting omni-channel retail as a new business model has an impact on a retailer's value proposition and supplier relationships. This makes the second sub-question worthwhile addressing:

How is value created in the omni-channel retail business model and how is it created in supplier relations?

This study adopts a network-centric view, i.e. embraces the boundary-spanning nature of business models. By understanding the nature of today's value creation logic, also suppliers' role in value delivery can be better perceived. This helps to identify retailers needs

of their supplier relations. The goal is to establish the optimized sourcing business model to create maximum value for end customers. The first and second sub-question lead to the third, which is to determine what kind of supplier relations best meet the requirements of omni-channel retail and today's value creation logic:

What kind of supplier relationships are best suited for omni-channel retail?

The sub-questions are connected to the main research question and give structure to the thesis. Previous literature shows that omni-channel retail is still under researched. Thus, the intended outcome of this study is a strong understanding of relevant factors in achieving excellence in omni-channel retailing.

1.3 Conceptual framework

The framework of this thesis displays the connections between the main entities (Figure 1). This study concentrates on the connections of supplier relationships, supplier relationship management and value creation in the context of omni-channel retail. The framework lies on the hypothesis that retailers and their suppliers co-create value to the end customer in the context omni-channel retail. As an emerging business model omni-channel retail sets preconditions and creates challenges for practitioners operating in retail. Challenges of omni-channel retail are approached from the supply chain viewpoint. To support the aim of this study, value creation is discussed from different perspectives: in general, in the context of omni-channel retail and in relation to suppliers and supply management.

Challenges and main characteristics are displayed within the circles in Figure 1. The inner circle refers to the main elements of omni-channel retail, which are connected to supply chain activities represented in the outer circle of the framework. The framework reflects the strategic role of supply management (Zheng, Knight, Harland, Humby & James 2007; Kähkönen & Lintukangas 2018) by representing the supplier as a value co-creator (Kähkönen & Lintukangas 2012a; Sorescu et al. 2011; Vargo & Lusch 2004). Strategic supply management is needed to deliver superior value to consumers. Thus, supply chain activities are closely linked to value creation (Sorescu et al. 2011). Business models define how value is created and thus this thesis is built on the believe that the move towards omni-channel retail has led to changes in retailers value proposition and suppliers as sources of value creation.

The framework demonstrates the connectiveness of supplier and retailer. The end customer is in the centre of business to which value is created as a joint effort through various channels. Retailers warehouse, offline and online channels and the supplier are connected through supply chain processes and activities such as inventory, distribution and order fulfillment. The blue circle represents technology enabled channel integration and mutual processes of suppliers and retailers in the supply chain. Supply chain integration increases firm performance (Rodríguez-Díaz & Espino-Rodríguez 2006; Teece 2007; Zhang et al. 2010) and enhances value co-creation (Andreu, Sánchez & Mele 2010).

Channel integration & advanced technological solutions

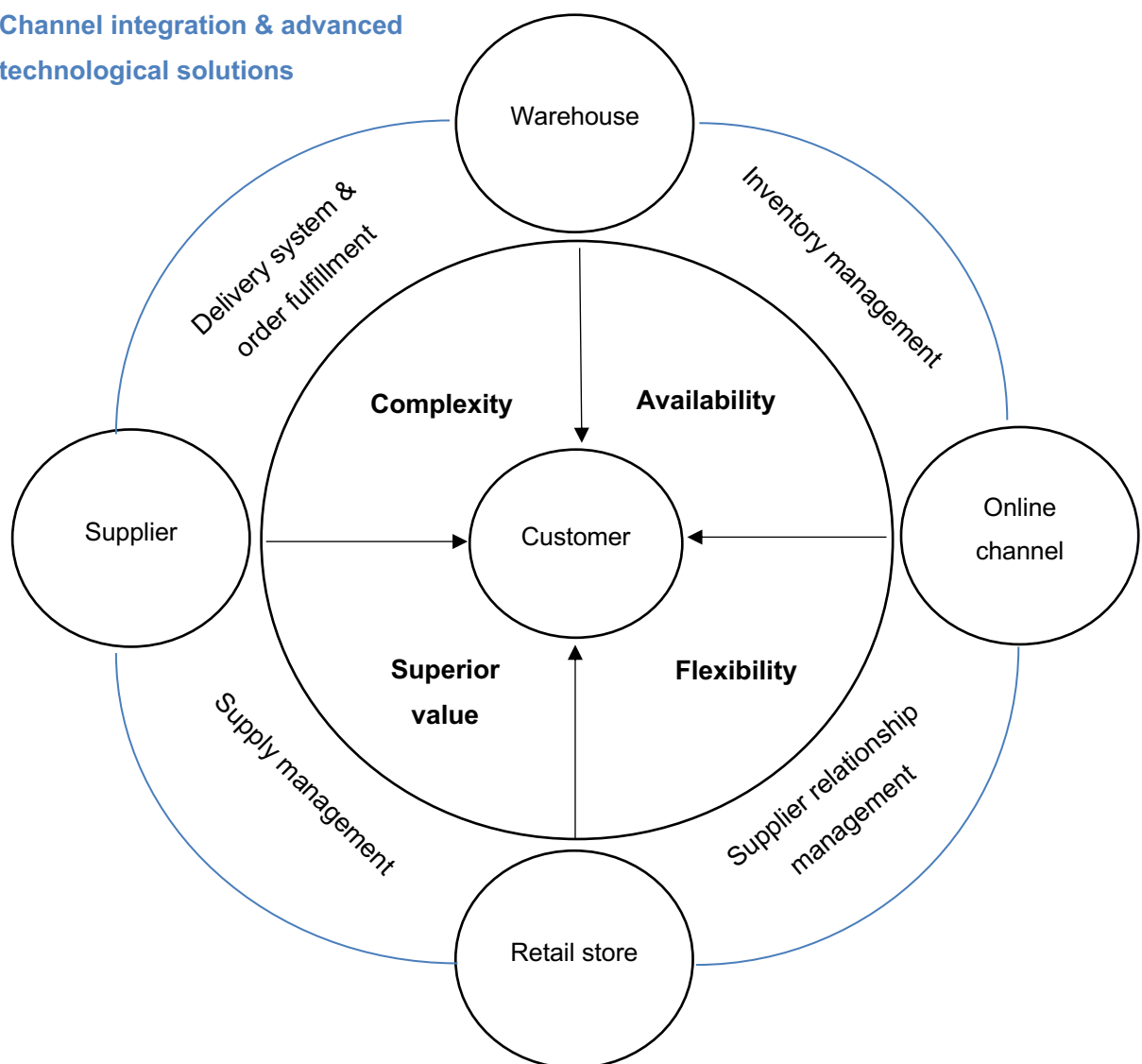


Figure 1. The framework of this thesis

Omni-channel retail, supplier relations, supply management and value creation create the theoretical setting for this thesis. The concept of value creation will serve as a guideline along the thesis. The theoretical section will form the base for the empirical study. The content is drawn from the contexts of supplier relations and value creation. More specifically, the value creation potential of the case companies' supplier relations is the main object of analysis in the empirical part of this thesis. The best suiting supplier relations to meet the requirements of omni-channel retail are analysed based on characteristics and supply chain challenges of the business model.

1.4 Definitions of key concepts

All key concepts of this study are defined below in this chapter. The reviewed concepts are relevant for the study and defined in perspective of the context relying on academic literature. The concepts are further discussed in the theoretical part of this thesis.

Omni-channel retail

Omni-channel retailing has emerged through technological development (Sorescu et al. 2011). The development of online services and communications technology has created new channels and thus add complexity to the retail environment (Verhoef, Kannan & Inman 2015). Omni-channel refers to a seamless and coherent shopping experience across channels (Shen et al. 2018). From the supply chain point of view omni-channel retail is seen as a business model that requires retailers to align their online and offline channels through supply chain management activities. (Ishfaq, Defee & Gibson 2016) Saghiri et al. 2017 define omni-channel business as the coordination of processes and technologies across supply and sales channels.

Channel

There exist several different interpretations of the concept of channel in academic literature. Most commonly literature is simply referring to online and offline channels, such as bricks and mortar stores and Internet websites (Saghiri et al. 2017; Hosseini et al. 2018). In omni-channel retail also multiple touchpoints of customer interaction have been added to the concept of channel (Verhoef et al. 2015). Overall, channels can be defined as various ways to interact with customers. Types of interaction differ in the way products and/or information

is transferred. Berry et al. (2010) take a wider perspective on channels and define them as mechanisms for communication, service delivery and transaction completion. In the context of this study channel is used to refer to the above-mentioned touchpoints for consumer interaction that require different mechanisms, processes, delivery and communication from the retailer.

Business model

A business model explains how value is created and captured (Zott et al. 2011). It defines the data and logic that supports value creation for the customer and the structure of revenues as well as costs for the company (Teece 2010). Business models capture the ways companies use their resources to build customer and firm value (Amit & Zott 2001). It is an activity system that ends up in delivering value to customers, the company itself and other stakeholders.

Sourcing business model

A sourcing business model presents the structure of supplier relationships (Vitasek 2016a). The business model between a buyer and its suppliers defines the ways in which counterparts interact with each other. A sourcing business model explains characteristics of supplier relationships. It is the portfolio of a company's' supplier relations (Keith et al. 2016).

Supply management

Supply management is a wide concept but can simply be defined as the process of obtaining products and services a firm needs to operate their business (Business Dictionary 2018a). Supply management is responsible for supplying products and services efficiently and for finding the most valuable and appropriate suppliers (Kähkönen & Lintukangas 2012a). The concept refers to the management of all activities associated with the processes to serve customers (van Weele 2005). Supply management is the strategic management of external and internal resources and relational competencies in the fulfillment of commitments to customers (Carr & Smeltzer 1997). It considers supply chain management and supplier relationship management defined below.

Supply chain management

The concept of supply chain management is used to describe purchasing and supply activities, transportation and logistics functions as well as management of relationships and value-adding activities along the supply chain. Supply chain management considers both management of physical material and information flow in a supply chain (Thomas & Griffin 1996). The commitment of supply chain partners is essential when coordinating supply chain processes. (Business Dictionary 2018b; Tan 2001) The demand-supply balancing process is seen as a central function of supply chain management (Thomé, Scavarda, Fernandez & Scavarda 2012). Williamson (2008) presents supply chain management as a broad system in which related transactions are grouped and managed as chains. A genuinely integrated supply chain enables to deliver enhanced customer service and economic value (Tan 2001; Mentzer, DeWitt, Keebler, Min, Nix, Smith & Zacharia 2001).

Supplier relationship management

Supplier relationship management refers to the management of the supply base and relationships between supply chain actors (Tidy, Wang & Hall 2016; Forkmann, Henneberg, Naudé & Mitrega 2016). Schuh et al. (2014) consider all interaction between buyer and supplier as supplier relationship management. Moeller, Fassnacht and Klose (2006) see the management of supplier relationships as processes and activities of development with the aim to generate value within these relationships. The notion is seen as a sub-concept of supply chain management. Supplier relationship management is also required to improve firm performance (Shin, Collier & Wilson 2000). This is achieved through development and restructure of the supply base (Forkmann et al. 2016).

Value creation

Value creation is the process of actions leading to an increase in the worth of a company's offering or even business as a whole. Nowadays the concept often refers to value creation and delivery to customers, suppliers and other stakeholders. (Business Dictionary 2018c) Perceived value can be defined as the trade-off between the total benefits obtained and the total sacrifices made (Möller & Törrönen 2003). Value that is created is highly dependent on the context and parties involved (Kähkönen & Lintukangas 2018; Yrjölä 2014). In the context of this thesis value creation is addressed as both, value creation to the end customer and value creation in a buyer-supplier relationship.

1.5 Delimitations

This thesis is limited regarding the theoretical framework and the empirical source of data. Previous studies often encompass not just the aspect of distribution, but also consider channels of communication, payments and earnings. This research has been limited to the supply chain perspective. Omni-channel retail in the context of supply chain management is yet under-researched and therefore the aspect of consumer behaviour is left out. This study focuses on retailers' perspective on supply chain operations. Thus, this study leaves suppliers' viewpoint out of consideration. Even though this thesis is limited to the retailer's perspective on omni-channel retail, value creation is approached from a network-centric view.

Value creation is examined in connection to supplier relations as value to the retailer's business as well as value delivered to end customers. The closer examination of customer perceived value is left out of this study since it is a wide concept on its own and has been addressed frequently in previous literature. Although various perspectives of challenges and processes of omni-channel retail are overlapping, this study does not include any aspects of omni-channel marketing challenges and channel management from the sales perspective. Also, this thesis does not make a distinction between different customer interfaces, since it investigates omni-channel challenges from the supply chain perspective, which mainly considers distribution and order fulfillment.

The study focuses on merchandise retailing that may include additional services. Taking this perspective instead of focusing on service retail gives a more comprehensive view of the distribution issues and other significant factors in the supply chain. This limitation is justified by the simpler nature of service retailing, which does not need transportation of physical products to complete a sale. Since this thesis focuses on supply chain management, literature that strictly covers marketing issues such as coordination of promotions, customer behaviour and customer lock-in is excluded. Because these elements are somehow relevant and connected to supply chain coordination, the thesis may touch these themes but does not go deeper into them. Furthermore, due to the dynamic and context specific nature of omni-channel retail this thesis cannot reach each scenario and optimization possibility of a retailer's distribution system and processes.

The empirical part limits this research to a small amount of case companies operating in the retail industry in Finland. However, this limitation is justified since this thesis does not

aim to form generalized evidence about the topic in a statistical sense but rather strives to understand and comprehend the context of omni-channel retail, supplier relations and value creation. The concepts within this study's framework have all been researched before. Especially value creation has been approached from multiple perspectives and in various contexts. Hence, this study regards the connections between the chosen concepts and does not aim to fully cover each of them on their own but aims at clarifying and understanding the existing theory.

1.6 Research Methodology

This thesis consists of two supplementary parts, a theoretical and an empirical part. The theory is based on existing academic literature related to the main concepts of this thesis. Academic sources have been chosen based on their reliability and significance concerning the research objectives. The theoretical part builds a basis for the following empirical part. It presents the topic to the reader. Also, the theory structures the research field which makes it easier to follow the empirical part later on. The empirical research is conducted as a qualitative study. A qualitative research method was chosen since it is most suitable for the research phenomenon, a yet unknown area to be uncovered using a holistic approach. The aim is to understand, describe and explain the empirical data (Gibbs 2007).

A qualitative study can be conducted with various research methods such as interviews and observation (Metsämuuronen 2005). Using a holistic approach helps to understand and investigate "hows" and "whys" (Kähkönen 2011). The aim is to familiarize with the topic as deeply as possible. Answering questions of "what" aims at presenting a complete description of the phenomenon within its context. This thesis is explanatory and descriptive in nature and thus adopts a multiple-case study research to address the research questions.

The empirical research was carried out through semi-structured interviews with several case companies operating in omni-channel retail. A multiple-case design was chosen to get a holistic view of the current state of omni-channel retail. Case studies are a way to collect data from a practical phenomenon. It is a suitable method to examine complex phenomena, such as omni-channel retail. Also, a case study approach is suitable for examining supply chain management (Kähkönen 2011). Final conclusions were formed by reflecting the empirical analysis against the presented theory and framework of this thesis.

1.7 Structure of the thesis

This thesis is constructed of six main sections. After this introduction chapter the theoretical part of the study is represented. The literature review consists of two chapters. First supplier relations and value creation are examined. The following theory chapter discusses challenges and characteristics of the omni-channel retail business model. After the theoretical part of this thesis the research methodology and empirical results are discussed and analysed. The final section presents the summary of the research findings and managerial and theoretical implications. Limitations and future research opportunities conclude the thesis.

2. THE ROLE OF SUPPLIERS IN VALUE CREATION

Supplier relations have evolved dramatically during the past decades. Firms started to outsource traditionally important activities such as manufacturing, design and logistics. Outsourcing value activities is dependent on the ability to create strong supplier relationships in areas that have high strategic relevance for the buyer. Nowadays outsourcing activities primarily means joining a supply chain network formed by several tiers of suppliers. (Möller & Törrönen 2003) Outsourcing does not always have to be thought as simply contracting a third party to perform those activities that a firm is unable to perform by itself (Rodríguez-Díaz & Espino-Rodríguez 2006). Instead, it is a decision that can lead to much deeper and closer relationships (Webster 1992).

Companies have various supplier relations depending on the complexity of the marketplace and the strategic needs of the practitioners (Vitasek 2016a). Transactional agreements are most common in conventional supplier contracts. Vitasek (2016a) argues alternative sourcing business models to have a significant role in value creation in more complex, risky, or strategic contracts. Today's modern sourcing challenges cannot be solely met with the traditional transaction-based sourcing model. Research has shown that companies have also other than costs as motives for outsourcing (Nelson & Nelson 2004). Nelson and Nelson (2004) list technological and strategic motives after costs as the strongest motivations for outsourcing. They stress the importance of re-evaluating sourcing models according to the changes in the business environment.

Sourcing models are part of the overall business model of a firm and to keep outsourcing successful firms have to align their sourcing strategy to better answer the requirements of today's economy. For example IT sourcing as a complex process requires a more relational sourcing business model. The make or buy decision does not only lie on transaction costs but also on the need for better knowledge and capabilities (Nelson & Nelson 2004). Sourcing as a strategic action places emphasis on the entire life cycle of a product or service. Strategic sourcing is an approach to supply chain management in which information is gathered and analyzed to find the best possible values in the marketplace. (Tech Target 2018) Supply processes and sources are constantly re-evaluated to optimize value to the organization (Business Dictionary 2018d).

2.1 Buyer-supplier relationship options

The study of supplier relations has been an objective of academic literature for decades. Among others the focus of research has been on differences between types of relationships. Academics generally distinguish between transactional and relational relationships (Reinhart et al. 2004; Vesalainen & Kohtamäki 2015; Cannon & Perreault 1999). Relational thinking can be traced back to Macneil's (1980) distinction between discrete transactions and relational exchange (Dwyer, Schurr & Oh 1987; Vesalainen & Kohtamäki 2015). The transaction cost theory conceptualizes supplier relations along a continuum with market and hierarchy on opposite ends and relational exchange in the middle (Webster 1992; Cannon & Perreault 1999).

The market approach refers to transactional procurement of products and services. Buyers rely on competitive market forces. Thus, outsourcing decisions are based on price and service level (Reinhart, Eckert, Handfield, Page & Atkin 2004). The amount of shared information and interaction between parties is minimal (Vesalainen & Kohtamäki 2015; Dyer & Singh 1998). There exists little dependency and trust, which decreases the switching cost for buyers. Thus, the buyer can easily switch to other suppliers if not satisfied. (Reinhart et al. 2004) The level of investments in governance mechanisms is minimal. In turn, investments are rather made in nonspecific assets (Dyer & Singh 1998). The relationship between buyer and supplier is based on single or multiple transaction situations (Webster 1992).

