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MSc in Business Administration and E-Business
Master's Thesis

# Assessment of Grocery eCommerce in Scandinavia

An analysis of contrasting strategies in a rapidly changing landscape

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## Abstract

Given the progressive growth of grocery e-commerce sales and increasing competition in the online grocery landscape, this thesis aims to evaluate its potential in Scandinavia. It seeks to analyse the current market situation by comparing the level of development in each local market and identify the potential perspectives as well as barriers that may affect the further development of the industry in the three Scandinavian countries, namely Denmark, Sweden and Norway. The author strives to determine what are the prevailing business models and operational methods adopted by the most significant online grocery retailers in Scandinavia and compare it between the countries. The latter is achieved by depicting the competitive landscape of e-grocers based on operational differences in their order fulfilment and delivery strategies, as well as observing the benefits and challenges of each strategy type.

The research aim is achieved by designing a qualitative research study, which is supported by the abductive reasoning and exploratory purpose of this thesis. The data collection for this study has happened through analysing secondary data sources and conducting qualitative semi-structured interviews with experts from retail and Fast-Moving Consumer Goods companies. The empirical findings of this thesis led to a discussion that presented theoretical and practical implications for academics and practitioners. Moreover, the author identified how the findings could be applied in a broader context of the retail industry and provided recommendations on how future research could be built upon the author's discussed findings.



**Keywords:** *e-commerce, online grocery, grocery retailing, operations strategy, last-mile, exploratory study, qualitative research*

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# 1. Introduction

Over the past twenty years, the success of the ongoing digitalization and the online channel has remarkably changed the landscape of the retail and the way of living as well (Simone & Sabbadin, 2017). To deal with technological innovation, an increasing number of businesses choose to use multiple integrated channels to add new touchpoints to their portfolio through which businesses can interact with customers (Bendoly et al. 2005). The proliferation of channels has influenced changes not only in consumer behaviour but also in companies' business models (Simone & Sabbadin, 2017). The possibilities that e-commerce offers tempted retailers to integrate online practices in their commercial activities, to transform their business models into what is now known as clicks-and-bricks or click-and-mortar companies, or to establish an entirely new set-up as pure internet players. Consequently, global e-commerce has been embraced in almost all countries, although at different paces among the world's populations.

Moreover, it is not a surprising fact that Scandinavian countries that have one of the highest internet penetration in Europe also have one of the most developed markets for e-commerce. In all three countries, Denmark, Sweden and Norway, more than 80 percent of consumers using the internet shopped online during the last year, 2018 (European Ecommerce Report, 2019). Even though e-commerce has been growing rapidly over the past years for product groups such as clothes, home electronics, books or audiobooks, the online industry for grocery shopping has taken longer.

In general, the grocery industry could be characterised by hyper-competition where businesses operate on thin margins, deals with large amounts of often-perishable goods that have a low value to size ratio, and consumers who have widely varying tastes and are fixed on prices (Boyer, Hult, & Frohlich, 2003). In Europe, as well as in the Scandinavian countries, powerful brick-and-mortar grocery retailers are dominating the market, and their approach to online retailing has been more reactive than proactive. However, the pure players that entered the market came as a challenge to the traditional supermarket chains (Fernie & McKinnon, 2009).

Based on the PostNord report (2018a), in the Nordics "e-commerce in groceries has been something of an Achilles' heel in the region, where large and sparsely populated areas place food transport, above all, at a disadvantage". However, the percentage of people buying groceries online in Scandinavian countries is increasing sharply, and the situation with the biggest national chains launching their online presence is changing (PostNord, 2018c). As stated in the PostNord report on the Ecommerce in the Nordics (2017), in 2017, on average 6% of respondents said they had bought groceries online within the last month, whereas in 2018 this number increased to 11% (PostNord, 2018b). Even though groceries category is still less mature in terms of e-commerce in the Nordics, it is on a rapid rise and its influence has a significant impact on future plans, and investments for

all physical channels (PostNord, 2018c). Many companies are looking for the right business model to provide online grocery shopping combined with home delivery or/and customer pick up service, which might be critical for increasing market share in the future. Therefore, the key challenge for online grocers is to find the optimal distribution model that would be profitable but at the same time, would not jeopardize consumer preferences and convenience (Planet Retail, 2016).

## 1.1 The Purpose of this Master Thesis

Given the progressive growth of grocery e-commerce sales and increasing competition in the online grocery landscape, e-grocers need to identify the most effective and efficient operational process or combination of those processes that would lead to profit, greater market share, and, of course, consumer satisfaction. Therefore, to understand the phenomenon better, the author of this master's thesis decided to analyse the currently adopted business models and operational methods of online grocery retailers, and to evaluate the overall grocery e-commerce potential in Scandinavia. Although the research topic is not new, and there is a significant amount of contributions available in the literature, they present several limitations. First, it is the timeframe being considered, meaning that there was a lack of recent contributions. Secondly, it is the content, since the author of this paper could find only a few papers (for instance, Hays, Keskinocak, & Lopez, 2005; Ali et al., 2017) that would present comprehensive framework bringing together the different sides of the phenomenon and including all available methods for order fulfilment and delivery. Lastly, there is a shortage of studies that would focus on the local regions for Scandinavian countries. Therefore, the existing gap in literature will be filled with a thorough investigation of online grocery retailers in three Scandinavian countries, namely Denmark, Sweden and Norway. Based on the limitations mentioned above and the relevance of the topic, the master's thesis aims at answering the following research questions:

*RQ1. How can online grocery landscape in Scandinavia be described?*

*RQ2. What are the currently adopted business models and operational methods of online grocery retailers in Scandinavia?*

*RQ3. What are the future trends and perspectives for online grocery in Scandinavia?*

The study has the intention to achieve a broader understanding of grocery e-commerce in the selected countries, also to evaluate its potential and future perspectives. This further delimits the scope of this research and incites the author to address and fill the observed research gap.

## 1.2 Delimitations

The phenomenon of online grocery could be discussed from many different angles. Therefore, the scope of this thesis needs to be delimited by describing the boundaries set for the study. The author of this thesis decided to analyse the adopted operational methods of online grocers only from the order fulfilment and delivery perspective. The problem space was delimited by analysing and comparing current situation and competitive landscape in three countries, namely Denmark, Sweden and Norway that together are called Scandinavia. The author's decision to choose Scandinavia but not the whole Nordic region was due to the strong cultural, linguistic, and historical ties of the earlier mentioned countries. The author believed that the most common patterns could be identified in specifically those three countries.

Furthermore, delimitations reflect also on the criteria of participants to enrol in the study. Since the intended accomplishment is to analyse the existing business models and operational strategies of online grocery retailers in Scandinavia, companies had to be grocery retailers with the already established online presence. Henceforward, this research neglects the individual consumer perspective and consequently, the possible effects of online grocery adoption on consumers being the end-users of this relatively new phenomenon. The author carried out this research to specifically evaluate the potential drivers of online grocery in the Scandinavian market by investigating already operating companies and collecting insights from independent experts.

## 1.3 Thesis Outline

To understand the structure of the thesis, in the following subsection the author presents a detailed outline and briefly introduces the content of each chapter.

The first chapter of the thesis determines the topic and its relevance as well as provides the background of grocery e-commerce. It also introduces the key challenge for online grocery retailers of choosing the optimal online order fulfilment methods that are now being highly discussed in different contexts amongst both researchers and practitioners. Furthermore, the research questions are introduced, whereas the delimitation part narrows down the scope of the thesis and defines the key focus areas. In the following chapter the author looks at the different concepts analysed in this research in light of the academic literature. By reviewing various existing literature sources, the author presents an overview of the development of the grocery e-commerce, later in-depth examination of online grocery business models is performed, which is then followed with an extensive analysis of different online order fulfilment strategies. In the methodology chapter the author determines the research philosophy and approach shaping the research process. Moreover, this part explains exploratory purpose of this thesis and provides reasoning for the qualitative research strategy as well as techniques and procedures used for data collection, analysis and for achieving research quality. The analysis chapter presents findings from both

primary and secondary data. The process of analyzing data from the interviews starts with a thematic analysis where key themes and sub-themes used later in the analysis were introduced. Subsequently, the findings were organized based on the conceptual framework presented earlier in the study. The discussion chapter reflects on the implications of the findings for the research questions. This section is structured based on the same framework as the data analysis part but additionally brings a model identified in the literature review to depict competitive landscape in each of the countries. The chapter ends with research implications and practical as well as theoretical contribution. Later on, the author points out the limitations of the thesis as well as provides recommendations for the further research. The conclusion chapter draws the main learnings brought to light by the study and the answers to the research questions.

# 2. Literature Review

The literature review aims to develop a good understanding of the relevant previous research and collect insight into the trends that have emerged in online grocery retail. The literature review will start with a brief overview of e-commerce from a historical perspective, later in-depth examination of the online grocery market in terms of different types of online grocery market players will be presented, following an extensive analysis of different online order fulfilment and delivery strategies. The literature review will end by outlining some key considerations concerning future perspectives for online grocery shopping from multiple stakeholder perspectives.

## 2.1 The Evolution of E-Commerce

E-commerce is often used to describe any relation between a business process and the internet. Definition provided by Turban et al. (2015, p. 7) suggests that e-commerce "refers to using the Internet and intranets to purchase, sell, transport, or trade data, goods, or service". The origins of electronic commerce dates back to 1920 with the first catalogue sales rise in the United States. It was the first time people could buy without physically seeing the good (Lee, 2016). In 1980, catalogue sales were revived through telesales and shortly the emergence of the World Wide Web in 1989 turned into a breakthrough in the development of e-commerce (Turban et al., 2015; Lee, 2016). Reynolds (2000) argues that e-commerce emerged as a competitive channel to market, which in reality creates a threat to conventional retail businesses but at the same time presents an opportunity for new enterprises to enter a marketplace. The author claims that the emergence of electronic channels lowers the barriers to new entrants, at the cost of the existing incumbents (Reynolds, 2000). According to Evans and Wurster (1999), success in e-commerce determined by three elements: reach (how many products a company can offer or the number of people a firm can access), richness (the quality of information that firms have about their customers and how much customers know about companies) and affiliation (whose interests the firm represents).

Turban et al. (2015) described three types of organizations that are the most common in the retail industry: brick-and-mortar organizations that are pure physical companies, pure-play organizations, which engage only in e-commerce, and click-and-mortar (click-and-brick) organizations that partially engage in e-commerce activities. Through the years', bricks-and-mortar stores developed a well-defined strategy to incorporate customers within the labour process. Notably, retailers have trained their consumers pretty well. Shoppers were supposed to come to the shop, select their goods through largely unaided decision-making steps, and bring them home (Murphy, 2003). Moreover, retailers are constantly increasing store efficiency by installing various tools for automation. Some of the most innovative in-store technologies are intelligent self-service displays and kiosks, virtual aisles and screens, virtual mirrors-fitting rooms, digital signage, QR codes and RFIDs (Radio-frequency identification).

Nowadays the importance of in-store innovations is rising fast, and retailers are liable for investing in information technology to improve all their sales channels, not only physical but also online and mobile channels (Simone & Sabbadin, 2017).

