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**LAPPEENRANTA UNIVERSITY OF TECHNOLOGY
SCHOOL OF BUSINESS AND MANAGEMENT
INTERNATIONAL MASTER'S PROGRAMME IN STRATEGY, INNOVATION
AND SUSTAINABILITY**

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**GEARING TOWARDS OMNICHANNEL GROCERY RETAIL
THROUGH BUSINESS MODEL INNOVATION:
CASE ARINA & POSTI**

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Abstract

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Technological innovations and the advent of digitalization have led retail business into one of its biggest transformations of all time. Consumer behaviour has changed rapidly and the customers are ever more powerful, demanding, tech-savvy and moving on various platforms. These attributes will continue to drive the development and robustly restructure the architecture of value creation in the retail business. The largest retail category, grocery yet awaits for a real disruption, but the signals for major change are already on the horizon.

The first wave of online grocery retail was introduced in the mid 1990's and it thrived until millennium. Many overreactions, heavy investments and the burst IT-bubble almost stagnated the whole industry for a long period of time. The second wave started with a vengeance around 2010. Some research was carried out during the first wave from a single-viewpoint of online grocery retail, but without a comprehensive approach to online-offline business model integration. Now the accelerating growth of e-business has initiated an increased interest to examine the transformation from traditional business models towards e-business models and their integration on the companies' traditional business models.

This research strove to examine how can we recognize and analyze how digitalization and online channels are affecting the business models of grocery retail, by using business model canvas as an analysis tool. Furthermore business model innovation and omnichannel retail were presented and suggested as potential solutions for these changes. 21 experts in online grocery industry were being interviewed. The thoughts of the informants were being qualitatively analysed by using an analysis tool called the business model canvas. The aim of this research was to portray a holistic view on the Omnichannel grocery retail business model, and the value chain, in which the case company Arina along with its partners are operating.

The key conclusions exhibited that online grocery retail business model is not an alternative model nor a substitute for the traditional grocery retail business model, though all of the business model elements are to some extent affected by it, but rather a complementary business model that should be integrated into the prevailing, conventional grocery retail business model. A set of business model elements, such as value proposition and distribution channels were recognized as the most important ones and sources of innovation within these components were being illustrated. Segments for online grocery retail were empirically established as polarized niche markets in contrast of the segmented mass-market of the conventional grocery retail. Business model innovation was proven to be a considerable method and a conceptual framework, by which to come across with new value propositions that create competitive advantage for the company in the contemporary, changing business environment. Arina as a retailer can be considered as a industry model innovator, since it has initiated an entire industry in its market area, where other players have later on embarked on, and in which the contributors of the value chain, such as Posti depend on it to a great extent. Consumer behaviour clearly affects and appears everywhere in the digitalized grocery trade and it drives customers to multiple platforms where retailers need to be present. Omnichannel retail business model was suggested to be the solution, in which the new technologies are being utilized, contemporary consumer behaviour is embedded in decision-making and all of the segments and their value propositions are being served seamlessly across the channels.

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Teknologiset innovaatiot ja digitalisaatio ovat johtaneet vähittäiskaupan yhteen sen suurimmista murroksista kautta sen historian. Kuluttajakäyttäytyminen on muuttunut voimakkaasti ja asiakkaat ovat entistä vaikutusvaltaisempia, vaativampia, teknologisesti kyvykkäämpiä ja he liikkuvat useilla alustoilla. Nämä osatekijät ohjaavat ja ajavat jatkossakin kehitystä sekä muokkaavat voimakkaasti arvonluonnin arkkitehtuuria vähittäiskaupassa. Vähittäiskaupan suurin yksittäinen kategoria, ruoka odottaa vielä suurta murrostaan, mutta signaaleja suuremmasta muutoksesta on jo näköpiirissä.

Ruoan verkkokaupan ensimmäinen aalto saapui 1990-luvun puolivälissä ja se kukoisti aina vuosituhannen vaihteeseen asti. Tuon jälkeen useat ylilyönnit, massiiviset investoinnit sekä IT-kuplan puhkeaminen seisauttivat koko toimialan kehityksen pitkäksi aikaa. Ruokaverkkokaupan toinen aalto alkoi toden teolla 2010-luvun tienoilla. Ensimmäisen aallon aikaan tehtiin suhteellisen paljon tutkimusta, joka kohdistui enimmäkseen digitaalisen ruokakaupan kanaviin ja sähköisiin liiketoimintamalleihin, sen sijaan että ilmiötä olisi tarkasteltu kokonaisvaltaisesti digitaalisen ja perinteisen ruokakaupan sekä näiden liiketoimintamalli-

integraatioiden näkökulmasta. Verkkokaupan kiihtyvä kasvu on aikaansaanut lisääntyneen kiinnostuksen tutkia perinteisten ja sähköisten liiketoimintamallien integraatiota yritysten vallitseviin liiketoimintamalleihin.

Tämä tutkimus pyrki tutkimaan sitä, miten tunnistaa ja analysoida sitä kuinka digitalisaatio ja sähköiset kanavat vaikuttavat perinteisiin ruokakaupan liiketoimintamalleihin, käyttäen liiketoimintamallikanvasta analyysityökaluna. Lisäksi, tutkimus esitteli liiketoimintamalli-innovaation sekä kaikkikanavaisen (omnichannel) vähittäiskaupan konsepteja sekä ehdotti niitä yhdeksi ratkaisuksi, joilla vastata sähköistyvään liiketoimintaan. 21 ruokaverkkokaupan asiantuntijaa haastateltiin tutkimusta varten. Haastateltujen ajatukset aiheen tiimoilta analysoitiin sen jälkeen kvalitatiivisesti, hyödyntäen liiketoimintamallikanvasta. Tutkimus toteutettiin tapaustutkimuksena, jossa oli mukana S-ryhmään kuuluva, Osuuskauppa Arina sekä heidän ruokaverkkokaupan logistinen yhteistyökumppani Posti. Tutkimuksen tavoitteena oli muodostaa kokonaiskuva kaikkikanavaisen ruokakaupan liiketoimintamallista sekä sen arvoketjusta, jossa tapaustutkimuksen yritykset, Osuuskauppa Arina ja Posti toimivat.

Tutkimuksen keskeiset johtopäätökset osoittivat, että ruoan verkkokaupan liiketoimintamalli ei ole vaihtoehtoinen tai korvaava malli perinteisen ruokakaupan liiketoimintamallille, vaikka digitalisaatio ja ruoan verkkokauppa vaikuttavatkin tietyssä määrin kaikkiin perinteisen ruokakaupan liiketoimintamalleihin, mutta sen sijaan ruoan verkkokaupan liiketoimintamalli tulisi nähdä perinteistä ruokakauppaa täydentävänä mallina, joka tulisi integroida vallitsevaan ruokakaupan liiketoimintamalliin. Tutkimuksen empiirinen osio tunnisti, joukon liiketoimintamallin elementtejä, joihin digitalisaatio ja sähköiset kanavat vaikuttavat, kuten arvolupauksen sekä jakelukanavat. Tutkimuksen empiriaosuus tunnisti myös, että ruokaverkkokaupan asiakassegmentti on polarisoitunut markkinasegmentti, kun taas perinteinen ruokakauppa on niin kutsuttu segmentoitu massamarkkina. Liiketoimintamalli-innovaatio osoittautui varteenotettavaksi vaihtoehdoksi sekä konseptiajattelun viitekehyykseksi että lisäarvon ja kilpailukyvyn luomiseen tämän päivän muuttuvassa liiketoimintaympäristössä. Arinaa voidaan vähittäiskauppiaana pitää tutkimustiedon valossa toimialainnovaattorina, sillä se on alueellaan laittanut alulle kokonaan uuden, ruokaverkkokaupan toimialan, johon muut toimijat ovat sittemmin liittyneet, ja jossa arvoketjun muut toimijat, kuten Posti ovat siitä hyvin riippuvaisia. Kuluttajakäyttäytyminen vaikuttaa vahvasti sähköistyvässä ruokakaupassa, ja ajaa kuluttajia uusille alustoille, joissa vähittäis-

kauppiaan tulee olla läsnä. Tutkimus ehdotti ratkaisuksi kaikkikanavaista, eli omnichannel vähittäiskaupan liiketoimintamallia, jossa uusia teknologioita on hyödynnetty, nykyaikainen kuluttajakäyttäytyminen on otettu huomioon päätöksenteossa, ja jossa kaikkia asiakas-segmenttejä ja heidän arvo-odotuksiaan palvellaan saumattomasti kaikissa kanavissa.

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Abbreviations and symbols

Nexus	Nexus of Forces
ONLINE GROCERY	Online grocery retailing
BM	Business model
BMI	Business model innovation
Patarumpu	S Group's discussion forum for its customers
Brick and Mortar	A physical retail outlet
Omnichannel	All retail channels
Pivot	A quest of a company to pilot new innovations

Foreword and Acknowledgments

The thesis process has been quite long, challenging and even exhausting, though rewarding and rich in content as well. Academics has not always been my thing, but as soon as I graduated from my Bachelor's, a newfound interest towards business studies and a Master's degree initiated. Studies at LUT School of Business and Management have been interesting and rewarding and during the studies I was able to dig out the academic and analytic side of me. I am sure this will cater to the requirements in the working life after the graduation.

The starting point was a rather challenging. I started my Master's studies in The Fall of 2013, but it turned out rather quickly that I am progressing way faster in my studies than it was scheduled in the study plan of the degree, as well as in my personal study plan. Hence, together with my professor, we agreed that I should embark on the Master's Thesis Seminars of the previous class of my degree program. Since their seminars had already begun in the Fall 2013, I had to catch up to deliver outputs, such my plan and the current progress of the thesis in late Fall 2014. As for this drove me to start writing my thesis in a rush, without a solid plan. Consequently, the lack of a proper plan, the abundance of concepts and frameworks and the sheer amount of primary data drafted from 21 interviews posed a great challenge for maintaining the scope and coherence in the thesis. After about eight months, several hundreds of long hours in the library, I managed to pull it all together, and now I am fairly satisfied how it all came through in the end, despite all of the hurdles along the way.

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their expertise and know-how on online grocery retail. I managed to get all of the interviews I requested, for which I am greatly obliged. Furthermore, I would like to express gratitude for my family, especially my dad, Tapani Kärkkäinen whose enquiries about the progress of my thesis made me feel that someone else is really interested in what I am doing, where I am consuming the most of my time to and appreciates it. Moreover, special regards to Professor Minna Isomursu, a Board Member of the Co-operative Society Arina, from whom I received valuable advices and insights while I was finishing up my thesis.

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1 Introduction

Internet and technology, in other words the digitalization has impacted and/or transformed nearly all industries, including (grocery) retail, and thus, the ways companies conduct their business with. Finnish grocery trade is touched upon these new trends; Consumer behaviour has changed due technological advances, such as smartphones and tablets. Consumers and retailers are taking advantage on the full spectrum of new channels through which to communicate, deliver, buy and sell goods. Prior to the digital era the setting was, that where there is a retail location, that is where consumers went shopping. In other words, retailers were in a position of power. Today, in the digitalized era that we are living in, the empowerment has shifted within the past decades first from the manufacturers to retailers and then from retailers to consumers as the online channel offers an abundance of retailers for the consumers within a single click. Retailers are fond to invoke how educated and empowered the consumers are nowadays and strive for customer-oriented business model innovation, which incorporates reassessing the current business models. (PWC, 2014). The contemporary setting is such that the consumer is the king, meaning that they will decide when and in which channel the consumers will want to buy and consume and retailers should follow.

To determine and deliver a paramount value proposition that fits the new scenario, the current business models and value propositions should be critically examined and evaluated. Comes & Berniker (2008) depict that “knowing a company’s business model provides more than insight into metrics and management levers. Business model innovation can help illuminate an important, underutilized form of innovation that goes beyond product or process innovation.”. Since a systematic approach to identifying architectures for business models can be based on examining value chain de-construction and re-construction and their elements (Timmers, 1998), this research strives to grasp on the business models in a rather detailed fashion. Some of the most prominent and often cited objectives for investigation on business models is to experiment with innovative business concepts in order to determine if current business models can easily adapt to them (Eriksson & Penker, 2002). Business model innovation, has thus become very topical amongst companies that are striving to better exploit the business opportunities in that technology and Internet has been initiated (Pateli, 2003; Pateli & Giaglis, 2004). Furthermore, the business models of the grocery trade are not established to serve or favour online grocery retailing, but to serve

the traditional, physical grocery trade (Torniainen, 2014). The current business models of grocery retail are designed for a single-channel retailing, and the physical retail stores have been very much designed according to geographical determinants, which are of less importance when serving customers through online channels. Omnichannel business model is an operation mode in which the retailer serves its customers seamlessly, and above all, coherently in all of the channels the customer desires. “All of the channels” is a synonym for omnichannel business model and to achieve an omnichannel business model, retailers need to, either completely re-invent and change their business model, or implement and integrate the novel ideas in their existing business models. The term Omnichannel was first introduced in 2009 by the retail research group, ICD Retail Insights (Louie 2015).

Through an analysis tool called the business model canvas of Osterwalder & Pigneur (2010) and other conceptual and complementary frameworks, the purpose of this qualitative research is examine and analyse how can we establish and analyze how digitalization and online channels are affecting the key elements of grocery retail, by using business model canvas as an analysis tool. As a case example S Group’s Co-operative Society Arina and its partnership with Posti in Sale Kauppakassi online grocery service was being examined. To bring latitude, Osterwalder & Pigneur’s (2010) canvas was complemented by the thoughts of other renowned business model scholars. Online business models were being reviewed to recognize which model or models would apply in online grocery retail. A concept called Nexus of Forces was brought in as it describes the major drivers behind the changed consumer behaviour, such as the convergence of mobile, social, cloud and information (Yenna, 2013). Lot of the previous research on the topic is focused around one retail channel. Therefore, Omnichannel retail model was introduced, and, after the analysis, was suggested to be the solution to respond to these change particulars. Business model innovation was suggested to be the medium by which to initiate and/or achieve the Omnichannel business model. The research objective is to portray a holistic view on the Omnichannel grocery retail business model and the environment, in which the case company Arina along with its partners are operating in.

1.1 Research question and objectives

One main question along with two sub-questions were formulated and they worked as the guideline throughout the research. The first question was the main theme and the two sub-questions were made to complement the first one. The questions were:

1. Can we recognize and analyze how digitalization and online channels are affecting the business model of grocery retail, by using a business model canvas?

1.1 What kind of role does business model innovation play in the process of new value creation?

1.2 How is consumer behaviour changing and how can we respond to these issues by adopting an omnichannel retail business model?

The research question and sub-questions were being answered by the means of a case study, where a case company and its collaborative partner were being analyzed. Along with complementary concepts, an analysis tool called the business model canvas was chosen to work as the basis for designing the research. After the research on these topics was reviewed, the questions for the interviews were made on these basis. The primary data drawn from the interviews was then being analyzed by qualitative research methods, using the analysis tool of business model canvas and other conceptual frameworks. This research followed a deductive research approach as there was no hypothesis presented. The aim of this research was to portray a holistic view on the Omnichannel grocery retail business model, and the value chain, in which the case company Arina along with its partners are operating.

1.2 Previous research

The research interest of academic and business communities has shifted to investigate the potential of e-business technologies market. This has resulted in debates around established online business models, as well as how business model innovation is to be achieved, are ever increasing. (Pateli, 2003). Business models have been previously researched, for example by Osterwalder & Pigneur (2010), Amit & Zott (2011), Chesbrough & Rosenbloom (2002), Magretta (2002), Morris & al. (2005), Johnson & al. (2008) and Teece (2010). Electronic business and or e-business models and value creation in e-business has been studied, for example by Timmers (1998), Amit & Zott (2001) and by Hedman & Kalling (2003). Lots of events, evolvement and new elements, such as mobile shopping and cloud services taken place recently. These issues have been studied, for example by Yenna (2014) and Been (2014). Online business models and technological advancements often call for, or lead to innovation. One of the most known scholars on innovation is Clay-

ton Christensen. His book *Innovators Dilemma* (1997) is amongst the bestseller on innovation literature. Other often cited innovation studies are conducted by Afuah & Tucci (2003), Apilo & Al., (2007) and Tidd & Bessant (2009). E-business models and innovation together constitute the business model innovation. Some often cited studies on the topic of business model innovation worth mentioning are *Creating Value in the Times of Change* by Amit & Zott (2010) and *Business model innovation: it's not just about technology anymore* by Henry Chesbrough (2007). Raphael Amit and Christopher Zott, also frequently cited in this research, seem to be the pioneers in the field of business model-related research. The previously mentioned, most often cited researchers on business model-related research, such as Amit & Zott, Chesbrough and Teece are also the leading scholars on business model innovation research. Omnichannel retail, as mentioned is a rather novel concept in science chronology. As mentioned, it was coined by ICD Retail Insights in 2009 and it has been mostly applied in the research of business and management consulting companies.

There is a decent amount of research made in the field of online grocery retailing. Most the research has been carried out within the first wave and the IT-bubble, around 2000's, when, apparently, neither the technology nor the markets were ready to embrace online retail, let alone omnichannel. One of the newer benchmarks researches in the field is a doctoral dissertation "Industry Transformation Initiated by a Technological Innovation - Case of UK Grocery, made by Arhi Kivilahti (2013). He has been considered as one of the most known experts in the field of commerce and eCommerce in Finland. His findings were that Internet as a technological innovation seemingly enabled dramatic opportunities for the industry at the turn of the millennium, coinciding with the dotcom boom. Some of such examples were being referred to in this research. The title of Kivilahti's (2014) dissertation would suggest that online grocery retail initiated by Internet technologies have led the UK grocery sector into a transformation.

Since the second boom of online grocery has been initiated, there has been master's theses around the topic of online grocery retail in Finland, many of which focus on the electronic business models and their components. Lehtinen (2014) has studied the business models of online grocery retail and the value proposition component in particular. Hento (2013) has studied online grocery retail and its special characteristics, challenges and consumer's mo-

tivations for using online grocery services. Kangas' (2014) study examined the components and trends of e-business models via case examples from the Finnish online grocery market. The first two came up to a relatively similar conclusions that the key component of online grocery business model is value proposition and the motivations for consuming the service is convenience and time savings. Kangas (2014) established a conclusion that the key business model components in online grocery retail are value proposition, value networks, channels, critical success factors and key operations. These studies are clearly focusing on electronic business models and online grocery retail and they are focused around e-business models.

Huttunen (2013) studied brick and mortar, online store and their hybrid model integration within the health products context. Though this research does not focus on any specified grocery category, the focus and approach of Huttunen's (2014) study is clearly the closest to this research. Along with the conclusions regarding the health products, Huttunen's (2014) research established a conclusion that hybrid models of online and offline store is a way to differentiate and create competitive advantage.

I decided to choose Emerald as the database to draw the research history on the topic as it is one of the most acknowledged and used source amongst scholars. The search performed valid results, and as table 1. depicts, there has been some research on online grocery retail as such, but as one bears in mind the time frame, which is 20 years, the amount of research is not that immense. Though some of the online grocery retail research papers might refer or cover the aspects of conventional, brick-and-mortar retail, their approach seems to be, for the most part, online grocery retail within the e-business models.

Table 1. Previous research made on topic, globally and in Finland.

Database	Key words	Time Range	Number of Research (Finland in brackets)
Emerald Insight	Online Grocery	May 1995 - May 2015	1035 (75)
Emerald Insight	Online grocery business model	May 1995 - May 2015	680 (50)
Emerald Insight	Omnichannel Grocery	May 1995 - May 2015	1 (0)
Emerald Insight	Omnichannel grocery Business Model	May 1995 - May 2015	0 (0)

Table 1 depicts that as we go along to omnichannel, the amount of research papers narrows down significantly. The term omnichannel was first introduced by the retail research group, ICD Retail Insights in 2009, so one of the reasons for the relatively scarce amount of research on the topic might be the fact that the term “omnichannel” has not yet existed for a long time within a research timeline. (Louie 2015; Hand, 2013)

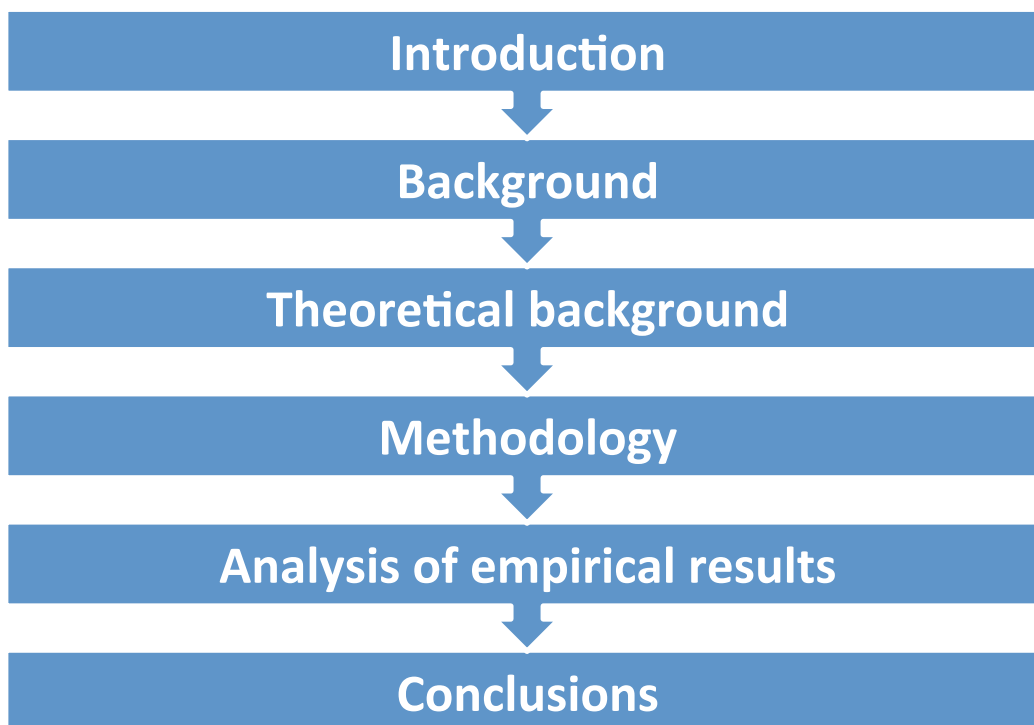
1.3 Research methodology

This research is conducted as a qualitative case study. According to Hyde (2000), a qualitative research often takes the form of a case study. Case study is an in-depth study of a particular instance, or a small number of instances, of a phenomenon. This study was a case study where two companies relevant to the phenomena of online grocery retailing were being scrutinized. Yin (1994: 13) utters that “a case study investigates a contemporary phenomenon within its real-life context, when the boundaries between phenomenon and context are not clearly evident”. Online grocery retailing is a very contemporary phenomenon and its linkages to the traditional have not yet fully been recognized, which makes it a topical phenomenon to conduct a qualitative research about.

1.4 Structure of the thesis

This thesis begins with the introduction that prompts the reader around the causalities that are transforming the business landscape and the justifications for the need to make research from the phenomena. The introduction is followed by the background section which gives the reader a picture of business environment, that is, the grocery trade in Finland, online grocery retail development, their drivers and, what is paramount, their scale of.

Figure 2. Structure of the thesis.



The theoretical background starts from the literature review on the concepts of the business models, e-business models, innovation and business model innovation and how the literature has been evolved, after which the actual theoretical concepts are being introduced. The emphasis is on the business models instead of Internet business models, since for a grocery retailer like Arina, online grocery retailing represents turnover-wise just a very small portion of their business. Innovation as a concept is being introduced to give the reader a glimpse of what is an innovation, in order to depict what is the thing that is changing the business models and lastly, business model innovation to wrap up the process.

After the theoretical part of the thesis, the research methods used in this thesis are being introduced and their validity is being discussed. In this chapter, the case companies are

reviewed in a more thorough fashion. Analysis of results is the chapter where the qualitative analysis of the primary takes place. The collected qualitative primary data is being analysed within the chosen analysis tool of business model canvas. As the last chapter, the conclusions incorporates a summary of the results, theoretical contribution, managerial implications and suggestions for future research.