Ownership governed systems represent the other end of the continuum. These hierarchical forms of equity arrangements are governed by the policies of one party, which has significant control over the design and performance of the relationship (Reinhart et al. 2004). Large investments, high switching costs, high strategic emphasis and a long-term perspective characterize equity-based relationships (Gundlach & Murphy 1993; Reinhart et al. 2004). Operations of one party are vertically integrated in the operations of the other (Reinhart et al. 2004). Thus, transactions are rather merged together, and goals converged (Gundlach & Murphy 1993). Relationship specific investments are typical of ownership governed situations.

Relational supplier relationships fall in the middle of the continuum. Relationally governed systems emerged through contracts that meant to simulate hierarchy (Cannon & Perreault 1999). Relational relationships arise from mutually agreed governance structures (Reinhart

et al. 2004). Trust appears to be a guiding factor in areas not addressed in the formal contract (Gundlach & Murphy 1993; Nyaga, Whipple & Lynch 2010). Collaboration, partnership, alliances and more recently hybrid models are relational relationship types (Rinehart et al. 2004). This broad range of different relationships are characterized by increasing complexity and switching costs (Gundlach & Murphy 1993). Both parties invest in relation-specific assets and share knowledge with each other (Dyer & Singh 1998).

The traditional make or buy decision naturally leads to a transaction-based model (Vitasek 2016b). In situations where organizations have decided to buy, it has been assumed to access resources with the use competitive market forces. Firms seek to develop closer relationships with their suppliers in order to achieve lower costs, improved value delivery and advanced technology (Reinhart et al. 2004). This is often pursued through incentives and shared risks and rewards. (Vitasek 2016b) Supplier relations on a partnership level have been experienced as more successful than mere supplier relations (Nelson & Nelson 2004). Many professionals mistakenly assume that the transaction-based sourcing model is the only way to ensure a profitable supplier relationship (Vitasek 2016b).

Research shows that the transaction-based approach does not always give both parties the wanted results (Vitasek 2016a). The traditional transaction-based model does not necessarily fit into complex and risky situations where innovation and advanced technology is seen as a vital part of business. The resource and capability perspective to the make or buy decision believes that outsourcing develops relational and internal capabilities that will create a sustained competitive advantage (Rodríguez-Díaz & Espino-Rodríguez 2006). Blomqvist, Kyläheiko and Virolainen (2002) follow a viewpoint combining the transaction cost approach with the knowledge-based perspective. According to this integrationist view, already strongly emphasized by Foss (1999), both approaches should be seen as complements instead of substitutes.

2.1.1 Relationship continuum

Oliver Williamson, professor of economics at the University of California Berkeley, challenged the traditional view of a make or buy decision. According to his Nobel prize winning research "Transaction cost economics" sourcing should be seen as a continuum (Williamson 2008). Williamson's (2008) research proves that using the transaction-based approach in a complex situation increases transaction costs. The continuum maps market forces as clear outsourcing on one side and corporate hierarchies on the other to represent

insourcing (Vitasek 2016b). Sourcing that fall in the middle of the continuum are referred to as a hybrid approach. Williamson's continuum demonstrates the make or buy decision. The decision whether to out- or insource is a complex process which includes the determination of the right relationship type. It is mistaken to assume that the make or buy decision always results in either developing the needed capabilities in-house or using the market approach to access qualified sources (Vitasek 2016b).

Vesalainen and Kohtamäki (2015) studied buyer-supplier relationships from the perspective of relationship integration and relational configuration. They challenge the unidimensional continuum and consider relationship integration to consist of three connected dimensions, the economic, structural, and social. Dimensions of previous researches reflect on this broader theoretical perspective (Adler 2001; Kohtamäki 2010). The social aspect is seen as relational capital such as value delivery (Adler & Kwon 2002) and relationship performance (Kohtamäki, Partanen, & Möller 2013). The economic dimension is represented by relationship specific investments and the structural perspective establishes e.g. system and process integration (Vesalainen & Kohtamäki 2015). The level of interaction between these dimensions determines the relationship type.

Vesalainen and Kohtamäki (2015) argue prior academic literature to assume these elements to be independent. However, their study identifies same types of relationships as considered in existing literature to fall along a continuum (Rinehart et al. 2004; Dwyer et al. 1987). Specifically, their research confirms the extreme ends of the relationship continuum. This implies that despite of the perspective the extreme ends of buyer-supplier relationships are transactional relationships and partnerships. In addition, the results of their research show the importance of the context in which supplier relationships are build. The link between buyer-supplier configurations and level of performance is evident. Research proves that performance may increase with increased integration between buyer and supplier (Vesalainen & Kohtamäki 2015; Rodríguez-Díaz & Espino-Rodríguez 2006; Teece 2007; Zhang et al. 2010).

The distinguishing elements of buyer-supplier relationships give a better understanding of differences between supplier relations. Varying attributes have been used to define different types of buyer-supplier relationships (Prior 2012; Ferrer, Ricardo, Hyland & Bretherton 2010; Schleimer & Shulman 2011). Rinehart et al. (2004) underline trust, interaction frequency and commitment as distinguishing attributes. Their study establishes various types of relationships trough cluster centres. Relationships on the market end of the

continuum are named non-strategic transactions and alliances are placed at the opposite end of the continuum. These are relationships with the highest level of trust and interaction frequency where both parties have invested in the relationship to gain mutual benefits. Trust as an element of buyer-supplier relationships is strongly emphasized as key to successful cooperation (Blomqvist et al. 2002; Nelson & Nelson 2004; Dwyer et al. 1987; Ståhle & Laento 2000; Nyaga et al. 2010). Blomqvist et al. (2002) believe that trust acts as a mechanism providing a solution to failed partnership agreements.

2.1.2 Sourcing business models

In the current dynamic and volatile business environment there is a need for alternative sourcing models. Williamsons sourcing continuum has been used to categorize sourcing business models. These models differ in their risk level and reward possibilities. Altogether seven different sourcing business models have been identified and categorized according to Williamson’s inspired categories. These are mapped out in figure 2. Despite various names for alternative delivery methods and contract types, they all fall along the sourcing continuum (Vitasek 2016b). The key is to identify needs and select the right sourcing business model accordingly. A sourcing business model can be characterized as a system that is optimized for the purpose of the business. Therefore, the selection should always be made in the actual context of what is being supplied (Vitasek 2016b).

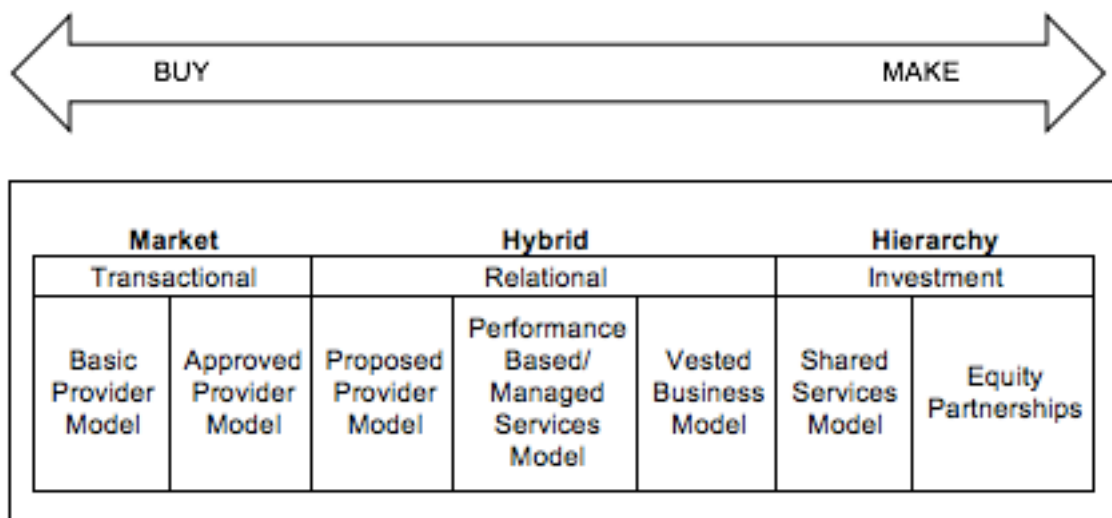


Figure 2. Sourcing business models (Vitasek 2016b; Vitasek 2016a)

Vitasek (2016b) argues those who embrace collaborative relationships to be successful in the future. The more sophisticated sourcing business models which are designed to create

value and help drive transformation and innovation with suppliers will serve as a competitive advantage. Even though transactional sourcing business models have been criticized they certainly are suitable for some environments and needs. However, generally hybrid models have been proved to best fit the current economic environment where complexity needs to be responded to with flexibility. The weakness of a transaction-based approach emerges when variability, high degree of uncertainty, mutual dependency and high asset specificity become a part of the transactions (Vitasek 2016b; Blomqvist et al. 2002).

Blomqvist et al. (2002) challenge traditional transaction cost economics by introducing a transaction benefits-based analysis on supplier relationships. They evaluate different economics of organization-based approaches and combine these to build a dynamized and extended governance cost minimizing model. Their study suggests that hybrid arrangements are favourable in certain conditions but may lead to disappointing outcomes due to transaction costs and opportunism. However, a hybrid model enables to combine the benefits of both economies of scale and scope. Blomqvist et al. (2002) include the dynamic transaction and management costs and benefits in their research. The objective is to find a governance structure which enables joint surplus. This requires building trust and consideration about different benefit-generating determinants.

According to Vitasek (2016b) determining the right sourcing business model is a question of two components: the most appropriate relationship and economic model. Determining the most appropriate relationship model includes mapping the overall level of dependency, risk and strategic impact of the supply. The economic model determines how the economics of the relationship are managed. Determining the best fitting sourcing model enables firms to benefit as much as possible from supplier relations. Firms should purposely create highly collaborative relationships when there is potential to create mutual advantage by collaborating with suppliers (Vitasek 2016b).

2.2 Value creation

The concept of value creation poses a wide range of perspectives and definitions. It has been discussed in numerous contexts due to its diverse nature. However, it is clear that value creation is closely linked to business models (Amit & Zott, 2010; Raju & Singh 2018) and collaborative relationships (Walter, Ritter & Gemünden 2001). A business model outlines how value is created and appropriated (Amit & Zott, 2001). This indicates the two

sides of value creation: value for the customer and value for the firm. According to Gupta and Lehman (2005) these cannot be separated in a business engagement. Customer value simply refers to the value created to customers (Woodruff 1997) and firm value as the value a firm appropriates from business (Sorescu et al. 2011). Bowman and Ambrosini (2010) make a valuable statement by proposing that value means different things to different stakeholders. In addition to value creation and value capture they make a distinction between use value and exchange value. Use value can be referred to as tangible and intangible resources which provide exchange value, a monetary amount exchanged by counterparts when use value is traded.

Peter Drucker (1954) introduced the concept of business value and value creation in the 1950's. According to him a firm's primary goal is to create value. Already Drucker (1954) understood the context specific nature of value creation and suggested that value is created to customers, employees and partners. Since then the concept of value creation has been discussed by numerous researchers and evolved over time. Michael Porter (1985) based value creation on value chain thinking. His traditional framework is based on the activity-based theory of the firm and has been criticized to be too narrow. In particular, Porters framework analyses value-adding activities without considering the links between the firms in the value chain (Kothandaraman & Wilson 2001). In today's economy the resource-based theory is the dominant theory behind value creation (Wernerfelt 1984). The most recent value net perspective to value creation views firms as a complex interdependent value network where success is dependent on collaboration and relationships of practitioners (Parolini 1999). In this context value creation can be defined as the process of combining the capabilities of counterparts.

The model of value creating networks provides a more flexible approach to value creation (Bovet & Martha 2000). A value net is the entity that brings together and combines the different capabilities and resources to produce the wanted output (Oksanen, Hallikas & Sissonen 2010). The ability to organize the value net in a way that creates superior value to end customers determines the level of efficiency and success. A value net is formed around customers for practitioners to be able to respond to changes in customer preferences and behaviour (Bovet & Martha 2000).

2.2.1 Value co-creation in supplier relations

The mediating role of partnership quality has been discovered to merge from a cooperative relationship based on trust, benefit and risk share, communication and commitment (Nelson & Nelson 2004). Rodríguez-Díaz and Espino-Rodríguez (2006) argue a close long-term cooperation, joint planning of sales strategy and operations and shared knowledge to be the optimum relationship elements for today's business environment. They stress integration as an enabler for optimization, development and innovation, continuous improvement and consolidation of market position. Value creation as a joint effort naturally requires sustained joint efforts (Möller & Törrönen 2003) which stresses the importance of continuous collaboration. Suppliers and buyers must act as an integrated unit so that it becomes difficult to distinguish where processes end and begin (Rodríguez-Díaz & Espino-Rodríguez 2006). The concept of value co-creation applied to relationships between buyer and supplier refers to jointly created value for each other and the buyer's customers (Sorescu et al. 2011; Vargo & Lusch 2004). The role of buyer-supplier collaboration in value creation lies on the value net approach (Kähkönen & Lintukangas 2012a).

Value is created through a process based on interconnected relationships by simultaneous value creating activities combining resources and capabilities (Stabell & Fjeldstad 1998; Amit & Zott 2001). It is a complex set of activities among multiple players (Zott et al. 2011). The counterparts produce something that they could have not achieved at all or as effectively independently (Hammervoll & Toften 2010). Hammervoll and Toften (2010) have researched value creation initiatives in buyer-supplier relationships and their findings suggest that appropriate value creation initiatives vary in different types of relationships. They make a distinction between value creation initiatives that are important in transaction-based and interaction-based relationships. Value creation in a transaction-based relationship equate to cost effectiveness. In turn, value creation in interaction-based relationships involves joint participation and is concerned with mutual learning. Interaction-based relationships entail effective communication and ongoing mutual adjustments to each other's circumstances. (Hammervoll & Toften 2010)

Hammervoll and Toften (2010) base value creation initiatives in transactions on the transaction cost theory by Williamson. The identified initiatives show flexibility, contribution and motivation towards the agreement. As a value creation initiative proposed by Dyer and Singh (1998), "logistical" information refers to information exchange such as supply information relevant to exchange partner's logistical operations. The exchange of delivery

schedules and production process can decrease transaction costs and thus creates value. Hammervoll and Toften (2010) examine previously identified value creation initiatives for interactions: development of problem-solving skills, sharing valuable proprietary knowledge, willingness to combine complementary strategic resources and relationship specific investments. Their research however establishes only discussing exchange partners' problem solving and knowledge sharing as value creation initiatives. Their findings suggest that the before mentioned initiatives are prerequisites for cooperation in interactions and commitment, rather than value-creating initiatives in their own right.

Close collaboration enables firms to harness supplier innovation and leverage the assets of suppliers (Vitasek 2016b). Rodríguez-Díaz and Espino-Rodríguez (2006) list innovative capacity to result of fruitful long-term collaboration. They see value co-creation as a possibility for both parties to develop their internal capabilities. Studies on value co-creation show that competitive advantage can be achieved through improved value management (Payne, Storbacka & Frow 2008). Value co-creation has been mainly addressed in the context of service-dominant logic (Vargo & Lusch 2004; Andreu et al. 2010). The concept challenges the traditional view of suppliers as value facilitators (Grönroos 2008). Successful co-creation requires learning and knowledge (Payne et al. 2008) and is achieved through complex interactions and dialogues between parties (Tynan, McKechnie & Chhuon 2010). In addition, it includes access to new know-how and resources (Andreu et al. 2010).

Suppliers indirectly co-create value to their counterparts' customers by conducting development actions that add value first directly to the buying firm and consequently to the final customer (Zhang & Chen 2008). They act as value creation participants by shaping their business and indirectly enhancing the customer experience by modifying their own supply chain in response to consumers' needs (Coughlan & Soberman 2005). Hamel (2000) recognizes the role of third-party resources in the value creation process and combines this view with new business models. According to him value creation should be approached from a network perspective. This applies that creating superior value and captivating customer experiences to consumers is dependent on suppliers' resources. The key is to know how to utilize suppliers' resources and capabilities (Kähkönen & Lintukangas 2012a). Value co-creation in cooperation with suppliers positively influences the buyers service capability (Zhang & Chen 2008). Thus, business partners and suppliers are increasingly integrated closely to buyers' core business processes (Galbreath 2002).

2.2.2 Relational capabilities as a competitive advantage

A relational analysis of outsourcing activities suggests that firms can expand their critical resources and integrate inter-business routines and processes (Dyer & Singh 1998). Creating value together with suppliers may disclose new sources of competitive advantage (Zhang & Chen 2008). The ultimate goal is to gain competitive advantage that is hard to imitate by competitors. Rodríguez-Díaz and Espino-Rodríguez (2006) define relational capabilities as the ability to combine relational resources. Relational capabilities are developed through a process in which firms decide to deepen their collaboration with the goal to improve their competitive position in the market (Webster 1992). Interaction results in a specific type of understanding between firms. This mutual understanding materializes in commitment and trust (Dwyer et al. 1987), which then leads to the development of shared culture and values (Rodríguez-Díaz and Espino-Rodríguez 2006). Firms start to develop integrated processes, exchange information and transfer knowledge. This kind of relationships that are built on common synergies create new capabilities (Handfield et al. 2013).

Dyer and Singh (1998) argue that the development of relational capabilities depends on the specific assets in the relationship, efficient governance of the relationship, shared knowledge and routines as well as complementary resources and capabilities. Rodríguez-Díaz and Espino-Rodríguez (2006) however, point out that those relational assets to materialize into something practical and tangible firms need to analyse their core competence, outsourcing activities and process integration. Thus, not all kinds of buyer-supplier relationships are favourable for the development of relational capabilities. To achieve a certain level of close collaboration is not enough but has to be sustained while developing dynamic capabilities (Teece, Pisano & Shuen 1997). Relational capabilities cannot be immediately rebuilt by switching to another supplier with similar characteristics (Rodríguez-Díaz & Espino-Rodríguez 2006; Blomqvist et al. 2002). These capabilities rise from close collaboration and need suitable conditions to be reconstructed, which increases the value of close buyer-supplier relationships.

2.3 Value creation potential of supply management

It has been widely acknowledged that supply management as a strategic business function contributes to the competitiveness and performance of a firm (Ellram & Carr 1994; Zheng et al. 2007; Shin et al. 2000; Carr & Pearson 1999). Traditionally supply management is

seen as the purchasing department, which corresponds to value creation mainly through savings achieved from good negotiations (van Weele 2005). Since then value creation logic has been extended to the context of a network (Stabell & Fjeldstad 1998; Parolini 1999; Bovet & Martha 2000; Oksanen et al. 2010). Firms do not operate on their own but create value in a network of suppliers, partners, distribution channels and coalitions (Hamel 2000). This perspective builds on the collaboration between buyers and suppliers and emphasizes the role of suppliers as a source of value (Möller & Törrönen 2003; Kähkönen & Lintukangas 2012b; Kähkönen & Lintukangas 2012a; Kähkönen & Lintukangas 2018). Supply management encompasses the responsibility to determine the value creation potential of existing and possible suppliers (Kähkönen & Lintukangas 2012a).