Furthermore, online retailers can leverage the ability to collect data about what kind of products customers are searching for. Website structure can also facilitate consumers to avoid one of the most manipulative retailer's solutions in growing customer purchases, that is the spatial layout of a store, which guides the regular consumer to go through the most areas of the shop to carry out purchase (Murphy, 2003). The latter retailers' trick may lead to buying goods that she or he has not intended to buy before visiting a store, while the final spontaneous decision is made at the impulse bar at the checkout. Reversion is required in both psychology and logistics, customers are expected to trust store's personnel to pick and pack for them, while retailers are now responsible for conducting the picking, packing, and distribution to online customers that they have never seen (Murphy, 2003).

## 2.2 Types of Online Grocery Market Players

In the instance of online grocery retailers, companies, which sell consumer products online, are usually coined as "e-grocers" and as "e-tailers" (Hays, Keskinocak & López, 2005). Brick-and-mortar is still a dominant concept in the grocery market. However with many retailers adding online channels to their current operations and with the competition from the pure online retailers, e-grocery is facing an upheaval (Hübner, Kuhn & Wollenburg, 2016). Currently, the United Kingdom is a leading market for online grocery sales in Europe, with 7,2 per cent of global online grocery sales. France is the second in this ranking with 5,6%, while Denmark is only the seventh with 2,2 per cent of global online grocery sales (Statista).

Together with the rapidly growing and developing the online grocery market, the diversity of online business models and industry players intensifies. Hays et al. (2015) distinguished three alternative types of online grocery market players, namely, brick-and-mortar that are going online (brick-and-click), pure-play online, and partnership between pure-play online and brick-and-mortar. Subsections below discuss pros and cons of each type.

### 2.2.1 Pure-play online e-grocery

Pure-play e-grocer is a type of business model that relies on web ordering and delivery, possibly has one or more warehouses and has no retail storefronts (Hays et al., 2005). The first pure online grocery players that entered the market in the late 90s were called disruptive innovators. They came as a threat to the existence of store chains, however not without risk (Murphy, 2003). The lifespan of the first startup online grocers that emerged in the dot-com bubble was relatively short (Murphy, 2003). A significant number of them went bankrupt, providing precious lessons for late entrants (Xing & Grant, 2006). According to Hackney et al. (2006), reasons why some

pure-players were not able to withstand the competition in the market are lack of experience, unrealistic expectations and prior brick-and-mortar business knowledge when trying to create something from nothing.

There are several associated advantages with this type of the e-retailer. Pure players do not have multiple retail locations that result in high operational costs. In addition, by having their inventory in fewer locations, e-grocer can manage it better, increase inventory turnover rates and reduce inventory-holding expenses. Besides, despite the common belief between retailers and consumers that impulse buying diminishes online, some companies, for instance, Amazon.com, has shown that by employing innovative marketing strategies, impulse selling can be fostered quite well (Hays et al., 2005).

Regardless of its potential benefits, the pure-play e-grocer model has its disadvantages. Brick-and-mortar stores have built their brand names, a large customer base and have established locations (Hays et al., 2005). Additionally, many consumers still choose a retail store to buy groceries. There are few reasons for that, for instance, they prefer to check the freshness of vegetables and fruits by themselves, or they may want to unwind after a long day by walking in a grocery store and putting products to cart. Moreover, consumers might have trust issues since they are used to go to the stores they have known for years, are sure about the quality and where they feel prices are right (Hays et al., 2005).

### 2.2.2 Bricks-and-clicks strategy

Bricks-and-clicks strategy bridges the physical and virtual worlds (Gulati & Garino, 1999). Although larger brick-and-mortar retailers have been relatively slow in moving their operations online and entering the e-grocery market, the presence of online sales challenged traditional brick-and-mortar operations to adjust to new rules of competition in the market (Bendoly et al. 2005; Hays et al., 2005; Fernie & McKinnon, 2009). Maltz, Rabinovich and Sinha (2004) highlight that established retailers already have existing logistics networks, therefore are well positioned to leverage the online business channel. According to Rabinovich and Bailey (2004), bricks-and-clicks retailers demonstrate better performance than pure online players because the former have access to multiple distribution channels that brings economies of scale.

In early development stages, some bricks-and-mortars managed the internet channel separately from the rest of the corporate strategies with minimal integration (Verhoef, 2012). However, the current trends of channel integration empowered separated channel interweaving with each other (Simone & Sabbadin, 2017). Bendoly et al. (2005) were the first researchers to explain the notion of channel integration as the extent to which distinct channels interact with each other.

In today's business environment, omni-channel retailing, which is defined as "the conceptualization of the complete integration of all channels, with no distinction between the online and the physical channel", is now

called the new retailing paradigm (Simone & Sabaddin, 2017, p. 85). Bricks-and-mortar and e-commerce merging into omni-channel retailing with complete channel integration provides consumers convenience and flexibility to buy when, where and what they want (Hübner et al., 2016; Hays et al., 2005) and at the same time has the capacity to significantly improve customers shopping experience (Herhausen et al., 2015).

Moreover, management literature demonstrates that there is a positive effect on companies' sales growth after the organizational transformation to omni-channel retailers (Cao, So, & Yin, 2016; Wollenburg et al., 2018). Selling through both existing physical stores and the Internet allows brick-and-mortar retailers to leverage the strength of each channel (Enders and Jelassi, 2000). Bendoly et al. (2005) study on online and in-store channel integration and customer retention concluded that stronger integration between online and offline channels and transparency to customers leads to a higher loyalty to a firm.

Nevertheless, there are plenty of arguments against the integration of different channels. According to Herhausen et al. (2015), channel integration can push companies to enhance the performance as well as destroy it. Some authors distinguish cannibalization among channels as one of the threats, which result in a partial decrease in sales of a physical channel due to the integration of an online channel (Simone & Sabbadin, 2017). However, others affirm that channel integration creates a competitive advantage to a retailer (Herhausen et al., 2015) and agree that online channel complements the brick-and-mortar rather than cannibalize it (Avery et al., 2012).

Studies on channel integration evolved because the growth of the internet channel impacts not only companies but also heterogeneous consumers who no longer purchase products only from brick-and-mortar shops but also use multiple digital channels such as mobile applications, smartphones, and catalogues. Shi, Zhou and Jiang (2019), examined consumer heterogeneity and online versus offline retail spatial competition. The researchers addressed that consumers choose to shop either offline or online based on their diverse preferences and the real purchase cost which consists of price and transaction cost. When a consumer visits offline retailer, there is a distance-related transportation cost compromising the opportunity cost of time, the cost of travel, whereas the online distance-related cost can involve the distribution cost or waiting costs related to the delivery and other disutility costs. Nevertheless, no matter where the purchase is done, consumers will always have a positive cost (Shi et al., 2019).

### 2.2.3 Partnership between Pure-Player and Brick-and-Mortar

Lately, there are more and more mergers or partnerships between pure-play online and brick-and-mortar firms. There are several reasons for that. In general, grocery retailing is a narrow-margin business, but due to an efficient logistics system and a large customers base brick-and-mortar companies are usually profitable (Hays et al., 2005). Besides a well-developed infrastructure, brick-and-mortar firms have financial backing and brand name

recognition that enables them to reduce expenses for marketing and advertising used to attract new customers online, as well as provides the ability to try different channels to reach more consumers. This kind of operations can be prohibitively expensive for pure-play e-grocers (Hays et al., 2005). Thus, clicks-and-bricks companies established from the partnerships between pure-plays and brick-and-mortar firms downplay the weaknesses and combining the strengths of both types of models and has a higher success potential (Hays et al., 2005). After the failure of the first pure online grocery retailers, researchers argued that the success of a pure web-based model is questionable and favours a convergence of the two business models of retailing (Chen & Leteney, 2000; Enders & Jelassi, 2000).

### 2.3 Online Grocery Operations strategy

According to Hackney, Grand and Birtwistle (2006), there are plenty of challenges that retailers face when they start their operations online. One of the major issues highlighted is choosing the physical fulfilment of online retail operations, mainly whether to deliver goods to consumers from existing stores or centrally located warehouses. Another major challenge for online grocery retailers in creating a successful business model is the complexity, and the high cost of last-mile order fulfilment for groceries bought online (Hübner et al., 2016).

It is not easy to find the best business model for an online grocer. Hackney et al. (2006, p. 355) notice that to remain successful and overcome difficulties the retailers need to rearrange their current online grocery business models following a more contemporary approach, that authors call “the future is present today”. Moreover, consumers are reluctant to pay for the delivery. Thus, the goal is to develop innovative logistical and operational solutions that would make delivery operations profitable (Hübner et al., 2016).

Based on Hübner et al. (2016), order fulfilment and delivery are the two building blocks from which strategic planning framework for last-mile order fulfilment consists of. Moreover, operations strategy is a pivotal reason for the organization’s competitive superiority (Slack & Lewis, 2015). Porter (2001, p. 64) argues, “gaining a competitive advantage does not require a radically new approach to business. It requires building on the proven principles of effective strategy”. In addition, the researcher claims that the organizations that add Internet as complementary channel to traditional ways of competing are more likely to be successful. Furthermore, according to Porter (2001), companies can compete in two ways, either in terms of operational effectiveness by doing what the competitors do but better, which is called sustainable competitive advantage, or in terms of strategic positioning by doing things differently than competitors and as a result delivering a unique value to customers. Since the former is easier to copy, strategic positioning is of utmost importance (Porter, 2001).

A core element of the strategic framework entails functional-level strategies coordination that works to achieve the overall business strategy (Boyer & Hult, 2005). Boyer and Hult (2005) in their research presented four

strategy types for online grocery companies determined by the decision of where to fulfil online orders, either from existing stores or distribution centres, and by choice of delivery method, either direct delivery to customers home or indirect via pick-up points or third-party logistics provider. The figure below (see Figure 1) shows operational differences in online order fulfilment and delivery.

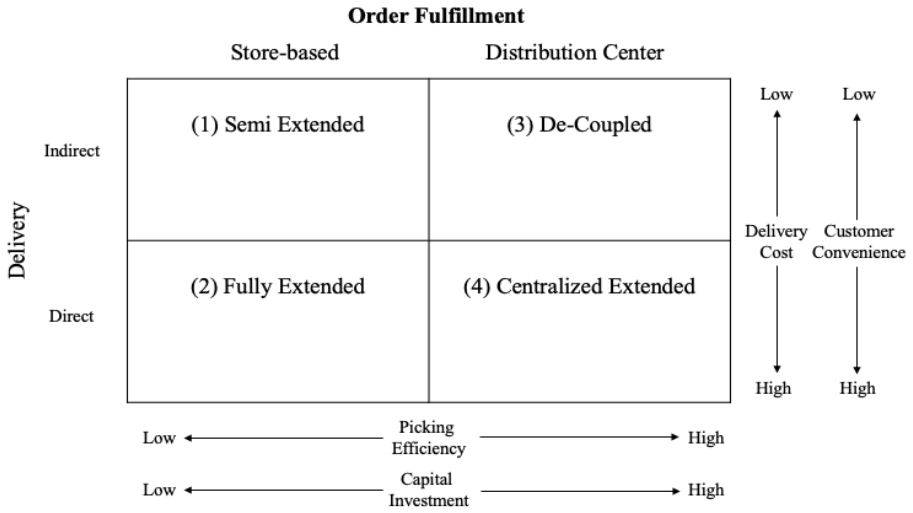


*Figure 1.* Research design for operational differences in online grocery order fulfilment and delivery Source: Boyer & Hult, 2005.