2 Background

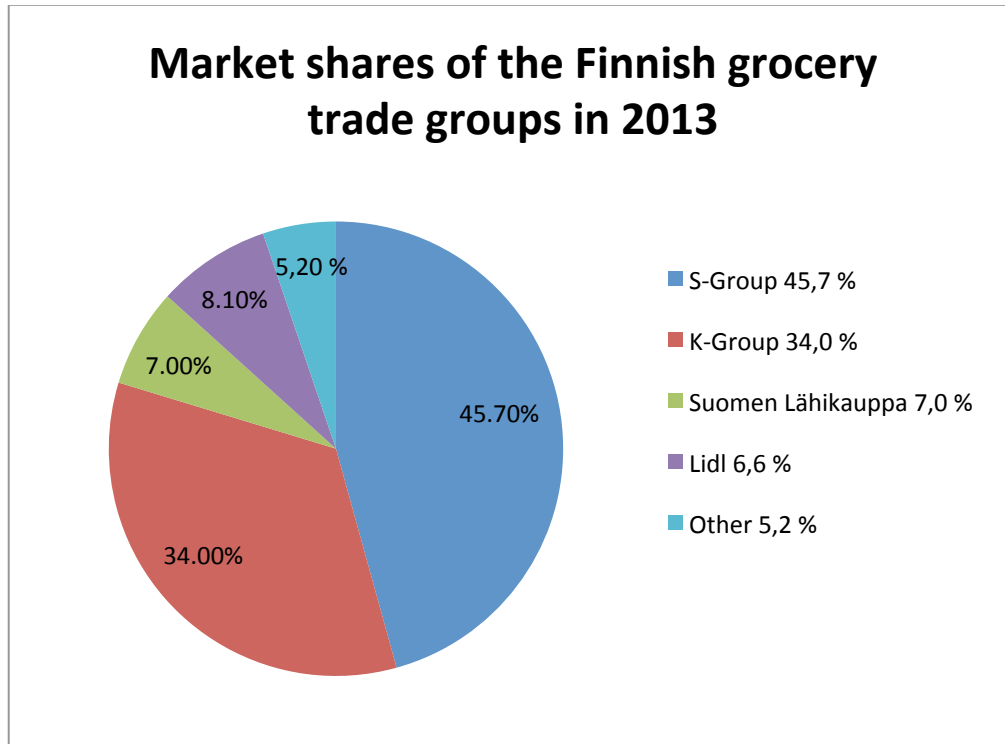
2.1 Grocery retail in Finland

We all eat and that makes every single one of us a customer of the grocery business, directly or at least indirectly. Grocery retail is the largest category of retail in Finland, as well as globally (S7, 2014). According to Rauhala, (2014), grocery trade supports heavily the economic growth and employment, and thus, generates welfare for the society, solving and contributing to social issues along the way. The statistics cover well the before mentioned, as commerce represents a 10% of the country's GDP, commerce is the biggest employer in Finland, employing more than 300,000 people (Finnish Commerce Federation, 2015) Meanwhile S Group alone is the biggest private employer in the country, providing work for 36,000 professionals (S Group, 2015d). One can say grocery trade is not just another business, but instead works as one of the cornerstones of the society at large. Still, the recognition of the industry as one of the key pillars of the society lags behind manufacturing. The Managing Director of Finnish Commerce Federation, Juhani Pekkala (2014) says that this is a bit controversial, since actually commerce in Finland is growing, whereas simultaneously manufacturing is in decline. (Finnish Grocery Trade Association, 2014).

“In Finland, industry politics as a whole are focused on developing and supporting the manufacturing industry, and the significance of commerce and services as a creator and distributor of employment and well-being has not been acknowledged”. –Juhani Pekkala (2014)

Grocery business in Finland is characterized by high taxation, high-regulation, formation of chains and centralized procurement, logistics and supply chains, of which the last is typically owned and managed by the predominant retailers. The centralization of the grocery trade derives from the relatively scarce volumes that are typical for the Nordic countries. Centralization enables the otherwise conceptually very scalable business to operate in a cost-efficient way, maintaining greater accessibility, prices and selection for the consumers. (Finnish Grocery Trade Association, 2014) The major retail formats consist of hypermarkets and superstores, small supermarkets, convenience stores, discounters, other retailers such as markets less than 3000 square feet food specialists, butcheries and bakeries and online retailers (IGD, 2015).

Figure 2. Market shares of the Finnish grocery trade groups in 2014. Drafted from Finnish Grocery Trade Association (2014).



Globally, grocery is largest category in retailing (The Economist, 2013), followed by apparel and mobile phones (FRTP, 2014). Finnish grocery retail sales value in 2013 was approximately 16,55 billion Euro's. The sales value growth was 3,2 %, but the sales volume growth reached only a growth of 0,1%. The sluggish economic development was reflected in the growth. S-Group and Lidl managed to grow their market shares in spite of. Figure 2 depicts how smaller retailers such as Stockmann, Tokmanni, M-Chain and Minimani were left to a total market share of 5,2 % in 2013. The trend has been similar within the recent years and radical changes have not been taken place. However, now the trend has turned in decline. The challenging outlook on Finnish economy and the threat of recession has caused the consumers to be cautious with their spending, and that poses a significant threat for the overall trade prospects in Finland. (Finnish Grocery Trade Association, 2014)

The retail business is encountering seismic shifts, since the growth of the Internet has driven such upheavals in the landscape that are revolutionary in scope, and unprecedented in nature (Sorescu 2011). According to E-Commerce Statistics by TNS Gallup, The Finnish Commerce Federation and The Finnish Direct Marketing Association (2014), Finnish consumers' online purchases of products and services totalled EUR 10.5 billion in 2013, of

which one-third was retail products. Online retail purchases have even outgrown overall e-commerce growth, up 25 % to EUR 3.4 billion. Still, though online shopping has taken huge strides in recent years in Finland too, its coverage of the total retail share is still under 8 %. (Finnish Commerce Federation, 2014) The compound annual growth rate of online retailing in Finland is expected to settle around 6% by reaching €4,3 billion by 2017. (Euromonitor, 2015)

“Online retailing is booming and driving the development of the retail scene within the near-term.” -Euromonitor (2015)

2.2 Online grocery retail

Even globally, online grocery retailing has been slowly evolving within the first 20 years of its journey. Issues, such as cost, logistical complexity, and the prospects for profitability key have been the key issues hindering the business to start booming. As we can see from table 2, rather heavy investments were also made during the first wave around millennium which lead to a bankruptcy of many operators like Webvan in USA. Webvan invested a total of USD 1,2 billion in total on their online grocery business initiatives before filing a bankruptcy in 2001 (Humby & al. 2007).

Table 2. An aggregated timeline of online grocery milestones. Based on Palonen, 2014.

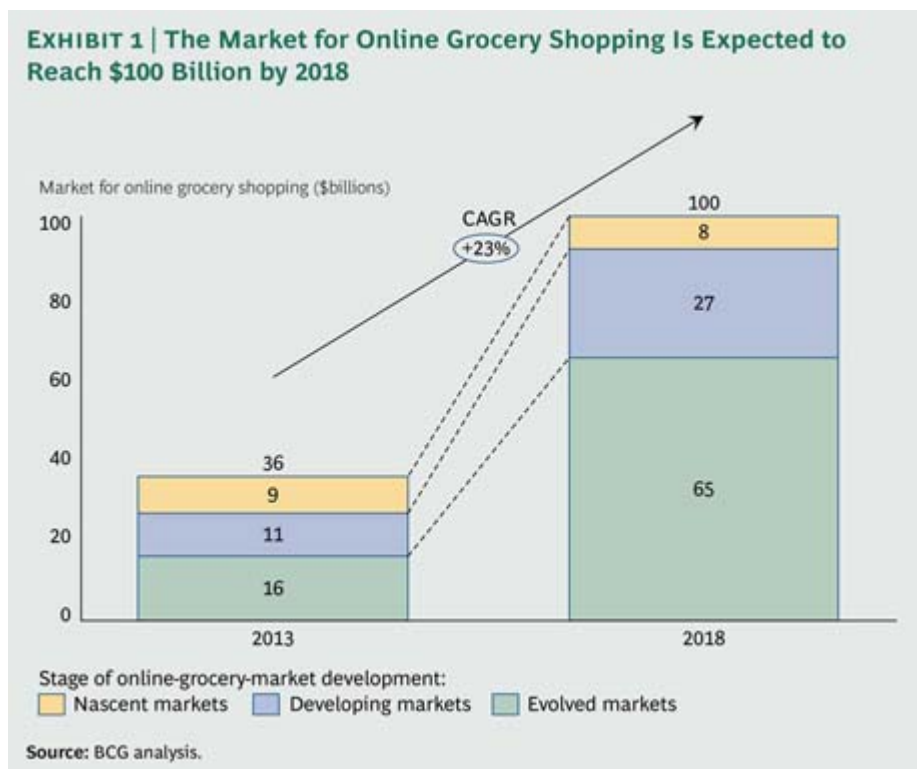
1996 Tesco, S Group and Peapod start their online grocery service	2000 Ocado opens its online grocery service in UK	2000-2004 Return from centralized to de-centralized collection	2010 HOK-Kauppakassi pilot opens in Helsinki	2011 K-Market Ruoholahti pilots online grocery in Helsinki, Finland
1997 one of S Group's cooperatives, PKO launches PKO-Kotiostopalvelu service in Joensuu, Finland	2000 S Group's cooperative of Helsinki, HOK-elanto starts S-Box pilot in Helsinki	2002 Freshdirect introduces its custom-prepared meals concept in the US	S Group and Foodie.fm launch their online grocery service with Gastronomi	2012 Hok-elanto opens a click and collect service in Helsinki
1997 Webvan is established in the US	2000 Over 20 online grocery stores in Finland	2002-2010 Long period of slow development in online grocery	Amazon Fresh expands in the US	2013 Asda starts click and collect in London underground metro stations
1998 Ruoka.net starts in Finland	2001 Webvan goes bankrupt after investing about USD 1 billion in online grocery	2006 Tesco continues to grow and opens up its first "dark store" in UK	Carrefour opens its first drive-in service for online grocery orders in France	2014 Tesco, Waitrose and Sainsbury's Asdas underground initiative in London
1999 Webvan opens its first distribution center in the US	2002 S Group shuts down its online grocery operations	2007 Amazon attends online grocery business with piloting Amazon Fresh concept in the US	Social media and mobile solutions embark	2014 Amazon launches Amazon Dash gadget – a voice-enabled scanner for ordering groceries from Amazon Fresh
1999 Webvan starts their OGR service in the US			Second wave of online grocery starts in the US	2014 Arina Opens a click and collect drive-in service in Oulu, Finland
			A number of hybrid-models in collection and distribution are being introduced	2014 HOK-elanto opens cooled, click and collect parcel lockers for online grocery orders in Helsinki-Vantaa Airport
				2015 Amazon introduces Amazon Dash-button for Amazon Fresh



One common element behind the notorious failures was the delusion that the industry would soon go through a robust and rapid transformation. It did not. The early experiments with online grocery at that time were either failures or saw very slow customer adoption, making the business very unprofitable for the e-grocers. These negative experiences from

the 2000's experiments later on worked as a speed pump for the traditional grocery retailers, that in fear of such failures held off from significant online grocery initiatives and investments. However, now the industry has started to revive, to show potential and new investments for the business have taken place in the value chain.

Figure 3. Online grocery market estimation by Boston Consulting Group. Adopted by Biggs and Suhren (2013)



A conservative estimate is that online grocery market is 1-3% of the total grocery retail business. This means that shoppers are still choosing to spend the overwhelming majority of their money in bricks and mortar environments. However, as we can see from figure 3, online grocery market is expected to reach \$100 billion globally by 2018 (Kinthaert, 2014; Kantar WorldPanel, 2014; Biggs and Suhren, 2013). However, these numbers are somewhat debatable as they are only estimates and there are different ways to calculate them; sometimes home delivered restaurant and fast food, alcohol and non-food such as dog foods are embedded in, sometimes they are wholly or partly excluded. Overall, the value of the total grocery trade seems to be somewhere 0,1% - 5% of the total grocery market turnover, depending on the market and how it is being measured. UK is the leading online grocery market where online sales account for approximately 5%, but it is estimated to double

by 2019. Grocery market is such as huge pie, let alone EUR 244,4 billion in the UK, that even a small percentage of it can make a significant business. (Gladding, 2014)

2.3 Online grocery retailing in Finland

Online grocery retail was introduced globally and in Finland around mid-1990's when marketer's high expectations, contributed by the IT-bubble led to many overreactions and heavy investments, resulting in several operators in the field to declare bankruptcy. Hence, the 2000's was an era of very incremental development what comes to online grocery initiatives. Also Finland's leading grocery retailer S-Group some of its cooperatives and other entrepreneurs made investments to online grocery initiatives before and around millennium, but as the business was not lucrative enough, S-Group, along with many others turned down their online grocery retail operations. Back in the mid 1990's and around millennium, online grocery retail was a so-called "medium viable service", meaning that the service was up and running but it was very much a beta version on a pilot, a so-called pivot. (S7, 2014) As the technology was rudimentary - we all remember modems not to mention cellular phones that were only capable for calling and sending SMS – Retailers such as S Group at that time were clearly the innovators when at the same time markets lacked the early adopters of the service. There are number of things that explain this, such as the cold chain logistics, cost structure of providing the service, customer adoption and so forth.

Several industry experts interviewed for this research in 2014 came up with a number of approximately EUR 12 million for online grocery retail market value in 2013. According to Räsänen (2015), online grocery retail market in Finland was approximately EUR 20-30 million in 2014. S-Group along with its cooperatives has been – if not the trendsetter in Finnish online grocery, the pioneers to develop solutions for online grocery and amongst the first ones to implement and pilot such solutions. S Group reported a 66% growth in online grocery retail in 2014 and currently holds a 60-70% market share currently while Kesko claims to have similar market share in online grocery trade as it has in the conventional one, that is approximately 30% (Räsänen, 2015). Though there is number of smaller players, such as Kauppahalli24 and Ruoka.net, seemingly the predominant brick and mortars are the ones dominate the online grocery market as well.

The significant growth-rates are suggesting that now the time and the approach to online grocery retail is right and mature, the technology is advanced and the markets seem to be

embracing the service. While a great breakthrough of online food trade still awaits, S Group continues develop ways to engage with their customers in the online environment (S2, 2014). The awarded Foodie service already has 160,000 registered users, creating a genuine social network. Foodie offers complete information on the prices and selections for all S-Group's grocery stores (S6, 2014). Kesko seems to be still pivoting their vision, but is clearly ramping up their own online grocery initiatives within the near-term. Suomen Lähikauppa and Lidl that hold the largest market shares after S Group and Kesko in the conventional retail, have not shown any signs of undertaking on online grocery business. (Räisänen, 2015)

This might derive from the fact that consumable categories such as grocery is not as likely to reach the same level of online prominence as non-consumable categories. This stems from the hands-on buying nature and perishability of the grocery products. Though, things are looking up as the market is wide open, growth-digits are promising and an eager audience is at the ready. (Nielsen, 2014) Wikström (2015) complies with the aforementioned as he mentions that fresh products are not about to move online anytime soon, though some of the so-called non-food category items, such as laundry detergents and dog food are already in many consumer's online shopping baskets. However, groceries are the clearly the biggest unused potential of online retailing (McClatchey's, 2006; S7 2014). The economist (2014), agrees that groceries are the biggest category in retailing, mounting up to USD 603 Billion. This elaborates on the prospects of the online grocery retail business and its size (Cohan, 2013).

2.4 Online grocery retail benchmarks

Some of the benchmarked online grocery retail business models were analyzed for elaboration. The aggregation consists of Amazon fresh, the online grocery service of Amazon, which is also the biggest online retailer in the world, Tesco (.com) which is a UK-based omnichannel retailer, also the 3rd biggest retailer in the world and a local Finnish retailer, Arina and its Sale Kauppakassi service, which also works as a case company in this research. The online grocery business models of the benchmarks are being depicted in figures 6, 7 and 8. In addition, some of their other characteristics are being described.

Amazon Fresh

Amazon Fresh offers same-day and early morning door-step and attended deliveries of a broad selection of items, including fresh grocery and local products. As described in table 3, Amazon currently operates in four major markets within the us, but is poised out for global expansion in the near future. UK, is speculated to be the first country for amazon Fresh’s roll-out in Europe as its online grocery is market is expected to be 8% of the huge UK grocery market by 2019. (Page, 2015; Pullman, 2014; Butler, 2015) Amazon Fresh is a so-called “click and mortar” retailer as it only operates through the online channel and it does not have physical retail stores.

Table 3. Amazon Fresh online grocery service.

Offers	A broad selection of items, including fresh grocery and local products.
Operates in	As of May 2015, only in the US; Seattle, Los Angeles, New York, and New Jersey areas.
Delivery	Doorstep or Attended Delivery.
Ordering	Online, mobile & tablet, Dash button and deviceю

In addition to the conventional online, mobile & tablet platforms, Amazon offers two more devices: Amazon Dash is a gadget that works directly with your Amazon Fresh account. Say or scan items into your Dash, and then view the list on your desktop or mobile device to purchase and schedule delivery. (Amazon, 2015a) Amazon Dash Button is a re-fill button that comes with a reusable adhesive and a hook so you can hang, stick, or place it right where you need it, such as into to your washing machine. By clicking the button, it throws the product such as washing detergent to your amazon Fresh shopping basket. (Amazon, 2015b)

Tesco.com

Tesco started its online grocery service initially as early as 1996 when it formally registered Tesco.com. Today, as we can see from table 4, Tesco.com offers a wide selection of grocery items such, including fresh produce and dairy products. Tesco’s operates throughout the UK, but the cash cow is clearly the greater London area. Moreover, Tesco.com has

exported its online grocery service to Poland, Czech Republic, Thailand and South Korea. (Wulfraat 2014)

Table 4. Tesco.com online grocery service.

Offers	A broad selection of items, including fresh grocery and local products.
Operates in	U.K, particularly in the greater London area. Operates also in Poland, Czech Republic, Thailand and South Korea.
Delivery	Click and collect, home delivery, dark-stores and dot.com depots.
Ordering	online, mobile & tablet and virtual shopping walls in the subway.

Unlike Amazon Fresh, Tesco is a so-called omnichannel retailer, meaning that it sells and delivers groceries in all of the channels. Tesco has innovative solutions through which to buy groceries such as virtual shopping walls in central locations like subway stations. Tesco is said to be one of the only profitable online grocers in the business. (Warschun, 2012: Wulfraat, 2014) However, this is somewhat debatable as according to S2 (2015), Tesco would allocate the costs of its online operations on the physical retail operations.

Sale Kauppakassi - Arina

Sale Kauppakassi is a an online grocery service provided in the front-end by the case company and a local retailer, Co-operative Society Arina, in co-operation with Foodie.fm. Foodie is a multi-platform service through which Sale Kauppakassi consumers can buy groceries with their computer and smart devices. Sale Kauppakassi was launched in 2010 and today it offers an assortment of approximately 5000 grocery items, including dairy products, local food and fresh produce. Sale Kauppakassi operates within Oulu region in the Northern Finland. (S Group, 2010: S5, 2014: S Group, 2014b)

Table 5. Sale Kauppakassi online grocery service.

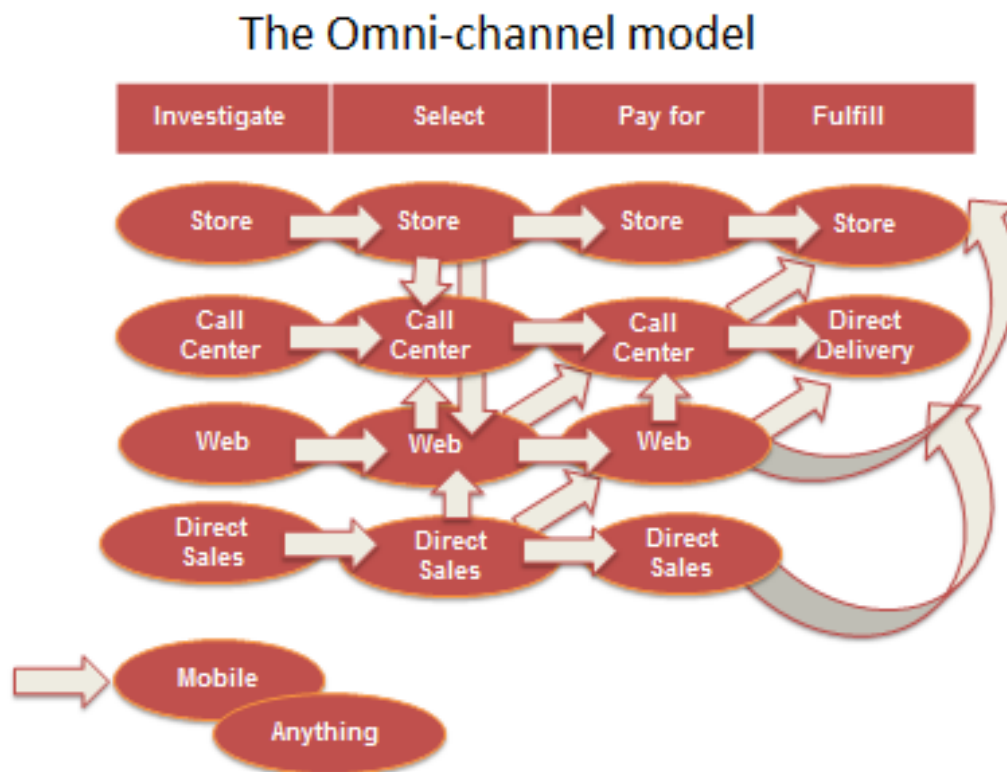
Offers	A broad selection of approximately 5000 grocery items, including fresh grocery and local products.
Operates in	Oulu region, Finland.
Delivery	Click and collect & drive-in, home delivery.
Ordering	Online, mobile & tablet.

Groceries ordered online from Sale Kauppakassi can be collected from the physical store of Sale Raksila, which is one of the local retail outlets of the co-operative Co-operative Society Arina. Worthwhile noticing is that this is one of the rare grocery stores, even on a national scale, that are open 24 hours a day. Furthermore, Arina has been one of the first – movers in Finland for offering a drive-in solution where its customers can have their online groceries delivered directly into their vehicles on a drive-in lane. This solution has become popular within the recent years in central Europe, especially in France. As we can see from the table 5, Arina offers home delivery for the online groceries ordered from Sale Kauppakassi service. The last-mile home delivery is provided in co-operation with a national logistics service provider and the second case company, Posti. Groceries ordered from Sale Kauppakassi are being delivered within Oulu area and its neighboring municipality, Kempele. Sale Kauppakassi can be considered as a benchmark in the Finnish online grocery business. (S Group, 2014b; S5, 2014)

2.5 Omnichannel retail

Digitalization transforms grocery retail landscape so that the value proposition is not about offering groceries only, but rather, offering customers a full spectrum of the essential components to deliver an overall excellent supermarket experience for today's multifaceted, multi-device consumers, who have distinctly more brand choices and channel options available than ever before (Major, 2014). To cover the multitude of the channels, a term called Omnichannel was coined. The multitude and connectivity of these channels are illustrated in figure 4. Omnichannel was first introduced in 2009 by the retail research group, ICD Retail Insights. Omnichannel retailing is to reach the consumers wherever they are– in-store, online or using their smart devices. It means continuing a consumer's shopping experience across multiple platforms. (Fitzgerald, 2014; Hand 2013; Louie 2015)

Figure 4. The Omnichannel Model: Adapted from Rosenblum & Zaballos (2013)



We can see from the figure 4, how omnichannel is a synchronized operating model of doing business in which all of the company's channels are aligned to present a single-faced interface for the customer (Carrol & Guzman, 2013). The underlying idea in omnichannel retailing is to reach the consumers wherever they are – in-store, online or on their phones and utilize technology to turn the expensive physical evidence more profitable for the retailers (Fitzgerald, 2014). Overcoming these challenges, the online and mobile retailing poses substantial opportunities for the traditional brick-and-mortar retailers, such as increased sales e.g. through expanding to new markets

“Over the past few years, consumers have become more empowered, more connected to companies and to each other, and more globally diverse. Yet many service providers still utilize a decades-old, “one size fits all” service model that prevents them from responding effectively to the evolution in consumer needs and behaviors”. – Donald Carroll, Inez Guzman (2013: 2).

Omnichannel calls for reassessment of multiple channel and channel migration strategies. However, multichannel, meaning multiple channels to offer services in, is “long-gone” and

the buzz is currently around omnichannel retailing, since customers are now moving around various platforms (Fitzgerald, 2014). “Today, most large retailers have morphed into multichannel firms, where the same customer visits the retailer via different channels for different purposes (e.g., obtains information online, makes purchases offline, and contacts customer support via telephone)” (Sorescu & al. 2011: 3). Omnichannel is more than just more than one channel. It is a complex phenomena that needs to be well understood before implementing anything.

“Being Omnichannel is a notch above being multi-channel in the sense that it focuses on providing a unified and consistent experience to shoppers as they move from one channel to another seamlessly.” – Kalhara Gandrakota (2015)

Overcoming these challenges, the online and mobile retailing poses substantial opportunities for the traditional brick-and-mortar retailers, such as increased sales e.g. through expanding to new markets and market segments and increased customer engagement. In addition, as the competition in the grocery trade in Finland is very much price-driven, the Omnichannel approach provides the companies with other means to compete with, for example through value added service.