The most traditional and simplified value is reflected by the market price of the resource that can be transacted through competitive markets (Möller & Törrönen 2003). Today value lies not only in monetary savings, but also in nonmonetary intangible elements that satisfy demand (Kähkönen & Lintukangas 2018). Smals and Smits (2012) differentiate between direct and indirect value from which the first refers to the volume and profitability of orders within a relationship whereas the latter indicates obtained benefits outside the relationship. These are suppliers helping buyers in innovation and development. Möller and Törrönen (2003) have also studied different types of supplier value and classify a supplier's value potential into dimensions of efficiency, effectiveness and network. Their study is based on the network perspective of Ford and McDowell (1999), who divide value creation into four different levels. The influence of functions and actions carried out in a relationship should be analysed on these levels. The first level refers to direct effects in a relationship, activities that create transaction value. The second level concerns decisions that have long-term effects and change the state of a relationship. The third refers to the effects on the relationship portfolio. The last and fourth level encompasses the effects on a wider network.

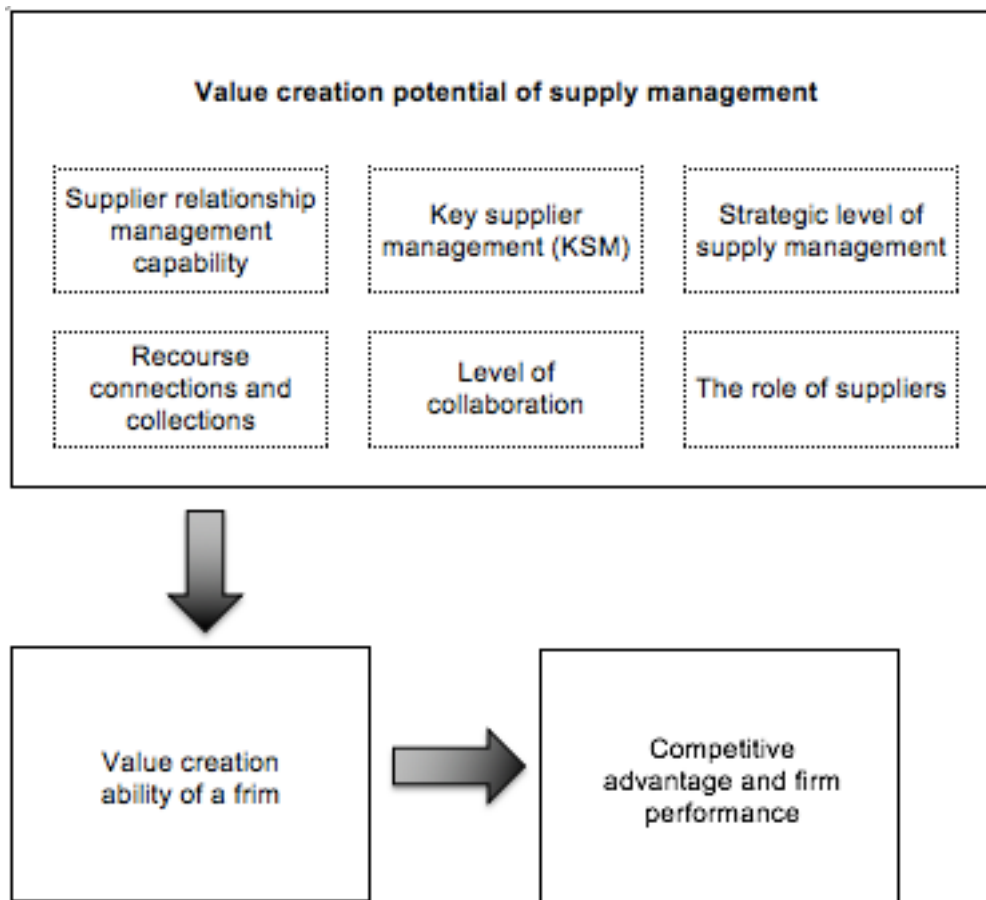


Figure 3. Value generating dimensions of supply management (Kähkönen & Lintukangas 2018; Kähkönen & Lintukangas 2012a)

Figure 3. shows the dimensions and actions of supply management that have a significant impact on the value creation potential of supply management (Kähkönen and Lintukangas 2018) and connects supply management with value creation and competitive advantage (Kähkönen & Lintukangas 2012a). The research of Kähkönen and Lintukangas (2018) illustrates the importance of strategic supply management, supplier relationship management capabilities and the development of collaborative key supplier relationships. The ability to manage supplier relationships helps firms to control and access economic consequences of collaborative actions. This helps firms to execute their supply strategy.

Firms have to understand the supplier network and build their supplier relationship management on knowledge-based capabilities. The value creation potential of supplier relationship management indicates a firms' capability to utilize its suppliers resources and know-how (Kähkönen & Lintukangas 2018). According to Blomqvist et al. (2002) firms have to figure out how to combine internal with external resources and capabilities in the most

efficient way. This view is supported by the resource dependency theory, which concerns the management of external resources. It offers support for relationship management, which is to an increasing extent seen as a dynamic capability (Forkmann et al. 2016).

Shin et al. (2000) argue the level of supply management to improve both buyer's and supplier's performance. According to their research firm performance is increased especially when the buyer emphasizes quality and delivery as its competitive priorities. Carr and Pearson (1999) argue strategically managed long-term relationships with key suppliers to impact firm's financial performance. Kähkönen and Lintukangas (2012a) present the level of collaboration between parties as the foundation of supply management's value creation potential. Also, Hammervoll and Toften (2010) as well as Möller and Törrönen (2003) see collaboration as a prerequisite for value creation in relationships. In addition, they suggest that both parties have to be willing to combine complementary strategic resources and invest in relationship-specific resources. Firms who manage to build collaborative supplier relationships and see supply management as a strategic function have the potential to co-create value with their suppliers. The significance of supply management and its value generating dimensions indicates suppliers clearly having a role in value creation (Zhang & Chen 2008; Kähkönen & Lintukangas 2018; Dyer & Singh 1998; Hammervoll & Toften 2010). Collaborating with suppliers may lead to new sources of competitive advantage (Zhang & Chen 2008).

3. OMNI-CHANNEL RETAIL

Research and practice indicate that operating in multiple channels can lead to improved financial performance (Zhang et al. 2010; Oh, Teo & Sambamurthy 2012; Xia & Zhang 2010). The benefits of multi-channel retail were at first questionable because of limited Internet access of consumers. Also, e-commerce was first seen as a temporary and yet unknown area, which companies wanted to keep as a separate division (Hobkirk 2016). At that time there was no empirical proof of the long-term value of e-commerce operations. Nowadays the benefits of online sales are widely recognized (Wu, Mahajan & Balasubramanian 2003) and retail is characterized by increased complexity and customer focus (Woodruff 1997; Ishfaq et al. 2016; Saghiri et al. 2017; Abdulkader, Gajpal & ElMekkawy 2018). Online channels have proven to provide significant improvements in sales, cost efficiency, customer satisfaction, inventory and return on investment (Xia & Zhang 2010; Wu et al. 2003). Operating through an online channel is not just selling products but additionally providing related services (Ishfaq et al. 2016).

Today a predominant objective in retail is the shift from multi-channel to omni-channel retailing (Verhoef et al. 2015; Beck & Rygl 2015; Piotrowicz & Cuthbertson 2014). This denotes growth in the number of channels and blurry borders between them (Verhoef et al. 2015). Also, boundaries between physical and online channels start to disappear (Hübner, Holzapfel & Kuhn 2016). From the customer point of view channels of a multi-channel retailer do not overlap. In turn omni-channel retailers offer consumers the possibility to interact across channels. Consumers can buy products online but pick them up from a store, i.e. processes are designed and integrated across channels. The objective of omni-channel management is to maximize total sales over channels and deliver an overall satisfying retail customer experience for consumers (Verhoef et al. 2015; Yrjölä 2014). The concept of omni-channel has become the new trend and superior value creation a central success factor in retail (Saghiri et al. 2017; Yrjölä 2014; Teece 2010).

Generally, literature describes retailers operating through multiple channels as multi-, cross and omni-channel. The terms are used synonymously and academics often refer simultaneously to all three concepts. Beck and Rygl (2015) state that retailers can only be described as omni-channel if their channels are fully integrated. This suggests the concepts differ in the degree of process, data and channel integration. According to Yrjölä (2014) and Hübner et al. (2016) the concept of omni-channel retail is better approached from the customer perspective. A retailer can be referred to as omni-channel if channels are

integrated from the customers point of view. Table 1 summarizes definitions of omni-channel retail from different researchers.

Table 1. Definitions of omni-channel retail

Author	Definition
Verhoef, Kannan & Inman 2015:	"Omni-channel retailing is the synergetic management of the numerous available channels and customer touchpoints, in such a way that the customer experience across channels and the performance over channels is optimized."
Beck & Rygl 2015:	"Omni-channel retailing is the set of activities involved in selling merchandise or services through all widespread channels, whereby the customer can trigger full channel interaction and/or the retailer controls full channel integration."
Ailawadi & Farris 2017:	"The concept of omni-channel accepts the inevitability of needing to employ multiple channels and is focused on integrating activities within and across channels to correspond to how consumers shop. Another aspect is that it often encompasses not just the channels of distribution through which a supplier's products reach the consumer but also the channels of communication through which a marketer interacts with the consumer."
Saghiri, Wilding, Mena & Bourlakis 2017:	"Omni-channel retailing is an emerging trend in retail that aims to coordinate processes and technologies across supply and sales channels. Integration and visibility are the main enablers of omni-channel retail."
von Briel 2018:	"Omnichannel retail refers to the integration of retail channels like stores, online, and mobile into a single, seamless customer experience."

E-commerce provides firms with the opportunity to re-configure their organizational structure (Hansen et al. 2015). Competition increasingly takes place between business models (Chesbrough 2010), which pressures firms to re-examine their organizational structures. The evolution of retail business models reflects this change. Omni-channel retail is a respond to changes in the business environment and therefore connects the need to deliver superior value with technology. Moving towards omni-channel retail creates challenges alongside the opportunities it offers. Particularly the implementation of an omni-

channel framework causes difficulties for retailers, since it is not only about adding online channels but understanding the deep organizational change (Hansen et al. 2015). (Saghiri et al. 2017) Multiple channels are usually detached instead of forming an integrated system. This has explained to be the outcome of retailers responding to emerging information technology and the rapid shift towards e-commerce (Saghiri et al. 2017).

Omni-channel retailing aims at keeping the supply chain coherent by coordinating processes and technologies across all channels. The management and integration of channels is the key to the underlined seamless, coherent and reliable service provided for consumers (Verhoef et al. 2015). Online sales are only a fraction of a retailer's total sales, which implicates that retailers benefit also otherwise from online channels than only through increased sales. Retailers who adopt and maintain online channels may be able to utilise its power to improve operations of their existing supply chains. Thus, the integration of processes across channels creates the opportunity for operational improvement. (Xia & Zahng 2010) In this chapter the omni-channel retail business model and its characteristics as well as the integration challenges from the supply chain perspective are closer examined.

3.1 Retail business model

Although there is a wide range of definitions for the concept of business model in academic literature, it is agreed that business models consist of multiple elements: a firm's value proposition, it's sources of revenue, resources and the governance of stakeholders (Chesbrough & Rosenbloom 2002; Magretta 2002; Zott & Amit 2010; Johnson, Christensen & Kagermann 2008). Business models became a central concept through the emergence of the Internet (Chesbrough & Rosenbloom 2002). Technology enabled e-business is the result of companies reacting to the changing environment (Zott et al. 2011; Luo, Fan & Zhang 2016) and thus managerial choices and their consequences are captured in business models (Teece 2007). Business models discusses strategic factors such as value creation and competitive advantage (Zott et al. 2011). Also, the strategy of a firm is an essential part of a its business model (Ishfaq et al. 2016; Brynjolfsson et al. 2013) which explains how activities of a company work together to execute its strategy (Richardson 2008). This includes the description of how firms use different relationships for creating and delivering value (Zott & Amit 2007; Wagner, Eggert & Lindemann 2010). This indicates business models to include supplier relations and supplier relationship management.

Retailers can no longer be seen as “merchant intermediaries” (Sorescu et al. 2011; Raju & Singh 2018). This characterization once suitable for retail does not fit as a description anymore. Retailers buying from suppliers and selling to consumers is nowadays a simplified description of the industry. Retailers are rather best described as orchestrators of two-way platforms that serve ecosystems in which value is created and delivered to consumers as a common effort of the retailer and its business partners (Sorescu et al. 2011). The retail business model simply refers to the business model of a retailer, a firm that primarily sells products manufactured by others and directly interacts with the end customer (Sorescu et al. 2011). It is the design of the business’ operations to reach customers, create value by meeting customer expectations and to stay in competition (Raju & Singh 2018).

3.1.1 Business model elements

Business models play a key role in connecting interdependent activities and processes in a network of practitioners. The internal organizational system has to be placed in the external network of partners, suppliers and customers. (Sorescu et al. 2011) According to Sorescu et al. (2011) the retail business model consists of three interconnected elements: retailing format, activities, and governance. These elements define a retailer’s organizing logic for value creation. Retail business model activities include decisions about channels and their format, i.e. decisions on store location, level of service, price level and promotions define the retailing format. Naturally, the format sets boundaries for retailing activities. Sorescu et al. (2011) describe these activities as the processes needed to create customer value within the defined format. These include among others purchasing, logistics, data mining and selling. In turn, the retailing governance refers to the role and motivation of the value creation participants, e. g. value can be created by shaping the retailer’s assortment and enhancing service quality (Sorescu et al. 2011). As value creation participants suppliers can modify their own supply chain in response to end customers’ needs.

Similarly, Amit and Zott (2001) divide business models into structure, content and governance. They refer to structure as the participating actors, their links and interaction. The content stands for products and services exchanged and governance is used to describe the flows of information, products and other resources controlled by the relevant parties. Chesbrough (2010) introduces a list of business model elements as well including value proposition, value chain structure and assets, cost structure and profit potential, firm position within the value network and competitive strategy. He reminds that the same business idea or technology executed through two different business models will yield two

different economic outcomes. This means that a business model is not just a sum of its elements, but the “fit” of these multi-layered interdependent elements (Sorescu et al. 2011). According to Sorescu et al. (2011) a business model is likely to be successful in achieving its purpose if these interdependencies reflect a high level of complementarity. The premises behind the statement is that combining complementary factors exceeds the value that would be generated by applying these factors independently (Milgrom & Roberts 1994; Edgar & Richter 2010).

3.1.2 Business model innovation and adaptability

Hamel (2000) stresses the importance of re-evaluating business models in today’s “age of revolution”. Some rules of bricks-and-mortar business do no longer apply to the new business models in retail (Hübner et al. 2016). Forerunners are exploiting new opportunities of channel synergies to create individual and unique value propositions for consumers (Yrjölä 2014). This forces also competition to reconfigure their conventional business model. The capability to innovate and build a sustainable competitive advantage in a marketplace characterized by change, escalating customer expectations and intense competition, is increasingly critical for retailers (Sorescu et al. 2011; Raju & Singh 2018; Brynjolfsson et al. 2013). The key to achieve competitive advantage is to develop technology as well as organizational and managerial resources to meet changes in demand and competition (Teece et al. 1997). This should be done in a manner that optimizes value created and appropriated in the given circumstances (Sorescu et al. 2011).

Retailing activities should be arranged in a retailing specific optimized supply chain (Basuroy, Mantrala & Walters 2001). As the business environment changes firms should examine the linkages of formats and activities and make appropriate updates to all elements and their connections (Sorescu et al. 2011). Zott et al. (2011) argue the re-design of business models to include ways of interaction with suppliers and customers. Also, Sorescu et al. (2011) describe retail business innovation to not only involve changes in retailer’s business but requires suppliers to alter their operations to accommodate the retailers new supply chain processes and activities. Thus, retailers should include the abilities, recourses and incentives of their suppliers in their decisions to transform and re-configure their business (Barua, Konana, Whinston & Yin 2004). Retail business model innovation comprises system wide changes. Although the change may originate only in one element, it consequently triggers changes to other functions of the business model. (Sorescu et al. 2011) Retailers who have the ability to renew their retailing activities and supplier

relationships are likely to succeed (Raju & Singh 2018), since the interdependencies among the business model elements are critical drivers of value creation (Sorescu et al. 2011).

3.1.3 Value creation in the omni-channel retail business model

Successful retail business models focus in addition to what is sold, on how it is sold (Sorescu et al. 2011). Adopting an omni-channel business model is a complex process and thus requires critical rethinking of the basic building blocks of value creation (Yrjölä 2014). The purpose of retail business model innovation is to create greater value to customers and appropriate value from the markets for firms themselves and their partners (Sorescu et al. 2011). Greater value can be appropriated through improved inventory management, increase in customers switching costs, changes in governance structures that reduce opportunity costs and lower leverage that various stakeholders exercise on retailers (Sorescu et al. 2011). Johnson et al. (2008) describe customer value creation as a sum of three elements: profit formula, key resources and key processes. The profit formula represents how value is simultaneously created to the customer and the firm itself. Key resources, such as technology and people, refer to the assets a firm needs to create and deliver value. Key processes are those managerial and operational processes that enable value creation. These include among other sales, manufacturing and development.

In retail the mix of various channels balances customer and firm value. Multi-channel customers i.e. customers utilizing both high- and low-cost channels enable balanced value creation in omni-channel retail (Yrjölä 2014). The structure of value creation becomes more complex the more channels are added. According to Gummerus and Pihlström (2011) retailers have been overemphasizing offline channels and overlooking opportunities of online. The opportunity to deliver customer value at the pre- and post-purchase stages were not fully recognized at first. Advances in technology have created mobility and thus opportunities for serving customers in new ways that go beyond the traditional exchange (Saarijärvi et al. 2014). Value supporting activities have emerged and shifted retail business models towards more service oriented. Gummerus and Pihlström (2011) propose that it is depended on customers themselves, whether or not value can be created through online channels. Customers own resources, skills and preferences are the determinants of the customer experience (Gummerus & Pihlström 2011).

Retailers appear to be aware of the recent trends, customers demanding increased quality and unique services. Trends have pushed retailers to emphasize customer experience and

the customer interface in their business models. Thus, the emphasis has moved from focusing on transactions to enhancing the customer experience. (Sorescu et al. 2011) Customer value proposition is collectively enhanced by multiple channels (Saghiri et al. 2017; Yrjölä 2014). In the context of omni-channel retail customer value is created and delivered through the coordination of activities across channels in a way that allows value creation from cross channel synergies. Saghiri et al. (2017) divide omni-channel systems into three dimensions: channel stages, channel types and channel agents. The channel stages are aligned with the customer value-adding journey, which is referred to as the customers buying process. Each stage (e.g. delivery and return) has various channel types (e.g. offline and online) available, which are managed by various channel agents. Moreover, channel types and agents differ in various stages (Saghiri et al. 2017), which implicates the multi-dimension view to omni-channel systems.