Briefly, semi extended strategy means that online orders are picked in-store and delivered using a third-party. Accordingly, it has lower picking efficiency and capital investment as well as results in lower delivery cost and customer convenience. Fully extended means that online orders are picked in-store and delivered using in house fleet. As a result, it has lower fixed capital investment and low order picking efficiency, whereas delivery cost may be high as well as customer convenience. De-coupled uses distribution centre for online order picking but delivers via the third party. It has higher capital investment and, as a result, high picking efficiency. The latter strategy results in lower delivery costs and lower customer convenience. Finally yet importantly, a centralized extended strategy, which uses warehouses, have a high capital investment as well as high picking efficiency. In addition, it comes with direct delivery and results in high customer convenience.

Delivery method and order fulfilment plays a crucial role in an operational strategy that is driven by the higher-level business strategy. Thus, it is necessary to consider the economics of each option from two perspectives: the order fulfilment and delivery cost of each model, and the additional gross margin the model could generate (Boyer & Hult, 2005). Moreover, according to Boyer and Hult (2005), last-mile has proved to be a critical barrier to making online groceries a feasible business model. The main challenge is in providing a greater reach of services

that is delivering online order directly to the customer instead of consumers coming to the store to pick it themselves. Although the former is more valued by the consumer, the online grocer is confronted by the greater operational complexity (Boyer & Hult, 2005). Therefore, online grocery retailers must find a profitable and acceptable balance between distribution costs, customer convenience and security (Fernie and McKinnon, 2009).

## 2.4 Order Fulfilment

Online order fulfilment is not only one of the biggest challenges for online grocery retailers, but also at the same time, it is of the utmost importance (Koster, 2002). According to Burt and Spark (2003, p. 284), fulfilment and home delivery are viewed as a "big question mark hanging over e-retailing, in all the literature".

### 2.4.1 Store-based order fulfilment

Brick-and-mortar retailers usually choose a store-based model as the first option when entering the e-grocery market (Fernie & McKinnon, 2009; Hübner et al., 2016). Store-based order fulfilment model enables e-grocers to leverage their stores to fulfil orders as merchandisers pick and collect goods that were ordered online directly from the shelves in a store. Bricks-and-mortars, as an entry strategy, choose this model for several reasons. One is that retailers can offer a full range of products that customers were used to buying in a supermarket within the existing structures. Moreover, the store-based model does not require significant investments, which is why retailers can expand geographically much faster at the same time winning customer loyalty and securing market share sooner than competitors engaged in warehouse-based fulfilment (Fernie & McKinnon, 2009). In addition, loyalty becomes significantly important once there are more online grocery players in each market. Consequently, the key associations to loyalty become timeliness of delivery, product availability, and ease of return (Heim & Sinha, 2001).

Besides, some researchers argue that investment in new logistical facilities for online order fulfilment might be speculative due to uncertain future demand for grocery shopping online (Fernie & McKinnon, 2009; Hübner et al., 2016). An excellent example could be Tesco. The British food giant with one of the biggest online grocery businesses globally chose the store-based model and began its online operations by exploiting the vast store network. Tesco's online business grew faster than its competitors that were establishing completely new warehouse-based operations (Hays et al., 2005; Fernie & McKinnon, 2009). Hackney et al. (2006) in their paper, analyzing the UK grocery business, identified some critical factors that were responsible for Tesco's, which managed to implement its internet strategy the most successfully among other leading UK supermarket operators, superior performance. Those factors were: smart mover entry, profit model focus, leveraging ‘reach’, ‘richness’ an ‘affiliation’, brand power and strategic positioning. Nonetheless, the UK's emergence as one of the fastest-growing markets for internet grocery shopping globally was determined by such favourable facts as a

concentration of the population that enables more deliveries per hour, also a concentration of the retailers (Hackney et al., 2006).

On the other hand, the in-store order fulfilment model is usually very labour-intensive. Moreover, operational efficiency that e-grocery requires may drop due to the store layout, which is arranged for displaying products but not for picking efficiency (Hübner et al., 2016). Therefore, according to Fernie and McKinnon (2009), the sustainability of store-based order fulfilment is doubtful in the long-term. However, with uncertain demand forecasts, the store-based model is less costly and less risky (Hackney et al., 2006).

### 2.4.2 Warehouse-based order fulfilment

Several break-even analyses have been performed to calculate the threshold internet sales volumes at which the warehouse-based model surpasses in-store pick up. Hackney et al. (2006) argue that on the one hand, store-based operating model obtains break-even earlier and experiences lower losses before break-even but on the other hand, is less cost-effective beyond this point. Therefore, the latter operating model has advantages that are more significant when sales volumes are lower. Whereas warehouse-based models reach break-even later and experience higher losses before break-even, yet become more profitable beyond this point. This model makes more sense when sales volumes are higher (Hackney et al., 2006). The reasoning is simple, although high fixed cost investments are necessary for warehouses; variable costs are lower since they are operationally more efficient. The opposite is with store-based models for which initial investments are lower but are less operationally efficient and incur higher variable costs (Hackney et al., 2006). What is more, based on Hübner et al. (2016) markets with higher potential and higher population density reach break-even for centralized warehouses or separate fulfilment centres earlier than less dense territories.

There are two different types of warehouse-based order fulfilment: decentralized, separate fulfilment centres and integrated centralized warehouses. The difference between both is that fulfilment centres are designed to pick online orders primarily and it stocks inventory only for the online channel, whereas integrated centralized warehouses are for both, store delivery and online customer order picking (Hübner et al., 2016).

Hübner et al. (2016) distinguished some advantages for order picking in a fulfilment centre. Since fulfilment centres are customized for picking goods ordered online, the process can be much more efficient and accordingly, it makes it easier to scale-up for higher volumes. In contrast to central warehouses, decentralized, separate fulfilment centres can be built closer to the customer's home, decreasing the transportation cost from a warehouse to shopper. Additionally, customer satisfaction can be enhanced by improving delivery time accuracy due to shorter distances (Hübner et al., 2016). For instance, Tesco, after scaling their online grocery business, shifted

from picking online orders in their stores to regional fulfilment centres dedicated to serving only online customers (Hübner et al., 2016).

Processes that are more comprehensive are required for picking orders at centralized warehouses. Online grocery retailers that have been already running their online channel for a while usually choose this model (Hübner et al., 2016). According to Hübner et al. (2016), when a mega-warehouse needs to master customer-order and store-order picking, more complex picking systems are needed. However, there are some key upsides of a large, centralized distribution centre. Based on Hays et al. (2005), inventory centralization leads to lower inventory costs, fresher products and higher turnover. In addition, depending on the total volume of online orders, this model can be more operationally effective and cost-efficient compared to other models, including the fact that a single pick in a warehouse is cheaper than in a store (Hübner et al., 2016). Furthermore, the costs of delivery from the contractors are lower, given that goods are delivered to one location in larger quantities (Hays et al., 2005). Moreover, by employing high-tech warehousing systems and equipment, order picking and packing can be easily automated (Hays et al., 2005).

In contrast to the in-store pick-up, an automated distribution centre is usually more scalable for volumes that are more substantial. Moreover, it is more efficient and has lower labour costs. However, distribution centres are costly to build, which is one of the most significant drawbacks of the mega-warehouse model. Moreover, most online grocery retailers still do not attract enough customers to ensure profitability with this model. Therefore, a more viable option could be a flexible distribution centre that is built on manual solutions as a substitute for automation (Hays et al., 2005).

### 2.4.3 Hybrid Store-Warehouse fulfilment

The hybrid store-warehouse model of order fulfilment appears to be a natural development from the earlier two. In-store pick model is attractive to brick-and-mortar companies carefully entering the market since low investments are required (Yrjola, 2003; Fernie & McKinnon, 2009; Hübner et al., 2016). Accordingly, the market can be tested by leveraging existing assets and not necessarily spending a great deal of money on new facilities (Hays et al., 2005). As discussed in the previous sections, in-store picking is usually less efficient compared to a warehouse with aisles and shelves strategically arranged for the fastest picking and packing time. Thereby, when the customer base has been built, the market has developed, and the adequate density is accomplished, then it is plausible to switch to a distribution centre and for some time to sustain both a warehouse and a store picking (Hays et al., 2005).

Compared to in-store order fulfilment, by employing the hybrid store-warehouse model, it is easier to scale for more significant volumes add orders can be picked more efficiently (Hays et al., 2005). Additionally, brick-and-

mortar firms that make use of warehouses for online orders along with traditional distribution to their outlets can enhance the efficiency by increasing the prospects for risk pooling leading to reduced stock-outs, lead-times, and inventory. Other vital factors for order fulfilment are geographical and population density. According to Fernie and McKinnon (2009), in a mature online grocery market, allocated warehouses may supply the urban areas, whereas store-based fulfilment continues to be the most cost-effective way to serve rural areas.

## 2.5 Order delivery

Order distribution on the last mile is significantly important for all e-grocers mainly due to the high cost of last-mile delivery, which makes up to 50 per cent of total supply chain costs (Hübner et al., 2016). Murphy (2003) argues that delivering groceries bought via the Internet requires new ways of handling space and time that significantly differs from trends in food retail logistics before the emergence of electronic channels. According to Hill and O'Sullivan (1996), several factors influence which distribution channel company is going to choose. Those are a consumer as well as product characteristics, the nature and intensity of rivalry, the nature of the firm's organization. According to Hübner et al. (2016), the geographic situation has a significant impact on grocer's choice about the delivery models. In addition, the efficiency of different order delivery modes hinges on the local competition and population density. Laudon (2017) emphasized that currently, one of the most critical topics in online retailing is the integration of various operations and channels to serve clients in a way they want to be served. Hübner et al. (2016) also emphasized that delivery models play an essential part in regard to customer relationship management.

Based on Wollenburg et al. (2018), combining the different delivery and pick-up options across channels is a current trend in online grocery retailing. Therefore, for e-grocers, it is essential to find the most convenient way to serve and satisfy their customers across channels. However, to adapt successfully, it is necessary for enterprises to understand online consumer response, to be able to overcome organizational barriers and to have a holistic approach to channel management (Machlis & Vijayan, 1999).

Currently, there are four most common ways that e-grocers use to deliver groceries to customers: in-store pick up, third party pick-up locations, attended and unattended home delivery (Kämäräinen & Punakivi, 2002), and a more recent home delivery model - crowd shipping (Hübner et al., 2016).

### 2.5.1 Home delivery

Home delivery has been considered as an important barrier for an online retailer's success (Xing & Grant, 2006). Profitability and scalability of this kind of fulfilment method might be questionable since companies to attract more customers usually charge less for home deliveries than it is needed to cover the cost of hiring pickers and drivers (Hays et al., 2005). Moreover, e-grocers face plenty of logistical challenges by providing their consumers

home delivery service. The biggest of which is the ability to transport products across three temperature regimes, pick an order of approximately 60-80 products from an entire range of 10-25.000 products and deliver all that within 12-24 hours within 1-2-hour time window (Fernie & McKinnon, 2009). However, e-grocer's ability to balance demand over the day and deliver in time windows is crucial for efficient home delivery (Punakivi, 2003).

The home delivery concept offers customers either attended or unattended home delivery. The essential difference is if a customer's presence at home is needed upon delivery of groceries to the doorstep or not (Wollenburg et al., 2018). It has a significant impact on the network design since the flexibility in routing and delivery frequency varies between both types (Hübner et al., 2016).