As the retail sector is currently very volatile and the contemporary online-dimension and the stationary online-dependency in retail might pose challenges for the retailers and it drives them to seek for increased efficiency and enhanced flexibility from within their key activities such as their IT-operations. The Omnichannel thinking derives from technological innovation combined with the consumer behaviour enabled by the technological innovation. Thus retailers are ever increasingly more starting to align and integrate IT to their business strategy instead of the current IT-strategy silo models. (Rusu, El Mekaway, 2010; Adaba & al. 2010) The category manager of online grocery, S-Group, Matti Tornainen (2014) gives an excellent example of this as he mentions that the current operation models and systems are initially designed to serve the conventional grocery retail. Hence, it requires a lot of work from S-Group to get the IT-systems fully integrated support online grocery retail processes. IT operations facilitate the omnichannel approach, and neither of IT operations nor omnichannel thinking should not be considered as a single supportive function of business conduct, but as an integrated part of the core business strategy.

“Retail change is driven by customer behaviour. Internet and multi-channel service drive the biggest change since moving to self-service in 1950’s.” - John Davison, (2013)

2.6 Consumer Behavior & Nexus of Forces

The need for omnichannel thinking stems from the contemporary consumer behaviour, initiated by technological advancements. So what drives the consumer behaviour then? This research suggests one of the change drivers is a phenomena consists of four separate but interlinked, contemporary phenomena that contribute, control and drive the consumer behavior; Nexus of Forces. According to Gartner (2012), “The Nexus of Forces is the convergence and mutual reinforcement of social, mobility, cloud and information patterns that drive new business scenarios.” These four forces and their mutual convergence is illustrated in figure 5.

Figure 5. Nexus Of Forces applied in retail. Adopted from Gartner (2014)



Today’s consumer takes full advantage in using the full spectrum of mobile technology and solutions that support mobility, since mobile helps them to become even more informed about the products and services than the staff is. Already within the pre-purchase stages, consumers use their mobile devices to obtain the information about the products, no matter the location or sales channel. The information searched can be about the product

features, its usage, what others think about the product (social), are there any coupons or special offers available with regards, what are the distribution channels and the locations of the nearest physical stores. This consumers' quest for information leaves a digital footprint, creating vast amounts of data that can be further used within the pre-purchase stages, such as within the after sales. Moreover, the data gathered online can be utilized when planning in-store solutions and offering. (Yenna, 2013).

“Those who have our app are making twice as many trips to Walmart, and their spend is 40 percent more” - Wanda Young, Vice President of Media and Digital Marketing at Walmart

Now we all know the importance of social media in any B2C business today. Social media enables “liking” the products they favor, sharing information and creating “buzz” around the products. Though, today's media already resembles social media. This information is also there for the companies to harvest, though it might be challenging due to the complexity and diversity of the social media platforms. Social media is an excellent tool to customize offering through mass-customization. In a retail business and especially in the grocery business, which deals with the enormous segmented mass market and huge B2C volumes, mass customization brings enormous value creation possibilities along with cost savings. Personalized mass-marketing and coupons are just some of the examples that social media is able to offer for a retailer, or for any company. Social media also works as a communication platform between the company and the consumer. (Yenna, 2014) Social is an also great avenue for engagement, but it's generally a great source of information. Given the size of these networks, the potential of social networks is huge (Been, 2014). The power of social media today is absolutely overwhelming.

When moving to cloud the retailers are able to provide their customers with accurate real-time information. In the cloud the information is up-to date on all of the systems, enabling the customers and the vendors to be on the same page when communicating about the products or services. Cloud offers the access to information for all of the participants in the value chain, including managers, associates and consumers wherever and whenever. The use of the cloud is beneficial for both; the seller and the buyer, before, during and after the purchase. It enables to decrease downtime, increase security and enhance you're the retailer's performance. (Yenna, 2014). Cloud is beneficial for all of the contributors in the value chain.

Though introduced as last, definitely not the least of the four dimensions of Nexus is information, sometimes also referred as “the big data”. Retailers have astronomical amounts of data about their customers. Due to their extensive loyalty programs, the Finnish retail giants; S-group and Kesko have been harvesting the data of our shopping endeavors and preferences and planned their offering and operations accordingly for decades. In addition, they have been tracking our (consumer’s) movement in the physical outlets for long time already. As we move to online environment, the amount of this shopping data available for the retailers grows exponentially. Online environment leaves a larger (digital) footprint than offline and enables better exploitation of retail analytics in order to serve the customer better.

“The sheer amount of data a retail operation creates through the use of a physical store, eCommerce store, mobile applications and social media is astounding.” Archana Yenna (2014)

These four forces are four hugely disruptive technology-driven trends that converge at one time, now that is. These trends are reshaping and transforming the way all businesses, operate, including the grocery trade. These four trends are already disruptive on their own, but together they are revolutionizing business and society, disrupting old business models and creating new ones. (Xtium Research, 2014) Nexus of Forces is rather novel, but proven innovative concept that has already enabled numerous companies to make very good decisions business-wise, based on real-time data and integrated systems (TIBCO, 2013).

“The benefits of mobile and social shopping integrated with cloud computing and accurate processing of data can mean the difference between a retail operation that succeeds in today’s changing world and one that does not.” Archana Yenna (2014)

Elliot (2012) says that “Whether it be vendors, end users, private companies, governments, hospitals or universities, all organizations that produce or consume IT are affected by the Nexus of Forces, and they need to choose how they will respond”. The value of these forces will materialize for the organizations that can seamlessly combine the information or business functionalities with their existing systems; integration is a requirement. The connectivity and scalability of integration platforms must cope with the increased volume of information exchanges. (Been, 2013)

3 Theoretical Background and literature

The theoretical background of this research discusses about the relevant research conducted on the topics. The theoretical background covers the research conducted on business models, where the emphasis is on the business model canvas introduced by Osterwalder & Pigneur (2010). Furthermore, research on electronic business models and the applicable electronic business models are being discussed. Research on innovation and innovation types and characteristics are reviewed and business model innovation, as well as different types of business model innovation is being discussed and reflected through respective research.

3.1 Business Models

The concept of business model lacks consensus; Despite the overall surge in the literature on business models in 2000's, scholars still do not agree on what is the exact definition of business model (Zott & al., 2011). An aggregation of the business model definitions is presented in table 6. The concept is very widespread in practice, but the academic literature around it is fragmented, the construct boundaries are unclear and the definitions are incoherent (George & Bock, 2011). The literature is developing in silos and the researchers frequently adopt idiosyncratic definitions with their contemporary researches that do not always cohere (Zott & al., 2010). Morris & al., (2003) agree with the aforementioned as they state that no generally acknowledged definition of the term "business model" has emerged). According to Kar, (2011) Business model concept stems from the Porter's five force framework. After the e-business initiated, Porter's five force framework was seen as inapplicable to the e-business context. Hence, the concept of business model was initiated.

Table 6. An aggregation of business model definitions. Adapted from Zott & al. (2011)

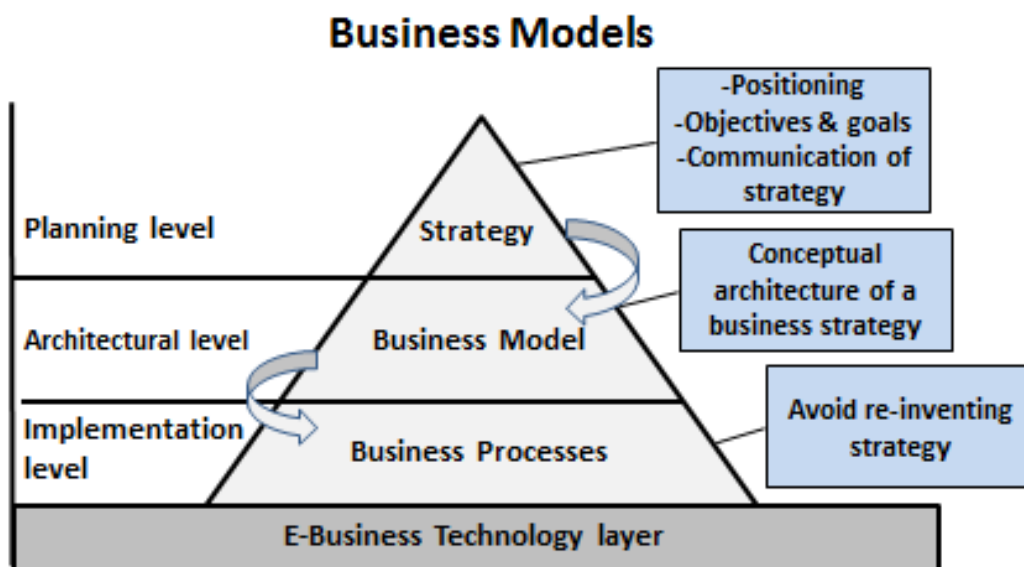
Author(s) & Year	Definition
Timmers, 1998	The business model is “an architecture of the product, service and information flows, including a description of the various business actors and their roles; a description of the potential benefits for the various business actors; a description of the sources of revenues” (p. 2).
Amit & Zott, 2001; Zott & Amit, 2010	The business model depicts “the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities” (2001: 511). Based on the fact that transactions connect activities, the authors further evolved this definition to conceptualize a firm’s business model as “a system of interdependent activities that transcends the focal firm and spans its boundaries” (2010: 216).
Chesbrough & Rosenbloom, 2002	The business model is “the heuristic logic that connects technical potential with the realization of economic value” (p. 529).
Magretta, 2002	Business models are “stories that explain how enterprises work. A good business model answers Peter Drucker’s age old questions: Who is the customer? And what does the customer value? It also answers the fundamental questions every manager must ask: How do we make money in this business? What is the underlying economic logic that explains how we can deliver value to customers at an appropriate cost?” (p. 4).
Morris et al., 2005	A business model is a “concise representation of how an interrelated set of decision variables in the areas of venture strategy, architecture, and economics are addressed to create sustainable competitive advantage in defined markets” (p. 727). It has six fundamental components: Value proposition, customer, internal processes/competencies, external positioning, economic model, and personal/investor factors.
Johnson, Christensen & Kagermann, 2008	Business models “consist of four interlocking elements, that, taken together, create and deliver value” (p. 52). These are customer value proposition, profit formula, key resources, and key processes
Casadesus-Masanell & Ricart, 2010	“A business model is . . . a reflection of the firm’s realized strategy” (p. 195).
Teece, 2010	“A business model articulates the logic, the data and other evidence that support a value proposition for the customer, and a viable structure of revenues and costs for the enterprise delivering that value” (p. 179).

Osterwalder’s & Pigneur’s (2010: 14) provide a simple and concise description on the issue, which, however is comprehensive enough to be applied in multiple contexts: “Business model describes the rationale of how an organization creates, delivers and captures value”. (Kaplan 2012) adds that, in order to answer what is a business model, you need to ask the following three questions:

1. How does your organization create value?
2. How does your organization deliver value?
3. How does your organization capture value?

According to Morris & al., (2003) the diversity of the definitions available pose substantive challenges for determining what constitutes a business model and delimiting the nature and the components of the model. The diversity often tends to lead to confusion between business model, strategy, business concept, revenue model and economic model, as they are being used interchangeably. Consequently, Zott & al. (2011), business model is often studied without an explicit definition of the concept.

Figure 6. e-Commerce and e-business strategies. Adapted from Kar (2011)



Business model typically demonstrates the linkage between a firm’s intra-organizational factors, such as resources, functions, key activities, and its external environment, such as partners, suppliers, alliances, competitors. Business strategy, in turn, defines the relationship between the aforementioned. Business model could be concerned as more of an implementation tool for the strategy, which works as an operation mode for a specific situation in a particular market. (Mansfield & Fourie, 2004). According to Johnson & al. (2008), “only few companies understand their existing business model well enough—the premise behind its development, its natural interdependencies, strengths and weaknesses (limitations)”. Hence they don’t know when they can leverage their core business and when success requires a new business model. Business model is often the locus and the medium for the operational implementation of the company’s high-level strategy. (Pynnönen & al., 2012). Osterwalder & Pigneur (2010) complement the aforementioned well as they articulate that the business model is like a blueprint for a strategy to be implemented

reduction sauce of sorts—which in turn focuses attention in the right direction”. The nine building blocks of the Business Model Canvas are being thoroughly introduced the following chapters.

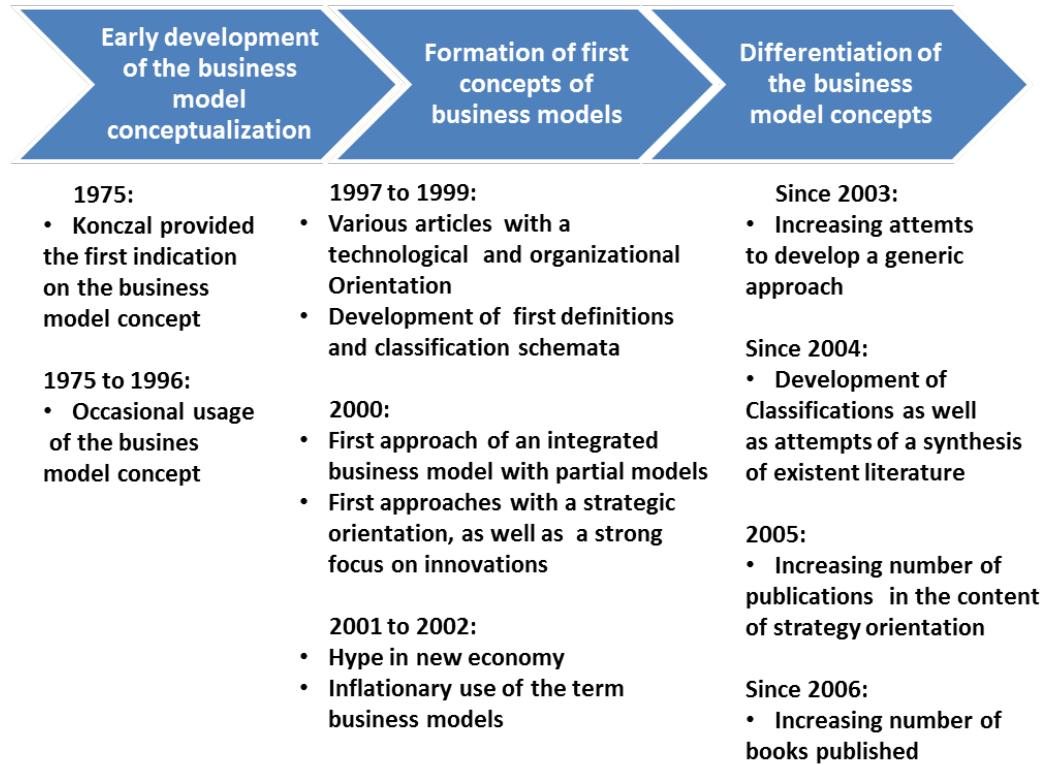
It’s common in academia that some aspects of theories are thought of long before they are formally adopted and brought together into the strict framework of an academic theory. This is exactly the case with the concept of business model as well. The phenomenon has been there ever since business activities have been executed by organizations. For example Normann (1977) introduced the business idea concept. Sounds familiar? Norman’s business idea concept distinguishes between three different components:

1. The internal external environment, its needs and what it is valuing;
2. The offering of the company; and
3. Internal factors such as organization structure, resources, knowledge and capabilities, systems, values.

Normann’s business idea concept is thorough but general in nature. Business idea concept’s relation to the external business model concept environment depends on the offering. On the contrary, the offering is dependent upon the internal factors of the firm (Hedman & Kalling, 2001).

So how and when was the business model concept initiated and how has it been evolved? Wirtz (2011) provides his own course of the development phases of the business model in figure 7.

Figure 7. The development phases of the business model concept. Adapted from Wirtz, (2011)



Before 1990's the use of business model in the literature was very frequent. The business model concept became prevalent with the advent of the Internet in the mid-1990s, and it has been gathering momentum since then. (Zott & al., 2011) Business model framework provided the companies with a handy tool by which to reassess their means to serve the demand in the new kind of trade environment, and thus the dominance of the business model concept spearheaded among enterprises (Sharma, 2013).

3.1.1 The value proposition of what is offered to the market;

Value propositions, presented in table 7, are configurations of several different practices and resources which can be constituted of newness in the offering, improved performance, customization, "getting the job done", design, brand or status, price, cost or risk reduction, accessibility and convenience or usability. The important thing is to understand the environment, the "ecosystem" in which the company operates to even understand which activities should be performed to create new value proposition. (Skålen & al., 2015; Osterwalder & Pigneur, 2010)

Table 7. The characteristics and value of the value proposition component of business model. Adapted from Osterwalder & Pigneur (2010)

Value proposition	Characteristics & value	Examples
Newness	Satisfies a new set of needs with new kind of offering	Cel phones
Performance	Improved performance in products or services offered	It hardware
Customization	Personalized offering for customers through tailoring. Mass-customization and customer co-creation. Also possible through economies of scale.	NikeiD, Linux, Starbucks
“Getting the job done”	Helping a customer in a certain task; typically outsourcings endeavor.	Rolls Royce jet engines
Design	Standing out through a superior design, thus creating value.	consumer electronics
Brand/Status	Customers change can or “improve” their status by using or consuming a certain brand, thus influencing how they are being perceived by others.	Rolex watches, cars.
Price	Satisfying same needs with lower prices. Especially applicable if the customer prefers low prices instead of the previously mentioned (status, brand etc.)	Nano, a car by Indian Tata.
Cost Reduction	Creates monetary value for the customer by reducing their costs to perform a certain operation with lower costs than themselves or “in-house”.	Sales Force CRM
Risk Reduction	Gives the customer a certain monetary or mental assurance about a product, service or action.	Car guarantees
Accessibility	Enabling accessibility for the customers or increasing the density within the existing scale.	NetJet, jet rental
Convenience/Usability	Providing solutions that are ease of use, thus creating added value for customers.	iPod, iTunes, mobile apps

Through newness in the value proposition, companies can satisfy entirely new set of needs of a customer that were not satisfied with the previous offering. Mobile communications is

an example of this, as cellular telephones disrupted the whole industry, when they established a totally new set of needs around the telecommunications. Though, this is another example of a need, initiated by a technology-push. However, a value proposition served with newness is not always technology-driven. New value proposition through improved performance is also often related to products and their technologies as well as solutions enabled by technology. Performance can be however, improved within a service or process. As an example, an online retailer can improve its performance in the delivery with faster shipping. (Osterwalder & Pigneur, 2010) Another example are successfully managed channel relationships, for example within the supply chain, which can result in significantly improved value proposition (Tuominen, 2004).

“Convenience is important, but quality, assortment, and price also matter tremendously. The value proposition—and, of course, the marketing messages—of online grocers should reinforce these elements.” Nicolò Galante, Enrique García López, Sarah Monroe (2013)

Osterwalder & Pigneur (2010) summarize that value proposition creates value for the customer through a distinct assembly, a bundle of products and services that cater to the needs of the segment in question. These values may be qualitative or quantitative by nature. Similarly, Afuah & Tucci (2003) state that customers would prefer a company’s product or service only if it offers them something distinctive, something that the rivals one does not. Therefore it is vital to strive to differentiate through some or a bundle of these elements that are the foundations for a novel value proposition. In the end, each customer is different and has a unique value proposition (Hax, 2010).

3.1.2 The segment(s) of clients that are addressed by the value proposition

Customer segments introduced in table 8, represent separate segments if serving their needs requires and justifies a distinct offering, if they are served or reached through different (distribution) channels, they call for dissimilar types of relationships, they are substantially different in terms of profitability, or they prefer different aspects or qualities of the offer. Segmenting can be done by various means. (Osterwalder & Pigneur, 2010)

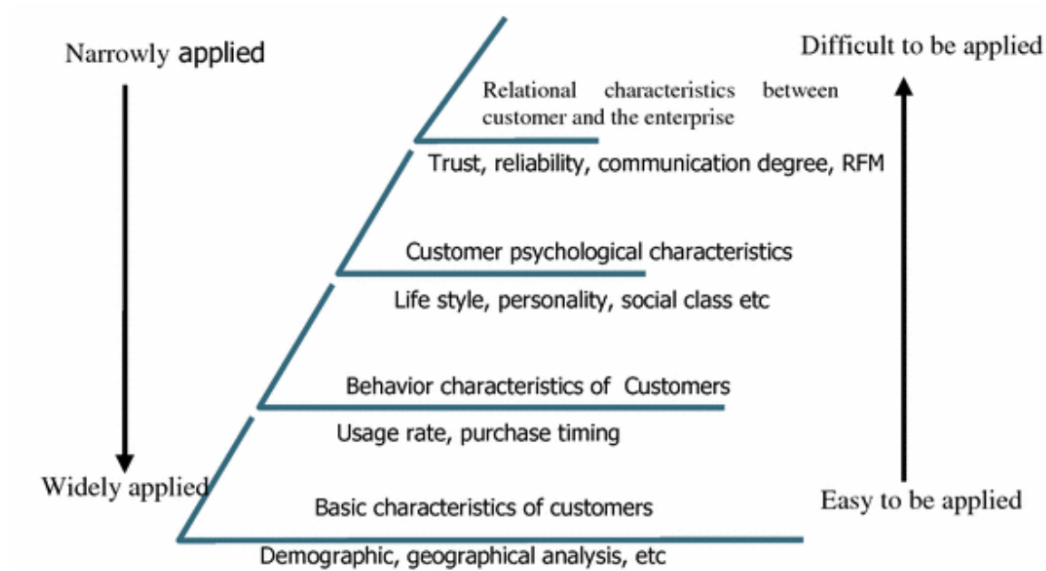
Table 8. A description of the customer segments and their characteristics. Adapted from Osterwalder & Pigneur (2010).

Customer Segment	Characteristics
Mass Market	Focuses on all segments instead of one. Applies typically to high-volume products produced by scale economies.
Niche Market	Tailored business models to serve a batch of market segments that have specialized needs. Typical example of exploitation of a niche market is the long-tail products, which are, according to Sorescu & al. (2011) yet another category of retailers simultaneously cater to multiple niche segments and as a result effectively exploit the “long-tail”.
Segmented	Similar, but slightly different needs and problems. These segments typically have same needs, but differentiate in size.
Diversified	Serves two moderately different, unrelated segments with diversified business model portfolios for each one.
Multi-sided markets/ platforms	Two or more interdependent customer segments through. This model works as a “multi-sided platform” that links two or more participants in the value chain, such as the vendor and the buyer, or the manufacturer and the supplier.

Girotra & Netessine, (2014) suggest that if your business is currently serving multiple segments, it may be best to sub-divide them into focused models, rather than trying to apply one model for all. Though, the drawback of this kind of segment-focused model has its disadvantages, since they often rely on a single product or service and thus may omit the key needs of the customer.

According to Tian & Ren (2011), customers can be segmented by demographical, geographical, social attributes, geodemographical, psychological factors, customer benefits, behavioral factors, product value, customer value and so forth. These different segmented subgroups, however, can have mutual characteristics that Hax (2010) calls as “the customer tiers”.

Figure 8. The conventional indexes of customer segmentation. Adopted from Tian & Ren (2011)



According to Tian & Ren (2011), companies assign limited resources between different classes of clients in order to save resources, improve services on an enterprise level, increase customer loyalty. Ultimately this should result in maximized profits and increased interest of customers. They highlight that efficient customer segmentation is the premises and guarantee to realize the targeted customer relationship management.

3.1.3 The communication and distribution channels to reach clients and offer them the value proposition;

Communication and distribution channels are the tools of the company through which they reach and communicate with their customers (customer segments). According to Chesbrough (2006:), as the traditional channels are being leveraged to their full extent, alternative distribution models should be actively considered. Afuah & Tucci (2000) elaborate that, unlike services, products themselves cannot be distributed through Internet, but they can be sold online. However, comprehensive information about the products, such as the features of the products, pricing, delivery times, or other useful information, like the place of origin are very useful for the customer within the pre- and post-purchase stages.

Internet distribution covers two effects that are the replacement effect and the extension effect. The replacement effect occurs if the Internet is used to serve same customers that were served through the traditional channels, without bringing in any new customers or customer segments. In turn, the extension effect occurs when new customers or segments start to consume the products or services because of the new channel available. Nonetheless, often business models has both of these elements mixed. (Afuah & Tucci, 2001)

According to Osterwalder & Pigneur (2010), distribution channels consist of five different phases. Each of the phases can cover some or all of the channel types. The channel phases describe the routines of the customer in the communication and distribution process. Hence, the different channels should be integrated according to the channel phases in order to maximize value. The channels consist of, indirect channels, owned channels or partner channels or a mix of these. Tidd & Bessant (2009) elucidate that the distribution channels may also be customized. Though the product is standardized, the packaging, delivery location and the delivery schedule can be customized according to the customer's preferences. Companies should strive to find a proper mix of channels to satisfy customer needs and thus bringing value proposition to the market.

According to Dreyer (2013) 44% of 3000 interviewed US consumers said they would prefer shopping with a retailer if they could buy online and pick up the item in the store. 62% want the ability to buy online but deal with the returns in-store. Though, one ought to bear in mind that these percentages and attitudes vary between the product categories, for example groceries are much more likely to be returned than, say, electronics. Furthermore, this elaborates that even when we are in the online retail business, the physical retail outlets as a distribution channel have a significant role in complementing the omnichannel experience.