The challenge is to take advantage of the best features of various channels (Yrjölä 2014). Retailers goal is to create the same “look and feel” across channels, which is perceived as a value adding feature for customers in retail. Yrjölä (2014) stresses the importance of integration of activities performed. According to him integrated activities allow flexible customer journeys. Thus, an integrated retail business model enables customers to have a seamless shopping experience where products, information and money moves across channels. Also, Saghiri et al. (2017) recognize the flexibility gained through integration and describe omni-channel systems as complex and adaptive systems that include constant and dynamic interactions and information exchange among agents internally and the surrounding environment.

Sources of customer value are heavily depended on the context. Andreu et al. (2010) study illustrates a value creation framework in a traditional retail sector with the aim to identify key elements and processes that co-create value. They take a service-dominant perspective to their study and apply the knowledge to firms that merchandise tangible goods but need to compete also in terms of service. Their findings suggest that advantages of co-creation are achieved through supplier-customer interactions that allow access to knowledge and resources. This implies suppliers to act as value co-creators in collaboration with retailers. ASorescu et al. (2011) research on innovation in retail business models stresses the role of suppliers as value creation participants too. Buyer-supplier collaboration in research and development initiatives illustrates how buyers can utilize suppliers as resources to produce value (Möller & Törrönen 2003). In the retailing context value creation to consumers is connected to the shopping experience as well as the product itself (Sorescu et al. 2011).

Yrjölä (2014) argues that customer value is created when the retailer and the customer utilize and combine different tangible and intangible resources during the shopping experience. This implicates customers to act as value co-creators too.

3.2 Barriers to omni-channel success

Although retailers view omni-channel capabilities as a viable factor to increase market share and gain competitive advantage, they still fail to fulfill a seamless customer experience in a profitable way (Ishfaq et al. 2016). It is vital to understand the challenges of integrating online channels (Xia & Zhang 2010). Academic literature considers integration across channels, channel evaluation, organizational structure, consumer behaviour, data integration, supplier relations and technology utilization as the most challenging and common barriers in omni-channel retail (Zhang et al. 2010; Neslin, Grewal, Leghorn, Shankar, Teerling, Thomas & Verhoef 2006; Schoenbachler & Gordon 2002; Swaminathan & Tayur 2003). The findings of Hübner et al. (2016) suggest that developing and optimizing modes of delivery, increasing delivery speed, inventory transparency, optimizing cross-channel processes as well as inventory integration and allocation are the most relevant factors in achieving omni-channel excellence. These critical issues rise from the goal to serve customers at an acceptable level.

Organizational structures are perceived as one of the greatest challenges in omni-channel business models (Zhang et al. 2010; Yrjölä 2014; Hansen et al. 2015). Zhang et al. (2010) argue that challenges of internal conflict and organizational structure can be solved with the right degree of integration. However, supply chain investments occur to be a key issue in the integration process (Piotrowicz & Cuthbertson 2014; Yrjölä 2014; Hübner et al. 2016; Zhang et al. 2010). A comprehensive integration across channels can require a complete redesign of the supply chain (Oh et al. 2012). The supply chain design should reflect the business model (Neslin et al. 2006) and investments in the integration process may turn to be very costly and undertake a lot of effort of retailers and their suppliers (Chen et al. 2018). In turn, at its best the integration of physical distribution and information flows allows firms to reduce costs and increase efficiency in creating value for the end customer (Rodríguez-Díaz & Espino-Rodríguez 2006). Retailers need to develop an omni-channel strategy that effectively manages both online and offline channel operations (Hobkirk 2016).

Commonly retailers have their own functions for various channels. Although a decentralized model enables retailers to respond rapidly to channel-specific changes and thus enables better focus and flexibility within channels (Yrjölä 2014; Lummus & Vokurka 2002), research advocates channel integration and suggests retailers to integrate functions across channels. Decentralized channel management can lead to inefficiency and conflicts between channels (Zhang et al. 2010) whereas process integration leads to reduced costs and increased efficiency since it aims to simplify and eliminate overlapping activities such as separate logistic and inventory functions (Rodríguez-Díaz & Espino-Rodríguez 2006). Yrjölä (2014) examines channel integration from the perspective of value creation. His research shows that retailing activities have to be coordinated across channels and formats in order to create superior value for consumers. Also, Shen et al. (2018) research highlights channel integration by studying omni-channel customer behaviour. Their research suggests that customers are likely to further explore omni-channel services if they perceive a convenient cross-channel experience. Rodríguez-Díaz and Espino-Rodríguez (2006) suggest that the objective of process integration, i.e. the improvement of effectiveness and avoidance of duplications (Davenport & Short 1990), is possible to achieve in close collaboration between firms.

Hübner et al. (2016) state a low level of cross-channel integration not to be surprising, since even the simplest form of cross-channel fulfillment leads to multiple challenges. To be able to better respond to the dynamic business environment, retailers strive to develop operational capabilities to facilitate distribution (Ishfaq et al. 2016). Xia and Zhang (2010) argue channel integration to facilitate among others order fulfillment, inventory management and customer service. Also, Swaminathan and Tayur (2003) identify supply chain management to benefit from channel integration in terms of profit, inventory reduction and customer service. Xia and Zhang (2010) recommend brick-and-mortar retailers to take advantage of the complementarity in distribution networks. By improving their overall supply chain capabilities firms have a better opportunity to readjust to new situations.

3.2.1 Distribution system and order fulfillment

Changes in consumer preferences and technology challenges retailers to merge their structures to fit omni-channel commerce (Luo et al. 2016; Hansen et al. 2015). To be able to serve customers through multiple channels, retailers have to re-examine their distribution system (Hübner et al. 2016). Also, adding new sales channels means reconsideration of the order fulfillment process. Hübner et al. (2016) argue omni-channel distribution to be

context-specific, which makes elements of the business environment and business model key factors in achieving a seamless supply chain performance. Ishfaq et al. (2016) research findings reinforce this statement by revealing some supply chains to be better aligned with the needs of omni-channel fulfillment than others. This implies that the context, the existing physical distribution network and internal processes of a retailer, determine what is still needed to execute their omni-channel strategy. Thus, firms may go different paths to achieve a steady-state omni-channel distribution system.

Omni-channel orders are a complex and challenging task to fulfill (Ishfaq et al. 2016). Supply chain management has a critical role in omni-channel retail cost efficiency (EY 2015). Delivery profitability is under pressure through increased complexity, which increases costs of the delivery process. Omni-channel retailers rely on flexible execution strategies (Hobkirk 2016). The main objective is to maintain a profitable workflow despite interruptions. Processes have to be flexible enough to respond to variation in orders. Therefore, also mutual processes with other parties of the supply chain have to be oriented accordingly. Figure 4 demonstrates the fulfillment options in the omni-channel retail setting. Planning the distribution network depends on the economies of inventory, delivery costs and risk management (Ishfaq et al. 2016).

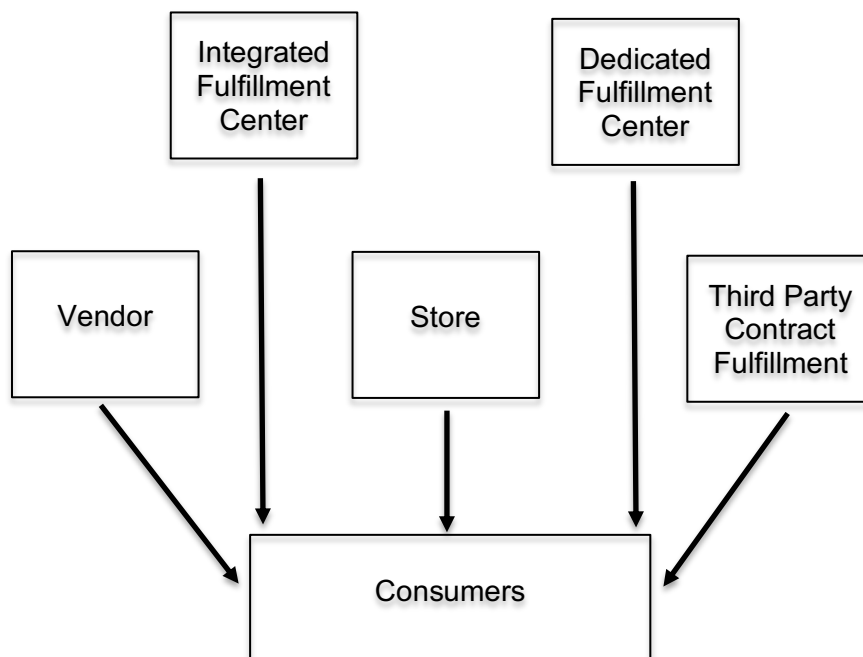


Figure 4. Omni-channel order fulfillment options (Ishfaq et al. 2016)

Efforts to optimize delivery in omni-channel retail has shifted the traditional role of stores within the supply chain. The coordination of product availability and additional services is a challenge for retailers. They have to simultaneously anticipate demand of products with varying lead times sold in multiple channels and keep costs down (Hübner et al. 2016). Ishfaq et al. (2016) remind that leveraging store infrastructure can help serving customers and optimize internal processes. Adjusting store replenishment and business rules related to product assortment and inventory allocation are examples of efforts to optimize the supply chain (Ishfaq et al. 2016). Retailing specific supply chain optimization strives to increase focus on customer experience creation and management (Sorescu et al. 2011). The optimization of the supply chain helps retailers to better manage processes across channels, which then in turn creates a seamless customer experience for consumers.

Ishfaq et al. (2016) see the strategic control of product, service and firm-related offerings serve as the key to successful omni-channel fulfillment. They argue the level of online sales, size of distribution network, number of sales and years engaged in the online channel to have strong associations with the type of order fulfillment method a retailer has established. With this they refer to the content analysis of Steinfield, Adelaar and Liu (2005), which suggests factors such as physical product dimensions, product type, product popularity and firm structure to have an impact on online retail success. Randall, Netessine and Rudi (2006) list product variety, demand uncertainty, product attributes and cost of capital as factors of having associations with the type of order fulfillment method. Despite the omni-channel strategy and the existing distribution process, retailers in general struggle with the realignment of their order fulfillment and distribution.

Operational difficulties of channel integration are one of the reasons some retailers decide not to become omni-channel operators (Zhang et al. 2010). Moving towards omni-channel retail creates supply chain challenges such as product availability, returns, delivery options and inventory management. These should be addressed in order to properly manage omni-channel supply chain. (Neslin et al. 2006) To respond to competition, retailers need to work on developing their supply chain capabilities.

Delivery options

Multiple channels mean increased complexity from the logistics point of view (Handfield et al. 2013). In addition, numerous delivery options make it challenging to manage the distribution network. These delivery options vary in terms of speed, destination and time

window. The delivery service offering is often a decisive element in winning online customer orders. (Ishfaq et al. 2016) Ishfaq et al. (2016) qualitative study show that omni-channel retailers are pursuing delivery capabilities. Their goal is to deliver online orders by using an appropriate delivery process that is viable operationally and financially. To achieve this, retailers need to integrate product flows from distribution centers to stores and online order deliveries (Ishfaq et al. 2016). Developing capabilities to effectively provide customers with specified delivery services has become a matter of competitive advantage for omni-channel retailers (Ishfaq et al. 2016).

Customers are demanding for specialized logistic services. This combined with the possibility to buy products from different channels creates a new set of challenges for retailers used to serve a homogenous customer base with standard services (Handfield et al. 2013). Retailers have to determine how they organize their distribution network to fit customer expectations. Customized solutions require more complex internal processes. Ishfaq et al. (2016) discover that especially managing the so called “last mile” deliveries, the flow of online orders to customers’ homes, is difficult to manage in terms of optimization. Store-based retailers have organized their distribution around restock arrangements, i.e. retail distribution centers are designed to support store channels (Zhang et al. 2010). The delivery of individual online orders requires different kinds of processes for picking, packaging and delivery. Omni-channel logistics systems are imperative to seamless delivery service. In cases where a customer chooses next-day delivery the importance of shared information and an efficient order fulfillment process is highlighted (Lim & Srai 2018).

Hübner et al. (2016) demonstrate six different forward distribution scenarios for various omni-channel orders (Figure 5). The portfolio of delivery options is dependent on capabilities and resources of retailers and their suppliers. Home deliveries represent the classic form of distance retailing. The type depends on the source of the forward distribution process (Hübner et al. 2016). Retailers may leverage their suppliers by implementing drop-shipment strategies (Swaminathan & Tayur 2003; Hübner et al. 2016). Drop shipping orders from suppliers directly to customers adds flexibility to retailers’ inventory management. The transportation speed for home deliveries is affected by the physical separation between customer-specified destination and the location of inventory. Retailers can alternatively fulfill online orders from store inventory and offer customers the possibility of picking up the order from their local store.

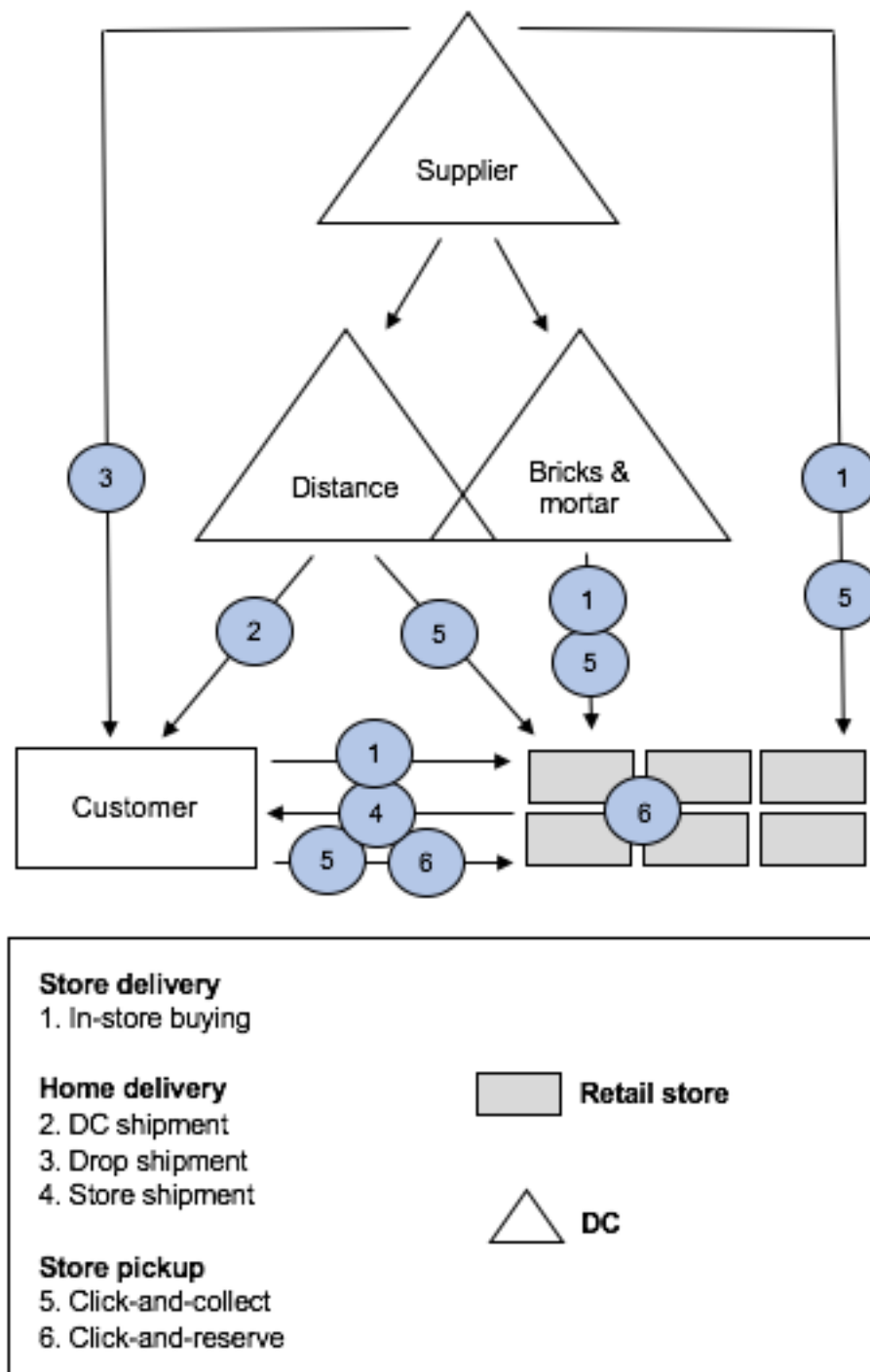


Figure 5. Forward order fulfillment options (Hübner et al. 2016)

Hübner et al. (2016) describe retailers forward distribution portfolio as the trade-off between service for customers, required delivery velocity, processing costs as well as process complexity. The integration of distribution implies to the connection of physical flows and operational structures across channels. Fulfilling distribution requirements of an omni-channel system rises planning problems of the connection of new delivery modes into the

existing delivery system, without compromising delivery speed. (Hübner et al. 2016) Various physical distribution options used by omni-channel retailers include integrated fulfillment, dedicated fulfillment and contract fulfillment of online orders (Lummus & Vokurka 2002). This implies that retailers outsource or establish an independent fulfillment process for channels if they are not able to integrate various fulfillment processes into their existing distribution network.

Today online customers can often avoid delivery charges by picking the order up from their closest store. In general customers are expecting free shipping for most of their online shopping. Free delivery has become the benchmark (Ishfaq et al. 2016). To control free shipments retailers have used a minimum amount for the value of orders, which customers have to exceed to avoid delivery fees. Store pickup types are fundamental for omni-channel distribution since they lead to a convergence of channels (Hübner et al. 2016). If retailers have an integrated distribution system, click-and-collect orders can be managed as a part of the regular store delivery process. Click-and-reserve store pickups can be implemented profitably if retailers are able to access to in-store inventories and in-store picking capabilities. (Hübner et al. 2016)

The reverse flow of products is as important as the forward distribution process and may occur to be another important issue in omni-channel retail (Xia & Zhang 2010). Retailers need to manage their return process to ensure that products are reintegrated into the forward distribution system. (Hübner et al. 2016) Bernon, Upperton, Bastl and Cullen (2013) explore practices that enable supply chain integration in retail product return processes. They argue IT-connectivity to play a key role in the return process integration. The return rate of online channels is usually much higher than the rate of traditional stores. IT systems allow the effective transfer of structured information about product returns to be handled. Thus, the incompatibility of IT systems forms a barrier for integration. Bernon et al. (2013) findings show that supply chain integration may have significant implications on costs and operational improvement in the return process.

Demand forecasting

Product availability has an enormous impact on customer satisfaction (Corsten & Gruen 2003). Even though customer behaviour has been studied mostly in marketing literature, are those studies relevant also from the supply chain perspective. Customer behaviour indicates changes in demand and therefore has an impact also on other activities than

marketing. Different sales channels create separate demand streams. The demand of various channels can differ in terms of order size, delivery requirements and customer expectations. (Ishfaq et al. 2016) Thus, sales forecasting accuracy may not be the same in different channels (Zhang et al. 2010). This has to be considered when forecasting future demand for production planning and deliveries (Rodríguez-Díaz & Espino-Rodríguez 2006). Forecasting accuracy needs to consider changes in customer behaviour. Chen et al. (2018) see the importance of integrating supply chain management with other functions (e.g. marketing) to gain better predictions of consumer behaviour and demand. Xia and Zhang (2010) consider online and offline channels complementary. Online shoppers provide valuable information about their shopping behaviour. Thus, the demand from the online channel may help to estimate the overall market demand. This can assist retailers in planning and managing inventory and replenishment.