### 2.5.2 Pick-up points (Click-and-Collect)

Many grocery retailers, as an alternative to home delivery, provide their online customers' possibility to collect goods ordered online at specified locations that are called pick-up points and often referred to as click-and-collect (Hübner et al., 2016). Weltevreden (2008) described two types of pick-up points: service point, when parcels are delivered to a post office, store, or petrol station, and locker point that is a collection of automated lockers where goods can be delivered and picked up 24/7. The latter use luggage locker technology-enabled with PIN codes to control the delivery by the shipper and the collection of the goods by the consumer (Weltevreden, 2008). Consequently, shoppers can collect the order at their convenience (Hübner et al., 2016).

With click-and-collect, groceries ordered online can be collected either at the store (in-store or ‘attached’), at a solitary drive-through station (click-and-drive) or another location (Hübner et al., 2016). Some brick-and-click grocery retailers have a collection point installed in their stores for online order collection which is often a solution made by the retailer that wants to enter omni-channel retailing within no time and with low initial investments (Simone & Sabbadin, 2017). It is another advantage for brick-and-mortar stores compared to pure-plays that they can leverage their assets for customers to pick up their online orders directly from the store (Hays et al., 2005). Based on Hays et al. (2005), in-store pick up can be a desirable option for people who are always on the go. However, one should still make a trip to a grocery store, and that might be considered as a disadvantage of in-store pick-up. As a result, the only thing saved is the time spent on picking groceries in a store. Moreover, Hays et al. (2005) argued that due to lower operational expenses for the online grocery retailer, this delivery method might have real potential. Moreover, Hübner et al. (2016) in their research identified that the denser is the outlet network, the more beneficial it is for the retailer to install pick-up points. Although this delivery option minimizes logistical costs for the e-retailer by up to 70 per cent, there are many other challenges related to the picking process and the product availability that should be taken into consideration by the retailer (Hübner et al., 2016).

Additionally, retailers can also install ‘attached’ collection points that enable drive-in opportunities and cost less than building solitary drive-through stations (Hübner et al., 2016). The essential advantage for consumers is convenience and time saved as they can collect groceries without leaving their cars (A.T. Kearney, 2012).

The click-and-drive strategy is implemented by building small ‘solo’ warehouses for a retailer's picked up goods and where a customer can drive in his or her car to collect the order (Simone & Sabbadin, 2017). According to Hübner et al. (2016), brick-and-click retailers with less dense store network can increase their market penetration with click-and-drive stations. For instance, this model gained significant momentum in France, where grocery retailers built more than 3.000 isolated pick-up locations for drive-through customers (Hübner et al., 2016). Accordingly, the country is a leading market for click-and-drive services and one of the leading markets in online grocery in Europe after the United Kingdom (Planet Retail, 2016; Statista). Moreover, population density is another vital aspect to consider when choosing this delivery mode (Hübner et al., 2016). For example, France has approximately 122 inhabitants per square kilometre compared to 274 people per square kilometre in the UK and 136 in Denmark (Statista.com; Worldometers). Thus, solitary drive-through stations can serve more conveniently customers from rural areas at the same time increasing geographical coverage, whereas click-and-collect order delivery strategy provides efficiency in urban areas (Hübner et al., 2016).

### 2.5.3 Crowdshipping

Crowdshipping is a new, innovative concept of order delivery. One of the first companies to use it was Wal-Mart that has piloted it since 2013 (Hübner et al., 2016). To be able to deliver groceries the same day, the merchandiser empowers consumers to cover the last mile for other customers. However, this model faces many legal issues since such services may not be as trustworthy as services provided by the retailer due to possible theft or fraud (Hübner et al., 2016). Even though this model is in very early stages, and its practicability is still uncertain, crowdsourced delivery has significant innovative potential, and thus it should not be underestimated (Estellés-Arolas & González-Ladrón-de-Guevara, 2012).

## 2.6 The Future of Online Grocery

E-commerce is predicted to have unstoppable growth due to the many benefits it provides to society, organizations, and individual customers (Turban et al., 2015). Although e-commerce growth in grocery retail was slower than in other categories, such as books, electronics and apparel, it is positioned for exponential growth (Melis et al., 2016).

Moreover, with the rapid digitalization in the retail industry and complementary options for online shopping, consumers’ behaviour is changing (Singh, 2019). As a result, they increasingly demand a consistent and seamless

experience across all touchpoints that come together with the omni-channel approach (Verhoef et al., 2015; Hübner et al., 2016).

The primary driver of omni-channel retailing is a technology that enables better integration of the sales channels (Simone & Sabbadin, 2017). The innovative technologies also have a positive impact on operations' efficiency, increased sales and higher profits that may encourage the retailer to move towards an omni-channel strategy (Wallace, Giese, & Johnson, 2004). Furthermore, through the provision of online services, retailers can meet different consumer demands and reach new potential customers (Ward, 2001).

What is more, the efficiency improvement of last-mile delivery is receiving growing attention among academics and practitioners. Academics discuss possible innovations to increase last-mile delivery efficiency, such as drone-delivery, pick-up points, parcel lockers, reception boxes, crowdsourcing logistics, as well as dynamic pricing policies. Moreover, with the exploration of innovative delivery options, more and more attention will be given to environmental sustainability (Mangiaracina et al., 2019).

However, despite technological innovation and automation, e-retailers success depends on consumer acceptance and use (Småros, Holmström, & Kämäräinen 2000; Burt and Sparks, 2003). Therefore, retailers' focus on the experiences of online grocery consumers' will be necessary (Singh, 2019). Consequently, in their retailer strategy matrix, retailers should seek to deliver pleasurable and frictionless shopping features that would provide a holistic customer experience (Kahn, 2018).

# 3. Conceptual Framework

Following the extensive literature review, the conceptual framework that is later used in the data analysis part of this paper is adapted from Ali et al. (2017) research on business models for online grocery (see Figure 2). The conceptual framework devised by Ali et al. (2017) comprises two main dimensions that an online grocer needs to address: analysis of market conditions and selection of business strategy.

The first dimension looks at the prevailing situation concerning the level of development in the local market. In this context, development means the consumers' readiness stage, resources available in the market, and the number of players. Accordingly, a market of online grocery would be considered as developed based on three criteria. Firstly, the consumers' readiness is explained by their acceptance of the market offer. Secondly, there is a sufficient level of resources that can be exploited by the market players. Resources would include such dimensions as logistics, infrastructure and workforce. Thirdly, there is a sufficient number of players in the market that stimulate the competition, or one dominant player has a market offering that is widely accepted. If the criteria mentioned above are weak, then the market would be considered undeveloped. Respectively, the consumer's readiness level and market offerings' acceptance would be low. In addition, the resources needed to develop grocery e-commerce business would be insufficient. Lastly, there would be no single dominant player, or despite the number of players on the market, they all would be at an infant stage (Ali et al., 2017)

The second dimension of the conceptual framework looks at the selection of business strategy. The two main elements of the business strategy in this context are the operational strategy and value proposition (Ali et al., 2017).

Moreover, the chosen conceptual framework features two primary relationships: the impact of the market situation on business strategy and value proposition's impact on operational strategies. The former implies that a more developed market would require a different strategy than an undeveloped market. The latter entails that no matter what the value proposition is proposed by an online grocery retailer, the operational strategy must be carefully selected to boost the value proposition that needs to be delivered to the consumers (Ali et al., 2017).

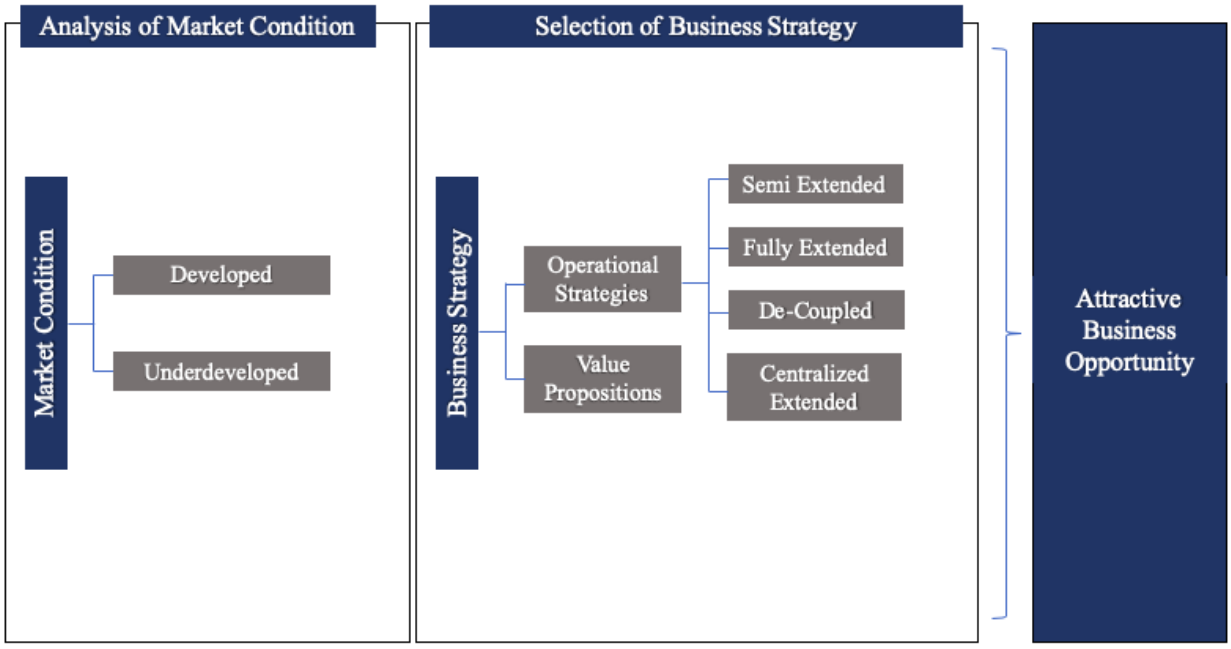


*Figure 2.* Conceptual Framework for Ideal Business Model. Source: Ali et al., 2017.

# 4. Methodology

A research methodology is embedded in any research process. Johnson and Clark (2006) emphasize the importance of choosing the correct research method. There are different ways to gather different kinds of information about business and management. Thus, the kind of research question and what exactly is being investigated should dictate which research method to use. Moreover, scholars must apprehend their philosophical commitments they undertake through their methodological decisions since it has a significant impact on how researchers understand what the phenomenon they think they are investigating is (Johnson & Clark, 2006). This section will indicate essential components that will form what Saunders, Lewis, and Thornhill (2009) describes as a research design. For preparing a well-structured research design, it is highly recommended to follow Research Onion framework (See Appendix A) pioneered by Saunders, Lewis, and Thornhill (2012). The approach is to go from the outer layer to the inner layer and ultimately build the best-structured research design for the study.

## 4.1 The Research Philosophy

Research philosophy can be described as an underlying term relating to the development of knowledge and the nature of that knowledge (Saunders et al., 2009). It helps researchers to justify research choices they have made and their research design, as well as it allows them to reflect on how they understand the development of knowledge. Moreover, it aids researchers to determine the most appropriate research approaches and methods (Blumberg, Cooper & Schindler, 2011). Research philosophy is based on ontology, epistemology, and axiology, which characterize the approaches and research processes used by the scholar. Ontology concerns the nature of reality from an external standpoint, whereas epistemology is concerned with what constitutes as acceptable knowledge within the research field. Axiology refers to the significance of one's values in connection to all stages of the research process to produce likely results (Saunders et al., 2009). These paradigms are the foundation of the four research philosophies in business and management research; positivism, realism, interpretivism and pragmatism.