3.1.4 The relationships established with clients;

Customers are at the heart of relationship management (CRM), since organizations income is dependent on the services and goods they purchase from it (Cheng & al., 2012) As the customers are being segmented, the initial question is what kind of relationship the company aims to establish with its customer segments. These relationships and their characteristics are presented in table 9. The motivations for establishing certain kind of relationships

can stem from customer acquisition, customer retention and boosting sales. (Osterwalder & Pigneur (2010).

Table 9. Customer relationship types and characteristics. Adapted from Osterwalder & Pigneur (2010)

Relationship Type	Characteristics
Personal Assistance	Customer is served on human-to human basis, personally, but not exclusively. Typically done through sales person or online portal.
Dedicated Personal Assistance	Based on dedicated human action; a person dedicated to serve the particular client. Key Account Managers are a typical example of these.
Self-Service	Customer is being offered with the tools to help and serve themselves. This model isn't necessary automated, since it doesn't recognize individual customer needs. A self-service car was is a typical example of this, where all of the customers can serve themselves with the same auxiliaries.
Automated Services	This model is a very contemporary and sophisticated model, where the customer is being served according to their individual needs through automated processes, such as mass-customization. Personal online profiles, such as Facebook are examples of this.
Communities	In this model, the company seeks to advance the relationship with the customers by the user communities. This is the partnership where the company strives to learn from its customers in order to serve them better.
Co-Creation	In this model, the company creates a multi-sided platform, where not only the customers interact with the company, but also with other customers. in this form customers are able to help each other. Hence, this is automated service taken even further as the company doesn't necessarily play a role in the relationship at all. Amazon and other pages with online reviews are an example of a 'relationship' such kind.

The type or model of a customer relationship is determined by what the company is seeking out from the relationship. According to Cheng & al. (2012) “There are various factors affecting the customer satisfaction on company identification, such as firms' inputs, service provision, output quality, perceived quality, and perceived value. Therefore, it is hard to increase customer satisfaction just by improving a single factor” and the overall philosophy in CRM is to sustain competitiveness edge in the market and long-term profitability by retaining established customers instead just new customer acquisition.

3.1.5 The key resources needed to make the business model possible;

Resources are the key assets of the company. They are the ones that eventually make the company’s business model work. Resources of a company are many, but Osterwalder and Pigneur categorization of a company’s key resources are presented in table 10.

Table 10. Company’s key resources. Adapted from (Osterwalder & Pigneur (2010))

Key Resources	Characteristics
Physical	Tangible resources. Typically very capital-intensive; machinery, buildings and facilities, Point-of-sale systems and distribution networks. For example Walmart has huge physical network of retail sales outlets. Amazon in turn has huge distribution centers worldwide.
Intellectual	Intangible resources that are typically very hard to measure compared to physical ones. These include, proprietary knowledge, brand, patents & copyrights, partnerships and customer databases. Nike and Sony as brands, IT-companies such as Microsoft and SAP on data and knowledge.
Human	People and their expertise. As an example, pharmaceutical industry relies heavily on scientists and their expertise in product development. We could take Apple as an example of this; the company wasn’t lucrative until he came back to the company and gave it his expertise, leading to the success we all know.
Financial	As an example, LSE manufacturers like Ericsson can take loan with low interests from the bank and further provide with different sorts of incentive finance solutions to their customers to order to their customers for attracting customers to buy from them.

Mostly all of these elements are needed to enable the conduct of a business model, and moreover, these elements can be perceived as the platform that connects resources, processes and the supply of a service, which results in long-term profits of a specific business model Nielsen (2012). However, the need for certain resources depends on the type of the business and the business model.

3.1.6 The key activities necessary to implement the business model;

The key activities describe the most important tasks a company needs to do to make the business model work. As with the resources, activities in a company are various. Still, it is of high importance to recognize the key activities of which the business model is dependent on. When a company recognizes its key activities and competencies, it can determine whether they are a competitive advantage, a differentiating factor or something out of their core competence which should be possibly outsourced. (Merli, 2013) Key resources are vital in the process of creating and offering customer value proposition, reaching the markets, maintaining the customer relationships and earning revenues. Another common determinant with key resources is that the key activities and their importance depend entirely on the business model in question.

Osterwalder & Pigneur (2010) categorize key actions to production activities, problem solving and platform/networks. Production activities are the ones related to manufacturing-like companies. Production activities can relate to design, making and delivering products that are either of high volume or superior in quality. Problem solving activities instead are about working through intangible resources, such as human capital and knowledge management to serve customer problems. In this case the result is also intangible. The operations of hospitals and consulting companies are a typical example of problem solving activities. The activities of the third business model, platform/network activities. Their key activity is to manage the platform and work as a link between the users of the platform. This is very typical for service companies such as IT-companies and online retailers.

3.1.7 The key partners and their motivations to participate in the business model;

Partners are central for any company, since not many companies can perform all of the activities of their business model by themselves. According to Osterwalder & Pigneur (2010), the types of partnerships can be either strategic alliances, between non-competitors, or strategic partnerships between competitors, also being referred as co-

opetition. Furthermore, they can establish joint ventures with other companies in product development activities. Buyer-supplier relationships are to assure reliable supplies for the company.

The types of the relationships depend on the motivations of the company, the results they are seeking. These motivations can lie in the optimization of economies of scale, which is the most basic form of a relationship aims for reducing costs through scale economies. This kind of relationship aims to the optimization of resource and activity allocation.

Risk reduction and uncertainty-based relationships are vastly applied in turbulent business environments and they can help the partners to reduce risks in the business. Risk reduction is, moreover a typical motivator behind co-opetition.

Resource and activity acquisition based partnership is a model where the company wants to extend their own capabilities of their activities and resources by some other companies expertise on performing a particular task. This is the surrounding where outsourcing typically takes place. Tuominen (2004) suggests that firm's capabilities in successfully managing close channels facilitate the fulfilment of its value proposition and this evidence has been in grocery trade supply chain contexts in multiple countries.

3.1.8 The revenue streams generated by the business model (constituting the revenue model);

Revenue streams depict the cash-flow generated by the customer segments that rolls in to the company. The costs of the company must be subtracted to create earnings. An important issue this regard is, what is the customer willing to pay the company. Another important matter is how the customer is willing to pay the company. Each of the revenue stream can consist of different kinds of pricing mechanisms, such as fixed list prices, bargaining, auctioning, market dependent or volume dependent, their margins and flexibility (Osterwalder & Pigneur, 2010; Morris & al. 2005)

Table 11. Revenue streams and their characteristics. Adapted from Osterwalder & Pigneur (2010)

Revenue Stream	Characteristics
Asset Sale	The most simple revenue model, typical for retail: After the transaction, the customer has a full-ownership on the product.
Usage Fee	Based on the quantitative use of the product or service: For example hotels charge their customer by the number of nights spent in the hotel.
Subscription Fee	Continuous access to a service. Gyms sell monthly or annual access to their gyms.
Lending/Renting/Leasing	Temporarily granting access to a service or product. Car hire is a typical example of this model.
Licensing	Based on a given permission to use protected intellectual property. Patent holders are typical licensors.
Brokerage Fees	Based on a model where an intermediary provides a platform, product or service between the participants and charge a commission of each transactions. Credit card companies are an example of this model.
Advertising	Results from advertising fees of a particular product, service or brand. Newspapers and media agencies typically lie on this model. Nowadays also works as a constitutive revenue stream with other kinds of companies that have a lot of traffic in their websites.

The revenue streams of a business model depicted in table 11, can be of two different types: these are the transaction type, in which the revenue streams result from one-time customer payments, typical for a merchant for example. The second model are the recurring revenues that result from ongoing payments or post-purchase payments, like the subscription model of Netflix and Amazon Prime where customers are able to get unlimited streaming of movies with a fixed rate. These revenue streams can be direct or indirect. For example, brokerages merchants such as Amazon deal with the transaction for a period of time before the receivables are being transferred to the seller of the goods. (Wirtz, 2011)

3.1.9 The cost structure resulting from the business model.

Broader definition of the cost characteristics of a business model is depicted in table 12. However, according to Osterwalder & Pigneur (2010), cost structures of a business model can be distinguished between two broad classes of business model cost structures. These are:

1. The cost-driven business model, which focuses on minimizing costs where ever possible. The cost driven business model typically is of low price value propositions, maximum automation and extensive outsourcing. No frills airlines as an example.
2. Focus on premium value propositions, when the costs are not the key determinant of the business model. This model is typically characterized by high degree of personalized service. Luxury brands as an example.

Table 12. The characteristics of cost structure. Adapted from Osterwalder & Pigneur (2010)

Cost characteristics	
Fixed Costs	Remain the same despite the volumes of the goods or the services being produced. Salaries, rents and physical facilities as an example.
Variable Costs	Opposite to fixed costs, vary according to volumes. Music festivals as an example.
Economies of Scale	Average cost per unit falls as the output of the goods or services grow by volume.
Economies of Scope	Cost advantages through larger scope of operations. As an example, large scale enterprises use the same marketing activities to market several products.

What are your fixed costs and variable costs are dependent upon the nature of the business (model). For example, if you are a brick and mortar retailer and you sell 10 000 carrots in a day, your fixed costs include the purchase price of the carrots, inventory plus the rent of

the retail outlet you are selling the carrots from. As an online (only) grocer your fixed costs most likely include the purchase price and the inventory of the carrots sold online, but not the rent of the retail location. This is an example on the cost structure resulting from different business models.

Sales volume has a significant meaning on the cost structure and the volume along with other major drivers behind the costs should be continuously monitored (Wirtzl, 2011). Cowan (2013) suggests to turn the focus on your key activities to determine the essential cost drivers of your business model.

3.2 eCommerce and e-business models

Electronic business is about executing company's business processes, over open networks, such as Internet, in order to substitute information for original handwork business transactions (Qingfeng, Lihua 2004). Correspondingly, Karagozoglu & Lindell (2004) state that e-commerce is about doing business online and it applies to both, B2B and B2C segments.

Hedman & Kalling (2003) elaborate that e-business models are formal depictions on how companies can leverage their offering through Internet. E-Business models reach far beyond traditional business models and strive to use information management and rich functionality as tools and means to add or create value. Above all, they are only possible through the openness and connectivity of Internet (Timmers, 1998). On the contrary, Mahadevan (2000) argues that there has been no attempt to provide a consistent definition for a business model in the Internet context. Hedman & Kalling (2003) complement that the descriptions about e-business models in literature are only formal descriptions without any causal relationships between the components. However, Roberts and Zahay (2012) present their own classification of online business models in table 13.

Table 13. Classification of Online Business Models. Adapted from Roberts and Zahay (2008)

Business Model	Characteristics	B2C Examples	B2B Examples
Brokerage Model	Brokerage facilitates a market place that brings the sellers and the buyers together. In most cases the earning logic is based on a commission, but also other models may apply, such as monthly listing charging.	Ebay, Ortiz, Priceline & Restaurant.com	eBay, Alibaba, ChemConnect, Bizydeal
Advertising Model	Advertising Model is based on delivering messages with content. It is an extension to traditional media broadcasting and the content being provided can be free or chargeable.	Facebook, Google	LinkedIn
Infomediary Model	Infomediary resells useful data and acts as an intermediary between those who want and who supply the information.	Wall Street Journal	Gomez.com, InfoUSA
Merchant Model	Wholesalers and retailers of goods and services (online retailers).	Amazon.com, Barnes & Nobles	Grainer Industrial Suppliers
Manufacturer Model (direct model)	The manufacturers are compressing the distribution channel selling directly to the end-customers without middlemen. Also known as disintermediation.	Dell Computers	Dell, Sales Force
Affiliate Model	Affiliates provide a purchase-point click-through opportunities to merchants and charge a commission from the sales it has been able to generate for the merchant.	Amazon.com	Kiosked, Restaurant.com
Community Model	Based on network principles: Connects the nodes, computers and individual users. Revenue can be based on the sales of ancillary products and services, voluntary contributions or contextual advertising and subscriptions for premium services.	Threadless, Etsy	CrowdSPRING, Linux.org
Subscription Model	Delivering services and content for a set periodic-daily, monthly, or annual-fee.	Spotify, Netflix, Angieslist, Amazon Prime	SalesForce, LinkedIn (Premium)
Utility Model	Delivering services for "pay as you go".	Skype, Google Voice, Audible	Sladshot.org.

The –business models presented in table 13, represent various models that can be used to conduct e-business. The model depends on which business the company is in. Sometimes, especially with large companies like Amazon use a combination of several models, such as an infomediary and merchant model and advertising model. Online (grocery) retailer's business model is typically based on the merchant model. However, some other complementary models or their characteristics might apply. The retailer might, for example, advertise their suppliers products on their e-commerce site and thus increase the sales of their products. This is a modern version of the so called POS (point of sale) marketing that you are able to see in the retail outlets, for example in shopping carts. Some of the online retailers also have forums or communities in their website where their customers are able to discuss, rate, review and share information about the company's products or other related topics. Some of the retailers are also manufacturers and sell their own brands through their web stores, without their own physical intermediary. For example, some of the online grocers nowadays have so called "darkstores", where customers are not allowed to access since they are designed as the pick up locations of the retailers. However, these dark stores carry the same brands as the physical outlets and thus cannot be fully considered as manu-

facturer models. Amazon (Fresh) seems to be currently the only grocery retailer that offers a subscription-based premium for the grocery deliveries, meaning that with an annual premium charged the customers are allowed to get unlimited amount of deliveries for the groceries they order. (Roberts & Zahay, 2012)

3.3 Innovation

Innovation is another concept in science that lacks a clear consensus. According to Tidd & Bessant (2009), the definitions of innovation vary depending on researcher or author and several other features. Moreover, the aspects may also be named, when defining innovation. McFadzean et al. (2005: 394) came up with the following definition of innovation in their research; “innovation can be defined as a process that provides added value and a degree of novelty to the organization and its suppliers and customers through the development of new procedures, solutions, products and services as well as new methods of commercialization”. Likewise, Storey & Salaman (2005:) agree with McFadzen & al. (2005) that innovation is of finding new, better products, services and processes. Innovation is broadly proclaimed to be the most, or at least one of the most important requirement for companies to survive and create competitive edge within the contemporary conditions. Moreover, Tidd & Bessant (2009) add that innovation elaborates the ability of the company to see the connections, identify opportunities and take leverage of them in order to gain competitive edge.

“Innovation is consistently found to be the most important characteristic associated with success” – Joe Tidd & John Bessant (2009: 5)

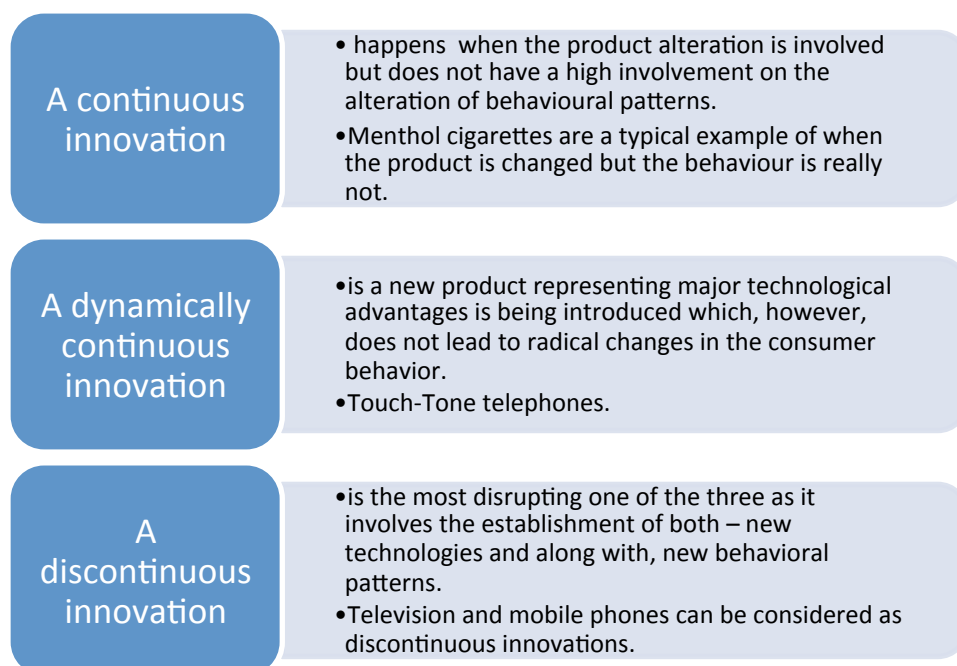
Innovation can be categorized in many ways. However, the most common way to categorize innovations is to divide them to incremental and radical innovations. Other two types of categorizations can be for example sustaining and disruptive innovation. The dimensional difference between incremental and radical innovation is the extent to which the innovation disrupts its environment. (Apilo & al., 2007; Tidd & Bessant 2009) It is utmost important to recognize the degree of novelty a particular innovation possesses, and to whom, since novelty is very much in the eyes of the beholder. Geschka & Hübner (1992) complement that innovations can also vary with their location in the economic life.

Tidd & Bessant (2009), highlight that the ways to approach incremental change differs from the ones used to handle a radical step in a product or process: Christensen (1999) depicts that incremental change is to improve the performance of the component that build on either technological concept, or to refine the system design that does not involve significant changes within the technological relationship among the components. Incremental innovations are based on the existing assets of the company; the competencies, capabilities, resources, concepts and processes (Apilo & Al., 2007).

In turn, radical innovations involve both, a new architectural and new fundamental technological approaches at a component level (Christensen, 1999). Afuah & Tucci (2003) mention that an innovation is radical if the knowledge required to exploit it is very different from the existing one of the company, when the existing knowledge can be rendered. In other words, when the exploitation of the existing assets of the company, knowledge-wise or otherwise, is not adequate.

Robertson (1967: 15-16) defined three types of innovations based on the degree to which they represent technological advances and changes in consumer behaviour. These innovation types along with their characteristics are being introduced in figure 9.

Figure 9. Innovation types and their characteristics. Adapted from Robertson (1967)



Put it simple, innovation describes novelty or change. Most commonly innovation is related to technological novelty (innovations), but innovation can also take place in the premises of the organization's arrangements, marketing forms or any other business activity that shows signs of novelty, such as a process (Mathews, 2002). Tidd & Bessant (2009) complement this as they state that simply put, innovation is a process of turning opportunities into new ideas and implementing them.

3.4 Business Model Innovation

The accelerating growth of e-business has initiated an increased interest to examine the transformation from traditional business models towards e-business models and their integration on the companies' traditional business models. This process, also known as business model innovation, has thus become very topical amongst companies that are constructing e-business models and thus, striving to better exploit the opportunities in the online environment that technology has been initiated (Pateli, 2003; Pateli & Giaglis, 2004). Kalakota & Robinson (1999) predicted that during the 2000's business model innovation is going to be the critical tool for competitive success.

Business model innovation refers to the search for new logics of the firm and new ways to create and capture value for its stakeholders; it focuses primarily on finding new ways to generate revenues and define value propositions for customers, suppliers, and partners (Amit and Zott, 2001). According to Koen & al. (2011: 59) "Business model innovation represents a new frontier in innovation beyond just product or service innovation." Business model innovation is not all about technology anymore (Chesbrough, 2007). According to Pateli, (2003); Pateli & Giaglis (2004), business model innovation, has become very topical amongst companies that are striving better exploit the opportunities in the online environment that technology has been initiated. Business innovation is somewhat hard to categorize to any innovation type because it's scope varies according to the context and case by case. For example, Apple revolutionize the music industry with a completely unseen business model with iTunes, where as online grocery retailing seems to be an incremental innovation that evolves slowly and calls for incremental improvement in the retailer's business model.

To initiate, business model innovation doesn't necessarily need technology or technological innovations, but it can be thought through any kind of reassessment and reconstruction

in the organizations value creation and new business models can themselves represent a form of innovation. It is worthwhile noticing, that when business model innovation a while ago used to mean massive investments in technology and R&D, actually business model innovation doesn't need necessarily yield anything novel, except novel ways of thinking, which doesn't cost a thing. (Teece 2010, Chesbrough, 2007). Similarly, Girotra & Netessine (2014) see the excellence of business model innovation as they state that business model innovation is a wonderful thing, since at its simplest, it calls for neither new technologies nor the creation of new markets, but rather delivering something through the existing assets of the company. Apilo & al. (2007) complement that business model innovation doesn't even require to involve the invention phase at all.

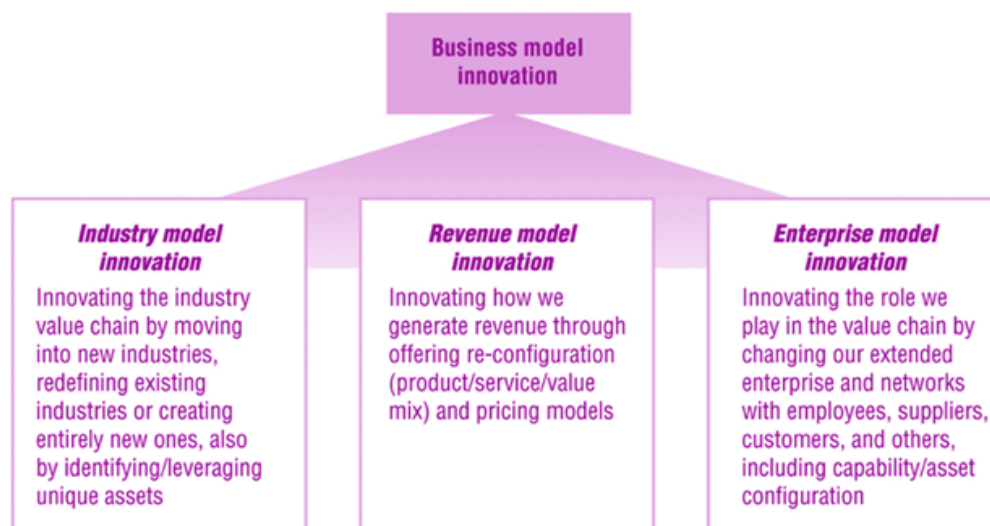
Business model innovation is an powerful way of differentiate or to change value proposition or product offering. (Davidson, 2013). Companies can create value with their existing resources, but moreover, they can capture it in different ways, for example. By changing their earning logics. Often companies may achieve in-firm advantages through business model innovation, such as cost efficiency, in addition to the competitive edge or added value.

Amit & Zott (2010: 7) provide us a new starting point as they state that “researchers have begun to describe the business model as a source of innovation, for example, when it connects previously unconnected parties, links transaction participants in new ways, or introduces new transaction mechanisms. Business model innovation thus conceived may complement innovation in products and services, production, distribution or marketing methods, and markets.” The previously mentioned cover to large extent the very same functions that the business model canvas is about, and thus, it is valid to scrutinize all of them in order to identify the innovation prospects of a business model in a detailed level.

3.5 Types of business model innovation

According to their experience, an extensive literature review and an analysis of their 35 best practice cases plus a scan of over a dozen others, Giesen & al. (2007) conducted a study in which they categorized business model innovation in three main types. These three types are described in figure 10.

Figure 10. Different types of business model innovation. Adopted from Giesen & al. (2007)



3.5.1 Industry Model innovation

The first one of these models is the industry model innovation where the company strives to revolutionize the business model by innovating the industry value chain. This radical innovation can be done by moving to new industries, redefining the existing one(s) or creating entirely new industries. Giesen & al. (2007). As an example, Osterwalder & Pigneur (2010) describe how cellular phones revolutionized the telecommunications industry.

Within the IT-sphere, IBM moved to a completely different industry as they transformed themselves from an IT hardware retailer to a consulting company. That would speak for a complete enterprise model innovation. When we come to the grocery trade, Tuominen (2014) says that because of the new rules of the competitive landscape, innovative business concepts and collaborative relationships between channel members would be needed. This would yield for elements of the industry model and enterprise model innovation.

3.5.2 Revenue Model Innovation

The revenue model focuses on reconfiguring the company's 4P strategy or by introducing new value capture, such as earning logics, typically with regards to their existing portfolios. For example, the introduction of a new innovative pricing strategy, such as from transaction pricing to flat rate could provide the company with access to new segments. This model is being used by Netflix. However, revenue model can also comprise of novel tech-

nologies. In this sense, introducing novel technologies does not necessarily mean the technologies are being introduced to the customers or in the customer interface, but also with in-company operations. (Giesen & al., 2007)

3.5.3 Enterprise Model Innovation

According to Giesen, (2007), the enterprise model is about repositioning the company or its offering through structural innovations of the company or the company's value network. Geschka and Hübner (1992) talk about two forms of an enterprise innovation, where the organization can either involve the structural innovation of the organization or the innovations which deal with the systems of the organization, such as the value creation process. Ramirez & Normann (1993) provide with an excellent depiction about this matter, when they augment that company's key strategic task is the reconfiguration of roles and relationships among the constellation of actors in the value network in order to mobilize the creation of value in new forms and by new players. So in the enterprise model, the emphasis on business model innovation is not in the company nor in the industry it plays, but in the value creation system itself. The system consists of different economic actors like suppliers, partners, allies and customers that all work together in order to co-produce value in the system. The resource-based view-perspective considers these as a collection of complementary and substitutive resources possessed by different firms (Pynnönen 2008). Hübner (1986), highlights that companies rely on their specific potentials within the value creation process. The constituents of the system (actors) who play for the same basket are interlinked, so reposition of one constituent interferes with the whole network, and thus, to the entire value creation system.