Inventory management

Integration across channels is closely connected to inventory success. Inventory visibility across channels is a key success factor in omni-channel order fulfillment (Hübner et al. 2016) and in turn poor inventory visibility can form an enormous barrier to effective integration of online and offline channel operations (Xia & Zhang 2010). Especially during peak holiday seasons, it becomes necessary to combine inventory data. Omni-channel retailers' objective is to offer a seamless shopping experience for their customers (Ishfaq et al. 2016). To fulfill this promise, retailers need to share inventory data across all channels. Hobkirk (2016) refers to "intelligent sharing" when firms have processes and business rules that allow channels access to inventory reserved for other channels. Consolidating offline and online inventories allows retailers to reduce overall inventory level and therefore lower inventory as well as logistics costs (Hübner et al. 2016). Eliminating unnecessary safety stock frees up working capital. Elimination of useless overcapacity is a result of successful data integration (Rodríguez-Díaz & Espino-Rodríguez 2006) and forecasting. Overcapacity of inventory is usually caused by errors and deviation in predictions.

When retailers' distribution processes are integrated across channels, they can use all possible fulfillment options by making operational decisions about the most profitable point (Ishfaq et al. 2016). Retailers need to configure where to stock inventory and its allocation to different demand streams (Ishfaq et al. 2016). Adjustments to inventory levels can then be made accordingly. Using shared inventory provides the retailer economies-of-scale. This possibility requires significant investments in the distribution system involving IT enabled

information exchange (Ishfaq et al. 2016; Luo et al. 2016). Distribution centers need to be able to handle variation between store replenishment and online order fulfillment. According to Ishfaq et al. (2016) omni-channel retailers use existing distribution processes or contract out their e-commerce fulfillment to a third-party until online sales reach a necessary level. They argue retailers to move towards an integrated fulfillment as their online business grows. Retailers who do not have enough sales volume use dedicated facilities with separate inventories for omni-channel fulfillment (Ishfaq et al. 2016). Maintaining separate pools of inventory and two separate distribution networks puts cost pressures on omni-channel retailers.

3.2.2 IT-enabled integration

In order to integrate processes and resources across channels data and operations need to be digitized. The use of information technologies enables the integration of physical and online channels (Piotrowicz & Cuthbertson 2014). Integrating data through information technology has proved to have a positive impact on firm performance (Oh et al. 2012). In addition, channel integration through IT enables retailers to effectively deliver products and fulfill customer demand (Oh et al. 2012). Luo et al. (2016) investigate IT applications as a factor affecting cross-channel capabilities and managerial actions. Their research reveals that investments in IT applications are positively related to cross-channel capabilities. According to their empirical research IT combined with cross-channel capabilities boosts managerial actions in the dynamic and competitive marketplace. Cross-channel capabilities require IT to streamline data and processes (Luo et al. 2016), which suggests technology to be a critical element to enable integration (Piotrowicz & Cuthbertson 2014). Hansen et al. (2015) emphasize the technology infrastructure to be an essential factor in the re-configuration of organizational practices. To support omni-channel business, retailers may need to enhance and make changes to their IT systems.

Using technology to streamline the supply chain helps to rapidly align product and service assortments with seasonal trends (Sorescu et al. 2011), effectively transfer structured information and manage distribution (Bernon et al. 2013). Nelson and Nelson (2004) emphasize the fluent flow of information across channels, processes and systems, which contribute to the customers comprehensive omni-channel shopping experience. Swaminathan and Tayur (2003) put emphasis on the exploitation of real-time decision technologies that enable e-fulfillment. Technology enables to base managerial decisions on more valid and current information. Supply chain processes have become increasingly

depended on data but the value of big data in supply chain management is still weakly understood, although undeniable (Brinch 2018). In addition to better decision-making practices also technological resources add retailers' flexibility (Luo et al. 2016; Barua et al. 2004). Similarly, Hübner et al. (2016) research reveals IT landscape to be a relevant factor for overall warehouse and store success. They emphasize real-time data access to in-store inventories. Providing customers with the most recent availability and delivery information is a significant factor for a seamless shopping experience and thus impacts sales and customer satisfaction (Corsten & Gruen 2003). However, providing this kind of information is often problematic for omni-channel retailers (Hübner et al. 2016).

Information exchange between retailers and suppliers can turn to be inefficient because of IT connectivity issues (Bernon et al. 2013). Bernon et al. (2013) demonstrate this issue in the context of product returns. Database collaboration between retailers and suppliers is an important component of integrated processes (Handfield et al. 2013). Especially real-time demand and distribution planning benefit from a sharing system where partners have access to the same information. Information sharing between business partners has proven to be a much stronger source of e-business value than the customer-facing website functionality (Zhu & Kraemer 2005). This implicates the strong contribution of supplier relations on retailers' performance. The unwillingness to share information prevents retailers and their suppliers to invest in information technology (Bernon et al. 2013). Also, IT investments are usually costly and risky (Luo et al. 2016). Bernon et al. (2013) conclude that if the nature of the relationship between a buyer and its suppliers is too immature, parties do not have the motivation to engage in an exchange of sensitive information. Data quality and partners' responsiveness are critical issues for the implementation of supply chain integration enabling practices (Bernon et al. 2013).

3.2.3 Supplier relationship management

In the past firms typically considered themselves as independent players. Today's economy forces firms to adopt a network centric view to business and collaborate with partners. One of the most important trends in the past decade has been firms building network capabilities in order to survive in this competitive environment. This increases the pressure of supply chain management. (Handfield et al. 2013) Handfield et al. (2013) study reveals that the most important reasons for firms to collaborate in the supply chain is to achieve improved coordination, increased trust, as well as to improve synergies and increase innovation. Retailers can empower their suppliers to be intelligent co-creators by providing retailing

activities with their know-how (Sorescu et al. 2011). It has been acknowledged that increased competition in retail has led to an increased demand for supply chain partners (Brynjolfsson et al. 2013). Retailers strive to gain competitive advantage through strategic partnerships and adaptability.

The challenge of managing supplier relationships rises from the competitive and dynamic business environment (Swaminathan & Tayur 2003). Changes in a retailer's business model, e.g. online channel adoption, can have significant impact on suppliers' activities (Wu et al. 2003). As retailers' step into the omni-channel industry their channel and strategy changes will impact their suppliers. The dynamics of omni-channel supply chain are affecting retailers' supplier relations (Ishfaq et al. 2016). Hübner et al. (2016) remind that suppliers have to be included in the coordination of omni-channel distribution. Also, product availability is strongly connected to suppliers. A supply chain driven continuously updated forecasting model modifies also how retailers interact with their suppliers (Sorescu et al. 2011). Thus, omni-channel retail challenges supplier relations and retailers' supplier relationship management. Hansen et al. (2015) case study also reveals the importance of partners in omni-channel strategy. Suppliers have to be embraced to avoid conflicts and inefficiency. Stakeholders must be aware of changes in retailer's business and align their practices accordingly. The challenge lies in the coordination and communication with business partners.

Supplier relationship management is an important managerial issue, which requires the implementation of organizational processes and routines aimed at reconfiguring the supply base. The supplier relationship management capability can be referred to as the ability to restructure and develop the supply base in order to continuously improve performance. (Forkmann et al. 2016). According to Sorescu et al. (2011) the most efficient format and activities may be achieved only through supplier relationship management. Thus, it can be argued that the ability to manage supplier relationships supports retailers to cope with the dynamic environment. Suppliers are required to commit to collaboration with retailers. Collaboration with supply chain partners is seen as challenging in terms of selecting the right suppliers with whom to develop closer partnerships (Handfield et al. 2013).

3.3 Supplier relations in omni-channel retail

Recent business environment changes have created a new economy characterized by complexity and competitiveness. In this new economy practitioners are expected to focus on the customer perspective and be flexible and ready to react to rapid changes. Customers push the industry towards omni-channel retail by demanding fast and quality service. Retailers need to adjust and improve their business operations in order to fulfill these prerequisites. As more and more consumers search for product information online, retailers that have the most comprehensive fulfillment capability will have better chances of succeeding in this growing market (Xia & Zhang 2010). Thus, retailers who have invested in seeking synergies between online and offline channels will gain the most benefits. The new competitive differentiator has become retailers ability to fulfill customers demand effectively through their choice of channel (Oh et al. 2012).

Moving towards omni-channel retail has shaped retailers conception of value creation and their supplier relations. Generally, buyer-supplier relationships have shifted from transactions to interactions (Hammervoll & Toften 2010). Retailers are responding to challenges of omni-channel retail by coordinating their tangible and intangible assets to drive competitive advantage (Ishfaq et al. 2016). This approach is supported by the resource-based view of the firm, which is grounded on the believe that firms configure their resources to create distinctive capabilities that are difficult to imitate and may thus create competitive advantage (Barney 1991; Grant 1991; Blomqvist et al. 2002). Supplier relationships serving as a significant competitive advantage in today's economy reflect the strategic role of supply and its role in firm's value creation (Rodríguez-Díaz & Espino-Rodríguez 2006). Thus, sourcing, suppliers and supplier relationship management play an essential role in meeting the challenges of omni-channel retail.

Teece et al. (1997) extend the resource-based theory and link firm performance with dynamic capabilities, which are defined as the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments. The dynamic perspective indicates the importance of continuous creation of resources, which enables retailers to adapt to changes in todays business environment (Xia & Zhang 2010). Creating competitive advantage through unique combinations of competencies includes cooperating with suppliers. The context specificity of supplier relations emphasizes a retailer's supplier relationship management capabilities. The ability to manage supplier relations indicates the ability to leverage the supplier and its resources in value creation for

their business and the end customers. Furthermore, managing relationships means being capable to adapt the supply base according to changes in the business environment (Forkmann et al. 2016).

The outcome of rethinking operational structures and inter-firm interaction leads to a new vision of firms outsourcing strategy, in which competitiveness is generally increased, long-term collaboration is strengthened, and mutual operating routines aim at generating relational capabilities. Consequently, the value offered to end customers is increased (Rodríguez-Díaz & Espino-Rodríguez 2006). In this context, sourcing is supported to develop a strategic perspective with the aim of obtaining a sustained competitive advantage that requires supplier relationships to be maintained through long-term collaboration (Vitasek 2016b; Keith et al. 2016). Thus, it can be argued that hybrid supplier relations, i.e. a relational model, is the best alternative for omni-channel retailers. The need for suppliers' contribution to the retailers' business processes creates a prerequisite of a relational sourcing model (Vitasek 2016b). Hybrid supplier relations are based on transactional relations but also have a strong emphasis on strategic sourcing (Vitasek 2016b; Vitasek 2016a).

The highly competitive omni-channel retail business environment requires a sourcing business model that at least entails the opportunity for the supplier to add differentiated value to the buyer's business to meet strategic objectives (Vitasek 2016b). Close long-term relationships create innovative supply chain solutions and shared risk and capacity between partners (Handfield et al. 2013), which enables retailers to take the step towards channel integration. The demand for superior value has led to the need to leverage suppliers more strategically. The nature of the new economy and omni-channel retail requires long-term supplier relations that drive innovation and improvements based on core competencies (Vitasek 2016b).

Since the competition is no longer only about the lowest cost, but about superior value and adaptability (Vitasek 2016a), simple transactional relationships do not fit the purpose anymore. Changes in the business environment have driven the formation of strategic partnerships (Blomqvist et al. 2002). Collaborative relationships with suppliers are defined by the capability to renew and adapt its competencies according to changes in the business environment (Blomqvist et al. 2002). Furthermore, integration of resources into bundles of competences enables retailers to create competitive advantage. These integrated sets of

resources are difficult to imitate and copy (Teece 2007; Zhang et al. 2010; Blomqvist et al. 2002).

Even though retail as an industry is traditionally perceived as a business based on transactional sourcing, hybrid models have emerged alongside. Relational contracting models — preferred provider, performance-based, and vested business models — are based on the view of suppliers as source of competitive advantage. A vested model drives firms to innovate collaboratively to find solutions mutually beneficial for both parties. Working in an integrated manner supports shared value thinking. A low level of spend category does not necessarily indicate products should be sourced through the market. Under right conditions suppliers can add significant value to the supply chain. (Keith et al. 2016) In today's retail industry supply chain adaptability requires transformation and investments as well as collaboration with suppliers.

4. RESEARCH METHODOLOGY AND DATA COLLECTION

The empirical part of this thesis is conducted as a qualitative research. The aim of the empirical research is to answer the research questions introduced in the introduction section and already addressed in the theory part of this thesis. The empirical data further describes omni-channel retail and supplier relations. Furthermore, the empirical research aims at verifying the previously introduced theory. Empirical findings and analysis serve as an illustration against which theory is analysed and reflected to.

Before moving forward to the analysis and empirical findings, the research methodology is comprehensively explained. The selection of the research method, data collection and analysis are addressed. This includes among other things the selection of case companies, detailed information about how the data was collected and how the analysis is done. Lastly, the validity and reliability of this research is briefly discussed.

4.1 Qualitative Multiple-case study

A qualitative research method was chosen for this study, since it is an appropriate path to provide new insights into retail supply chains. In general, qualitative research methods aim at finding connections among phenomena where context has a significant role (Roller & Lavrakas 2015). The research method was chosen based on the research questions and as the aim of this study is to understand explain how the context of omni-channel retail has affected supplier relations as a source of value creation, a qualitative method was a justifiable choice. Thus, this study can be characterized as explanatory and descriptive in nature. Finally, a qualitative research method was chosen to be able to familiarize with the research topic comprehensively. The collection of rich qualitative data enables deep understanding of the nature and complexity of the research phenomenon and its surrounding context (Kähkönen 2011; Halinen & Törnroos 2005).

This qualitative research is conducted as a case study. A case study approach is a well-suited qualitative research method for examining a phenomenon within a specific context (Yin 2009). A case study is a justifiable choice for answering research questions explanatory in their nature and for studying a phenomenon in a specific context which dynamics have to be understood (Halinen & Törnroos 2005). Furthermore, a multiple-case design was chosen to construct validity and reliability of this study (Baxter & Jack 2008). Also, multiple

cases allow comparison, which may reveal new insights and create a stronger base for theory building. Multiple-case studies have greater possibilities for empirical generalization than single case studies if two or more cases support the same theory (Yin 2009). Suggestions and analysis are grounded on multiple empirical evidence. Multiple cases allow to explore research questions comprehensively. Since a single group of people or a specific company is not in the focus of this study, a multiple case study is justifiable (Yin 2009).

Case companies were selected based on several criteria. Selected companies obviously had to operate in the retail industry. In addition, retailers had to operate omni-channel from the customer point of view. The selection was executed through observation of retailers' websites by putting emphasis on their offered delivery options. The third criteria narrowed the pool of retailers only into companies offering mainly non-food products. This criterion was set to eliminate obvious factors affecting supply chain operations, such as product and service characteristics. The comparison between the supply chains of a pure service retailer with a company retailing products as their core business, illustrates the significance of this limitation. As omni-channel supply chain challenges are a fundamental theme of this study, grocery retailers were left out of the pool of possible case companies. Through a quick industry overview, it can be argued that grocery retailers are not as present in e-commerce as non-food retailers.

4.2 Data collection

The empirical data was gathered through semi-structured interviews. The interviews are the primary source of data in the empirical research. Interweaving is a very common data collection method in qualitative research and an efficient way of collecting rich data (Tuomi & Sarajärvi 2003). As a research method interviews give the researcher the possibility to repeat questions and give additional detailed information to the interviewee to avoid misunderstandings (Tuomi & Sarajärvi 2003). Thus, interviews are a flexible and insightful way to gather data. However, the interviewer has to be precise and careful in the formation of the questions (Yin 2009). Observations of case companies' websites as well as news articles and industry reports serve as a secondary data source of the empirical analysis.

The interviewees within the companies were chosen based on their area of responsibility. Their current responsibilities fall into the area of procurement, which ensures inclusive empirical data on the subject of this thesis. Furthermore, the interviewees had to have

extensive knowledge and know-how about omni-channel operations. Thus, they all are experienced in retail and have a solid experience working for the case companies. Also, the interviewees are all in an executive level position, which can be argued to have impacted the comprehensiveness of the interviews. The interviews were conducted as semi-structured via phone and held during August and September 2018. This means the interviews followed a set of questions structured in themes that may have been covered in various orders. The interviews lasted in average for 40 minutes. Table 2 summarizes further details of the interviewees. The names of the case companies and interviewees are not disclosed in this research due to their competitive positions. Case companies are acting in the same market and thus, it is appropriate to keep company details anonymous.

Table 2. The conducted case company interviews

Case company	Interviewee	Position
Alpha	Interviewee 1	Assortment and purchasing manager
Beta	Interviewee 2	Development director of purchasing
Gamma	Interviewee 3	Manager of the purchasing department
Delta	Interviewee 4	Purchase director

According to Tuomi and Sarajärvi (2003) interviews can be conducted as either survey interviews, theme interviews or deep interviews. Theme interviews, also referred to as semi-structured interviews, are well suited for answering both questions of “what” and “how” (Eriksson & Kovalainen 2008). Semi-structured interviews allow the interviewer to be prepared and aware of the themes and the quality of the questions beforehand (Saunders, Lewis & Thornhill 2009; Brinkmann & Kvale 2015). Moreover, semi-structured interviews follow the content but leave room for additional questions that are needed to obtain necessary data for the research to be appropriate.

The case company interviews were divided into four different themes: omni-channel retail and its challenges, supplier relations, suppliers’ role in omni-channel retail and value

creation. The interview questions are based on the existing theory introduced in the first part of this thesis. The interview structure can be found in Appendix 1. The same set of questions was used in all interviews. Although there is a clear structure, interviews did not follow the plan to detail. Questions were discussed in a logical and spontaneous order, which made the interviews feel a bit like a conversation. However, the structure was needed to make sure all themes and relevant issues were addressed at some point of the interview. The purpose of the interviews was to gather knowledge about omni-channel supply chain challenges, supplier relations, value creation logic and finally to understand the role of suppliers in omni-channel operations and value creation.

In addition to the case company interviews, a specialist in the field of omni-channel retail operations was interviewed to get a better understanding of the current state of omni-channel retail and its supply chain challenges. Interviewee 5 acts as the head of research and new product development at Relex Ltd, a leading provider of software solutions and services for retail. Relex is specialized in retail planning solutions. Their unified retail planning technology helps retailers to optimize and improve their supply chain activities (Relex 2018a). The interview questions focus on omni-channel retail as a business environment and its challenges (Appendix 2). The supplier aspect was considered in the interview too. The purpose of interviewing an industry specialist is to support this research and theory by adding valuable knowledge and practical know-how of omni-channel retail.