On positivism-based studies, philosophical stance relates to natural science, in which data is collected by searching for regularities and probable relationships to generate law-like generalisations similar to those developed by the natural scientists. Interpretivism, on the other hand, adopts an empathetic stance, where the researcher is challenged to enter the social setting of the research subjects and understand their world from their position (Saunders et al., 2009). However, critics of the positivism philosophy argue that the social world of business and management is too complex and comprehensive, and, thus, should not be subject to law-like generalisations. In fact, reality cannot merely stick to one philosophical domain (Saunders et al., 2009).

Therefore, Niglas (2010) proposes that scholars should see research philosophy and methodology as a multidimensional set of continua and not separate paradigms. Consequently, researchers have to acknowledge how flexible methods and approaches may be more suitable to explore a research field (Saunders et al., 2009).

Thereby, the research philosophy of this paper adheres to the pragmatism approach. The latter position suggests that it is possible to work in between both positivist and interpretivist (Saunders et al., 2009). Pragmatism focuses on the nature of truth, which is relevant to the current situation and is not seen as an absolute. Instead, it is a usable and moveable establishment for understanding the nature of reality (Given, 2008). Moreover, according to Given (2008, p. 674), "Pragmatists take a philosophical viewpoint and position their probe at the intersections of subjectively and objectively held knowledge seeking to understand the nature of reality". Since the landscape of grocery e-commerce in Scandinavia is rapidly growing and changing, the author of this research seeks to collect data that is a representation of the current situation and may not be generalizable to a broader population. Consequently, pragmatist's philosophy seems to fit the purpose of this research paper best.

### 4.2 Research Approach

The second layer of the research onion is the approach that the study will be based on. There are two basic approaches to social science research, namely deduction and induction. Additionally, some scholars prefer to define their research following the abduction logic (Eriksson & Kovalainen, 2016). While deductive reasoning is based on the formulation of hypothesis and already existing theories that are later used to explain a particular phenomenon (Eriksson & Kovalainen, 2016), this paper takes the opposite position. The inductive approach that is associated with qualitative research focuses on exploring new phenomena without relying on predetermined theories or conceptual frameworks. By observing what primary fulfilment and delivery concepts and strategies retailers pursue in the online grocery landscape, this research aims to find a pattern within them (Babbie, 2010). However, many researchers argue that deductive and inductive approaches rarely exist as clear-cut alternatives and often use both logics in different stages of their study.

Consequently, abduction is offered as a way to combine both induction and deduction in one study project. Eriksson and Kovalainen (2016, p. 14) define abduction as "the process of moving from the everyday descriptions and meanings given by people, to categories and concepts that create the basis of an understanding or an explanation to the phenomenon described". Furthermore, abduction may much serve as a possible primary mean of reasoning for qualitative research (Given, 2008). Thus, to develop relevant and comprehensive interview questions as well as to obtain a marginal understanding of the elements involved in the perception of the e-grocery business models, a literature review was conducted. Therefore, even though this research is mostly inductive, it also contains some attributes of the deductive approach.

## 4.3 Research Purpose

The purpose of the research defines the nature of the study, and it can be either exploratory, descriptive or explanatory. However, the study project may have one or more purposes, and they may change over time (Saunders et al., 2009). After conducting an extensive literature review, the author of this paper has identified research gaps within the field of the study problem. Therefore, the purpose of the research is exploratory. Exploratory research seeks to uncover new insights, develop ideas, and shed light on the problem, which suits the aim of this paper to evaluate e-commerce potential in the Scandinavian grocery market, gain a deep understanding of studied phenomena and incite further knowledge development.

## 4.4 Research Strategies

As proposed by Strauss and Corbin (1998, p. 10), qualitative research refers to "any type of research that produces findings not arrived at by statistical procedures or other means of quantification". Qualitative research is a strategy that focuses on nonmathematical process of interpretation. In contrast to quantitative research, it is concerned with qualitative information such as words and narratives rather than numbers (Bryman, 2012). Furthermore, the abductive reasoning and exploratory purpose of this thesis support the methodological choice of qualitative research strategy. Moreover, it allows the researcher to exploit qualitative data collection and analysis methods to gain in-depth insights about the identified research problem (Bryman, 2012). Therefore, it serves the researcher's needs better than any other strategy.

The author of this thesis followed Bryman (2012) proposed six-step process for qualitative research. The first step is to define the general research questions that would create space for exploration. Secondly, the relevant research participants were identified by using non-probability purposive sampling technique. The collection of relevant data through semi-structured interviews and generation of transcripts follow this then. Consequently, the data was interpreted based on the chosen philosophical stance of this research. The fifth step is an interactive process between conceptual and theoretical work, which results in the tighter specification of the research questions and collection of further data if it is needed. Finally yet importantly is writing up conclusions that answers to the research questions (Bryman, 2012).

## 4.5 Methodological choices

It is another critical choice that the researcher of this paper needs to make to fulfil a well-designed study. This layer outlined in the research onion determines if the author uses the mono method, mixed-method or multi-method to gather data and answer the research question (Saunders et al., 2009). To avoid insufficiency of the collected data and increase the validity of the findings, the author of this paper has used a multi-method qualitative

design and applied triangulation as the data collection technique. Saunders et al. (2009, p. 154) explained triangulation as the "use of two or more independent sources of data or data collection methods to corroborate research findings within a study". Using multiple sources of data and triangulation provides the researcher better opportunities to answer the research questions and evaluate the credibility of the findings (Saunders et al., 2009). Therefore, the author of this paper chose to use both primary and secondary sources.

## 4.6 Time Horizons

Longitudinal and cross-sectional time horizons are specified within the research onion as the two possible time horizons independent from the chosen research strategy or choice of method (Saunders et al., 2009). Time horizons are used to identify the period over which the authors intend to undertake the research. Unlike longitudinal studies which investigate the particular subject for an extended period, the cross-sectional study appears as a snapshot and analyses what is happening at present (Saunders et al., 2009). Due to the tight time constraints of the master's thesis and the author's choice of the research questions, this research is decided to be cross-sectional.

## 4.7 Techniques and Procedures

Conducting research requires completion of various actions that then lead to evaluating the results of the investigation and answering the research question. The last segment of the research onion that is techniques and procedures contains a detailed description of the data collection methods and data analysis. Therefore, the following subsections explain how different types of data were collected, evaluated, validated, and analysed to satisfy the aim of this research and answer the research questions. Moreover, as mentioned earlier in this paper, to gain a complete understanding of the research topic and to avoid insufficiency of the collected data, the author used both primary and secondary research for gathering qualitative data.

### 4.7.1 Secondary Research

The author decided to use secondary research to analyse in detail business models and operational strategies of 10 grocery retailers in Scandinavia that were chosen based on their size and significance. Secondary data is information that has already been collected for a different purpose or recorded by other people than a researcher (Given, 2008). It may come from such sources as the internet, library, research firms, trade organizations, internal company sources, and others. In exploratory research, secondary data are often used as preparation for primary research while establishing sufficient background information and guiding the primary research process (Clow & James, 2014). Furthermore, the vast majority of the data needed for analysis of the business models of online

grocery retailers were provided on companies' websites and annual reports. In addition, online articles and experts' proceedings were used to back up companies' websites.

### 4.7.2 Primary Research

Gathering primary data is an essential part of the research design, while the effectiveness of data collection determines the ability to answer the research question and achieve the research aims (Adams et al., 2007). According to Hox and Boeije (2005, p. 593), primary data refers to "data that are collected for the specific research problem at hand, using procedures that fit the research problem best". Although collecting one's data is costly and time-consuming, it helps to ensure that the research is coherent and that the information collected is closest to the object of the study. The most common techniques for primary data collection are experiments, field observation, interviews, and self-administered surveys (Salkind, 2010). Due to the explorative nature of this research, a qualitative approach with non-standardized semi-structured interviews is chosen for primary data collection.

By following semi-structured interviews approach, the researcher was able to create a 'road map' of questions that helped in guiding the interviews (Adams et al., 2007). Semi-structured interviews enable the researcher to have a list of topics and questions to be covered that may vary from one interview to another (see Appendix B for a list of topics and questions for the interviews). The latter means that the researcher may choose to skip some questions in particular interviews and change the order of the questions depending on the course of the conversation (Saunders et al., 2009). Moreover, interview types differentiate depending on the way the researcher interacts with the interviewees. One-on-one interviews, which were selected for primary data collection for this research, can be conducted by meeting interviewee in person, by telephone or using online tools via the Internet (Saunders et al., 2009). Depending on the availability and geographical location of the participants and to ensure that the most relevant answers that will allow answering the research question would be received, all earlier mentioned techniques were used for primary data collection.

### 4.7.3 Data Sampling

In nearly every research, sampling and selection are fundamental processes, thus to choose the units for analysis is another crucial step (Wyse et al., 2017). According to Bryman (2012), purposive sampling is the most common in qualitative research. It is a non-probability form of sampling; therefore, the researcher's goal is to sample participants in a strategic rather than random way. Moreover, this type of sampling is directly related to the research question, meaning that the latter should indicate what units, for instance people, organizations, need to be sampled and that can be done by one's judgment (Saunders et al., 2019).

Therefore, the author of this paper selected non-probability, purposive sampling design as the most suitable sampling technique. The latter enables the researcher to select the participants that are the best suited to meet the objectives of the thesis and to answer the research questions (Saunders et al., 2009). Consequently, individuals for the research were selected based on their relevance to the research questions as well as based on their knowledge and expertise (Bryman, 2012).

However, one of the biggest challenges in sampling and selection is having access to the institutions, people, documents and everything else that is needed to understand the case better. Thus, to develop a better understanding of the phenomenon and to collect relevant data to answer the research questions, the author decided to sample individuals from several different organizations. The author sent LinkedIn messages with the propositions of being a part of the study to 22 professionals employed in companies operating within the grocery retail industry in Scandinavia. The author of this thesis selected experts that would have experience within the research field and would have knowledge about the online operations of a company they represent. Moreover, companies, where these experts are employed, had to be grocery retailers, either bricks-and-mortars or pure online players in three selected countries in Scandinavia, namely Denmark, Sweden and Norway. In addition, it had to have a sizeable market share, and finally yet importantly, be present online. However, the response rate was quite low and the author managed to get only three interviews with grocery retailers. Therefore, the author decided to contact and interview industry experts that subsequently resulted in even a better understanding of the research problem and less biased answers. In this way, the author was able to ensure a holistic approach to online grocery from different perspectives. Consequently, it allowed the author to see the situation from different points of view, to compare the online grocery retailers and their chosen business models as well as to get a better understanding of the e-grocery business in the selected countries from the field experts' position. Furthermore, interviewing professionals that have extensive knowledge of the research field is a standard and adequate method, since their expertise in overall processes may provide insights into organizations and their strategic intentions (Creswell, 2002). The evidence of the conversations including transcripts and audio recordings is available in the appendix section (see Appendix C). The list of interviewees is provided in the table below (Table 1).

| Name | Position | Company | Local market | Years of Experience |
|---|---|---|---|---|
| Michael Mørk | Head of Groceries Online | Salling Group | Denmark | 22 years of experience in retail industry (out of those, 2 years in the current position) |
| Lene Christensen | Business Controller | Nemlig.com | Denmark | 7 years of experience in FMCG company, 2 years in the current position |
| Niels Ralund | Administrative Director | FDIH - The Association of Danish Internet trading | Denmark | 31 years of experience in businesses within e-commerce, 4 years in the current position |
| Karin Brynell | Managing Director | Swedish Food Retailers Federation | Sweden | 28 years of experience in FMCG and retail industry, 6 years in the current position |
| Nathalie Busk | eCommerce Manager and eBusiness coordinator for Swedish market | Nestlé | Sweden | 2 years of experience in FMCG, 6 months experience in the current position |
| Ove Teigen | Global Product Director Click & Collect | StrongPoint Technology | Norway | 39 years of experience in retail technology industry, 3 years in the current position |
| Thomas Dragsnes | Concept Developer | Coop Norge | Norway | 1.5 years of experience in the current position |
| Erik Melsom | Nordic Brand & Innovation Manager | Nestlé | Norway | 5 years of experience in FMCG, 3 years in the current position |
| Josefin Moren | Nordic e-Business Manager | Nestlé | Nordics | 5 years of experience in FMCG, 4 months in the current position |

Table 1. *List of Interviewees*.