4 Research methods

4.1 A qualitative case study

This research was conducted by qualitative case study research methods. According to Van Maanen (1979: 520) “a qualitative method is an umbrella term covering an array of interpretive techniques which seek to describe, decode, translate and otherwise come to terms with the meaning, not the frequency, of certain more or less naturally occurring phenomena in the social world”. Saunders & al. (2009), highlight that qualitative data analysis is widely applied in business and management research. Eriksson and Kovalainen (2008) also agree that qualitative research method dominates the body of science and research work within the social sciences, such as business research.

“The fact that the case study is a rather loose design implies that there are a number of choices that need to be addressed in a principled way.” -Christine Benedichte Meyer (2001)

Not only can it help in probing the sub-conscious mind of the respondent, but it also finds extensive use in brainstorming sessions that often pave the way for embarking upon product development or solving marketing problems.

Now this being said, Hara (1995) points out that researcher’s interest, personal knowledge and research experience can influence the research and cater to the analysis and its results in a qualitative research. Researcher’s personal experience on the chosen topic was applied to some extent within this research and was. The authors strengths lie in the qualitative side, and thus qualitative research methods were applied.

Qualitative data analysis is primarily used to describe data collection methods or data analysis procedures that are either using or generating data that is non-numeric by nature (Saunders, 2009) This research was build on the primary data collected and the data collected was non-numeric, based on the interviewees own experiences and opinion on the issues rather than to absolute truths, statistics or facts. qualitative research can help in probing the sub-conscious mind of the respondent and often finds the use in brainstorming sessions. These often result into product development or solving marketing problems. (Sreejesh & al. 2014) this is why qualitative research leaves a lot of room for interpretation

of the data, whereas quantitative data and data analysis is based on a so called “hard data”, which generally leaves a more remote possibility for interpretation.

Case study is preferred in examining contemporary events, but when the pertinent behaviours can't be manipulated. Case study as itself is a distinct research strategy (Yin, 1989). According to Hyde (2000), a qualitative research often takes the form of a case study. Case study is an in-depth study of a particular instance, or a small number of instances, of a phenomenon. There is a number of actors in the Finnish online grocery business. This study was a case study of two companies that together are providing a Finnish online grocery service. Yin (1994) points out that a case study investigates a contemporary phenomenon within its real-life context, when the boundaries between phenomenon and context are not clearly evident. Online grocery retailing is a very contemporary phenomenon of which there is a limited amount of research conducted in Finland, especially within the omnichannel perspective. For these reasons it was reasonable to study these case companies in a case study.

4.2 Research approach

Every type of empirical research has its own research design. Research design is the logical sequence that attaches the empirical data to the assigned research questions and eventually to the research's conclusions. It is the action plan for getting from “here” to “there”, “here” indicating the initial research questions to be answered and “there” referring to the being the answers to the assigned questions, in other words, the conclusions. (Yin, 1989). This research follows the setting of a deductive research approach.

A deductive research approach ‘begins with and applies a well-known theory’. Deductive reasoning begins with the general and ends with the specific. (Wilson, 2013) In turn, inductive reasoning works the other way around, moving from specific observations to broader generalizations and theories. Inductive reasoning hence attempts to generate new theory. Deductive reasoning is also called as the “waterfall” or “top-down” approach. Burney (2008) Johnston (2014) suggests that the majority of research starts with preconceived ideas and therefore lean more towards deductive research approach. Spector & al. (2014) comply as they mention that deductive approach is so firmly entrenched in our consciousness that many authors have been struggling without the theoretical framework.

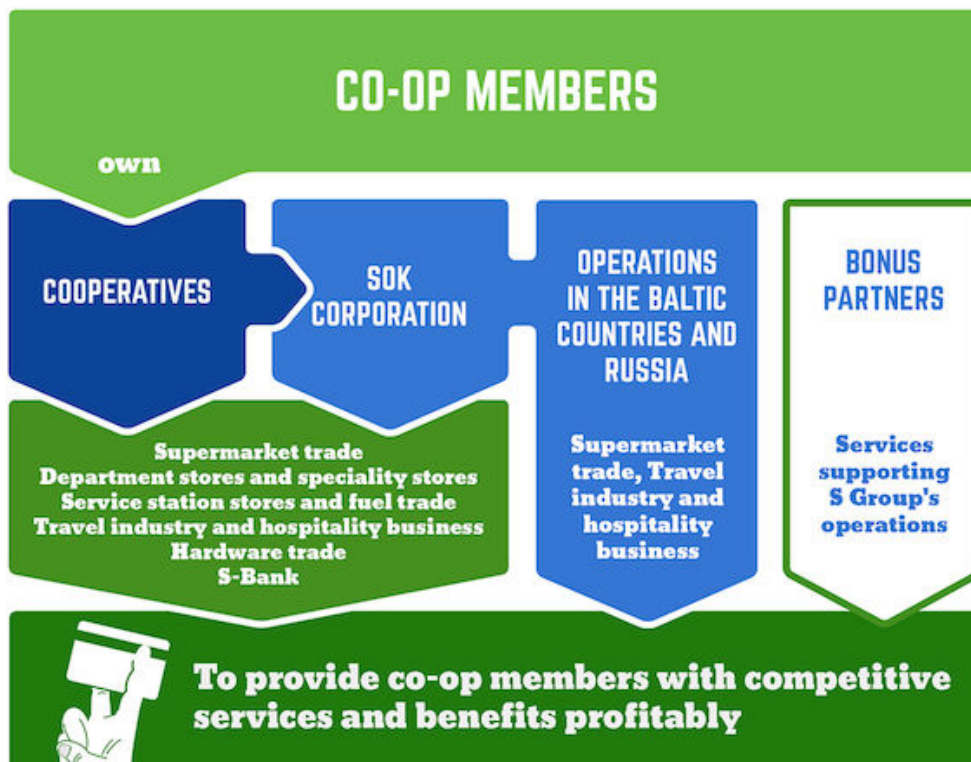
According to Hyde (2000), qualitative researchers frequently adopt deductive processes on an informal basis. This can be done by so-called “pattern matching” where a theory or a pattern, such as an analysis tool is presented and then illustrated with a sample application. This analysis used Osterwalder & Pigneur’s (2010) business model canvas as a pattern and then illustrated it with a sample data drawn from primary sources. In addition, other complementary theories, such as innovation were being used or referred to as patterns and then being matched with sample applications.

4.3 Introduction of the case companies

4.3.1 Co-operative Society Arina

The co-operative society Arina is part of S Group. As illustrated in figure 11, S-Group consists of 20 independent regional cooperatives and SOK (Suomen Osuuskauppojen keskuskuunta), which is owned by them. A-Group’s cooperative network covers the whole Finland, and the operations have a strong regional emphasis. The co-op members are the owners of the cooperatives. (S Group, 2015a: S Group, 2015b)

Figure 11. S Group’s Business Model and the Purpose of Operations. Adopted from S Group (2015b).



S Group's business is organized as nation-wide chains and the joint service operations are produced centrally by SOK, which also works as the steering company and supporting function for the chains and the regional cooperatives. Hence, the business model of S-Group, presented in figure 11, is based on chain business combined with regional cooperatives' good knowledge of local markets and customers and thus a very efficient and functional business model.

In addition to domestic markets, S-Group holds a presence in Russia and the Baltic countries. At the end of 2014, S Group had 1,643 outlets and it employed more than 40, 000 service sector professionals. (S-Group, 2015a)

Arina is one of these regional cooperatives which operates in the Northern Finland. At the end of 2014, Arina was owned by more than 154 000 co-operative members, which present 67% of the total households in its operative region. Arina's Net Sales in 2014 were EUR 890,1 million, of which 76% was so called bonus sales for the co-operative members. As well as S Group, Arina's is the market leader in its operative region 37-38%. Groceries are sold by the Prisma stores, S-markets and Sale stores, as well as ABC service station stores. Arina's share of the grocery trade was 37,6% within its operative region. Though, despite its market leadership, Arina's market share of the grocery trade within its operative region was clearly lower than the cooperatives' average in Finland. Arina employed approximately 2601 professionals in 2014. (Honkonen, 2015; S Group, 2015e)

Arina's mission is to offer the cheapest grocery basket and to provide services and benefits to its owners, the co-operative members, as well as to take care of the development of well-being in the Northern Finland's region. Arina produces a wide range trade services in the Northern region of Finland, such as the grocery and consumer goods trade, the service station and fuel trade, the travel industry and hospitality business, the automotive and accessories trade and the agricultural trade. In addition, S-Bank offers banking services. (S5, 2014: S Group 2015)

Sale as a smaller retail network chain has been chosen as the main online grocery supplier, collection and pick up location within Arina's region. The service is called Sale Kauppakassi (see figure 12). The City of Oulu is the capital of northern Finland. with over 200,000

inhabitants and it is the fastest growing region in Finland (Oulun Kaupunki, 2015). These numbers are to illustrate the importance of Oulu region for the business of Arina, who also holds their headquarters in Oulu. Because of these reasons, the large inventory premises and the 24h opening hours, Sale Raksila in Oulu was chosen as the capital distribution centre and the pick-up location for Sale Kauppakassi online grocery orders. Though Arina's operative region is the Northern Finland, the online grocery service, Sale Kauppakassi works only within Oulu region (S5, 2014)

Figure 12. Sale Kauppakassi Logo. Adopted from S Group (2014c)

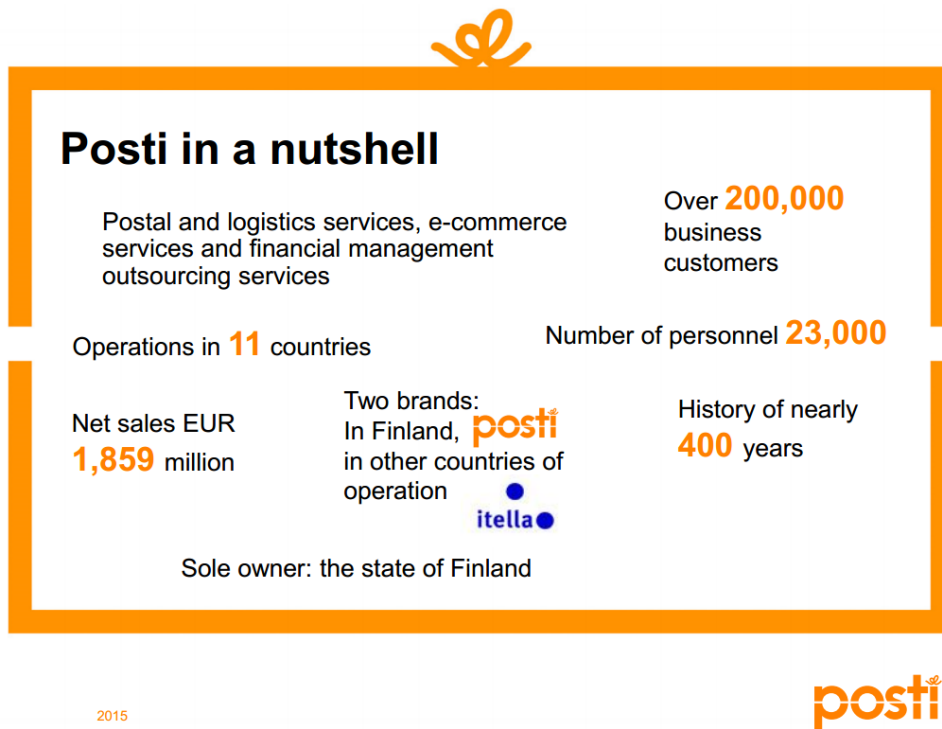


All of S-Group's cooperatives are using The Foodie's service as a platform for their online grocery sales. Foodie is an interactive and personalised eCommerce platform for groceries (Foodie.fi, 2014), where the customers place their orders, no matter the region or the cooperative. Arina has a strategic partnership with a domestic logistics service provider, Posti, which delivers the last mile of the groceries ordered online. (S6, 2014; S5, 2014)

4.3.2 Posti Group

Posti Group is a service provider that provides the companies with postal, logistics and e-commerce services. Posti manages the flow of commerce and everyday life in 11 countries. Posti's mission is to be the consumer's primary choice in Postal, eCommerce and logistics services and already holds the market leadership in within these industries in Finland (Posti, 2015b).

Figure 13: Posti in a Nutshell. Adopted from Posti General Presentation (2015b)



Posti's net sales in 2014 amounted to EUR 1,858.7 million and at the end of 2014 Posti employed 23, 289 professionals (Posti 2015a). Posti is a limited company and it's shares are fully owned by the state of Finland. Posti has four business groups presented in figure 14 (Posti, 2015c)

Figure 14. Posti's Four Business Groups. Adapted from Posti.com (2015c)



Out of the Posti's business groups presented in figure 14, Parcel and Logistics Services is the business group which executes the e-commerce business. Parcel and Logistics Services business unit takes care of the parcel services and their portfolio includes Posti Thermo, a service by which companies are able to send small batches of food that require designated transport for refrigerated products - in a fast, cost-effective, and environmentally sound way to almost any destination in Finland. Posti Thermo is the only national service of its kind. When sending parcels by Posti Thermo, the correct transport temperature is ensured by heat insulating EPP-boxes and the temperature of the food in transport is monitored by sensors in the Thermo-boxes every five minutes. The data on the temperatures during the transport can be monitored by the customers as a self-service online through TempNet Mobile monitoring system. (Posti, 2015a; Posti, 2015e; S10, 2014)

In early 2015, Posti engaged in a new mail and parcel delivery pilot in the Kalasatama residential area of Helsinki. The plan is to install a smart locker in at least one residential building in the district. The idea of the suburban smart lockers, and overall development initiatives regarding the grocery logistics and home help services stems from Posti's new strategy, which sees Posti's role as a pioneer for developing home help services, in addition to the business prospects it sees in overall grocery logistics. Posti strives to make people's lives easier by comprising innovative ideas and novel technologies resulting in unprecedented value propositions that measure up to the changing consumer habits of postal services. (Haapala, 2015, Posti 2015d)

According to S5 (2014), because of the unique refrigerated delivery solution Thermo and Posti's extensive coverage in Finland and the previous experiences from collaboration, Posti was chosen as the strategic partner for the last-mile delivery for Arina Kauppakassi's online grocery service. In addition to Arina, Posti operates with other online grocery retailers in Finland as well.

4.4 Selection of the case companies

The idea for selecting the case companies stemmed from the researcher's own background: I have worked in Co-operative Society Arina's grocery stores earlier in the 2000's and I have had strong relationship to the company during my whole life, since a family member of mine has worked and devoted his whole working career in working in Co-operative Society Arina.

For the past five years I have been working in the other case company, Posti, where I have held several positions, including sales, customer service and business development. During my Posti years I have been following actively on the trends in the industry. As I was contemplating on the topics for my thesis, I wanted to conduct the research about a business that is prospective for Posti. Online grocery retailing was definitely one of the most interesting ones, since I had background in grocery retail myself. Online grocery retailing has also grown very rapidly within the past few years so I knew it was a business in Posti's interests.

Moreover, relatively little research was conducted on online grocery retailing in Finland, especially from omnichannel perspective and most of the research was carried out around the first hype of online grocery retailing around 2000's. So clearly there was demand for new research. As Posti accepted my request for the thesis commission, I knew I had the logistics partner for online grocery. I am not a logistics student and I knew the research was not going to be about logistics, so I knew I needed an online grocery retailer to research on. I started to inquire Arina's needs for a research and it turned out that Arina and Posti were planning at the same time to form a strategic partnership in online grocery retailing within the Oulu area. Later on Arina accepted my request for the thesis commission. Since I knew these two companies were one of the most significant operators in the online grocery retail business at the moment, I decided to apply for their commission and luckily I managed to acquire what I was looking for.

4.4.1 Data Collection and choosing the informants

A case study uses a multiple sources of evidence Yin (1994: 3). The idea of primary data is that it is collected for solely the purposes of the particular project in question (Saunders & al. 2009:598). The primary data was collected by using semi-structured, qualitative interviews. As I knew I had potential access to key informants in the industry, I strove to capitalize the opportunity for qualitative interviews in order to collect the primary data for the research. Saunders & al. (2009) elaborate that qualitative interview is a collective term for semi-structured and unstructured interviews which aim to generate qualitative data.

To collect the primary data for this research, the informants were chosen for interview with due diligence at the early stages of the study. The interviewees were requested for an interview and were chosen because of their background, position or their knowledge with re-

gards to the studied phenomena of online grocery retailing. The interviewees represented either one of the case companies, their associates or consulting companies that are consulting companies in the industry.

Diefenbach (2008) states that “The least one can do (and has to do) is to describe clearly which persons were interviewed, their status, to limit the findings and conclusions to these particular worldviews, which are only a certain part of social reality, and put them into perspective, i.e. the wider picture”. For these reasons, I felt it necessary to validate my selection of the interviewees through a brief introduction of them. The information regarding the interviewees is a combination of the introduction of the interviewees themselves and the researcher’s own information about the interviewees. This information can be found from the appendices 1-4.

Later on I also interviewed the people working directly in the customer interface. In addition, I interviewed the customers who had used the service and hadn’t and strove to establish a notion about the reasons for. Unfortunately, I didn’t have the resources to start mapping out the backgrounds of the salespeople and drivers interviewed. I wanted the customer to retain their anonymity for securing the delivery of the interview and the straightforward feedback regarding the service. Hence I decided not to even ask the identity of the customers interviewed.

The drivers had the first-hand knowledge about the last mile delivery of the online grocery service in the customer touch points. The sales people in the click and collect were interviewed to provide information on the click-and-collect service, how it does not work and what kind of feedback they receive on a daily basis from their customers using the service. Three anonymous users of the service were interviewed as well as three anonymous customers of Prisma Kannelmäki, who had not used the service to figure out why people are using the service or why they are not.

Table 14. Dates and durations of the interviews.

Interviewee	Duration	Date
Subject 1	29:42 min	14.3.2014
Subject 2	43:30 min	14.3.2014
Subject 3	45:52 min	15.5.2014
Subject 4	40:51 min	14.4.2014
Subject 5	26:55 min	3.6.2014
Subject 6	36:29 min	13.5.2014
Subject 7	53:16 min	18.3.2014
Subject 8	80:47 min	8.4.2014
Subject 9	17:14 min	21.5.2014
Subject 10	27:54 min	3.6.2014
Subject 11	8:48 min	27.5.2014
Subject 12	5:29 min	27.5.2014
Subject 13	6:21 min	27.5.2014
Subject 14	3:01 min	27.5.2014
Subject 15	2:01 min	27.5.2014
Anonymous users (3)	14:12 min (total)	27.5.2014
Anonymous non-users (3)	1:39 min (total)	27.5.2014
Total (21 interviews)	441:41 min	

As we can see from figure 14, the interviews provided a total of 411 hours and 41 minutes of information to analyze in the study. The amount of information was such immense that it was challenging to utilize at its full spectrum. However, the amount of data likely increased the depth and latitude of the empirical part.

4.4.2 Design and execution of the interviews

A valid questionnaire enables accurate data collection, and one that is reliable means that these data are collected consistently (Saunders & al. 2009). The questions for the interviews were mainly constituted from the theoretical framework of the study; books, electronic journals and lecture materials on the topic, after which I comprised them with my

own knowledge about the business itself. Still, the questions were being modified according to the backgrounds of the interviewees, so that they would be easily answered to. Questions regarding the industry and the trends were made to map out what how the interviewees saw the trends in question.

Initially, there was an assortment of about 30 questions from which I validated the most essential ones for each of the interviewees and according to the amount of running time I had with the interviewee in question. Some of the questions were modified to match the preferences or the knowledge and background of the interviewees. As a result, I ended up with an assortment of approximately 40 different questions. However, the structure was rather similar no matter the interviewee, though the questions varied according to the interviewees, their background, position, knowledge and/or time. I also used a lot of discretion with picking up the questions during the interviews as I saw what topics the interviewees were comfortable with and what they were not. Clearly, the interviewees with a high school background were rather reluctant as the interview's themes moved closer to the theories applied, whereas, for example the Ph.D interviewed drew his own examples from the applied and other related theories.

The questionnaire was divided in following themes:

1. Prospects of online grocery retail
2. Challenges and threats (also with regards to traditional grocery retail)
3. Questions about online/omnichannel grocery retail within the theoretical framework
4. Questions regarding the industry, trends and business models
5. Consumer-aspect and (changing) consumer behaviour

In addition to the main themes, I asked questions from the perspectives of S-Group/Arina and their cooperatives, if the interviewee was working in these companies or closely linked with them. This helped to scrutinize the prospects especially from the case company perspectives. I also asked the S-Group's and Arina's people what was the strategic role of online grocery in their respective company (S-Group or Arina), to map out how they saw the importance of the researched phenomena. In addition, people from the second case company, Posti, were being asked about supply chain management and logistics implications in a more detailed manner.

The questions for the industry experts that held a relevant position with regards to the topic were made with academic emphasis and from the business management perspective. The questions for the people working in the customer interface, such as the drivers of the online grocery service and the workers in the pick-up outlet, were planned to be easily answered without any stress on neither theoretical framework nor business management perspective, but more with practical implications of the service. The questions for the customers were few and simple to answer to, and they were very much linked with their personal experiences about the service.

I arranged meetings of approximately of one hour with the interviewees beforehand by mail. I chose not to send the questions to the interviewees beforehand for basically two reasons: I know that people in those positions are extremely busy, so I didn't want to take more of their time than it was absolutely necessary to. Another reason was that I wanted hold the right to discretion during the interviews, since some of the interviewed people were new to me, and thus, I didn't know beforehand what issues their exactly were familiar and comfortable with and what not. This lead to some pretty long and extensive discussions.

4.5 Reliability and validity

Saunders & al. (2009) state that reliability is about the transparency of techniques and the data collection techniques by which the conclusions are crafted and how they yield consistent findings that were crafted from the raw data. The validity of the research elaborates on the accuracy of the measured of the used methods to study the phenomena in question. Validity should explain to what extent the findings cover what they were about to cover.

Case studies, such as experiments are generalizable to their theoretical propositions, not to populations or universes. That is why, a case study doesn't represent a "sample", but more the expansion and the analytical generalization of the researcher, from the theories (Yin, 1989). For a case study to be valid, all research should fill and conform certain requirements and design tests that are set for the validity of a research (Yin, 1994).

This research was conducted by transparent data collection methods and techniques, which were accurate for yielding the conclusions from generalizable theoretical propositions by the raw data collected. In addition, the amount of data and the number of interviewees increased the validity of the results.

5 Analysis of the empirical results

In this chapter I will analyse the results of the empirical data within the frameworks I have chosen. This analysis helps to answer to my research questions in detail that were the following:

questions presented in the chapter 1.1. These questions were:

1. Can we recognize and analyze how digitalization and online channels are affecting the business model of grocery retail, by using a business model canvas?

1.1 What kind of role does business model innovation play in the process of new value creation?

1.2 How is consumer behaviour changing and how can we respond to these issues by adopting an omnichannel retail business model?

5.1 1. The value proposition of what is offered to the market;

The very first component of the business model, value proposition already established discrepancies for the value propositions: When the price, quality and their correlation deems to be then long standing value proposition in the offline grocery retailing, they do not necessarily stand as the first ones in online grocery retail. Amongst the interviewees, online grocery retailing's value proposition was typically about price, quality and convenience (S2; S3; S4; S6). Amongst the users of the online grocery retail service, the service itself and its user experience (convenience) was in the midst of the value proposition. Nearly none of the Kauppakassi service users were referring to the prices or the quality of the products, but the service and its user experience. Actually, all of the interviewed service users said that the prices for the service are very decent and this was complemented by the staff on site at the collection point, which have been consuming the service themselves too. (Anon, 1; Anon 2; Anon 3; S14, 2014) The summary and conclusions of the empirical results regarding the value proposition is presented in the table 15.

Table 15. Characteristics and sources of innovation in the value proposition component.