4.3 Data analysis

All case company interviews were recorded and then transcribed to get as much information as possible. This made it possible to return to the interviews afterwards. As the interviews were conducted in Finnish, they first had to be translated to English. Microsoft Excel was used to structure and categorize the interviews. First of all, each case company interview was summarized in own words into columns. This was necessary to get a better overview of the interviews as well as their differences and similarities. Second, the summarized interviews were categorized into themes. Identifying separate themes was crucial in order to get the conversational interviews into the same structure. The themes were then familiarized with and searched for subthemes. E. g. coding of the main theme omni-channel challenges enabled to observe the most relevant challenges, their connections and possible reasons among all cases. The transcripts were then turned into detailed notes about meanings and main messages interpreted from the interviews. These notes were then added into Excel according to the categorized themes that follow the structure of the

interviews. Finally, categorized in the form of a table, the interview summaries, notes of observations and comparisons were further analysed and processed.

Moreover, the data analysis covers also the empirical findings of the specialist interview, which was first processed separately from the case interviews. The interview was summarized and translated into English in the same manner as the case interviews. The summary naturally raised directly interpretations and thoughts, since the case interviews were already thoroughly examined. The interview was then analysed and mirrored against the case companies interview summaries. Also, the official website of Relex was utilized in the examination of the specialist's perspective on omni-channel retail. Finally, all interviews were gone through one last time by highlighting the most prevailing and distinguishable factors. The purpose of the last review was to ensure nothing relevant and divergent is left out of analysis.

To sum up, the multiple-case analysis enabled both to discover specific results of each case and the comparison between cases. Thus, this study includes both within-case as well as cross-case analysis. Cross-case analysis strives to identify similarities and differences across cases (Yin 2009). The method used to analyse the empirical research can be referred to as a theory-based content analysis (Saunders et al. 2009; Tuomi & Sarajärvi 2003). The data from the interviews was interpreted and processed multiple times keeping the research questions in mind. Also, the empirical results were mirrored against the before introduced theory. The comparison was achieved by dividing the empirical results into themes structured according to the theory section of the study. Since the empirical research is based on existing theory introduced beforehand, this analysis adopts a deductive perspective (Saunders et al. 2009).

4.4. Reliability and validity

Both reliability and validity are traditional criteria to describe quantitative research (Golafshani 2003). Reliability is commonly mirrored with the repeatability of the study (Yin 2009). However, this is not purposeful for case studies, especially when data is collected through semi-structured interviews. The criteria used in the context of qualitative studies raise various opinions. Also, validity of a qualitative research should not be used in its original definition, since it examines if the intended object of measurement is really measured in the research and qualitative research never aims at measuring anything (Stenbacka 2001).

Thus, the reliability and validity of this research should be examined keeping the above in mind.

Although the goal is not to generalize the empirical results, it is notable that found similarities between cases can prevail significant contextual insights. Similarities found between every case indicate a sufficient number of selected case companies to get a comprehensive picture of the research phenomenon. The anonymity of the case companies can be seen as an enriching factor in this empirical research. Most importantly interviewees had the opportunity to discuss the topic of challenges openly. Based on this the empirical results can be argued to be reliable. Reliability represents the truthfulness and trustworthiness of the research. Although the interviewees work in purchasing the differences in their responsibilities might have had some effect on how they perceived the interview questions. However, in general the empirical research answers the research objectives of this study. The above has to be taken into consideration when examining the empirical results.

4.5 Case companies¹

The case companies of this study operate in the Finnish retail industry. Companies are founded between 1920's and 1980's. This means case retailers have experienced the shift towards omni-channel retail. Since case retailers have been operating at different stages of the retail industry's evolution, they have understanding about how the business environment and its circumstances have affected retail business. They are all focused on non-food products and offer additional services to consumers at least in the form of delivery. Even though this study focuses only on retail in Finland some of the case companies belong to an international corporation operating internationally in retail.

To give a measure of size figure 6 shows case companies' sales in Finland and the number of stores in 2017. Beta exceeds other case companies' multiple times in sales even though its number of stores is not relatively the largest. Gamma has the largest sales relative to its number of stores. Naturally, all case companies are involved in e-commerce. Variation in the number of stores means case companies have diverse geographical coverage.

¹ The case companies' homepages (2018) are used as references for this chapter but cannot be displayed due to confidential reasons.

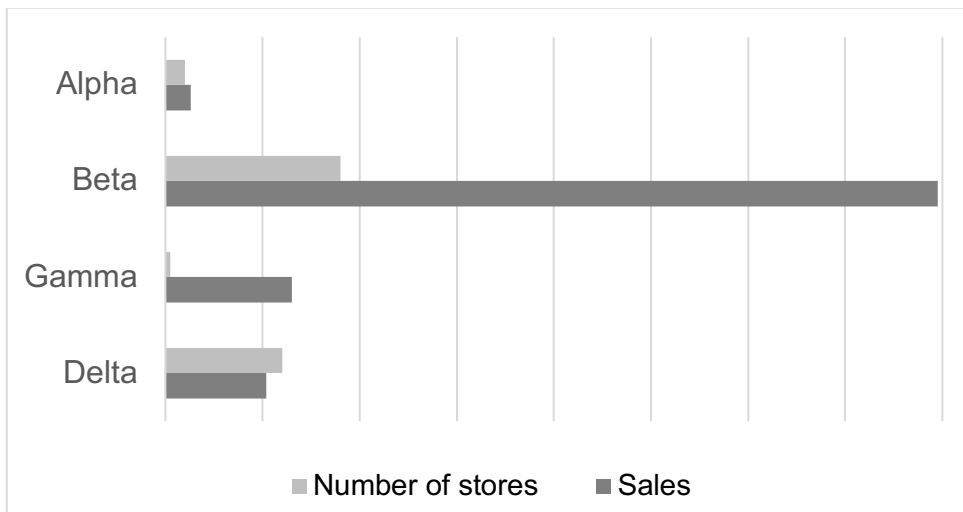


Figure 6. Case companies' sales in and number of stores in 2017

In addition to the number of stores, case companies also vary in terms of store locations. Figure 7 roughly demonstrates case retailers store infrastructure. Delta and Beta both have a wide spread store network. Both of their store networks reach from Southern Finland until Rovaniemi located in Northern Finland.

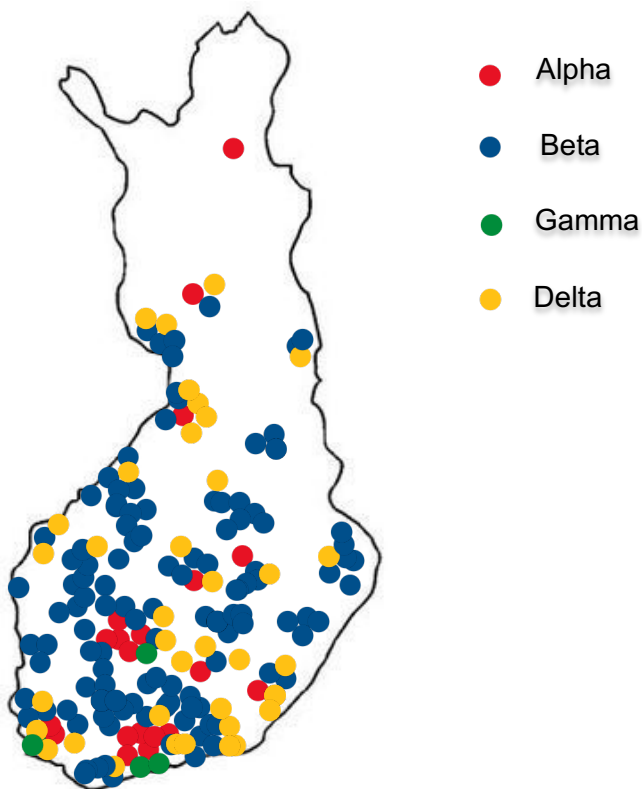


Figure 7. Store infrastructure of case retailers

However, their networks differ in spread. Beta has a wider spread with a higher number of stores. In turn, Alpha's store infrastructure is centred in Southern Finland. Central Finland is hardly covered. Instead Alphas stores can be found in Oulu, which is their networks northmost location. This makes their network more scattered. Gamma has stores located in the most central and populated cities. Despite the small number of stores Gamma made approximately the same amount of sales in 2017 as Delta.

5. EMPIRICAL FINDINGS AND ANALYSIS

A qualitative research method is commonly known as the representation of data and analysis (Eskola & Suoranta 2003). This chapter introduces and analyses the empirical findings of the research. The findings are presented in a structure corresponding to the theoretical part of this thesis. The analysis follows the research questions of this study presented in the introduction chapter. The main objects of analysis are challenges of omni-channel retail, supplier relations and value creation. The connections between the main themes are analysed to get an understanding of supplier relations as a source of value creation.

5.1 Omni-channel retail characteristics and objectives

On a general level, there seems to be no particular perception of a typical omni-channel retailer. All case companies determine themselves as omni-channel but define the concept a bit differently. This indicates that the conceptualisation of omni-channel is still scattered at least from the supply management viewpoint. Channel integration, which in theory is the most essential characteristic of omni-channel retail, did not come up as such in all definitions. Instead case companies focused on the customer point of view and highlighted the pursuit for a seamless customer experience. Omni-channel retail is characterized as retail business in multiple channels that permits customers to choose between various channels, delivery and service options. This indirectly refers to integration, which is explained to be the key to a wider range of options for end customers. Interviews reveal retailers investing in combining operations and data to serve customers according to their needs. Moreover, interviewees see omni-channel retail as a combination of offline and online channels.

The objective of operating as an omni-channel retailer is rather a necessity than a choice. The retail landscape has become increasingly competitive. Changes in both the business environment in general and more particularly in the retail landscape leave retailers no other choice than trying to keep up with the pace of the industry. The industry has evolved to the state where retailers overserve customers to stay in competition. It is customers' needs which are the determinative factor in the marketplace. However, Alpha and Beta see this as temporary and believe that the retail industry is further evolving. The determinant role of customers has led to the struggle of cost-effectiveness. Alpha explains retailers to be at a

point, where costs rise to the centre of business again. There is no other direction after driving retail business to a situation of serving customers even on an unprofitable basis.

On one hand online retail submits retailers to competition by expanding the marketplace. On the other it also creates retailers the possibility to expand their own business. Key drivers of omni-channel retail are flexibility, fast service, seamless operations and customer centricity. Today's marketplace is contemporary and most likely will not be in the exact same situation in the future. It sets new requirements for practitioners from many different perspectives. Thus, it is critical to maintain organizational flexibility. Case companies see different factors as their means to keep flexible. Generally, immediate reaction to changes and fast decision making are seen as the key to maintain organizational adaptability. Interestingly, both international volume as well as national adaptivity are seen as elements of flexibility. Also, more specific factors, such as supplier cooperation and forecasting, are experienced as corresponding to flexibility. The contrast in the viewpoints further indicates that retail business is still evolving.

Consumers have the option to satisfy their demand through numerous different online and offline channels. This puts pressure on retailers to offer consumers minimum the same kind of shopping possibilities as their competitors. Empirical research reveals the combination of online and offline channels to play a very important role in retail success. Pure online retailers are not seen as genuinely omni-channel. This indicates case retailers to understand what omni-channel really requires. Adapting business operations to fit omni-channel conditions before all means a switch in the approach towards retail. Case companies see omni-channel operations as the base of retail business in today's economy. The manager of the purchasing department of Gamma states:

"It is not just the lowest price and most comprehensive assortment anymore that satisfy consumers... bringing retail service to the next level is very much depended on supply chain operations."

Empirical research reveals suppliers having a growing role in case retailers omni-channel operations. Gamma and Delta explain the increasing role of suppliers with the growth of channels and complexity of the retail supply chain. In turn, Alpha and Beta make a statement of suppliers growing responsibility. If suppliers do not fit into omni-channel retail, they will eventually drop out of business. This indicates changes in the retail business model to reach suppliers as well. They are expected to be involved in retail business on many

other levels and areas than before. Overall suppliers are experienced to have an enabling role in omni-channel retail operations.

5.2 Supply chain challenges of omni-channel retail

As the industry sets challenges for supply chain management it also creates opportunities to enhance business. All case companies are optimistic and see challenges as difficulties that can be managed and turned into advantages. Figure 8 summarizes the challenges experienced by case retailers. None of the interviewees consider these challenges as barriers of a seamless omni-channel retail supply chain. However, all interviewees see advanced level of technology as a requirement for omni-channel retail. Thus, it can be argued that advanced technology is to some extent a precondition, but not a barrier, for omni-channel retail. This suggests that retailers who already have an effective IT-system, have better conditions to response to drivers of omni-channel retail.

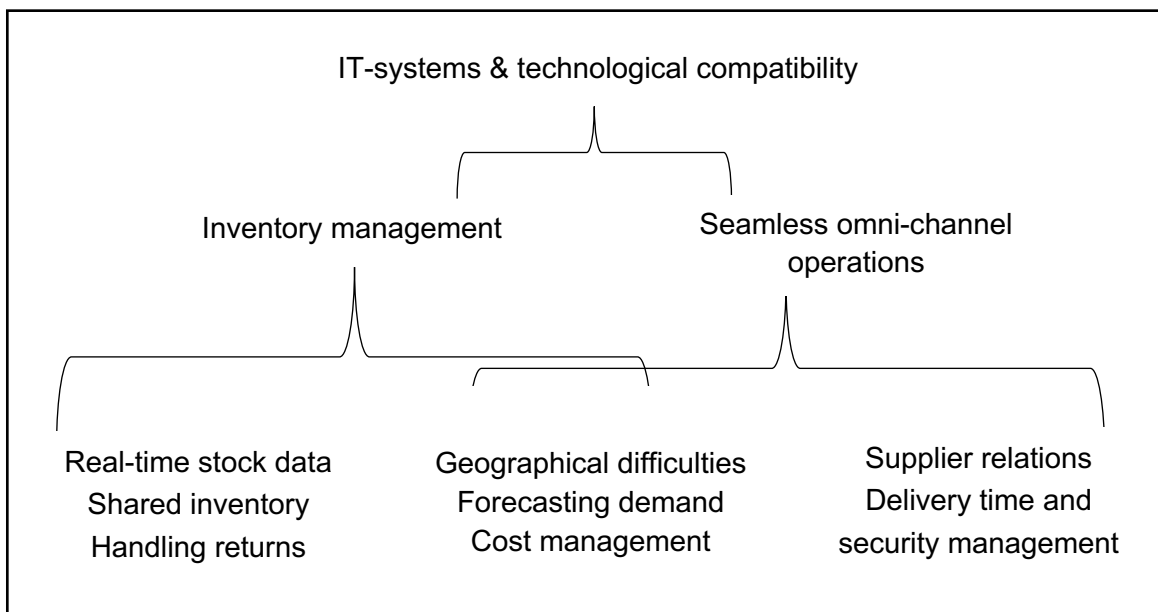


Figure 8. Supply chain challenges of omni-channel retail

The interviews revealed multiple supply chain elements experienced as challenging from the case companies' viewpoints. These challenges can be put under three main categories: inventory management, seamless omni-channel operations and IT-systems. The empirical findings suggest supply chain challenges to culminate into keeping stock information updated, which rises out of several other challenges such as difficulties of handling returns

and IT compatibility. The substantial similarities between case companies' outlooks on omni-channel supply chain issues indicate strong causality between challenges. This means that retailers facing the difficulty of handling returns will most likely face the challenge of incorrect stock information.

5.2.1 Inventory management

In an omni-channel environment the accuracy of inventory data is emphasized. Retailers have to have accurate inventory data in all channels to be able to exploit shared inventory. Being unable to integrate channels can lead to keeping large stocks of the same products in various locations. Among case companies shared inventory is experienced as a solution to the growth of channels. Several interviewees mention geographical locations of their stores and the overall geographic set up of the Finnish marketplace to set limitations and boundaries for their retail business. This verifies theory, which argues retailers to benefit from a wide spread store infrastructure. Alpha points out that stock keeping of products that have a strong touch and feel is very important for sales. The interviewee explains that their customers are still not ready to buy certain products online without first taking a look and assessing the product in person. Consequently, there has to be at least one piece available at stores for consumers to get a look at the product.

Geographical difficulties have impact on delivery costs and process efficiency. As the marketplace is focused on Southern Finland, having an effective delivery process to the less populated parts of the marketplace is crucial. Coordinating the supply chain in various geographic regions is imperative. This concerns all case companies, since their store networks have the same kind of structure. The challenge is to keep stock in a geographically reasonable location without compromising service level and process efficiency. This is the reason why case companies do not sell their complete assortment online. They have not yet found an efficient way to collect orders purchased online. However, based on the interviews all case companies seem to have a clear conception of where they need to improve and what they want to accomplish in the light of supply chain operations. It is understood that no results are achieved without a comprehensive omni-channel approach to the retail supply chain.

Controlling inventory is closely linked to the ability to handle returns. Interviewees named returns as one of the substantial reasons of incorrect stock information. Also, incorrect stock data in different locations makes it challenging to manage inventory. Gamma points out that

seasonality puts even more emphasis on accurate and real time stock information. Internal process of returns and advanced IT-systems enable stock information to be updated quickly and therefore contribute to effective omni-channel business. As an example, Gamma uses hot summer days, which can lead to consumers running into stores searching for fans. If stock is not updated quickly enough and fans are out of stores and stock, but the product still is available at the online store, consumers will purchase the product online and later be disappointed.

Forecasting future demand relies among other things on stock levels. To keep the supply chain profitable, retailers make purchasing decisions based on stock data. Case companies explain that this is where suppliers can and should have a role in. Sharing sales data is used to anticipate situations where suppliers have no or not enough availability. According to Delta and Gamma this is unfortunately not leveraged enough to enhance business. They see potential to further optimize processes through data sharing between counterparts. Transparency of the supply chain helps to eliminate so called waste in between processes and supply chain members. Empirical research provides evidence of cooperation correlating with the quality of the supplier relation, which has been proven in theory before.

5.2.2 Seamless omni-channel operations

To achieve a seamless omni-channel supply chain, retailers have to align their processes across channel borders. All case companies addressed the difficulties of keeping processes streamlined across channels but also between business units. Empirical evidence found differences as well as similarities in challenges that prohibits a seamless supply chain. Many different factors correspond to streamlined processes. However, supplier relations and delivery management stood out in the interviews. Interviewee 3 from case company Gamma states:

“Suppliers have an increasing role in our operations in particular because customers refuse to wait for their deliveries...Fast and quality omni-channel service is highly depended on suppliers.”

The interviews prove reliability and punctuality of delivery to be key success factors for seamless omni-channel operations. Delta argues that it is only possible to operate the retail supply chain effectively if suppliers act confident and careful. Empirical research shows suppliers performance to reflect product availability for end consumers despite retailers

acting as intermediaries in between. Suppliers struggling with manufacturing planning are not necessarily willing to take the risk and invest in production before they receive an official order. The supply chain cannot truly be optimized within one member simply because it either cannot be managed by only one member. Situations where suppliers face risky decisions that most likely lead to poor availability and inefficiency of the supply chain can be prevented or at least tackled with close cooperation.