### 4.8 Data Analysis

Furthermore, it is pertinent to mention the techniques that are used for indicating the patterns and summarizing the findings of secondary and primary research. Given that qualitative data analysis relies heavily on the views and impressions of the researcher, it is of the utmost importance to submit insights and findings in a structured and transparent manner (Saunders et al., 2009).

### 4.8.1 Qualitative Data Analysis

As described by Allen (2017, p. 1320), qualitative data analysis refers to "the process of moving from textual data, or raw data, to evidence-based interpretations". It means that raw data needs to be broken down and labelled to find patterns, concepts, themes, and propositions, while interpretation includes providing meaning to those patterns, concepts, themes, and propositions. Since qualitative data analysis is usually a messy, time-consuming and ambiguous process, the researcher must monitor all the documents, such as transcripts, audio files, field notes, and contact information (Allen, 2017).

For qualitative research to yield useful and meaningful results, the investigated material must be analysed methodically. The analytical tool chosen for this research is a thematic analysis, which offers practical and effective methods for conducting an analysis (Attride-Stirling, 2001). According to Mills, Durepos and Wiebe (2010, p. 926), thematic analysis refers to "a systematic approach to the analysis of qualitative data that involves identifying themes or patterns of cultural meaning; coding and classifying data, usually textual, according to themes; and interpreting the resulting thematic structures by seeking commonalities, relationships, overarching patterns, theoretical constructs, or explanatory principles". Moreover, it is one of the most common approaches to qualitative data analysis (Bryman, 2012).

Attride-Stirling (2001) used thematic networks as a way to organize a thematic analysis of qualitative data. According to the researcher, the most common way of conducting thematic network analysis is the three broad stages process: firstly, the breakdown and the reduction of the text, then the exploration of the text, and lastly, the integration of the exploration. However, the thematic analysis is considered as a flexible approach. Therefore, additional processes, such as coding, is considered helpful and may be used as well (Attride-Stirling, 2001).

Hence, the author of this paper followed the six-stage process of conducting a thematic analysis of collected data that is depicted in the figure below (see Figure 3).


*Figure 3.* Thematic Analysis Framework. Source: Adopted from Attride-Stirling, 2001.

Before starting the process of qualitative data analysis, the author of this paper has transcribed the audio recordings from interviews. Documenting the narrative as source material is a crucial step that facilitates easy reach for record review (Nishishiba, Jones, & Kraner, 2014). It was decided to transcribe interviews manually, which consequently helped to know the data better and quicker. Transcripts of the interviews consist of both interviewer and interviewee speeches, which facilitated easier identification of the relationships between the

questions and the answers. However, it was necessary to reshape the transcription to adjust the information that it would be easy to read and understand in a written way. Consequently, interviews were transcribed by mostly focusing on the content of the interview instead of the direct dialogue. The latter resulted in omitting naturally occurring pauses and phrases that did not have value for the research and arose from possible issues in a two-way conversation.

To begin with, the breakdown and the reduction of the data is done by dissecting the text into meaningful text segments using the coding framework. The coding framework may be built on, for instance, repeating issues in the text, on predetermined criteria, such as specific words or topics, or on a group of theoretical constructs that needs to be explored systematically (Attride-Stirling, 2001). The author of this paper used NVivo as qualitative data analysis software. Furthermore, the next step is to identify themes that are abstracted from the coded text segments. This process enables the researcher to identify underlying structures and patterns. After the themes are abstracted, the selected themes need to be refined further to be not only specific enough and broad enough but also discrete. The objective of the third step is to condense particular themes to develop larger, unifying themes that summarize the ideas and concepts indicated earlier (Attride-Stirling, 2001). Step four combines the data and the interpretation; therefore, it is useful to present text segments to support the analysis. Following this, the author of this research created a data summary matrix with key focus and sub-focus areas together with a list of interviewees. By bringing together summaries, the researcher was able to explore and identify the significant themes, patterns, concepts, and structures that were found in the text. The last step aimed at returning to the original research questions and address it with arguments found in the patterns that aroused in the thematic analysis (Attride-Stirling, 2001).

### 4.9 Quality of the Research

What is more, the researcher needs to justify the decisions made to account for the quality of the study. Therefore, the overall quality of the research and conclusions are evaluated by measuring the reliability of data collection manners and the validity of the data used.

Reliability is used to assure consistency and repeatability of a research study (Saunders et al. 2009). This means that a replication of the exact same study later, should lead to the same findings and conclusions. LeCompte and Goetz (1982) argue that it is difficult to replicate a qualitative research, since it is impossible to freeze the setting and circumstances of an initial research to make it replicable. That is the case for this thesis as well since it investigates a dynamic market that is still developing and changing.

Moreover, reliability aims at minimizing errors and biases in a study. There are several threats to reliability, mainly; participant error, participant bias, researcher error and researcher bias (Saunders et al. 2009). To

minimize participant bias, the author conducted interviews with one single participant at a time and highlighted the possibility to be anonymized. Furthermore, each participant was promised to get a final copy of the master's thesis to increase the trust of the respondents. Finally yet importantly, to avoid research errors, the researcher made the background check of every company and respondent prior to the interviews. Additionally, the author of this paper aimed at increasing reliability in several ways. A consistent analytical method was applied for data gathering and interpretation. Moreover, the audio recordings of the interviews as well as transcripts are provided with the thesis, which ensures transparency of the data.

Another critical aspect for the quality of the research is validity, which refers to the extent to which the findings of the research measures what it intends to measure (Saunders et al. 2009). According to Rafuls and Moon (1996, p. 77), validity is concerned with the accuracy of the findings. In qualitative research, validity is also referred to as credibility (Guba, 1981). Whereas credibility is subject to the "truthfulness" of research findings, and thus, the researcher is responsible for providing sets of narrative data that are credible and conceivable (Hammersly, 1992). Therefore, the validity of this research was ensured by several methods. Firstly, the author of this paper used purposive sampling technique to interview representatives from grocery retailer companies and, additionally, field experts within FMCG and retail industries, to collect different points of view and test the findings (Thyer, 2001). Moreover, trustworthiness in data collection was reached by using triangulation method. By combining multiple sources of data, it is more likely that the data is factually correct. It also reduces the possibility to have data that is biased or manipulated. Therefore, in the findings, the author used and compared different types of sources, the companies' websites, annual reports, the official websites with press articles and personal interviews.

# 5. Data Analysis and Findings

The data analysis section presents the findings from primary and secondary data analysis. The purpose of the secondary data was to establish sufficient background information about the current grocery market situation in Scandinavia. Meanwhile, the interviews intended to fill in the gaps and obtain a more in-depth understanding of e-commerce adoption in the grocery industry in Scandinavia and its growth possibilities in the future from the subject matter experts. During the interviews, which were conducted with six industry experts and three experts from grocery retail chains, the emphasis was placed on consumer readiness to buy groceries online, drivers and barriers for online grocery, as well as available order fulfilment methods and related challenges. Moreover, interviewees were keen on discussing future perspectives and possible last-mile delivery options for the online grocery in Scandinavia.

The first subsection outlines the table of findings, which was built based on the collected data from the interviews following the thematic analysis method chosen for this research. Subsequently, the findings are organized based on the conceptual framework for an ideal business model provided by Ali et al. (2017). The outline consists of direct quotations of the interviewees as well as secondary data received from companies' annual reports, websites and related articles.

## 5.1 Table of Findings

The analysis of the qualitative data is an interactive process (Saunders et al. 2009), and its primary goal is the reduction of the collected data so the researcher can make sense of it (Bryman, 2012). To reduce a relatively large corpus of information from the interview transcripts and to identify emerging patterns from a data set, the author decided to use thematic analysis method. Following the six-stage process of conducting a thematic analysis of collected data adopted from the article by Attride-Stirling (2001), the author coded the material first. This was done in NVivo software by applying a paraphrase (code) to pinpoint the most important parts of the interview. Once the coding part was done, the author looked at the list of codes for themes and key interview areas that were revealed from the collected data. After the themes were identified, it required the author to refine and reorganize them further. Hereafter, definitions for the unifying themes that summarize the ideas were created, which later were organized in a spreadsheet. The latter provides a matrix with key focus and sub-focus areas together with a list of interviewees. In the matrix, the author identified which of the interviewed experts contributed to the particular concept. To support the analysis, some texts segments, together with themes and sub-themes, were stored in a matrix to be later used as quotes (see Appendix D for an excerpt of NVivo coding and text segments). Finally, the author built up a thematic analysis table that helped with a more detailed analysis and interpretation of key themes and sub-themes later in the analysis (see Table 2).

| Key Themes and Sub-themes | Michael | Lene | Niels | Karin | Nathalie | Ove | Thomas | Erik | Josefin |
|---|---|---|---|---|---|---|---|---|---|
| **Current market situation** | | | | | | | | | |
| Denmark | x | x | x | | | | | x | x |
| Sweden | | x | | x | x | x | | x | x |
| Norway | | x | | | | x | x | x | x |
| Food boxes | x | | x | | | | | x | |
| Consumer readiness/habits | | x | x | | x | x | x | x | |
| High density of stores | x | | | x | | | x | x | x |
| Price sensitive consumers | x | x | x | | | | x | | x |
| Target consumers | | | x | | x | x | | x | |
| Profitability issues | | | x | x | | x | x | x | x |
| Trends | x | x | x | x | x | x | x | x | x |
| **Drivers for online grocery** | | | | | | | | | |
| Changing consumer behavior | x | x | | | x | x | | x | |
| Competitor setup | x | x | | x | | | | | |
| Loyalty online | x | | | x | | | | | |
| Personalization | | | | | | | | x | x |
| Price comparison | | | x | x | | | | | |
| Service | | | | x | | | | | |
| Technology development | x | x | x | | x | x | x | x | x |
| Convenience and time saving | x | x | x | x | x | x | x | x | x |
| **Factors affecting online grocery** | | | | | | | | | |
| Barriers for online grocery | x | x | | x | x | x | | x | x |
| Cannibalization | x | | x | x | x | | | x | |
| **Online order fulfilment methods** | | | | | | | | | |
| Click-and-collect | x | x | x | x | x | x | | x | x |
| Home delivery | x | x | x | x | x | x | | x | x |
| Future delivery methods | x | x | x | x | x | x | | x | x |
| Order picking | | x | | x | | | x | | |
| **Future perspectives** | | | | | | | | | |
| Changing habits | | x | | | x | | x | x | |
| Competition | | x | x | x | | x | x | x | x |
| Environmental concerns | | x | | x | | | x | | |
| Automation of physical stores | | | x | x | x | x | | | |
| Decreasing number and size of physical stores | | | | | x | | | x | x |
| Omni-channel retailing | x | | | | | | | x | x |
| P2P Platforms | | | x | | | | | | |
| Technology development | x | x | | | x | x | | x | x |
| Click-and-mortar growth | | | | | x | | | | |

Table 2. *Thematic analysis table.*

## 5.2 Analysis of Current Market Situation

In Scandinavia, as in many other markets, groceries were one of the latest categories to move online. Nevertheless, due to very high internet penetration, experts see a possibility for its growth. According to one of the interviewees, *"Nordics is one of the biggest online shoppers in the world, but we are definitely lagging when it comes to food shopping, so this is where we can see a possibility"* [N. Busk, personal communication, 2019]. However, online grocery market development in countries is slightly different. All subject matter experts agreed that Sweden is the most developed market out of the three countries. As J. Moren, Nordic e-business manager at Nestlé [personal communication, 2019], points out: *"The fastest-growing market is in Sweden where we have major development of the click-and-collects. The click-and-mortars are really approaching fast. We have strong players that have been present on the market for quite some time. I would say approximately 12 years".* Furthermore, another respondent, who grouped countries from the most developed market for online grocery to the least, expressed a similar opinion: *"From a Nordic perspective, Sweden is the most mature market in terms of e-commerce penetration, followed by Denmark, Norway and Finland last"* [E. Melsom, personal communication, 2019].