Value proposition	Characteristics & sources of innovation
Newness	<ul style="list-style-type: none"> New channels, long-tail products, co-creation, cloud services
Performance	<ul style="list-style-type: none"> New delivery methods, better time frames, new delivery zones, online customer service, chat, call center, online assistance.
Customization	<ul style="list-style-type: none"> Personalized: marketing, offers, coupons, assistance, channel, according to location. Cloud: Recipes, receipts, shopping lists.
"Getting the job done"	<ul style="list-style-type: none"> Collection, home delivery. Cloud for preserving personal shopping data, Foodie as an informal food assistant.
Design	<ul style="list-style-type: none"> Foodie, ease of use, layout, store design (pick-up locations)
Brand & Status	<ul style="list-style-type: none"> Arina as the most customer-centric and innovative online grocery retailer.
Price	<ul style="list-style-type: none"> Offline pricing, price elasticity, incentive delivery prices (e.g subscription model) Arina & Itella → bigger volume → better predictability → entrenched process → established routines → lower labor costs → lower consumer prices Loyalty program integration and consumer goods sales
Cost reduction	<ul style="list-style-type: none"> Planning, impulse purchases, gas, time, scale economies
Risk reduction	Trust. Freshness, dates, substitutive products, delivery. Cloud: Data preserved in the cloud.
Accessibility	Rural areas, long-tail products, other consumer goods.
Convenience/usability	Pre-purchase stages: Price comparison, Foodie, preferred channel.

The focus appeared to be more on the pricing models instead of prices. The users of the service valued time savings and convenience mostly, but also cost savings. The cost savings within this context referred, not to the prices of the groceries, but to the total effort and expenses that are generated when going to a physical store, such as gas, parking tickets, time and impulse purchases. Now an important notion is that though these things are of cost savings for the customers, apart from the impulse purchases, the cost savings are not necessarily to decrease the sales of the retailer.

"Online grocery retail value proposition for the customer is either convenience, financial or time savings". –S4, (2014)

The last mile logistics clearly deemed to be one of the most important performance indicators. (S2; S3; S10; S11; Anon 2; Anon 3, 2014) The time slots were seen as too wide by a number of the interviewees. Solutions for this problem were incentive pricing and marketing of the click and collect method, innovations of the logistics service provider for smaller time slots, or by cooled drop-off boxes. (S3; S7; S9, 2014) The drop-off boxes would be most likely major investments, but as the volumes grow, it could be a solution worthwhile considering.

Even though the value proposition of online grocery retailing was seen as slightly different from the value proposition of traditional grocery retail, no need to change the value proposition was seen (S5, 2014). This deemed to be due the fact, that online grocery business is such a small business for a niche market that it cannot designate the value propositions of the traditional grocery retail, nor to even contribute to the value proposition of the grocery retail business in general. (S5; S8, 2014)

5.2 The segment(s) of clients that are addressed by the value proposition

The traditional brick-and-mortar grocery retail is a segmented mass market business, that nearly everyone is a consumer of, directly or indirectly. The research showed that online grocery market currently shows characteristics of a niche market of families with children, elderly people, mobile and busy people, physically impaired people and the B2B customers which were seen as so called “heavy users” of online grocery service (see table 16). Another segment was the physically impaired people and this segment includes the elderly people (S10, 2014). However, these two segments clearly used and valued different methods of online grocery: As families with infants preferred the pick-up method, physically impaired people preferred the home delivery. (Anon 2; Anon 3, 2014) According to S9 (2014), the potential of this segment is to be realized after more convenient home delivery methods are being introduced. This indicates the need for diversified portfolios, as two or more segments were served in a different fashion.

Table 16. The most potential segments of online grocery retail and their development according to the interviews.

Segment	Potential	Value proposition	Emphasis
Families with children	High	Time savings, convenience, cost savings,	Pick up & home delivery -Value pick up currently, would value home delivery more with more convenient delivery (time frame)
Mobile and busy people	Good → high	Time savings, convenience	Pick up
Physically impaired / elderly people	Good → high	Convenience, possibly the only way to shop groceries	Home delivery
Young people / digital natives	Low → good → high	Convenience, time savings	Pick up
Companies (B2B)	Good → high	Time savings, convenience	Delivery

In a segmented mass market, no matter the business, no matter online or offline, as the consumer behaviour changes, the same segments are about to be of different kinds of value propositions than they used to be. S9 (2014) highlighted that elderly people in 10 years are going to be much more awoken, tech-savvy and their lifestyles differs very much from the one today. They run marathons, play guitar in a rock band, drive motorcycles. This suggests that if a 60 year old was not the most potential segment for online grocery at the first place, it might well be in 5-10 years.

Figure 14. The polarization of the markets.



As people's consumer behaviour is changing as a result of their lifestyle change, they become potential heavy users for the online grocery service. This suggests that though online grocery retail segments are niche markets at the moment, the niche markets are evolving towards a situation where they are the segmented market (see figure 14). Hence, when innovating new business models, the stress should be, not in the segmentation necessarily, but rather how the segments are evolving.

5.3 The communication and distribution channels to reach clients and offer them the value proposition;

Communication is much more multi-dimensional in the online environment than it is offline. Social media can bring the newness of content creation and co-creation. Customer co-creation enables the customers to participate in the value creation process, engaging them with the vendor (Arina) and to create content and distribute it, for example through social media or Patarumpu. (S2, 2014) Mobility comes with the newness in shopping

where ever and whenever and to pick up or personalized or location-based offerings such as the coupons. The cloud works as a basis for the customers to preserve their preference data, such as the shopping lists (S7, 2014). Online environment increases communications, both way and in all of the stages within the purchase process. The performance of customer service can be of higher quality online as solutions like chat enable a fast way to communicate with the customer and work as a source of better performance in the customer service functions. Online environment offers a great deal for communicating with the customer in an effective way, such as the chat. Online also enables to automatize the communication process, thus making it less resource-dependent. Customers leave a significantly larger footprint in the digital environment than in the physical one and the digital footprint is much easier to harvest and later on measure for better exploitation of retail analytics, in order to serve the customer better (S7, 2014)

Logistics and especially the last mile of the delivery are very essential in the online grocery retailing context and it may be even the watershed in the business (S3, 2014). The online grocery volumes in Finland are too small for centralized distribution centres that have been seen in USA and UK. Though, he suggests that they could work in the bigger cities as the volumes grow in the future. (S7, 2014). Currently S-Group and the cooperatives collect the groceries from the physical stores and either deliver home or offer pick-up from the outlet (S2, 2014). The alternatives for Arina are to collect the goods from either smaller stores (Alepa, Sale), or from bigger supermarkets (Prisma), or from the so-called “dark stores”. (S2; S4, 2014). These among other potential online grocery distribution models of for Arina are presented in figure 15 below.

Figure 15. Potential online grocery distribution models of for Arina.

	Home Delivery	Pick-up
Store Collection	From store to Home <ul style="list-style-type: none"> • Collection from physical outlet • "Dark Stores" • In-sourced last-mile delivery • Outsourced last-mile delivery • Crowdsourced last-mile delivery • Temperature/controlled home delivery boxes • Drones 	Store Pick-up <ul style="list-style-type: none"> • In-store pick up services • Drive-in solutions in retail locations • Parcel lockers • Delivery into a customer's parked car or vehicle (piloted already by Volvo & DHL)
Warehouse Collection	Warehouse to home <ul style="list-style-type: none"> • Own warehouses • Suppliers warehouses (e.g. Inex) • Distribution centers • In-sourced last-mile delivery • Outsourced last-mile delivery • Crowdsourced delivery options such as Über • Drones • Temperature/controlled home delivery box (E.g. Shopbox) 	Other pick up solutions <ul style="list-style-type: none"> • Subway, bus stations, train stations, Airport • Other concentrations • Temperature-controlled delivery boxes & parcel lockers • Drive-in solutions outside the retail locations

Most of the competitors of Arina, the smaller companies such as Ruoka.net collect the goods directly from the suppliers warehouse and deliver straight to people's homes (S7, 2014). They don't have physical retail network like Arina, through which to offer pick-up services for their customers, and that's clearly a competitive edge for them to catch up with. However, the outlets may be of an external facets as well, such as the local post offices, through which they could offer pick-up services, so this might be seen as a threat for S-Group. According to S9, (2014), the last mile is the opportunity for logistics service providers like Posti, but the future will show the need for the home delivery, as it is dependent on which model of the two; click-and-collect and the home delivery is going to be prevalent in the business.

It is yet to be seen if Posti is going to be involved in the click-and-collect services somehow in the future. (S9, 2014) One option suggested by S10 (2014) could be harnessing Posti's automated parcel lockers as pick up points. Posti has piloted this solution already within the Metropolitan area. As a solution this could be a fairly functional, which would save labour costs from Arina, but then again we have to go back to the foundations of Pos-

ti's existence: What business are is it in? As a logistics service provider, is our core business in delivering automated fridges for our partners use? Especially when there's no logistics involved? I see this maybe more potential solution for Posti's other clients, Arina's rivals, if the parcel automats are located in somewhere else than in a grocery retailer's premises, such as in the subways or other central locations with substantial foot traffic. From Posti's perspective, this would be a better fit with regards to their portfolio as it requires for transportation services and moreover it would be a key link in the online retailer's value chain. Arina can arrange such kind of automated fridges well without Posti with relatively low investments as they procure vast amounts of cooling equipment every year for their retail outlets anyway.

The research established a conclusion that the prevailing model of picking up from the store and delivering to homes or for a pick-up has been sensible till today as the volumes have in online grocery have been rather low. However, the volumes are constantly growing and it causes troubles in the physical outlets, such as traffic in the isles of the stores (S11, 2014). Moreover, the capacity of the inventory in the stores has been designed to serve the volumes for brick-and-mortar business. As a result, the size of inventories are starting to be rather cramped, and furthermore, the volumes are growing. S12 (2014) says that with the centralized solutions such as dark stores the collection would to get more efficient. S11 (2014) mentioned that darks stores are in pilot at the moment at HOK-elanto.

5.4 The relationships established with clients;

S-Group and its cooperatives have a special relationship with its clients through its co-op member loyalty pronline groceryam. A co-op member is an individual member of a cooperative that belongs to the S Group's membership scheme. As S-Etukortti card holder the co-op members are able to collect bonuses and other benefits from over 2000 service locations in Finland and across the borders, such as restaurants, gas stations, hotels & spa's, car shops, insurance companies and many more. (S Group, 2014a) S-Bonus network is very extensive and thus engages the customers profoundly. Moreover, S-bonus loyalty pronline groceryam was the most popular loyalty pronline groceryam in Finland until 2014 when it dropped as the second in the ranking. The brand of S Group and it's co-operatives and the S-Etukortti loyalty pronline groceryam were seen as critical foundations for relationships established with customers, no regardless of the channel in question. (S2; S5, 2014)

In traditional grocery retail, the customer is always served personally, in case they prefer it. Actually they are required to deal with the cashier in any case even they wouldn't want assistance within the pre-purchase stages in-store, since self-service cashiers are not yet predominant in the Finnish grocery stores. The customer is served on human-to human basis, personally, but not exclusively. When online, the need for personal assistance is still there, but the means vary. Personal assistance, such as chat service was also recognized as one the new mediums to serve customers in the digital environment. (S7, 2014)

In online environment, the customers could be offered with the tools to help and serve themselves. Foodie platform and cloud in general are self-service channels where customers can help themselves, for example acquire information about the products (S7, 2014). The excellence of these self-service features are that they online they are always available for the customers. According to S2 (2014), Foodie works as a service which helps the people with their daily groceries instead of a mere sales platform.

In co-creation model, Arina & Foodie collaboration works as a multi-sided platform, where not only the customers interact with the company, but also with other customers (S2, 2014). Foodie works as a platform between the vendor and the buyer, but also other links such as customer-supplier-manufacturer are possible in the online environment. This platform enables the customers to share and like the grocery products in Foodie and further share in their Facebook. S-Group's and Arina's customers also have a community called Patarumpu, which is S/Group established and monitored arena for discussion about food & groceries. These can be considered as communities. An established trend mentioned was that the communities and co-creation decrease the need for personal assistance as consumers are able to discuss and share the information about the products and services (S2, 2014). This kind of relationship was clearly seen as one of the opportunities for the retailer, initiated by the digitalization, but which could also entail risks for consistent communication towards the customers as customers could spread misinformation.

5.5 The key resources needed to make the business model possible;

Arina's key resources are physical, intellectual, human and financial. The brick-and-mortar retail network is definitely a key resource for Arina in the traditional retail, and as such, is a part of the online grocery retail process, since it works as a stock from where the online

ordered goods are being collected. In addition, it may work as a pick-up point for the customers that order groceries online. The online channel has to be part of the total Omnichannel entity thus the physical retail network is important in the seamlessly integrated Omnichannel retail experience. (S5, 2014).

The critical resource is the business management, who makes the strategic initiative on whether entering the online grocery business or not” –S5, 2014

Arina is one of the trendsetters of online grocery retail in Finland, since they have been involved in several initiatives during 2010-2014 and therefore they hold a good amount of knowledge and know-how on such operations. (S5, 2014) Foodie’s core competence lies in the online grocery retail and that is another resource that is important to acknowledge, since not all of the online grocery retailers have such kind of partners, but rather IT-service providers that are selling and executing all kinds of IT services instead of just focusing on online grocery applications.

S-Group & Arina also hold a very extensive knowledge capital about the consumer behavior of their customers through the S-Bonus card loyalty program. According to S7 (2014), this data is another, huge intellectual capital that for example the smaller online grocery retailers don’t have and that is extremely hard to copy. This knowledge capital was seen as a strong competitive advantage in both, the traditional and digital grocery retail environments.

Much of the same human resources apply with the online grocery retailing as with offline: the same sales people that are working in the store are the ones collecting the goods. As Posti works as a partner, no separate people for the delivery of the goods are needed. (S5, 2014) Posti as an acknowledged logistics service provider is definitely seen as an external resource which complements the unique customer experience of the online grocery service. As both companies, Arina and Posti are very self-sufficient and dedicated on investing in online grocery business (S2; S5; S9; S10, 2014) the financial resources to support the development of online grocery retail should be substantial.

5.6 The key activities necessary to implement the business model;

Much of the key activities are the same in the digital environment as they are in the traditional retail, such as sourcing. Sourcing is also one of the activities from which the S-

Group can gain scale economies, and thus, competitive edge against the smaller online grocery retailers in the Finnish market. According to S5 (2014), the key activities in online grocery retail are the collection and its efficiency, logistics and the sales platform. In Sale Kauppakassi service, Foodie works as the sales platform for groceries, Arina picks up the items and Posti deals with the possible last-mile delivery. However, S5 (2014) explained that Arina would also have an alternative model for the last-mile grocery delivery, in-sourcing such key activities.

As mentioned, the online grocery platform and IT operations are vital and currently managed by an external associate, Foodie Fm. which according to S2 (2014) takes care of it very well. According to the interviews, this model seems to be working, but like any other large company, S Group has its own IT department, in-sourcing could be an alternative in the future. This would be a typical example of the economies of scope where one department would manage the operations of several departments. However, the interviewees did not see this reasonable as Foodie was seen as a top notch platform and the current co-operation model was said to be fruitful (S2; S7; 2014).

5.7 The key partners and their motivations to participate in the business model;

Foodie is a key non/competitor partner for S-Group and all of its cooperatives and hence, they form a strategic alliance. Foodie provides S-Group with the online platform Foodie.fm that all of the cooperatives are selling their groceries online through. According to S2, (2014), S-Group needs strategic alliances and partners with expertise and core competencies in the business. It is only reasonable that initiatives and the development of such kinds of services are taken care of start-up-like companies outside the big corporations, such as Foodie. He says that “even in the big corporations like S-Group with their massive IT doesn’t have the capability to deliver these kinds of solutions”. In addition, S8, (2014) highlights the leverage of these start-up businesses - not only in online grocery retailing, but in all business in general. These kinds of initiatives have been seen in the benchmark market of the online grocery, UK. S5 (2014), also stresses that Foodie is the most essential partner for online grocery retailing in S-Group.

“Even the big corporations like S-Group with their massive IT functions don’t have the capability to deliver these kinds of solutions” –S2 (2014)

Regarding the validity and reliability, one should notice, that S5 and S2 represent different actors in S-Group. S2 represents the parenting company, S-Group and is closer to HOK-Elanto in Helsinki, which has outsourced its logistics to a smaller courier, Kilon Osuusauto. S5 represents one of the cooperatives, Arina, which in turn has a partnership concerning the last mile delivery of online grocery with Posti, the leading logistics service provider in the country. It came distinctively across during the interviews that the experts interviewed in the Helsinki metropolitan area, were focusing on talking about the click-and-collect method whereas the representatives from Arina, which are located in Oulu region, were focusing on talking about the home delivery. According to (S10, 2014) both of these models are going to be present in the future, but which one of these models is going to be more popular amongst the consumers, is going to determine the importance of the partnerships with regards to logistics. According to S9 (2014), these scenarios and their likelihood are now under a research in Posti too.

The interesting variable between the click-and-mortar businesses in contrast to brick-and-mortar businesses that are evolving towards Omnichannel retailers is, that brick-and-mortars are not as dependent on logistics as their smaller competitors, such as ruoka.net and kauppahalli24 are. According to a study conducted by Kangas (2014), logistics was seen as the key activity in online grocery business, by the so-called click-and-mortar companies that operate through warehouses, or stocks and deliver the groceries straight to people's homes. According to the study, logistics topped even the software platform, that in turn was seen as the key activity by the S-Group representatives and the interviewed consultants.

Out of these two key partners, S-Group and its cooperatives have a mutual interest with Foodie Fm. in any case, since their co-operation has been successful so far and is most likely to be in the future as well (S2, 2014). Foodie has been able to develop their service through the S-Group partnership and piloting, which has resulted in the excellent service they have today (S6, 2014). S-Group helps foodie to grow further and S-Group is a very valuable reference, as they are seeking for growth beyond national borders too.

The supply chain is operated by Inex Partners, a S-Group-owned subsidiary, but the most relevant partner within the online grocery context, the last mile logistics is provided by an external partner, Posti. "We expect the logistical innovations for the delivery to come from our logistics partners, not from ourselves." S3 (2014). Moreover, according to S5, (2014),

long-term commitment, flexibility and openness is expected from the logistics partner. Both of the parties should have a common goal, a satisfied customer that is (S3, 2014). The process should be considered as a whole and when the partner is external, it is a key component in delivering the value proposition that the partner and partners procedures comply with the Arina's value proposition. This means that for example, Posti's driver may have to be prepared to answer the questions about bananas as they deliver groceries to S-Group's clients. This calls for appropriate education and orientation from the drivers (S4, 2014). In a brick and mortar store, the customer servant is expected to be able to answer to the questions asked by the customers. This scheme is no different when selling groceries through different channels. This is clearly a challenge when operating with an external partner.

The two models are going to be prevailing: home delivery and click and collect. Which one of these is going to be the prevailing model is impossible to predict (S10, 2014). According to S9 (2014), the click-and-collect models such as the drive-in model is going to be the predominant model in online grocery delivery. This evolvment determines a lot in the future when validating the key partners.

The co-opetition model, meaning to collaborate with its rivals within the market, is most likely always more or less debatable in some respect. According to S2 (2014) Posti would benefit from the centralization of the volumes in the last mile delivery, since they deliver to every address in the country already, even in the rural areas. However, I don't think retailers a size of S-Group or Arina, which hold about 50% national and regional market shares already, want to establish co-opetition models with new market entrants. I see this as a greater opportunity along with the smaller players in the markets, especially if they are specialized to something, like Kauppahalli24 to organic foods.

Now Posti is Arina's non-competitor partner in its own operative region and thus a strategic alliance. According to S5, (2014), Posti is the most sensible logistics partner, since they have nation-wide delivery network, which is particularly important in Arina's sparsely populated area. The sparsely populated areas are not interesting market to any other logistics operator, so fierce rivalry in the near-term with this regard is unlikely to emerge. The real question is that what's the percentage of the home delivery in online grocery going to be (S9, 2014), but though the share in percentages would be small, online grocery volumes are growing rapidly. According to S5 (2014) this would suggest Posti to be the future key

partner in online grocery retail for Arina. Arina's partnership model with Posti helps both of the actors to gain scale economies and thus increased cost efficiency in their own operations. (S5; S10; S9, 2014). As an example, Posti is going to drive mail and parcel deliveries in the rural area and by the Termo service the grocery deliveries can move along within the normal stream of parcel deliveries. (S2, 2014)

When we come to online grocery business, according to S2 (2014), the customers can work as a partners in the online grocery. This could suggest that in the click-and-collect model, customer's work as partner's for delivering the last mile of the groceries. As an idea this is smart, but I would doubt that it would be a successful marketing message to manifest. The partnership can, however, entail different kind of an involvement from the customer as a partner: In Omnichannel thinking the customer is put in the centre of the activity and as considered as a contributor to the value chain. Co-creation, such as Pata-rumpu and social media are excellent examples of such kind of partnerships with customers S Group, its co-operatives and Foodie are already taking leverage of.

5.8 The revenue streams generated by the business model

The revenue streams in online grocery retail are very much equal with the traditional retail. They follow the most typical model in trade, which is the asset sale/merchant model. The customers buy the products they want and after the transaction, they have a full ownership on the product. This is logical in the grocery business, since after you have purchased the "items" you are most likely to eat them and digest them, which means they are non-reusable. This is a logic that applies with the products themselves. As S2 (2014) mentioned it, the question is very much about the price and quality. Hence, the asset sale revenue model is very much about "what" we offer. For the traditional retail it is very hard to apply other revenue stream mechanisms apart from the previously mentioned though S2 (2014) suggested that revenue models might entail innovations too.

One model used in online retail is the long-tail model that enables the retailer to sell products of lesser demand to large groups of people making them profitable through high volumes. This is actually close to a rival, Kauppahalli24's model, as they have a wide assortment of products with small demand, such as organic products and super food. This could be seen as an opportunity, but only if a proper distribution can be arranged. (S7, 2014) However, S Group and Arina as significant retailers could produce significantly higher

revenue from the very same operations by leveraging the scale economies in sourcing these kinds of products with a significantly lower buy-in prices.

5.9 The cost structure resulting from the business model

The analysis of the empirical data proved that out of the four cost structure elements, fixed costs and economies of scale are that vary and which are the most relevant in the online environment. According to S5 (2014), the cost structure in online grocery retailing is very simple compared to traditional brick-and-mortar business: The collection of a single order takes about 30-60 minutes for one person to collect. The average salary of a sales person in Finland is about 12 Euro's + employer costs. That is the starting point. The home delivery for the trader costs about 10 Euro's. Hence, the home delivery of the groceries costs at least 15 Euro's for Arina with these volumes, no matter how efficient the operations would be. The sales margins in online grocery are higher because of the low volumes, but the costs are higher, since eventually, the costs are to be allocated on the brick-and-mortars too as, for the most part, the goods are also being preserved and picked up from the outlets. S2 (2014) elaborates that Tesco is doing this to some extent too and therefore it is hard to distinguish the online retail profitability from the brick and mortars. From the cost structure perspective, the brick-and-mortars are a weakness for Arina compared to their Finnish competitors in online grocery who operate between the stock and the consumer and lack the expensive cost burden of the physical evidence.

According to S2 (2014), the biggest hurdle in online grocery is its profitability and suggests that from the grocer's perspective, the business models have to be cost-driven more than offering premium value propositions. Factors like automatized front-end services, personalization, mass-customization and outsourcing, such as the platform and the last mile delivery contribute well to the cost-driven business model. Still, the value propositions that customers are able to perceive from online grocery can be of premium quality. The convenience was seen one of the most important value propositions by the customers.

According to several interviews conducted, the size of the shopping basket in the online grocery retail is typically three times bigger than offline, meaning that when it is about 35 Euro's in the physical store, it is about 100 Euro's online. However, S5 (2014) said that with an average sales margin of 20%, they are left with 20 Euro margin out of that 100 Euro's purchase. Currently Arina pays about 5€ labour costs from the collection and 10€

for the delivery, so 15 Euro's total for collecting the goods and delivering them. That results to a 5% margin which is 15% lower than in the brick-and-mortar store. An easy derivation is that logistics swallows half of the margin in online grocery. The prices currently for the click and collect service are either 3,90 or 6,90 Euro's, depending whether you are an S-bonus card holder or not. The home delivery costs the customers 9,90 or 12,90 with the same principles. (S5, 2014) There is a surcharge of 5 Euro's added in same day deliveries, which makes the delivery rather expensive for the customers

“The home delivery costs at least 15 Euro's for Arina” –S5, 2014

Fixed costs vary between the operations in brick and mortar and online retailing of groceries, but as a brick and mortar retailer like Arina is, they have to bear with the costs of both – the bricks and clicks. Yet, as there are no separate distribution centres, the same employees of Arina are being used to provide the service in-store, such as collecting the goods. The volumes of the traditional retail of groceries are high and stable and thus predictable, which makes it easier for Arina to take leverage on the scale economies. However, the volumes of online grocery are rather scarce and this clearly poses a challenge for utilizing the scale economies in an otherwise scalable grocery business.