Availability is the most important key performance indicator. However, excellent availability does not necessarily indicate an efficient omni-channel supply chain. The effective use of inventory is reflected in floating assets and inventory turnover. Hence case companies invest in supply chain management. In the hopes of improving supply chain efficiency only one case retailer actually has involved suppliers in their omni-channel integration projects. However, a few of the case retailers argue suppliers to have a growing role in integration projects. Although suppliers participating in retailers internal omni-channel process integration may not yet be common, all interviewees agree on the importance of integrating suppliers properly into their supply chain. By making the effort to integrate suppliers into supply chain operations, retailers strive for a seamless supply chain. This way the supply chain is a lot more effective straight away without losing time and costs to inefficiency. Flexibility can be recognized as comparable to seamless. A seamless supply chain creates the opportunity to react faster and smoother to changes in demand.

Omni-channel retail is only as good as its supply chain. Disconnected channels and processes increase costs of the supply chain. The gap between departments grow and thus decreases visibility of supply chain operations. In order to maximize value creation to end customers retailers have to understand the fundamental elements of omni-channel retail. Case retailers strive to create superior value to their customers but understand that this can only be accomplished through smart supply chain solutions. Alpha states that seamless constant flow between and across channels will become very costly eventually if not enough effort and thought is put into building sustainable solutions.

5.2.3 Advanced technology and IT-systems

All omni-channel retail challenges seem to be depended on IT-systems and their compatibility. When it comes to how technology is experienced the interviews reveal all identical viewpoints. Case companies experience technology as a determining element of their business. This supports the conception of technology being currently a dominant factor

in the retail industry. Advanced technology is seen as a competitive advantage, since it enables the operational flexibility, accuracy and support for decisions. Retailers who already have implemented advanced IT-systems and applications differentiate themselves with proper information flow and rich data. The interviewees are all aware that investments in technological innovations are needed to fulfil consumers demand in the near future. Alpha and Beta highlight the need of technological solutions in supply chain re-design.

To pool data together from different sources means the opportunity to integrate channels. Even though advanced technology is not necessarily seen as a barrier for operating omni-channel, it is nowadays a standard to compete in the retail market in Finland. Delta argues that a retailer requires sufficiently developed technology to be referred to as omni-channel. The interviewee explains IT to be the enabler of channel integration and thus a requirement for omni-channel retail. This means advanced technology, in particular advanced IT-systems and applications, are rather self-evident. Retailers have experienced integration projects that have failed because of technology issues. The empirical research highlights the role of data in the supply chain. To be able to fully utilize data across channels, the right technology and the capability to transform this data into valuable information is fundamental. Operational decisions that are based on supply chain analytics enable to manage and develop demand planning, procurement, inventory and logistics.

Alpha and Beta stress the importance of having their suppliers immediately integrated into their supply chain processes. According to them, a supply chain will start to fall apart quickly if suppliers are not integrated properly. By this they specifically refer to the flow of data between counterparts. Manual work is not a long-term solution. Their supply chain operations cannot be maintained profitable and streamlined with their vast data flows managed manually. Gamma has a similar outlook on the flow of data too. The interviewee highlights the role of suppliers as a provider of valuable data, since the increased amount of product related data is sustained by suppliers means. Case retailers believe that cooperation cannot start fluently without properly integrated data, which removes overlapping work. Mutual integration commits suppliers to cooperate and share information. This sets a base for future relationship building.

5.3 The state of retail business

The industry specialist interviewed on omni-channel retail and supply chain optimization did not find any issues that could form a barrier for omni-channel retail. From their viewpoint the technological level of a retailer is not more than a slow down towards an omni-channel supply chain. This is only the situation when retailers internal IT-systems are somehow unfinished. Also, an online store that is not put enough effort in usually does not meet the requirements of omni-channel retail. Technology's role in managing a customer centric omni-channel retail supply chain is inevitable. In an optimal scenario channels stand on stable bases on their own before integration actions are taken. Retailers can invest in optimization and integration efforts through basic background systems.

Relex's head of research and development describes omni-channel retail business simply as retail through various channels that somehow interact together. The interviewee explains the complexity of omni-channel retail to stem from the differences between online and traditional retail. E-commerce is a lot more dynamic than brick-and-mortar retail. Changes in assortment and prices can be executed faster online. Thus, demand is not as predictable for online retail, which makes forecasting future sales more challenging. Also, delivery times may vary between products, which makes supply planning more complex. The challenge is to combine these two different channels. Retailers have to make sure they can guarantee availability for both channels in an effective manner.

From the supply chain point of view inventory of online and offline channels should be integrated. Whether inventory is held together or not, the interviewee supports the centralization of supply chain management. To keep the supply chain best in control, channels should be managed from a single point. Centralized forecasting and replenishment of various channels creates synergy benefits. This way also marketing and purchasing decisions keep in line with the supply chain. In addition to centralized supply chain management and IT-systems supporting omni-channel business the interviewee stresses the importance of having a comprehensive omni-channel approach to the whole supply chain. These three elements are most relevant in achieving excellence in omni-channel operations. A common mistake is to manage retail as if it consists of two different organizations.

There clearly is untapped potential for superior value creation and the utilisation of supplier relations. Research shows that 75 per cent of retailers out-of-stock situations can be

avoided through retailers and suppliers together investing and working for improved availability (Corsten & Gruen 2003). Omni-channel supply chain management is under huge pressure and although well-known solutions are at hand, retailers still face considerable issues in forecasting as well as assortment and supply chain planning (Relex 2018b). The head of research and development of Relex identifies a so called omni-channel way of thinking and approaching business as a key factor in handling the pressure of the industry and overcoming the difficulties of the retail supply chain dilemma.

5.4 Supplier relations and value creation in omni-channel retail

Case companies have different kinds of supplier relationships. Supplier relationships of different nature and type stem from a wide range of products. Clearly various procurement fields have different types of supplier relations. Interviewees explain their supplier relations to be highly depended on the product category and the strategic significance of the procurement field for the retail business. It seems that the more strategically important products a supplier provides, the more important cooperation is rated. Retailers also closely collaborate with suppliers delivering products that may not have a strategic role in business but form a high amount of sales. Thus, also volume reflects the importance of a supplier relationship. Gamma notes every product category to have its own strategic suppliers depending on the size of the portfolio measured in sales. All in all, case companies are committed to build strategic relationship with their suppliers.

A supplier relationship is highly depended on the contract, which is among other things based on negotiations and counterparts will to collaborate. Delta explains that first of all the nature of a supplier relationship depends on what and from where the supplier is operating. The distinction between import and inland trade as well as brand and private label products, already defines the relationship to some extent. Beta and Alpha explain contracts being formed case by case. In addition to the differences in the nature of products supplied, Alpha argues suppliers' capabilities to impact how close cooperation gets. As an example, the interviewee uses supply chain capabilities. If a supplier is not capable to meet Alphas supply chain needs, collaboration is not possible. Although, there might be situations where a supplier is not advanced enough in their supply activities but offers a valuable product for the retailer's business and is therefore collaborated with. Other interviews also revealed some qualities that have an increased influence on supplier selection. E. g. retailers mirror their technological level against their suppliers' technological capabilities and potential.

Because of a manifold supplier portfolio, case retailers find it very important to recognise strategically significant suppliers. Supplier relationship management is hence a strategic element of case companies' retail business models. Relationship management is perceived as a very essential area of business. For case companies' supplier relationship management first and foremost means segmentation and development of supplier relations. Still, only few of the interviewees mention development projects as the core of their daily supplier relationship management. Segmentation is further utilized to manage daily operations such as stock replenishment effectively. Alpha comments that close collaboration is definitely strived for, but in a profitable way. This implies retailers investing in finding the right sourcing portfolio for their business.

5.4.1 Towards close cooperation

Cooperation with suppliers stands out in the talk about streamlining supply chain operations. All case companies utilize close collaboration in their supplier relations. Therefore, it can be argued that operating in omni-channel retail certainly creates a need for collaboration with suppliers. Also, the empirical research reveals case companies to have deepened their level of cooperation with suppliers. This is notably the result of changed circumstances and increased competition. All case retailers agree on the increased requirements for suppliers. Retailers demands on their suppliers have grown along with the requirements the business environment sets on retail. Not only retailers must keep up with the retail environment, but also suppliers are concerned with the same difficulties and circumstances. Beta claims it is not easy to select a supplier that fits omni-channel retail business, since omni-channel business is still new and nascent for the retailer itself. Retailers expect their suppliers to improve themselves and have a desire to develop new standardised ways of operating in an omni-channel supply chain.

Changed circumstances mean re-evaluation of business. The empirical research verify theory according to which re-evaluation of business also means re-evaluation of supplier relations and thus supplier selection. All case companies consider the move towards omni-channel to have had an impact on your supplier selection and evaluation. Interviewees point out various criteria they put emphasis on in their supplier selection. Security of supply, trust, corporate social responsibility, technological capability as well as capacity and readiness for omni-channel retail are currently emphasized. These factors are rated in their context. This means retailers consider suppliers individually and may give priority to different criteria depending on the situation and combination of suppliers' skills. Beta and Gamma

necessitate their suppliers to be prepared if not experienced in omni-channel retail. Gamma wishes its suppliers to have an omni-channel mindset, which enables efficiency and value creation.

Requirements for suppliers have risen and the emphasis is on different issues than before. Behind these changed criteria of suppliers is the desire to form established practices and procedures for omni-channel retail. According to the interviews case retailers evaluate new as well as existing suppliers on their ability to collaborate and fit particularly in their business. As omni-channel business is at its turning point and thus still evolving, suppliers are needed to be flexible, capable to react and adjust to new circumstances and most importantly be capable to answer end customers changing needs and demand. Various aspects and fields are worth contemplating in supplier selection. The Interviewee 2 from company Beta explains:

“At the moment practitioners in retail have a bit different processes to produce and operate in the new environment. It is important to establish and standardize supply chain operations since it will ease cooperation with suppliers. Today we are in a situation where small suppliers might not be able to start collaboration in omni-channel retail. Also, our and their needs and wants might not meet in this current phase in which everybody is still a bit testing and finding the best way for them to operate. “

All case retailers have joint processes and connected systems with their suppliers. However, only two out of four case retailers note they are especially investing in mutual systems and processes with their suppliers. The interviews also reveal that close collaboration in terms of inventory, delivery product information is emphasized in relations with suppliers of private label products. This may be due to the greater responsibility of product features and quality. In turn, cooperation with brand suppliers is especially utilized in demand forecasting and issues concerning availability. All in all, collaboration is seen already as self-evident in the context of omni-channel retail.

Although there are numerous benefits to close cooperation, such as lower uncertainty and improved supply chain processes, case retailers point out the need for analysing their ability and need to form relational supplier relationships. Even though suppliers are needed at least to some extent to find new and better ways of doing things, not always is a partnership required. Case retailers explain this by referring to the diversity in retailers as well as product

categories. There is a clear distinction between global and domestic suppliers. The empirical research reveals, that even if a retailer is committed to deepen cooperation also the supplier has to be willing to invest in cooperation and joint development initiatives. Case retailers agree that supplier relationships that in some way support their omni-channel initiatives are inevitable. Suppliers who are able to contribute to supply chain success by participating and improving mutual processes and investing in communication are seen as a necessary supplier type by case retailers.

5.4.2 Omni-channel value creation

The interviews suggest that there is much more than the price affecting value creation to end customers. All companies had very similar explanations of what creates value to consumers in omni-channel retail. To mention some of them, quality service, fast delivery, convenience and availability stood out from the conversations. The similarity of retailers' outlooks on value creation shows awareness of the current trends and customers' needs. The value creating elements are closely linked to the trustworthiness of a retailer. Empirical research indicates the significance of customers trust in the abilities of the retailer. Once trust is broken e.g. by zero availability or delayed shipments, customers easily switch to competitors.

Additional services are recognized to be a central element in omni-channel retail. Case retailers offer many kinds of services alongside their product assortment to enhance value creation. Consumers expect to get professional and convincing service not only in stores but also online. Their expectations have risen and thus changed the value creation logic. Online information is already considered self-evident. Consumers even assume retailers not to have a product in their assortment if it is not sold or at least displayed on their online channel. Interviewee 4 from case company Delta states:

“Value creation logic has changed over the past years, especially over the past few years... the retail industry in Finland has developed and shifted towards an integrated omni-channel way of doing business. Customers are now demanding for omni-channel service.”

Case companies have all made adjustments to their processes and business rules related to their supply chain activities to be able to create a superior customer experience. Customers' needs are the base to adjustments in business. Flexibility and integrated service

crystallize the value creating elements of omni-channel retail. Service refers to a wide range of actions including guidance and problem solving. Integrated services equal convenient, fast and easy service for consumers. Consumers have to be able to get genuine customer service that goes beyond basic information about products. Delta argues this to be achieved through integrated channels. The assortment and purchasing manager of Alpha states that they have said no to cheap prices and switched focus on strong skills and know-how. The interviewee explains that there are of course bulk products that create value through cheap prices, but operations and services around the products are the elements that differentiate the retailer from its competitors.

Delta determines integrated services as quality service through every channel. By this the interviewee means that customers can genuinely ask for help and get a solution to their problems no matter which channel they use or have previously used. This supports the theoretical claim that significance omni-channel retail requires channels to be integrated. Beta and Gamma highlight the role of master data in today's value creation. Information retrieval has never been easier and still somehow year after year it becomes faster and more convenient. Information about products and services such as prices, availability, inventory levels, product features, delivery times and locations must be found online. Consumers can easily compare assortments, services and prices of retailers. If there is not enough information available, consumers might turn towards competitors, who have made the buying decision easy by providing all needed information. Thus, omni-channel retailers must provide a user friendly and easy shopping experience as possible within and across all channels to retain their position in the competition.

The biggest changes in value-creation logic are consumers intensified conceptions and expectations. The fast-paced lifestyle and economy also requires fast service. A consumer ordering and paying online but requesting to pick-up from store perfectly illustrates today's retail. Thus, fast and convenient shopping has significance for consumers. To sum up, in omni-channel retail value is created through availability as well as quick and easy access. According to the empirical research real-time data and integrated channels help to achieve this. Also, suppliers are experienced as a source of value. In general, suppliers are identified as logistical enablers. All case retailers state value co-creation to be an important element of their supplier relations. Betas development director of purchasing argues suppliers to have a key position in value creation to end customers.

5.4.3 Value co-creation

The empirical research indicates suppliers having a significant role in omni-channel supply chain operations and thus also having a role in value creation. The assortment and purchasing manager of Alpha even states:

"Actually, I see suppliers creating the value customers are demanding and we as the retailer work as a so called intermediary. If we can create something on top of the value created by the supplier, we have succeeded."

Suppliers actions essentially influence customer satisfaction. Betas development director of purchasing explains that especially in omni-channel retail suppliers capabilities affect end customers due to the increased complexity of the supply chain. Suppliers role in the omni-channel supply chain is highlighted. Omni-channel retail requires them to operate through multiple channels and eventually to directly deliver goods to customers home addresses. Failure to do so with no doubt has influence on the value delivered to end customers.

Alpha argues, co-created value is a result of a win-win situation. Both parties have to be flexible and accept that business is not always balanced in short run but works beneficial for both parties in long-term. If collaboration does not work for a joint benefit, does it neither turn to the benefit of end customers. In the new economy retail has to be run with long-term goals. Growth and an effective supply chain do not come in short-term. Practice shows that retail is not anymore about fast profit earned with a low purchase price. Competitive prices are not necessarily a result of aggressive negotiations but instead a result of profitable supply chain operations. Case companies identify fast purchasing still to be used frequently, but not to be the foundation of omni-channel retail. Retail is characterized by fast losses and wins caused by environmental factors such as weather. This should not show to the end customer.

The assortment and purchasing manager of Alpha points out the fact that both parties have to be motivated to cooperate with each other in order to co-create value. For diverse reasons some suppliers want to collaborate with only one retailer and others may be willing to invest in certain areas of business. All in all, the determinant factor is mutual interest in cooperation, which enables retailers to build on value creating activities together with their suppliers. The purchase director of Delta argues value to stem from close cooperation. As a concrete example the interviewee uses demand forecasting. By sharing forecast and

stock data with suppliers, retailers can make sure they have enough availability to provide end customers. Suppliers who already think ahead and concentrate on the value that is delivered to the end customer rather than primarily considering value creation to the retailer, are seen as the most attractive suppliers. Interviewees explain this kind of mindset to separate omni-channel ready suppliers from others.

The talk about suppliers as a source of value rises various concrete examples of how suppliers have enabled value creating activities and changes in retail. An extended assortment and other supply chain related issues such as supply security are obvious matters of value creation. However, suppliers as sources of value is rather seen as continuous cooperation that comprehensively enables effective retail and thus superior value to end customers. The possibility of offering consumers suppliers extended assortment through online channels requires suppliers to integrate their supply chain activities with the retailer, since online orders might contain products from suppliers' and retailers' stocks. Thus, cooperation is fundamental also behind these actions.

5.5 Supplier relations as a competitive advantage

To maintain flexible, it is critically important for retailers to reconfigure their strategies. Companies are now trying to re-organize their structure and supply chain processes to fit new conditions. All case companies stated to continuously develop their supply chain processes. Some of the case retailers state to have mutual development projects with their suppliers. These projects aim at improving supply chain processes and executing changes made to retail business procedures. The interviewees mostly ponder e-commerce itself and its integration with other channels. Interviewees admitted to still have a long way until fully integrated channels. This however, they argue not to be possible without mutual development initiatives with suppliers.

An optimized supply chain is an essential part of retail success. As Alpha puts it, retail is all about being able to procure the right number of products at the right time. Omni-channel retail means utilization of cross-channel processes and channel integration. A profitable retail supply chain cannot be operated without suppliers. Optimization starts already earlier in the supply chain and is supported by collaboration between supply chain members. All case companies consider their suppliers as a competitive advantage. They see their supplier relations as enabling and differentiating. Collaboration is experienced as a key

element driving competitive advantage. It takes time to build supplier relations based on trust and open conversation. Also, the way of acting, mutual processes and other procedures that have been achieved through collaboration cannot be copied by others.

Gamma and Delta both state that they see various supplier relationships as a competitive advantage for different reasons. Gamma makes a difference between private label and brand suppliers as Delta separates international from national suppliers. The interviewee argues international suppliers managed centralized from the parent company to have a different kind of contribution than suppliers managed decentralized by the retailer in Finland. In the context of competencies and knowledge gained from suppliers, there is a distinction between brand and private label suppliers. Collaboration is different and so is the contribution of suppliers to the retailer's performance. The role of master data is emphasized in relationships with brand suppliers. Experienced international practitioners grow retailers' knowledge differently than suppliers that are familiar with the domestic market.

Collaboration generates innovative new ways of acting and operating in retail. Case companies experience to have gained new know-how and strengthened their internal competencies through close cooperation with suppliers. Retailers explain that suppliers with whom they cooperate closely are those, who invest in innovation and self-development. Thus, these suppliers have valuable knowledge to share with the retailer. The development happens imperceptibly as a result of close interaction. As noted before retailers demand ever more from their suppliers. Standards have grown, and supplier relations are benchmarked. The development director of purchasing at case company Beta explains:

“Our suppliers definitely are a competitive advantage to us. We constantly learn from each other, which helps us to deal with suppliers with whom cooperation is not fluent yet. We know what to demand from them and how to approach supply chain issues we have faced before with other suppliers.”