Due to different grocery e-commerce development, the market situation in each country is described individually.

### 5.2.1 Sweden

Internet retailing sales in Sweden grew by 15 per cent in 2018, reaching SEK 63 billion, with the largest areas of e-commerce being apparel, footwear and electronics categories. However, slow entry of major grocery retailers has spurred the growth of food and drink internet retailing, which in 2018 saw the value growth of 19 per cent, reaching SEK 7.7 billion (Euromonitor International, 2019 e,f). Experts claim that the growth in the first half of 2019 was even more significant: *"I would definitely say it is growing. I think the online food industry was growing with 24% for the first half of this year compared to last year"* [N. Busk, personal communication, 2019]. K. Brynell, managing director at the Swedish Food Retailers Federation [personal communication, 2019], points out: *"in Sweden e-commerce for groceries is still on a very low level. It is approximately 2 per cent of the total market, however the growth is of course much bigger than for ordinary food retailing. So, if ordinary food retailing has an increase about 2,5 per cent, I would say e-commerce has about 20-25 per cent growth year by year. So, it is growing but from very low levels".*

Similarly, to other local markets in Scandinavia, pure players drove the online grocery market in Sweden for quite a long time. In contrast, the major established grocery retailers were quite slow in starting their online operation. However, from being hesitant and reactive traditional retailers in Sweden are starting to be more

proactive. As pointed out by one of the respondents: *"everyone is entering this market, and everyone is doing more or less the same thing"* [O. Teigen, personal communication, 2019].

Moreover, interviewed experts distinguished one player that growth might have a significant impact for the whole industry: *"ICA has 50-53 per cent market share in Sweden so it is really dominating and they are now stepping up with e-commerce and had a growth of 40 per cent last quarter. So they are really growing. It is quite massive. So that is why when ICA is stepping up, since they have over 50 per cent of the market share, they are doing it massively"* [J. Moren, personal communication, 2019]. As a result, the pure players that used to lead the way in food and internet retailing are in danger to lose its significance as the traditional grocery retailers move forward (Euromonitor International, 2019f). The last movement of established grocery retailers overtaking the market drive from pure players is also recognized by one of the subject matter experts: *"all the three big ones, like ICA, Coop and Axfood, all three are very active. So I would say that these ordinary chains are the ones driving the market just now, rather than those that have only online. We have one big player online, which is called mathem.se but I think they are struggling. They are not growing as much now, when all the ordinary stores have started their e-commerce as well"* [K. Brynell, personal communication, 2019].

Moreover, all three grocery-retailing giants make considerable investments in e-commerce and sign contracts with technology companies to improve their digital platforms. Consequently, Axfood signed an agreement with Norwegian company StrongPoint to be its click-and-collect solution provider. Furthermore, ICA signed a partnership agreement with the British e-commerce company Ocado to use its e-commerce platform and technology to build a highly automated warehouse. With this investment, ICA aims at building a strong foundation for the next generation e-commerce that will lower picking costs, enable more efficient logistics flows and deliveries, and provide consumers with a much wider assortment (ICA Gruppen, 2018). Moreover, click-and-collect services remain popular in the country even though home delivery is likewise becoming more widespread. Nonetheless, convenience to collect their orders at a time suitable to the shopper or save on the delivery cost is appreciated by Swedish consumers (Euromonitor International, 2019f).

Food and drink internet retailing is predicted to see substantial developments in Sweden in the upcoming years (Euromonitor International, 2019f). The same was recognized by one of the respondents: *"I think in Sweden we will see a bigger rise in online grocery in upcoming years"* [O. Teigen, personal communication, 2019]. Moreover, when comparing Sweden, Norway and France, one of the subject matter experts claims that online grocery in Sweden has real potential to grow to a similar level as it is now in France due to alike shopping habits in both countries: *"Norwegians do shopping on average 4,5 times per week, Swedes 1,5 times. They are doing big shopping once per week, and that is why it is much easier for an online retailer to handle this market. People have bigger baskets, you can do home delivery, and for the customers, it is more convenient. That is why I think*

*Sweden may become one of the biggest markets in the world like France. In France it is the same, they are doing big shopping once per week".*

### 5.2.2 Denmark

According to Euromonitor International (2019a), the Danish retailing landscape is changing significantly due to the rapid rise of internet retailing, an upmarket shift in demand, changing consumer behaviour and shopping habits. The lifestyle of the modern consumer has become increasingly hectic and fast-paced. Consequently, consumers tend to do less of large-scale shopping trips and start to increasingly appreciate the convenience offered by food and drink internet retailers. Furthermore, there is rising popularity of meal boxes and a growing interest in gourmet and specialist products that are also seen as additional drivers for online sales (Euromonitor International, 2019b).

However, the Danish grocery retail market is characterized by stiff competition and price-sensitive consumers (Salling Group annual report, 2018). That Danish consumer is strongly focused on prices and value-for-money can be supported by the fact that discounters are one of the strongest performing grocery retailing channels. In 2018, discounters were responsible for more than a third of overall grocery retailing sales in Denmark, and it is expected to continue its growth (Euromonitor International, 2019c, Salling Group annual report, 2018). Consequently, consumers attention to pricing empowered the increase of internet pure players capabilities to keep costs and, thereby, prices down in the market (Euromonitor International, 2019b).

Nevertheless, in Denmark, food and drink internet retailing was the fastest-growing area of internet retailing with 19 per cent current value growth in 2018, reaching DKK 3,1 billion, and it is expected to sustain dynamic expansion further (Euromonitor International, 2019b). However, the interviewed subject matter experts see the online grocery market as less developed than neighbouring Sweden. According to M. Mørk, Head of Groceries online at Salling Group [personal communication, 2019]: *"It is not a frontier market in a way, we are lagging behind. Especially in front of Sweden, which is more developed".* Whereas another respondent agrees that dynamic growth of grocery e-commerce could be seen in bigger cities, especially the capital: *"in the Copenhagen area grocery e-commerce is growing, there is around 10-15 per cent growth"* [J. Moren, personal communication, 2019].

Grocery retailing marketplace is crowded and rapidly evolving. In this context, the internet offers grocery retailers opportunities for consumer base development and ability to reach consumers not only in stores. The three biggest modern grocery retailers in Denmark: Salling Group, Coop Denmark and Reitan Group, that in 2018 together accounted for 75,5 per cent of the total market for modern grocery retailers have already started their online

operations. However, currently, the largest food and drink internet retailer is still the online pure player Nemlig (Euromonitor International, 2019d).

According to M. Mørk [personal communication, 2019], established grocery retailers are still quite reluctant to grow their online presence in Denmark. To confirm his claim, he takes as an example the second biggest grocery retailer in the country: *"Coop has had their presence, but it is really not pushing a lot. I think mainly towards the customer program. They have around 2 million customers around that one. Externally they are not doing a lot that is what we can see in numbers. They are not growing at a pace rate they should have with the set up they have".* Additionally, N. Ralund, administrative director of The Association of Danish Internet trading, [personal communication, 2019], points out that one of the reasons why bricks-and-mortars are slow in entering online grocery market is cannibalization: *"Salling Group and again also Coop, in one way they believe in it, they know it moves in that direction, it is on the way but they want to protect themselves. They do not want to cannibalize themselves if they do not have to".*

### 5.2.3 Norway

Internet retailing in Norway continues to outperform all other retailing channels. In 2018, the value of internet sales grew by 15 per cent and reached sales of NOK 40,9 billion. Simultaneously, food and drink internet retailing recorded 13 per cent growth and reached sales value of NOK 2,8 billion (Euromonitor International, 2019h,i).

Slightly smaller growth of food and drink internet retailing than in Denmark and Sweden demonstrate that the market is not developing as fast. According to one of the interviewees there are several reasons which might have impacted the slowing trend of online grocery shopping in Norway: *"The online grocery trend seems to slow down a bit, probably because of the low interest in paying extra for delivery, all the hours you have to be at home and ready to receive the goods (pick-up points available though), and the fact that discount chains has, as of October 2019, 66,5 per cent market share (Extra, Kiwi, Rema 1000)".* Therefore, since the market offer is not convenient enough, Norwegians still leverage the physical stores: *"The market share for online grocery retail is below the 1 per cent – Norwegian's still leverage the physical stores in their behavior and shopping trends"* [T. Dragsnes, personal communication, 2019].

Moreover, profitability is still the main concern for the channel since most of the food and drink internet retailing companies are posting negative results before taxes. Retailers are confronted with high delivery costs that not always can be passed on to the end consumer. Labour costs are expensive, whereas prices of groceries cannot be higher than in-store, therefore reducing margins (Euromonitor International, 2019h). Furthermore, subject matter experts identify complex logistics and geographical constraints as impactful barriers limiting e-grocers' possibilities to expand: *"Distribution for grocery eCommerce players is limited to Oslo and surrounding areas,*

*partly because of all the logistics headaches in our long-stretched country, making it really hard to expand to other parts of the country within a reasonable pricing model consumers are willing to pay for"* [T. Dragsnes, personal communication, 2019].

Furthermore, from the three largest retailers in Norway, currently only one, Norgesgruppen, is selling groceries online, whereas the biggest player in the market is still a pure online retailer: *"Kolonial.no today is the biggest player"* [O. Teigen, personal communication, 2019]. Consequently, one of the respondents argues that bricks-and-mortars are not there yet to utilize online channels and still focus on physical stores: *"Here we see a trend that they remain relatively comfortable with the existing business that they have and the offline presence that they have invested. You have as I said initially Rema 1000, currently not directly present on digital platforms, you have the same with Coop, our second biggest retailer and then we have Norgesgruppen which is slowly building capabilities, starting to roll out their online concept but still focusing on supermarket banners, utilizing the stores"* [E. Melsom, personal communication, 2019].