S6 (2014) says that the online grocery retail requires local optimization, which is not of that high importance when selling other consumer goods. He says that local optimization has been one reason for the slow and incremental development of the online grocery business. He gives an example of the benchmark country in online grocery, UK, where home delivery was the predominant delivery method earlier, but now the grocers are starting to ramp up the click-and-collect method, because it is easier to make in a cost efficient way than the home delivery. This suggests that the cost structure of the service is very much dependent on the delivery methods and their mutual balance.

5.10 eCommerce and e-business models

Out of the online business models reviewed, according to the empirical data, online grocery retail follows primarily the merchant model of online, also called as asset sale where the customer has the full ownership of the product after the purchase. Also other models, such as the advertising model and their characteristics may apply. The retailer might, for example, advertise their suppliers products on their e-commerce site and thus increase the

sales of their products. This is a modern version of the so called POS (point of sale) marketing that you are able to see in the retail outlets, for example in shopping carts.

Some of the online retailers also have forums or communities in their website where their customers are able to discuss, rate, review and share information about the company's products or other related topics. S Group has Patarumpu, which is an online community where its customers can discuss and share their thoughts about food in general. (S2, 2014)

Some of the retailers are also manufacturers and sell their own brands through their web stores, without their own physical intermediary. Posti delivers some of the grocery products, such as meat and fish directly from the homestead to the end-customers (S10, 2014) Furthermore, some of the online grocers nowadays have so called "dark stores". Dark stores are hybrid models of a warehouse and a retail outlet where the selection has been designed to support faster pick up of the grocery items (S2; S7, 2014). Dark stores are typically located somewhere in the suburban areas and there is no access for the customers. However, these dark stores carry the same brands as the physical outlets and thus cannot be fully considered as manufacturer models. One scenario that emerged within the research was the subscription model where an online grocery retailer such as Arina could offer a subscription-based premium for the grocery deliveries, meaning that with a monthly or an annual premium charged, customers would be allowed to get unlimited amount of deliveries for the groceries they order.

5.11 Innovation

According to the primary data analyzed, online grocery retail seems to be an incremental innovation. This was explained by the relatively slow development of the industry and the slow adoption of the markets (S8, 2014). Moreover, online grocery retail can be considered as a discontinuous innovation since it was initiated by a technological advancement that later on has led to new behavioural patterns in the contemporary consumer behaviour.

5.12 Business model innovation

The research established a notion that business model innovation could be critical source of value in complementing innovation in products and services, production, distribution or marketing methods and/or markets, which are all encompassing in the digitalized retail environment. Business models and business model building blocks seemed to offer a great

variety for innovation which result in online business models and their integration to the traditional business model forming hybrid business models. The research pointed out that, to spark, business model innovation does not call for new technology or heavy investments but rather novel ways of thinking. The novel ways of thinking can initiate business model innovation that results in solutions by which to respond to new value propositions the changes in the business environment.

Business model innovation is an powerful way of differentiate or to change value proposition or product offering. (Davidson, 2013). This research established numerous ways to perform one. Arina is along with Posti can create value with their existing resources, but moreover, they can capture it in different ways, for example, by changing distribution methods and/or channels, value propositions and so forth. Through innovation within their business models, Arina along with Posti may achieve in-firm advantages, such as cost efficiency, in addition to the competitive edge or added value.

5.13 Business model innovation types

Business model innovation types were introduced in the chapter 3.5 of the research. These were industry model innovation, revenue model innovation and enterprise innovation.

Currently, Arina has outsourced its key activities, such as the sales platform and the (last-mile) distribution of groceries to external partners, which can be seen as the key partners for online grocery retailing operations, but not for the traditional retail (S2, 2014) The research pointed out that, as online grocery retail is trending, its role in omnichannel grocery retail is going to increase each year, the importance of these activities and partners is going to increase. Arina is thus dependent on these partners and it is left for future research if this is seen as a strength or a weakness, a threat or an opportunity for Arina. According to economic theories, strategic operations should not be outsourced. The outsourcing of functions relates to all of the business model innovation types introduced; industry model innovation, enterprise model innovation and revenue model innovation.

Arina has been moving to new industries, and in the domestic scale, can be even considered as an innovator in this regard. By leveraging its unique assets, redefining the existing grocery industry, Arina has created, or catered to a new-born industry value chain of online grocery retail, where new actors such as Foodie and Posti have embarked on. This suggests Arina is an industry model innovator.

As business model innovation focuses primarily on finding new ways to generate revenues and define value propositions for customers, suppliers, and partners (Amit and Zott, 2001). As an example, Arina could be able to serve different segments and to respond to different kinds of value propositions different segments by reconfiguring its product, service and value mix (4P) for example offering organic and other niche products with the long-tail model. This could be in the interests of some of the polarized segments, such as urban youngsters. This would be a revenue model innovation for Arina. Though, excluding the pick up and delivery, the revenue models of online grocery are the same; selling groceries to Finnish consumers with the same prices as in the physical retail. Hence, to claim Arina to be a revenue model innovator is somewhat debatable. Though, by introducing new innovating pricing models, such as the fixed delivery fee for online groceries would be of revenue model innovation for Arina.

Arina definitely, if not yet, has the opportunity to be an enterprise model innovator, as it can change the role it plays in the value chain and also what role other participants play in the value chain. For example, Arina could in-source the web-sales platform for online grocery or the last-mile deliveries of the online groceries by re-configuring its operations.

6 Conclusions

The conclusions chapter gives the reader a condensed answer to the research questions presented in the chapter 1.1. These questions were:










1. Can we recognize and analyze how digitalization and online channels are affecting the business model of grocery retail, by using a business model canvas?

1.1 What kind of role does business model innovation play in the process of new value creation?

1.2 How is consumer behaviour changing and how can we respond to these issues by adopting an omnichannel retail business model?

The main research question was rather comprehensive in nature and it is being analyzed in detail in the empirical part of this study. The research established a conclusion that the business model of grocery retail is very multi-dimensional, especially when it's characterized by digitalization attributes, such as Internet as the retail channel. The business model of a traditional retail alone consists of several building blocks that are constituted of several sub-models. Figure 16 describes how the elements of the traditional grocery retail are affected by the digitalization and multiple channels. To answer to the first part of the main research question, as vague as it might sound, digitalization, consumer behaviour and online channels have implications to all of the business model components to certain extent. The empirical part established that other components such as key activities, and thus key partners, in addition to distribution channels are of higher importance and subjects of change when operating in the digital grocery retail environment. For Arina, its retail outlet is the customer interface, as well as one of the key activities, key resources and distribution channels in traditional grocery retail. In turn, in online grocery, one of the key activities is the online sales platform, which in Arina's case is operated by a partner, Foodie. Furthermore, the home delivery is an essential channel for online grocery retail, which is also different from the traditional grocery retail and operated by a partner, Posti. Arina has to re-configure its key activities and distribution channels when it operates in online grocery retail. As these operations, activities and resources are outsourced to partners for the most part, it is evident that also the partner element of business model is highlighted when operating in the contemporary business environment.

Figure 16. The key elements of a grocery retail business model in the digital business environment when applied into the framework of business model canvas.

<p><i>Key Partners</i> </p> <ul style="list-style-type: none"> -Foodie -Posti -(SOK) -Suppliers & Inex -Customers 	<p><i>Key Activities</i> </p> <ul style="list-style-type: none"> -Sales platform & IT operations -Pick up & distribution -Pricing -Marketing & communications <p><i>Key Resources</i> </p> <ul style="list-style-type: none"> -Management -Retail network -Intellectual & human capital 	<p><i>Value Proposition</i> </p> <ul style="list-style-type: none"> -Convenience -“Getting the job done” -Accessibility -Customization -Novelty -Cost reduction -Time savings -Long-tail products 	<p><i>Customer Relationships</i> </p> <ul style="list-style-type: none"> -Automation, self-service -Communities -Co-creation, -Loyalty program -Omnichannel presence <p><i>Channels</i> </p> <ul style="list-style-type: none"> -Online, mobile, social, cloud -Click n’ collect, home delivery, drop-off boxes, dark stores 	<p><i>Customer Segments</i> </p> <ul style="list-style-type: none"> -Polarized Segments: Segmented mass market and niche market - Diversified Portfolios -Multi-sided Platform(s) -Consumer Behaviour
<p><i>Cost Structure</i> </p> <ul style="list-style-type: none"> -Variable costs -Economies of scale, -Economies of scope 		<p><i>Revenue Streams</i> </p> <ul style="list-style-type: none"> -Asset sale -Pick up & delivery -Subscription fee (delivery) -Advertising (online-POS) 		

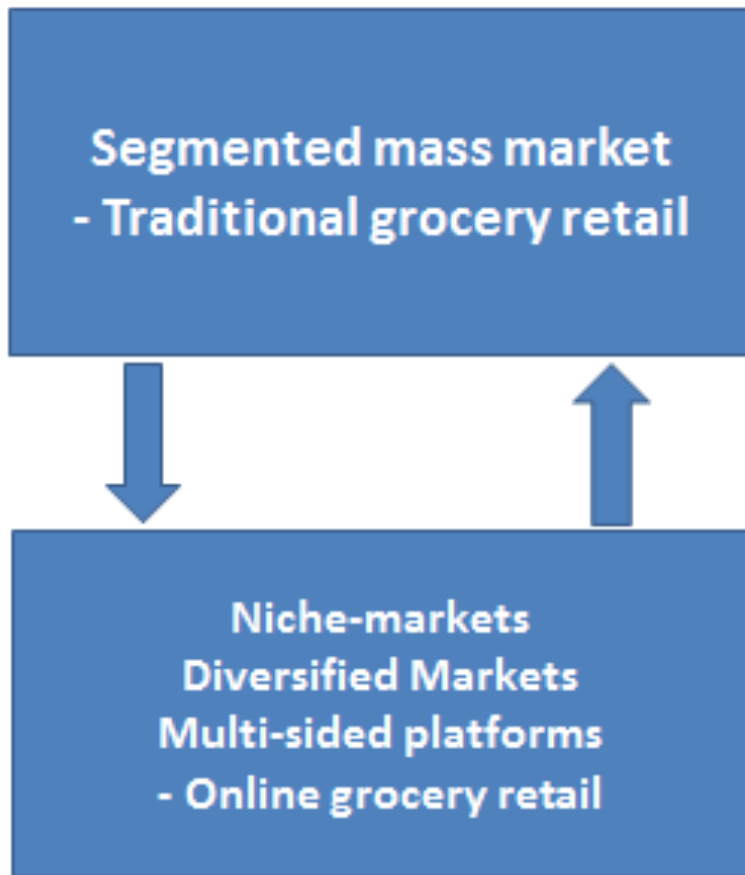
Value proposition was clearly established as the most important and change sensitive component, from the perspectives of all interviewees, customers, experts and operative workers of online grocery retail. The importance of the value proposition component stems from the convenience factor and the time-savings it can provide for the customers. Table 17 describes the most important and change sensitive business model component, value proposition. Moreover, figure 17 illustrates the multitude of just a single building block and potential amount of sources for innovation that it could entail.

Table 17. Characteristics and sources of innovation in the value proposition business model component.

Value proposition	Characteristics & sources of innovation
Newness	<ul style="list-style-type: none"> • New channels, long-tail products, co-creation, cloud services
Performance	<ul style="list-style-type: none"> • New delivery methods, better time frames, new delivery zones, online customer service, chat, call center, online assistance.
Customization	<ul style="list-style-type: none"> • Personalized: marketing, offers, coupons, assistance, channel, according to location. • Cloud: Recipes, receipts, shopping lists.
"Getting the job done"	<ul style="list-style-type: none"> • Collection, home delivery. Cloud for preserving personal shopping data, Foodie as an informal food assistant.
Design	<ul style="list-style-type: none"> • Foodie, ease of use, layout, store design (pick-up locations)
Brand & Status	<ul style="list-style-type: none"> • Arina as the most customer-centric and innovative online grocery retailer.
Price	<ul style="list-style-type: none"> • Offline pricing, price elasticity, incentive delivery prices (e.g subscription model) • Arina & Itella → bigger volume → better predictability → entrenched process → established routines → lower labor costs → lower consumer prices • Loyalty program integration and consumer goods sales
Cost reduction	<ul style="list-style-type: none"> • Planning, impulse purchases, gas, time, scale economies
Risk reduction	Trust. Freshness, dates, substitutive products, delivery. Cloud: Data preserved in the cloud.
Accessibility	Rural areas, long-tail products, other consumer goods.
Convenience/usability	Pre-purchase stages: Price comparison, Foodie, preferred channel.

Segmentation was also a interesting issue to research. As displayed in table 17, the empirical results suggested that the traditional brick-and-mortar grocery retail is a segmented mass market business, whereas online grocery market currently shows characteristics of a niche market. Different segments have different value propositions and this affects on which channel they prefer to consume and to what extent. The research also showed that the value propositions of the segments change, not only between the segments but also within a certain segment because of the overall change in the consumer behaviour, initiated by the Nexus of Forces change drivers introduced in this research.

Figure 17. Polarization of the segments.



Thus we can conclude that the segments are polarized. These polarized segments should be served with diversified of portfolios and the portfolio with this regard is especially relevant with the distribution channels: For example, families with children value the click and collect distribution model when the physically impaired people favor the home delivery.

The online communication appeared as much more complex issue than in the offline environment. It seemed to pose threats with the consistency of delivering an unified message throughout the channels but also possibilities, such personalized service. Mass-customization is definitely a possibility for an omnichannel retailer and an excellent medium to deliver a consistent message for the customers across the channels.

Distribution seemed to be the most important building block of the business model canvas. It also seemed to be the watershed of the profitability between offline and online grocery retailing. The distribution element of the omnichannel business model building block seemed to establish a significant connection to all of the other building blocks, such as cost structure, key activities and segmentation, whereas a lot of the other elements were not

interconnected to the same extent. The distribution model chosen was also recognized to determine the retailers relationship and its extension with partners its partners. Distribution eventually determines whether a retailer is an omnichannel retailer or a single channel retailer, such as an online retailer. A grocery retailer selling through a web-based platform with a distribution model where it delivers groceries from a warehouse directly to the recipients home cannot be an omnichannel retailer. Omnichannel retail business model calls for a physical retail network, in addition to the online channel where the customers are being served. Potential online distribution models are numerous which are being depicted in figure 18.

Figure 18. Potential distribution models for online and omnichannel grocery retail.

	Home Delivery	Pick-up
Store Collection	<p>From store to Home</p> <ul style="list-style-type: none"> • Collection from physical outlet • "Dark Stores" • In-sourced last-mile delivery • Outsourced last-mile delivery • Crowdsourced last-mile delivery • Temperature/controlled home delivery boxes • Drones 	<p>Store Pick-up</p> <ul style="list-style-type: none"> • In-store pick up services • Drive-in solutions in retail locations • Parcel lockers • Delivery into a customer's parked car or vehicle (piloted already by Volvo & DHL)
Warehouse Collection	<p>Warehouse to home</p> <ul style="list-style-type: none"> • Own warehouses • Suppliers warehouses (e.g. Inex) • Distribution centers • In-sourced last-mile delivery • Outsourced last-mile delivery • Crowdsourced delivery options such as Über • Drones • Temperature/controlled home delivery box (E.g. Shopbox) 	<p>Other pick up solutions</p> <ul style="list-style-type: none"> • Subway, bus stations, train stations, Airport • Other concentrations • Temperature-controlled delivery boxes & parcel lockers • Drive-in solutions outside the retail locations

Relationships, key activities, key resources, revenue streams, cost structure and their nature and importance appeared to be largely determined by the distribution method chosen; click and collect or home delivery, in-sourced or outsourced last-mile delivery. The number of options presented in the figure X. depict the multiple distribution methods.

Out of the online business model reviewed in this research, online grocery retail follows primarily the merchant model, while other models such as the advertising model can be only complementary to the merchant model. Online grocery retailing can be considered as

a discontinuous innovation since it was initiated by a technological advancement that later on has led to new behavioural patterns in the contemporary consumer behaviour. These were amongst the key findings of this research.

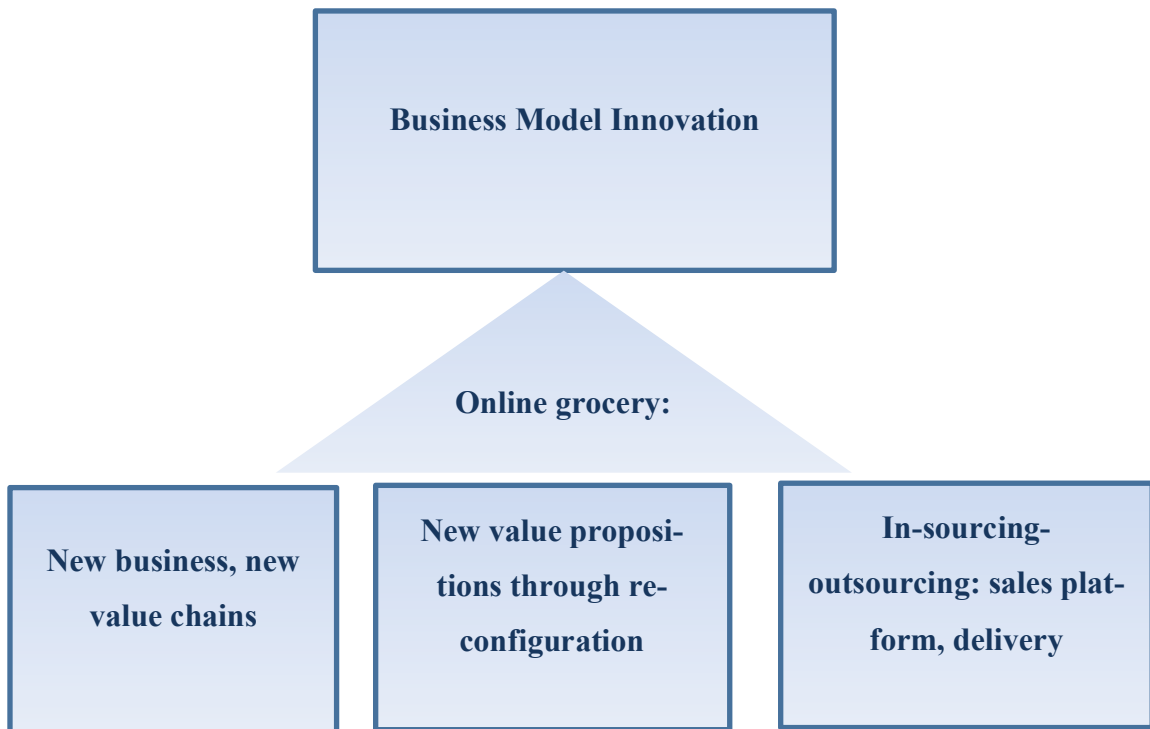
This research showcased numerous ways how ways to capture value, generate revenues and define value propositions for customers, suppliers and how partners can benefit from Arina's from business model innovation. As an example, today the assortment of Alepa Kauppakassi is approximately 5000 products. This is a relatively decent selection, though it does not include all of the niche products and hence does not serve the value propositions of these niche markets. However, if we would consider applying a new, innovative distribution model where instead of the retail outlets, the products would be picked up and delivered from a dark store, which could hold a much larger selection of long-tail products, Arina could fulfil the value propositions of these niche markets. A concrete example of such value propositions and products could be organic products which today are especially favoured by urban youngsters. It is evident that with the current, scarce volumes this might be a challenging equation ROI-wise, but as the volumes are rapidly growing, the investments could pay off already in the near-term.

As for the second phrase of the main research question, we could establish a conclusion that, as the results of the study point out, the application of business model canvas for this kind of study was definitely a very helpful tool by which to analyze the business model components in a qualitative manner. It was thorough enough to analyze the business model elements in detail, but it also clearly helped to outline the things not relevant from the research. As the result of the application of business model canvas, I was able to answer to the main research question of "Can we recognize and analyze how digitalization and online channels are affecting the business model of grocery retail, by using a business model canvas?".

Currently, Arina has outsourced its key activities, such as the sales platform and the (last-mile) distribution of groceries to external partners, which can be seen as the key partners for online grocery retailing operations, but not for the traditional retail. The research pointed out that, as online grocery retail is trending, its role in omnichannel grocery retail is going to increase each year, the importance of these activities and partners is going to increase. Arina is thus dependent on these partners and it was left for future research if this is

seen as a strength or a weakness, a threat or an opportunity for Arina. According to economic theories, the strategic key operations should not be outsourced.

Figure 19. Different types of business model innovation for Arina.



The outsourcing of functions relates to the industry model innovation, enterprise model innovation and revenue model innovation depicted in figure 19. Arina has been moving to new industries, and in the domestic scale, can be even considered as an innovator in this regard. By leveraging its unique assets, redefining the existing grocery industry, Arina has created, or catered to a new-born industry value chain of online grocery retail, where new actors such as Foodie and Posti have embarked on. This suggests Arina is an industry model innovator.

As business model innovation focuses primarily on finding new ways to generate revenues and define value propositions for customers, suppliers, and partners (Amit and Zott, 2001). Arina with its novel online grocery service is able to serve different segments and to respond to different kinds of value propositions. This would speak for revenue model innovation. Though, excluding the revenues derived from the pick up and delivery, the revenue models of online grocery are the same; selling groceries to Finnish consumers with the

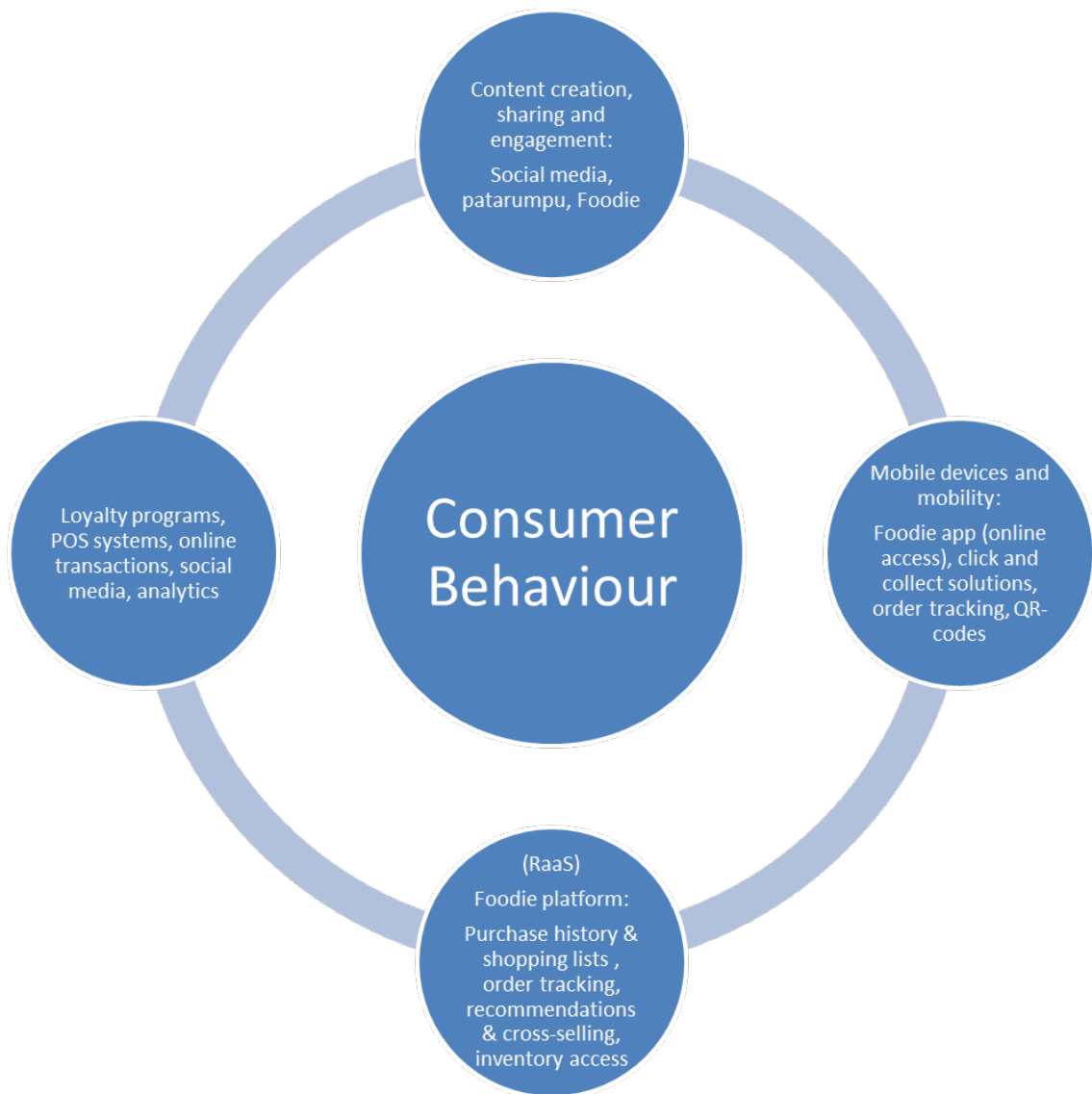
same prices as in the physical retail. Hence, to claim Arina to be a revenue model innovator is somewhat debatable.