Beta and Gamma remind that changing suppliers is by no means easy. The interviewees explain the argument with the complexity of supply chain operations. Once suppliers are integrated into the retailer's supply chain operations and cooperation has started, a lot of resources sink into streamlining the supply chain. Gamma argues that supplier relations are a competitive advantage if counterparts can fulfil each other's needs in a profitable way. The assortment and purchasing manager of Alpha states that not necessarily all supplier

relations serve as a competitive advantage to them. The interviewee explains his viewpoint by reminding that the same suppliers most likely are supplying their products also to other retailers. This is especially the situation with big brand houses but also with smaller suppliers in the retail market in Finland. Interviewee 1 from company Alpha states:

“The question is with whom you cooperate and start integrating your processes with. Cooperation with suppliers has risen to the centre of omni-channel retail but investing in all relationships makes managing availability and inventory impossible.”

6. DISCUSSION AND CONCLUSIONS

This study took the supply chain view to omni-channel retail with the aim to investigate supplier relations as sources of value. The purpose was to establish a comprehensive view about omni-channel retail, its characteristics and challenges. Value creation played a central role throughout the research. The goal was to find out how omni-channel retail may have affected supplier relations as sources of value creation. The main objectives of this thesis were examined through theory and empirical findings. This research was conducted as a qualitative multiple case study, in which four omni-channel retailers operating in the Finnish retail industry were interviewed. Moreover, the insights of an industry specialist gave an additional outlook to omni-channel retail.

This study recognizes the strategic importance of supply management in omni-channel retail. Retailers benefit from investing in close cooperation with suppliers. It is found that the optimal sourcing portfolio requires retailers to discover the value creation potential of suppliers. Minimizing costs is still one of the central issues of retail. However, cost reduction is not only achieved through low purchase prices, but to an increasing extent through supply chain optimization in collaboration with suppliers. To conclude this thesis this chapter summarizes and discusses the findings by answering the research questions presented in the introduction of this thesis. At last the managerial and theoretical contributions of this research are presented. Also, the limitations of this study and future research are discussed.

6.1 Summary of the research findings

This chapter presents the most relevant results of this research. The findings of the study are presented in a summary by answering the main and sub research questions. First the sub-questions are presented and briefly reviewed according to theory and empirical findings. After that the findings to the main research question are presented.

What characteristics and challenges define omni-channel retail business model?

Changes in the business environment are reflected in retail. Omni-channel retail is characterised by increased complexity, customer focus, uncertainty and a fast-paced retail business environment. The industry has become more competitive due to online business. The three most significant factors affecting retail business are digitalisation, increased

competition and consumers evolved and differentiated needs (Figure 9). These three entities are closely connected and can even be argued to have a causal connection.

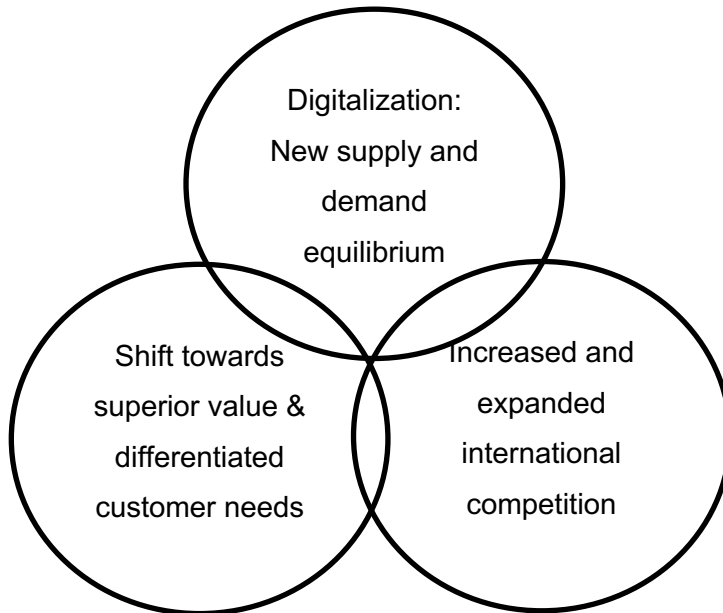


Figure 9. Characteristics of today's business environment

Digitalization has among other things increased consumers demand for specialized service and superior value. This has evoked changes in the retail industry. Omni-channel retail is business adapted to the new economy. Advanced technology and the emergence of e-commerce has opened competition globally. Retailers are no longer competing only against practitioners in their local market, but also against retailers operating over international borders. Online retail enabled to expand markets and to better answer consumer's needs. This highlights the need for an effective omni-channel supply chain to ensure customer satisfaction and survival in the competitive market place.

The dramatic changes of the retail industry naturally have generated challenges for supply chain management. Retailers face a variety of supply chain difficulties that are connected to each other. This research reveals challenges to evolve from efforts to integrate channels, i.e. from the attempt to re-figure organizational structure and business model. Omni-channel retail requires a specialized supply chain designed to operate seamlessly in its context. The increasingly competitive retail landscape that once relied on geographical barriers removed by technology, requires retailers to rethink their competitive strategies (Luo et al. 2016). The omni-channel supply chain serves as an advantage against traditional and online retailers. Figure 10 presents the identified challenges in theory and practice.

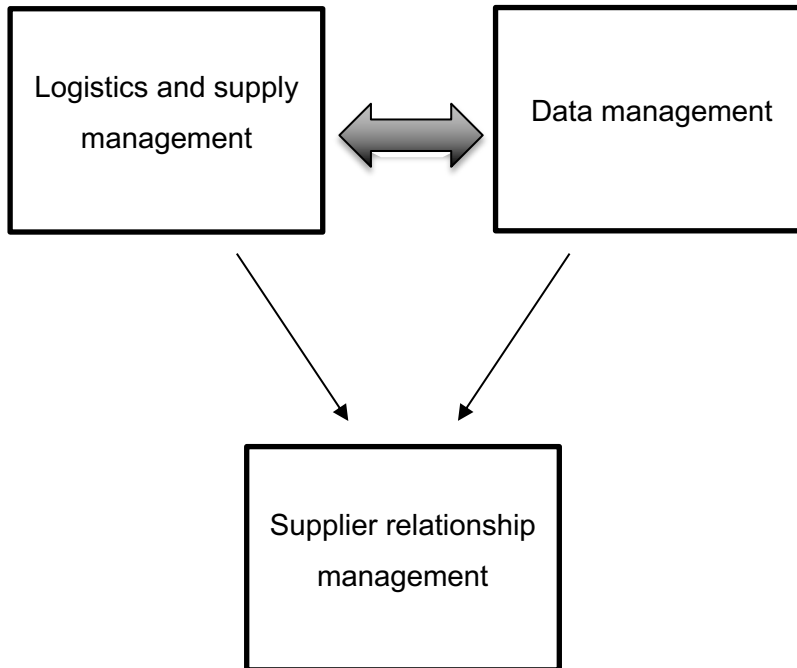


Figure 10. Main entities of supply chain challenges in omni-channel retail

Retailers face the challenge of increased complexity in the supply chain, which puts pressure on logistics and inventory management. Cost effectiveness and flexible operations are demanded in omni-channel retail. Furthermore, data management is one of the most central elements in an agile and seamless omni-channel supply chain. Due to digitalization retailers need to be able to handle vast data flows in real-time. Only digitized data and processes can keep the supply chain coherent and effective in the omni-channel retail context. An omni-channel supply chain can be managed successfully when information is shared with suppliers. The empirical findings suggest retailers to find it challenging to turn omni-channel supply chain features into advantages. Retailers are optimizing their supply chain in the hope of gaining improvements in performance. However, optimization requires supply chain investments and commitment also from suppliers as key members of the supply chain.

Figure 10 demonstrates the reciprocal relation of the supply chain challenges. Poor data management leads to inefficient supply chain operations. Managing inventory is highly depended on forecasting demand, which in turn relies among other things on rich sales data. Overall, the leverage of data is a powerful resource for better supply management. Also, supply chain processes integrated across channels support IT connectivity and compatibility. From the network perspective supply chain optimization requires the

involvement of suppliers. Retail success relies on accurate demand forecasting which is leveraged to manage the supply chain smoothly in collaboration with supply chain partners. By utilizing smart technological solutions and through close supplier relations retailers can manage the supply chain from supplier to various channels to consumers in a profitable manner.

How is value created in the omni-channel retail business model and how is it created in supplier relations?

In omni-channel retail value is created by utilizing multiple channels. Value delivered to the end customer is linked to the shopping experience as well as the purchased product itself. This research reveals that value lies increasingly in the customer experience instead of solely the quality of the purchase. Generally, value is created by serving end customers through their channel of choice. Value is created and delivered through the coordination of activities across channels, which allows value creation from cross channel synergies. This means among other things that value is created by enhancing supply chain processes and coordinating activities across channels. Today's consumer appreciates most of all fast and convenient as well as trustworthy and quality service. The basket of products varies, and quality expectations are always created by consumers. Especially in cases of brand products consumers rely on retailers providing the so to say best service. Retailers have invested in the interaction with consumers in the hopes of creating superior value. This is in line with theory, which suggests that customer value is created in interaction during the shopping experience. This means end customers to act as value co-creators.

Moreover, value is, too, created in cooperation with suppliers. Successful value co-creation stems from open dialogues and learning. Knowledge is shared between parties and results in new know-how and resources. Thus, value can be appropriated through improved supply chain processes and better quality of products and service. Cooperation has proved to lead to more efficient inventory management, which in turn results in increased availability, one of the most important indicators for end customers satisfaction. This means value co-created in a buyer-supplier relationship indirectly increases the value delivered to end customers. Relying on the resource-based view of the firm, business value is created through the effective combination of technological, organizational and environmental resources (Barua et al. 2004). This means that combining an advanced IT infrastructure with efficient business processes and the capabilities of suppliers, omni-channel retailers

can develop new resources and create value through improved operational and financial performance.

Value creation in the omni-channel retail business model requires suppliers to be included in the innovation for greater value to end customers. Customer value is a sum of retailer's profit logic, key resources and processes. Suppliers are closely linked to the key operational processes that enable value creation to consumers. Value creation is recognized to be very context specific considering both value delivered to consumers as well as value created in supplier relations. It is important to be aware of contextual factors of the business environment and particularly identify industry specific key elements that drive value creation. In omni-channel retail optimized supply chain operations enable to satisfy consumers through convenience and instant availability.

What kind of supplier relationships are best suited for omni-channel retail?

Theory and empirical research reveal there is no one path that will result in a seamless omni-channel supply chain. Thus, it either cannot be specifically determined exactly which kind of sourcing portfolio is best suited for omni-channel retail. However, it can be argued that omni-channel retail requires supplier relations that enable superior value creation and flexibility. Research proves relationships based on close collaboration to be inevitable for value co-creation. Given the circumstances and characteristics of omni-channel retail, the business model demands hybrid sourcing models. The complexity of the marketplace and the strategic needs of retailers can only be answered with relational supplier relationships.

The nature and type of relationships vary in retailers sourcing portfolio. Overall, research shows that motivation to supplier relations based solely on the purchasing costs has decreased due to complexity of the retail supply chain. Retailers have woken up to optimize their supply chains, which has generated new kind of needs for supplier cooperation. The retail industry is characterized by growing awareness for collaboration and interaction with suppliers. Their goal is to make investments that create value and support their business incentives. Thus, retailers strive to create collaborative partnerships by strategically examining needs and possibilities (Hammervoll & Toften 2010).

To choose the best sourcing option retailers should be able to determine which of their supplier relationships have significant value creation potential. In addition, nonmonetary benefits and sacrifices should be considered in the categorization. The strategic nature of

key supplier relationships makes it essential for firms to evaluate the value creation potential of suppliers (Möller & Törrönen 2003). The empirical findings confirm this theory. Retailers make their strategic decisions on supplier relations at least partly based on the suppliers' value creation potential. It is an element that is put emphasis on in supplier relationship management initiatives as well as in supplier selection.

How has omni-channel retail affected supplier relations as a source of value creation?

It has become clear that the omni-channel business model concentrates on a customer centric value creation process. In a volatile business environment, the network-centric view to business is emphasized. Since value created to end customers is closely linked to the shopping experience and additional services in omni-channel retail, are suppliers required to have a customer centric approach to retail too. Their actions and capabilities have impact on end customer satisfaction. This means that value can be generated by investing in supplier relationship management. Mature supplier relationship management capabilities enable firms to achieve fruitful collaboration (Kähkönen and Lintukangas 2018). Thus, close collaboration with suppliers notably is a source of value creation.

Omni-channel retail requires retailers to build close supplier relationships and actively collaborate in terms of supply chain development initiatives. Characteristics of the retail business environment and business model have changed the dynamics of a typical retailer-supplier relationship. Parties need to form mutual processes and show interest in joint development in order to succeed in the industry. Therefore, supplier relations as a source of value have become more valuable in the shift towards omni-channel retail. Also, the significance of successful supplier relationship management has increased. It enables retailers to build sustainable long-term relationships that support their omni-channel business. Supply chain complexity and requirements the environment sets on retail has changed the viewpoint of suppliers as sources of value creation. Cost effectiveness is still a central element in the supply chain, but it is achieved through efficiency of mutual processes and joint development initiatives with suppliers. In addition to profitable prices and quality of products, supplier relations increasingly generate long term value through innovation and development of the supply chain.

6.2 Managerial and theoretical contributions

The scientific goal of this research was to create and add knowledge about omni-channel retail in the light of supply chain management and explain the role of supplier relationships in value creation logic of omni-channel retail. Thus, this study contributes to the theoretical discussion of omni-channel retail, by discussing business model characteristics and establishing challenges of managing the omni-channel supply chain. Corresponding omni-channel supply chain challenges were recognized in theory and in the empirical findings. Overall, theory and empirical results were compatible. Both, theory and practice stress close collaboration, open conversation, commitment and trust in supplier relations. However, simple more transaction-based supplier relationships are still needed in retail business. The diversity of products retailed is reflected in the supplier portfolio of retailers. The research findings suggest strategic supplier relationship management as a crucial competence of retail success.

The managerial objective of this research was to provide insights on omni-channel retail business for retailers to better understand the requirements of the supply chain and to develop requisite capabilities to manage their retail business. Empirical evidence was found on the significance of suppliers' role in the omni-channel supply chain and value creation process. Also, this research revealed collaborative supplier relationships to act as competitive advantage to omni-channel retailers. It is crucial to reach an in-depth understanding of omni-channel retail in order to develop close supplier relationships. Retailers should strive for open communication and close collaboration with suppliers of high value creation potential. Furthermore, to succeed in omni-channel retail, practitioners have to invest in technology and channel integration.

6.3 Limitations and direction for future research

This study is limited in several ways, which leaves opportunities for future research. Firstly, the empirical research focuses only on retail of non-food products and services. Future research could include food retail in the research context of this study. Since the nature and strategic significance of products retailed was proved significant in this research, it would be interesting to examine how retailers' assortment impacts their supplier relations. Secondly, even if conducted as a multiple-case study, the empirical research involved a rather small amount of case companies. In addition to diverse case retailers this study

should be conducted with a wider range of retailers to get a more comprehensive view of the subject. Omni-channel retail is an emerging business model and will thus evolve over time. Thus, future research on omni-channel retail in general is needed to fully understand the business context.

Thirdly, the case companies were selected from leading omni-channel retailers who already were engaged in omni-channel retail. Although the case companies were selected with the purpose to gain a comprehensive view on the research objective, it would be appropriate to examine supplier relations of retailers still in the transitory phase of implementing an omni-channel strategy. Also, this study concentrates on the Finnish retail market, which forms another contextual limitation. Finally, suppliers' viewpoint on omni-channel retail I left out of this study. To complement this study research covering both, the retailers and suppliers' aspects on collaboration, should be examined in the context of omni-channel retail. This research adds prove to the relevance of suppliers in retailing success, which raises demand for further research on suppliers and their role in omni-channel retail.

Additionally, this study reveals that the optimization of omni-channel supply chain processes between channels is yet not emphasized enough. Further research on the dynamics of the industry and the optimization of omni-channel distribution systems is required. Optimization possibilities and connections between and across in-house departments will be left for further research as well. This research proved the significance of IT-systems and other advanced technology utilized in retail business. Thus, more research needs to be conducted on the flow and leverage of data. Especially the concept of big data as a very recent objective of research in the context of supply chain management should be examined specifically in the omni-channel context. This would add new knowledge and guidance to omni-channel retailers to overcome their supply chain difficulties.

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APPENDICES

Appendix 1. Interview Questions

Interview questions

Interviewee's information

- Name
- Title
- Job description

Omni-channel retail

1. Does your company determine itself as omni-channel?
2. How would you interpret the concept of omni-channel?
3. How would you describe omni-channel retail as a business environment?
4. What are the objectives of operating as an omni-channel retailer?
5. What kind of factors do you consider as challenging in operating/becoming omni-channel from the supply chain perspective?
6. What do you consider as barriers of a seamless omni-channel retail supply chain?
7. Which factors are relevant in achieving excellence in omni-channel operations?
8. How do you maintain organizational flexibility in omni-channel retail?
9. How have you experienced technology in omni-channel retail?

Supplier relations

10. Do you consider supplier relationship management as a strategic element of your retail business model?
11. What kind of sourcing portfolio does your company have?
12. Does your company have key suppliers?
13. Is close collaboration utilized in supplier relations?
14. On what kind of objectives are your supplier relationships based on?
15. Do you consider your supplier relations as a competitive advantage?

Supplier relations in omni-channel retail

16. What kind of role does your suppliers have in managing your omni-channel operations?
17. Have your suppliers participated in integration processes regarding your omni-channel business?
18. Do you have mutual systems and/or processes with your suppliers?
19. Do you consider the move towards omni-channel to have had an impact on your supplier relations?

Value creation

20. Do you consider value creation logic to have changed over the years?
21. How is value created in omni-channel retail?
22. Do you consider your supplier relations as a source of value creation?
23. What kind of value does your supplier relations create for your retail business?
24. Is value co-creation seen as an important element in your supplier relations?
25. Do you believe that your supplier relations have strengthened your internal competencies?

Appendix 2. Specialist interview questions

Specialist interview questions

Interviewee's information

- Name
- Title
- Job description

1. How do you interpret the concept of omni-channel?
2. How would you describe omni-channel retail as a business environment?
3. What challenges are your customers operating in omni-channel retail facing from the supply chain perspective?
4. What do you consider as barriers of a seamless omni-channel retail supply chain?
5. Which functions do you consider most relevant in achieving excellence in omni-channel operations?
6. Have you experienced retailer's suppliers participating in Relex Solution's implementation processes regarding e-commerce and omni-channel business? If yes, can you give an example?
7. What kind of role do you consider suppliers having in your customers omni-channel operations?
8. How do you consider value is created in omni-channel retail?