Arina definitely, if not yet, has the opportunity to be an enterprise model innovator, as it can change the role it plays in the value chain and also what role other participants play in the value chain. For example, Arina could in-source the web-sales platform for online grocery or the last-mile deliveries of the online groceries by re-configuring its operations.

In addition to the innovations within the business model and its constituents, this research analysed what kind of innovation types could apply in Arina's scenario in online grocery retail. The results established that Arina has already executed some of these innovation types, which have consequently affected on their networks. Some of them have already taken place and some of these scenarios presented would be potential ways to execute such type of business model innovation.

Online grocery retail is growing rapidly and the users of online grocery service interviewed for this research gave a very positive feedback about the service. It is worthwhile noticing that this feedback was much more positive than the feedback from the non-users. From this we could draw a conclusion that there is clearly a need for online grocery service, but the customer adoption yet awaits as the consumers seem to be very much tangled into their routines in shopping in a store. Though, consumers are going play a big role with their behaviour in the retail development as they utilize the Nexus of Forces when they buy and consume products and services. What do these applications mean in practise for the case company is being illustrated in the figure 20.

Figure 20. Nexus of Forces embedded in Arina's context.



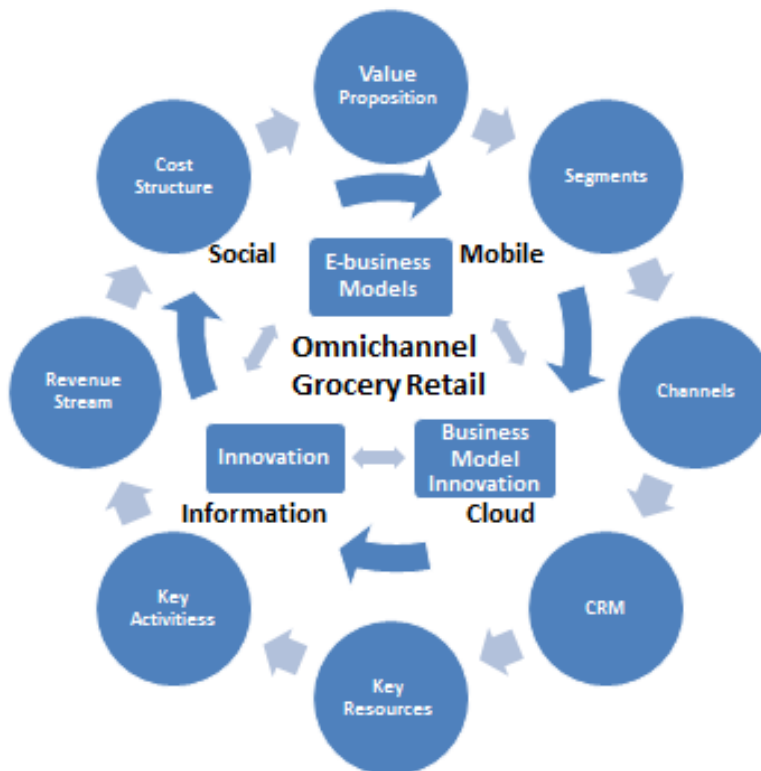
One of the things not yet discussed in this research is the RaaS, retail as a service. These are cloud-based retail management services that are designed for smaller retail businesses that cannot afford to maintain their own IT-infrastructure (Sepple, 2013). Eventually these depicted in figure 20 will affect on Posti's operations as they should partake in developing solutions that do favour this kind of development.

Consumers are going to vote with their feet on which kind of models they will prefer. What consumers are going to look for, in turn, is dependent on what is the offering going to be like and what are the trade-offs. In other words, if the home delivery of groceries is going to be expensive, consumers are likely to shop at the brick and mortar or order the groceries online and collect them from the physical store, should it be possible for them. In

turn, if there would be an incentive provided for the customers to try out online grocery shopping, delivery method, it would have an impact on the development of the business. Hence, one of the key conclusions of this research is that though consumers in the digital era are ever more powerful, this is the locus which the retailer can affect the consumer behaviour and to which kind of model of grocery retail is going to be on prevalent in the future.

In order for companies to reinvent themselves and gain competitive edge in the market, business model innovation should not be considered with the conditions of online grocery retailing. A retailer such as Arina cannot just reinvent itself through business model innovation since online grocery is about 0,1 % of the total sales. Instead, incremental innovations within the business model building blocks should be considered to form an Omnichannel retail experience that appears seamless for the consumer. This could be done through pivoting, in other words, trial and error. As online grocery retail as a small niche market and will not threat the position of the conventional retail in the near-term, the online grocery retail model only complements the traditional grocery retail business model. It is important to acknowledge that online and offline business models are not competing models either, but they both support each other and provide the means to respond to the different value propositions of different customer segments.

Figure 21. The digitalized, omnichannel grocery retail environment.



The objective of this research was to establish a portrayal of the digitalized grocery retail environment, its business models and its change drivers. This is being presented in the figure 21. The Nexus of Forces; social, mobile, cloud and information describe what are the forces that are driving and going to drive the change in the digitalized grocery retail. Innovation and business model innovation illustrate the mediums by which to achieve new business models, such as e-business models that would better serve the new architecture of value creation. Together they will constitute a successful omnichannel grocery retail business model where all of the aforementioned elements of change are taken into consideration. The results is a scenario where all of the customers and their contemporary value propositions are being served seamlessly in all of the channels.

6.1 Theoretical contribution

Previous research, such as S8 (2013) has suggested that online grocery retailing is a so-called technology-push, meaning that it was initially a technological, discontinuous innovation and later on this has created new behavioural patterns. Yenna 2014 suggested that the new behavioural patterns would be robustly driven by the four characters, also known as Nexus of Forces which are social, mobile, cloud and information. This primary data of

this research complied with this as all of these themes were strongly emphasized in the interviews. Furthermore Yenna (2014) mentioned that “The benefits of mobile and social shopping integrated with cloud computing and accurate processing of data can mean the difference between a retail operation that succeeds in today’s changing world and one that does not.”. This research agrees with these findings. The chosen conceptual framework, Nexus of Forces is an excellent way to model how technology has radically changed the consumer behaviour.

This research was conducted from the omnichannel perspective of grocery retailing in Finland. The research question was “Can we recognize and analyze how digitalization and online channels are affecting the business model of grocery retail, by using a business model canvas”. The hype around online grocery retail and today’s extensive media coverage gives the impression that online grocery retailing would skyrocket. The background of this research already tackled this and depicted how online grocery retail is just a blip in the total grocery retail business. More importantly, This research pointed out that the previous research on online grocery retailing within the e-business models narrow and/or leave out important issues of the omnichannel grocery retail as they cover only one aspect of the issue, which is online grocery retailing, thus being somewhat defective. Many of the online grocers are traditional brick and mortar retailers. Online grocery retailing as a minor part of an omnichannel grocery retailer such as S-Group/Arina, has to be integrated with, and cater to the existing business model of the conventional retail. Hence, the role of online grocery retailing in omnichannel grocery retailing is minor and complementary, though increasing every year.

The research suggests that the business model and business model canvas of Osterwalder & Pigneur (2010) can work as a an analysis tool on which to build business model related a qualitative, case study analysis. Business model canvas can help to analyse business model components in a detailed respect, as majority of the research on business model innovation focuses briefly on introducing various definitions of the business model concept. This research used the business model canvas as basis for analysing how online business models impact the business models of the traditional grocery retail. Furthermore, innovation theories on business models were being experimented to determine if they can provide value and lead to new innovations in the business model constituents.

Some of the most prominent and often cited objectives for investigation on business models is to experiment with innovative business concepts in order to determine if current business models can easily adapt to them (Eriksson & Penker, 2000). This research experimented with how new innovation concepts such as e-business models can adapt to the current business model of the physical grocery retail. The conclusion reinforced Amit & Zott's (2010: 7) findings innovation can be a critical source of value when performed in a company's business model components. This way innovations can create new business models and thus can lead into new value propositions for the consumers and thus complies with the findings of Davidson (2013) that business model innovation is a powerful way of changing the value proposition. Consequently, Girotra and Netessine's findings from 2014 showed that value propositions that are initiated through business model innovation can create new markets for the company without any investments or technological inputs, but rather through the existing assets of the company.

This research agrees with Amitt & Zott's (2001) proposal that business model innovation is a crucial source of value creation for the firm. Though the empirical findings pointed out that the firm, can also lead to innovative business models where key activities and/or operations are being in-sourced for increased engagement, efficiency or for some other reason. This would suggest that the need for partners and outsourced activities would be of lower demand, which would disagree with Amit & Zott's (2010) findings that business model innovation would also create value for the firms partners and suppliers.

6.2 Managerial implications

6.2.1 Pivoting towards omnichannel business model

Business model innovation is often associated with radical and disruptive innovations, where a company re-invents itself or its value creation. However, the examples drawn from the first wave of online grocery retail business has showed that as the business tends to develop gradually and follow a slow customer adoption,. Hence, this research suggests that the right strategy to respond to such kind of change is incremental development and pivoting, in other words, trial and error. This has been the strategy of the most successful online grocer, Tesco over decades. Tesco did not reinvent itself, but made incremental changes in its business model, made trials and errors with their distribution models and other business model elements. This research showcased the abundance of possibilities for business mod-

el innovation in the business model construct and how business model innovation can create significant value even when performed in just one building block of the business model. Furthermore, that is investment-wise less risky than reinventing the entire business model.

6.2.2 Omnichannel thinking as the conceptual framework in decision-making

This research showcased the multitude of channels, their mutual convergence and how they are going to drive the change in retail and other industries. Furthermore, there are more channels to emerge, such as television. These digital channels affect all retail operations, including the traditional retail. Based on these reasons aforementioned, this research suggests that omnichannel thinking should be incorporated in all decision-making of Arina.

6.2.3 Implication 1: Leverage from Scale Economies

Logistics was seen as one of the watersheds in the online grocery business (S3, 2014) to which local optimization is the key (S6, 2014). However, large volumes are a prerequisite on which to build the optimization on. In many businesses, the more you buy, the lower price you pay. Should Arina be able to grow the volumes of the online grocery sales, it would lead to lead to scale economies, stabilized and entrenched processes. Higher and stabilized volume streams help in planning the processes of how the service is being produced and delivered. Foremost, more volumes would bean increased bargaining power when acquiring logistics services from Posti or another logistics operator. In the traditional grocery retail, S-Group is already a benchmark of centralized and very efficient procurement that utilizes scale economies to its full extent and that gives them a high bargaining power in sourcing.

6.2.4 Implication 2: Online POS-marketing

Other possible revenue streams could be generated through POS-marketing, which to some extent are already done in the offline environment. However, offline their implications are very hard to measure, but online they can be fully tracked, automatically and thus charging the suppliers or manufacturers would be very much easier.

6.2.5 Implication 3: Long-tail products to serve niche value propositions

Also long-tail model could be leveraged within the online grocery retail model. A domestic, rival online retailer Kauppahalli24's model is to offer a wide assortment of products of smaller demand, such as organic products and super food. This could be seen as an opportunity, but only if a proper distribution can be arranged. (S7, 2014) However, S Group and Arina could pull leverage on the scale economies by sourcing these kinds of products with a significantly lower buy-in prices resulting in higher margins and eventually greater revenues.

6.2.6 Implication 4: Focus on consumer behaviour and the polarizing segments

As the consumer behavior changes, the same segments are about to be of different kinds of value propositions than they used to be. S9 (2014) highlighted that elderly people in 10 years are going to be much more awoken, tech-savvy and their lifestyles differs very much from the one today. They run marathons, play guitar in a rock band, drive motorcycles. This suggests that if a 60 year old was not the most potential segment for online grocery at the first place, it might well be in 5-10 years. As people's consumer behaviour is changing as a result of their lifestyle change, they become potential heavy users for the online grocery service. This suggests that though online grocery retail segments are niche markets at the moment, the niche markets are evolving towards a situation where they are the segmented market. Hence, when innovating new business models, the stress should be, not only in the segmentation necessarily, but also how the segments are evolving from within.

6.3 Suggestions for future research

Most of the suggestions for future research came out rather technological. This was a business research, and thus, technological applications were not analysed in a detailed level. However, their impact on all industries and their operations is such immense that they entail the potential to disrupt any industry or business.

All of the Nexus of Forces elements; mobile, social, information and cloud are interesting and robustly shaping many industries. They are already disruptive on their own and their implications on overall retail business could be further investigated, either separately or all together. One approach, for example, could be choosing one of these four forces and its implications on the business models or business model building blocks of the traditional

grocery retail, online grocery retail or their hybrid models, such as the omnichannel grocery retail, and analyze the impacts in a detailed fashion. Yenna (2013) has studied the impact of Nexus of Forces on retail, but their opportunities and threats to grocery retail in particular could be further examined. Nexus of forces could also provide useful information when applied in supply chain and logistics studies.

A phenomena that is said to be affecting all industries is the Internet of Things. Because of its scope, it was excluded from this research, but it has several implications on grocery trade. A good example of this could be the RFID tags. RFID tags have reported to have shrinkage preventive applications, improved quality control of the products, automated checkouts (in-store), automated replenishment and misplaced product alerts, visibility from production to checkout, smart gadgets for customer comfort (in-store). These are just some of the benefits of RFID technologies and many of them apply in-store applications and in the back-end operations of the grocery supply chain. RFID improves the tracking of the lifecycle and supply chain of the product and this is essentially important thing in the online retail environment. RFID technology and its return on investment is definitely a technology worth further research for both, for the retailer and the logistics service provider. These issues have been studied by Östman (2013) Internet of things, or IoT entails several such kinds of applications that have the potential to revolutionize retail and especially its supply chains. Hence, IoT would call for further research, for example within the context of the assigned case companies of Arina and Posti.

Another issue worth of further research would be different kinds of partnership models that the two case companies, Arina and Posti could establish instead of the current model. As it came clear in the conclusions, S Group & Arina have outsourced their key activities for online grocery retail operations, the sales platform and the last-mile delivery. According to economic theories the key activities should not be outsourced and this would suggest further research on the possibilities and threats of this model. Some of the several strategy theories could be applied as a framework to establish a picture of a long-term consequences of this operating model.

This research was analysing the traditional retail the channels that digitalization has brought about. As this research referred mostly to online and mobile channels as channels, there is one emerging channel which seem to have the potential to surge: Television, also known as the T-commerce. In 2014, H&M partnered with Delivery Agent to allow con-

sumers to use their remotes to purchase items as they appeared in H&M's TV ad during the commercial break of a super bowl. David Beckham appeared in his design collection on a, and folks with Samsung Smart TVs received a real-time, on-screen call to action prompting them to buy the things they like. Can this strategy carry over to long-term sales? QVC, HSN and AsSeenOn.com have built multi-million dollar empires the old-school way. (Redniss, 2014)

According to TNS-Gallup ad Intelligence (2014) Retailers are the biggest advertisers in magazines and in all media (multimedia), out of top 5, only one company (Veikkaus) is not a retailer. Furthermore, retailers belong to the most significant TV-advertisers and this has raised the author a question of a potential marketing (channel) innovation. Consumers could make impulse purchases straight out of the couch when they see a TV ad of the grocery retailer (which I see every single day). Millions of people watch TV in Finland every day and retailer such as S Group are the biggest advertisers. So what if their products could be bought directly through that channel and then delivered where ever the customers want to? The logistics network for executing already exists, but the sales platform technology is lacking. This phenomena is definitely worth further research, perhaps within an IT-related framework.

Another IT-related topic worth studying is Chat service in online grocery and its impact on customer service and sales. As the customers are shopping online, the need of personal assistance is still present, though it is not physical one-to-one presence. Chat is an excellent way of serving the customers personally, but in a cost-efficient and convenient way for both, the customer servant and the customer. According to (Finnchat, 2014), chat increase sales and improve customer experience. Chat users also buy 35% more in terms of Euros. This could have a significant impact on online grocery sales, but before implementing anything, Chat and its influence on customers and operations should be further examined.

As what comes to logistics and the supply chain, the drop-off box solutions should be further examined within a logistics and/or supply chain framework. Though the volumes are still scarce and the investments rather significant, this would be a strategic move, since in the long-run, parcel lockers decrease the costs of the last mile delivery significantly. Logistics are on of the biggest hurdles for all online retail. In addition this would lead to better service, not only because the recipient's presence is not needed at the time of delivery, but also because the drop-off boxes are of utmost convenience for the consumers. As this

method will be more widely available, it will most definitely raise the interest of the masses and increase the interest and demand of online grocery retail and its home delivery, which will eventually result in higher volumes and increased turnover for online grocery logistics. Home care is already very interested in the drop-off boxes and full engagement with the home care would mean enormous volumes for the business. The ongoing economic downturn has caused a lot of political pressure on decreasing the costs in the public sector and its operations and processes. If grocery shopping happens to be the only reason why the elderly or disabled people are being visited, drop-off boxes are definitely a solution to reduce or untie the workload of the nurses and eventually the costs of the public sector.

Crowdsourcing in the sharing economy has become a very topical phenomena. Some online retailers have already examined the possibilities of services like Uber to deliver their shipments ordered online. Uber is a taxi-like service in which anyone that has a car and matches Uber driver criteria can start driving people for a charge. Also one of the “online grocers” is Instacart, which doesn’t sell groceries but it has a reserve of people who will go shopping for customers and bring the groceries home for the people. However, as retailers can sell directly to the consumers online, for example Uber could be one way to utilize scale economies in the grocery delivery as the drivers could deliver groceries meanwhile waiting for customers to pick up. Uber has yet some constraints with the legislator, but as things might evolve, this would be definitely a solution worth of further research.

This research was a qualitative research; The data collected was primary in nature and it was being analyzed through qualitative research methods. Excluding the background information of the industry, this research did not analyze quantitative data. Hence, a qualitative analysis about these same issues and their implications in numbers could be further examined. During my research, I found it rather challenging to find accurate, up-to-date statistics of online grocery retail in Finland. This data could be useful in the future for new research on the topic.

6.4 Limitations of the research

As a Master’s Thesis of Business Administration, this research was a business research. Therefore, the majority of the frameworks and concepts introduced in this research are

mostly related to business research. This research was conducted by qualitative research methods. Though some figures were brought up to give the reader a basic background information about the industry and the business environment, quantitative data analysis was completely left out from this research and was left for future research purposes. This research did not analyze the results through a hypothesis, meaning that inductive research approach was left out of this research.

This research was conducted as a case study of Arina and Posti and as such, the results cannot be generally applied to all grocery retailers and their partnerships in online grocery retail. The data collection took place in 2014, which means that the data drawn in another year might vary, and thus, could be incorrect when applied in future research scenarios. This research did not study how grocery retail was before and it is going to be, but rather how the new and the old appear together at the moment, and what did the interviewees think about it in 2014. Because of the limited resources, the author of the research was the only one to collect the information and perform the analysis. The author of the research has background and knowledge in grocery retail, online retail and work experience from both of the case companies. Hence, though the approach to the research was neutral, the background and bias of the researcher might have contributed in some ways to the research and its results.

This research examined the digital attributes, such as online retail and changed consumer behavior, and their implications on traditional grocery retail and its business models in Finland. Examples from online grocery retail industry were being introduced on a global level, but they were not analyzed within any framework, unlike the case companies. In his research of UK grocery retail, Kivilahti (2013) studied how a technological innovation would disrupt the grocery market in a certain area, which was the UK. However, this research focused on the case companies that operate in Finnish market, which is in many ways different to the one in UK. Therefore, this research was geographically limited and the results cannot be applied to other markets as such.

In his research on business model innovation, Chesbrough (2007) emphasized that innovation is not all about technology anymore, business models matter. Innovation does not mean heavy R&D investments, but it can take place in a company's business model. Similarly, this research did not focus on analyzing the technological innovations nor their scope which has been studied by Apilo & al., (2007) and Tidd & Bessant (2009), but instead,

after a brief introduction of innovation characteristics, this research focused on analyzing their business opportunities and implications for today's grocery retail business models.

Applicable online business models to online grocery retail and their integration as omnichannel grocery retail was being examined. For example, Rosenblum & Zaballos (2013) have researched omnichannel retail, but with a particular focus on the supply chain element of business model. As established in the conclusions, distribution channels are important in online and omnichannel grocery retail contexts. This research was not only limited to the distribution channels, or to any particular business model component. Instead, the focus of this research was on the entire business model construct. Furthermore, e-business models are often analyzed from a resource-based perspective (Acosta, Meroño-Cerdan, 2011; Seppänen, 2009), but resource-based view was completely outlined from this research.

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Subject 11 Interviewed by: Kärkkäinen, T. (27th May 2014)

Subject 12 Interviewed by: Kärkkäinen, T. (27th May 2014)

Subject 13 Interviewed by: Kärkkäinen, T. (27th May 2014)

Subject 14 Interviewed by: Kärkkäinen, T. (27th May 2014)

Subject 15 Interviewed by: Kärkkäinen, T. (27th May 2014)

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Appendices

Appendix 1 Backgrounds of the interviewed industry experts

Subject 1	Subject 1 runs the grocery business of S-Group. He holds an extensive experience from grocery retail management in Finland, S-Group. Has also held several other relevant positions in S-Group and in the partnering companies, such as Inex Partners, that was acquired by the group in 2012.
Subject 2	Subject 2 has an all-encompassing experience from S-Group Grocery trade. Currently in charge of the online grocery retail initiatives and development in S-Group in addition to his primary assignment as the Director of Assortments and Pricing in S-Group.
Subject 3	Subject 3 works as a Development Manager of the biggest cooperative of S-Group, HOK-Elanto. He is and has been responsible of the development of the online grocery retail of the biggest single online grocery retail business in Finland, HOK-Elanto's Kauppa-kassi service.
Subject 4	As the long-standing CEO of the cooperative Society Arina, Subject 4 holds an extensive experience, not only from grocery trade, but also from the case company Arina's operations and the business environment particulars within Arina's operative region. As a CEO he holds the holistic vision on the business management perspective with regards to grocery retail especially in Arina's region.
Subject 5	During his over 40 years career in Arina, Subject 5 also has gained an extensive experience from grocery trade in Arina. He has also been involved in numerous national level S-Group level development schemes and online grocery initiatives. As the Vice President of the market trade, he is in charge of the development of grocery trade in Arina, and thus, responsible for the online grocery development initiatives. Tapani is the mentor of the research in Arina.

Appendix 2. Backgrounds of the interviewed industry experts

Subject 6	Subject 6 is the CEO and Co-Founder, Digital Foodie Ltd, which was seen as the key partner of S-Group in online grocery in this study. His knowledge lies especially in the online grocery trade and in the related software development.
Subject 7	Subject 7 Has held several positions in S-Group earlier and has been involved with the first initiatives of online grocery in Finland in the 1990's. Currently he is working as a Consultant in Talent Vectia, where he focuses on the digitalization of retail, and thus makes a lot of related research. He holds extensive experience and research background in online grocery.
Subject 8	Subject 8 is a known expert in the field of – not only online grocery retail, but also online retail and retail in Finland. He has studied these issues in Aalto School of Economics and in Oxford. He made his doctoral dissertation on online grocery retail in UK.
Subject 9	Subject 9 has had a long career with logistics and supply chain in Posti. As retail is one of the biggest industries for Posti to provide services, he knows retail. S9 has been to some extent involved in all for the online grocery initiatives in Finland. He is also currently the Vice President of Posti Parcel Services, the unit that provides the last-mile delivery services for online groceries and in this sense he was an important informant for the research.
Subject 10	Subject 10 as a Business Manager at Posti, is in charge of the regional transportations of the perishable foods to corporate customers and municipalities. In addition, he is in charge of Posti Thermo, a temperature monitored service for refrigerated products. S10 works together with Arina to provide Sale Kauppakassi service.

Appendix 3. Backgrounds of the operative workers of S Group's online grocery retail services

Subject 11	Subject 11 Driver in Alepa Kauppakassi, HOK-Elanto, a co-operative of S Group.
Subject 12	Subject 12 Driver in Alepa Kauppakassi, HOK-Elanto, a co-operative of S Group.
Subject 13	Subject 13 Driver in Alepa Kauppakassi, HOK-Elanto, a co-operative of S Group.
Subject 14	Subject 14, Collector and Sales Person in Prisma Kauppakassi click and collect, HOK-Elanto, a co-operative of S Group.
Subject 15	Subject 15, Sales Person in Prisma Kauppakassi click and collect, HOK-Elanto, a co-operative of S Group.

Appendix 4. Anonymous users and non-users of Prisma Kauppakassi

Anon 1	Anonymous user of Prisma Kauppakassi service.
Anon 2	Anonymous user of Prisma Kauppakassi service.
Anon 3	Anonymous user of Prisma Kauppakassi service.
Anon 4	Anonymous non-user of Prisma Kauppakassi service.
Anon 5	Anonymous non-user of Prisma Kauppakassi service.
Anon 6	Anonymous non-user of Prisma Kauppakassi service.