Finally, O. Teigen [personal communication, 2019] confirms that: *"When we are on the level we are today, grocery stores in Norway are focusing on electronic shelf labels, automated stores, self check-outs, fully automated stores, this is a trend they are going into. Because these three retailers in Norway will try to keep their stores as long as they can. We see a still growing number of grocery stores in Norway. It is strange, but it is still growing. But sooner or later there needs happening something but the way they are going it is to automate the stores and not to go to online retailing"* [O. Teigen, personal communication, 2019].

### 5.2.4 Drivers of Online Grocery

Grocery industry, so as other industries, has to adjust to consumers' needs and constant changes in their habits. Respondents notice that there is a noticeable shift in generation with both men and women focusing equally on their careers. Many people are living very stressful and compromised lives to fit many things, and all of this comes with time constraints. Traditional grocery shopping in a store is time-consuming, therefore convenience and timesaving is what currently drives consumers online: *"So when people are buying online, they primarily buying to save time and because of the convenience"* [M. Mørk, personal communication, 2019].

However, K. Brynell [personal communication, 2019] argues that if people live in bigger cities where at least one grocery store is not more than five minutes away, then it is more difficult to compete with convenience. Furthermore, one of the respondents argues whether people save time when shopping for groceries online: *"You have to search for and add the products to your basket, proceed to checkout and select delivery time, address and other details. Then you have to wait for the products a few hours or pick them up yourself at your chosen pick-up point"* [T. Dragsnes, personal communication, 2019].

As indicated by M. Mørk [personal communication, 2019] consumer loyalty also helps to drive online sales: *"However one driver is that those who do shop online become more loyal, so they have a bigger spend on their basket online than before".* A similar point is also expressed by K. Brynell [personal communication, 2019], who claims that loyalty online is quite high and adds that it is one of the reasons why grocery retailers would have to expand online: *"I also think that the loyalty online is quite high. Because if you have an account with one retailer already, I think then you are more hesitant to start the account in another one. So I think in that sense is important to kind of get the clients on board now".*

### 5.2.5 Consumer readiness to buy groceries online

Online grocery shopping is accessible for the consumers for quite some time in all three countries and as recognized by one of the interviewees: *"quite a high number is willing to buy, but unfortunately a smaller number is regularly buying groceries online"* [L. Christensen, personal communication, 2019]. Moreover, the possibility to have groceries delivered by their doorstep is significantly valued by families: *"Especially young families with children because it is convenient when you get your delivery by your doorstep"* [N. Ralund, personal communication, 2019]. Furthermore, another respondent adds that retailers' solutions still lack some flexibility that more consumers would be willing to buy groceries online: *"We just have not got into their shoes, and I think <...> the boutiques online just need to start offering the solution that is flexible enough that it would make sense for the consumer"* [N. Busk, personal communication, 2019].

What is more, other interviewees argue that consumers in Denmark and Norway are not keen on spending extra since buying groceries online often entails price premium, either for delivery service itself or for the goods. E. Melsom [personal communication, 2019] adds to this: *"Norwegians are extremely price-conscious when it comes to groceries. It was ranked as number one purchasing factor year by year in Norway".* Same applies to Denmark, where, according to L. Christensen [personal communication, 2019] 30-40 per cent of groceries are bought on discounts. On the other hand, the situation in Sweden is completely different. As J. Moren [personal communication, 2019] summarizes all three markets: *"Denmark and Norway are more soft discounts, not as many premium nice stores that is completely opposite in Sweden. I think the soft discounters have around 10 per cent of the market in Sweden, whereas in Norway and Denmark that is the market more or less".*

Lastly, consumers are still hesitant to shop online and want to pick their groceries in a store: *"One of the biggest barriers that we have in e-commerce for retail is that people are not willing to buy, and there are two main reasons for that: one is the experience that they had in the shops, they do not want to miss having that experience when they are in the shop, and the other one is that they want to touch and see the groceries they are buying"* [L. Christensen, personal communication, 2019].

### 5.2.6 Available resources

A sufficient number of resources seems to be already available for online grocers in Scandinavian. Before, consumers had to wait longer times until they have their groceries delivered. However, almost all online grocers offer same-day delivery to consumer's doorstep or click-and-collect locations. As L. Christensen [personal communication, 2019] points out: *"at around 12 o'clock, you can order, and then you can have delivery or click-and-collect at around 3-4 o'clock".* Moreover, click-and-collect solutions are becoming more popular, which is also a part of automation and digitalization: *"more and more are those click-and-collect lockers when people have their code and come and pick bags from there"* [J. Moren, personal communication, 2019].

Although most of the clicks-and-mortars started online operations by picking orders in their stores, the situation is changing since bricks-and-mortars more increasingly build and start using dark stores or warehouses for their online order picking operations. However, for now, the change is primarily seen in Sweden: *"ICA is building their dark stores, Axfood as well. So I think it is both. But I think ICA still has some stores where they pick themselves, so I would say here you have a very immature market system and that in the end probably change"* [K. Brynell, personal communication, 2019]. Contrarily, in Norway clicks-and-mortars leverage their physical stores that helps to lower the initial capital investment when entering the online grocery market: *"Norgesgruppen Meny is growing because they say: we have a warehouse, it is in 250 stores, you do not have to invest there, we have employees who are in-stores, we may need to hire a few more for picking. So their investment is much lower"* [O. Teigen, personal communication, 2019].

Moreover, when it comes to picking groceries in a warehouse, manual picking is still the more obvious choice for a retailer in Denmark, since the market is not that developed in terms of scope and profitability: *"it would be difficult to have an automated warehouse. It is easy to pick for example some baby food in a box, but our customers can order one, two, maybe 50 bananas and we need to have quality control that can be done by the computer, but what is difficult, it is picking off the banana from and place it in a box. That one is expense automation that is very difficult to have implemented with having revenue that is positive"* [L. Christensen, personal communication, 2019].

### 5.2.7 Barriers for Online Grocery

The Scandinavian market is very much advanced in terms of internet penetration and online shopping. However, grocery shopping via e-commerce channels still lags behind. Therefore, when assessing the current market situation, respondents also addressed common barriers for online grocery in Scandinavia. Most of the barriers were related to high store density, purchasing behaviour, geographical constraints, profitability and cannibalization.

According to one of the respondents, one of the most significant constraints in Norway is high store density. He also brings the point that the current set-up with easily accessible grocery stories is already convenient to the consumer: *"We have one of the highest store density in the world. We have approximately 4000 grocery stores in Norway. If you divide that to a number of inhabitants in Norway which is approximately 5,2 million it is one of the highest in the world. So, you can say that contributes and facilitates our purchasing behaviour. <...> in many ways, it is actually more convenient to go to the store than to order online"*. [E. Melsom, personal communication, 2019].

In addition to that, K. Brynell [personal communication, 2019] indicates that physical stores in Sweden are convenient enough for offline shopping likewise: *"the store density is quite high here, long opening hours, self-scanning cashiers <...> I mean everything is done in store to make it quite convenient to go there".*

Moreover, M. Mørk [personal communication, 2019] claims that high store density is a barrier for online grocery in Denmark too: *"Denmark with their offline store network has to come a long way because you have a store on every corner".*

Interviewees recognized that certain cultural determinants that formed shopping behaviour also serve as a barrier for online grocery. E. Melsom [personal communication, 2019] compares Norwegians, Swedes and Danes shopping habits and concludes that Norwegians are the most spontaneous when it comes to grocery shopping. He claims that these are the patterns that need to change for online grocery to grow: *"Norwegians shop on average 3,5 times per week which is a lot compared to our Swedish neighbours who visit their grocery store approximately 1,2 times per week, so basically they shop once and then for the whole week. Our Danish neighbours' shop approximately 2,5 times. I would characterize that as one of the biggest barriers for online grocery in Norway. The fact that our purchasing behaviour is not really designed or accustomed to planning shopping. <...> In order for online grocery in Norway to really take off, the purchasing patterns have to change".*

Another critical barrier for online grocery in Scandinavia recognized by interviewees is geographical constraints that limit reaching a broader population and entails high logistics costs, especially in Sweden and Norway. As described by E. Melsom [personal communication, 2019] *"The other factors are in terms of geography, and this is another key barrier that I see for online grocery in Norway, and that is the length of our country and the share of complexity in terms of logistics and costs".* He also argues that reaching more population at this point would not make online grocery a viable business model: *"in order to reach the total population in Norway you would need a highly advanced logistical system which would entail certain costs which at this point in time, based on the current volume, that exists within online grocery in Norway is far from sustainable".*

Similar position was expressed by O. Teigen [personal communication, 2019] who adds that in the case of Norway, even in the future, it would not be feasible for a retailer to expand to other geographical areas than capital region and few more bigger cities: *"Norway is populated in a way that 2 million people are living around Oslo and you have some hundred thousand through Bergen and Trondheim. Then you have 2 million people living in the countryside, actually, living all over the country. You will never see online retailing there because it will not be a good business case out of it".*

Geographical constraints are also recognized in Sweden. N. Busk [personal communication, 2019] notices that online grocers are concentrated mostly around bigger cities with more dense areas which makes the delivery easier and more profitable: *"Online grocery is definitely in the bigger cities, and I think it is due to the fact that Sweden is a very long country and you need to be able to deliver products, so it is definitely a constraint. You can see that e-retailers are growing the area where they can deliver all the time but still you can see the big circle around the bigger cities and quite big circles of course".*

In general, the grocery industry is a low margin business, and all subject matter experts agree that in a low margin market, an online presence is costly. Therefore, profitability is a crucial challenge faced by online grocery retailers. Additionally, from the bricks-and-mortars perspective, M. Mørk [personal communication, 2019] claims that negative profits after taking the profitable grocery business offline to online discourage traditional retailers from making significant investments in e-commerce. That is also one of the reasons why bricks-and-mortars were slow in entering online grocery market: *"many players wait to see what will the future grocery be, before they start investing significantly in that part <...> so it is a little bit cheating game who will wait for the longest".*

The same pattern of traditional retailers waiting to invest until the online grocery market is mature was also indicated by E. Melsom [personal communication, 2019]. He believes that the grocery industry in Norway still have not seen a fundamental shift that would encourage more retailers to step in the online food business: *"There needs to be a fundamental shift from the industry, from the retailers but at the same time they are hesitant because they have invested in their store network billions of NOK while at the moment, nobody is making a profit from online groceries in Norway. So when do you really go all-in in the space and how long do you sit on the fence. I believe this is where we are now. I also think that there are really good reasons to push and go all in, but at the same time, there are certain barriers that are extremely difficult to overcome, especially in a short-term perspective. Meaning it also makes sense for these established retailers to sit a bit on the fence and wait to see how the market develops".*

What is more, interviewees recognized cannibalization as one of the threats for bricks-and-mortars introducing online channel. However, some of the subject matter experts believe that it is a threat only in a short-term, others that in a long-term. On the one hand, people will not start buying more food. Therefore, no matter how the split will be done, either more people shop online or offline, the share volume will remain the same. On the other hand, M. Mørk [personal communication, 2019] believes that risk of cannibalization is only in a short-term and he explains that in a long-term with the right offering people will have bigger baskets online but they will still need to go to the store and buy some milk. Therefore, for retailers, it is only an upside. On the contrary, K. Brynell [personal communication, 2019] claims that cannibalization is not a case in online grocery retail: *"Since it is the same players that have the same stores online and offline, then the threat is lower. I mean it would have been of course different if it would be like with bookstores who have lost their sales to online players. So here the threat is lower".*

Besides, K. Brynell [personal communication, 2019] argues that the last-mile might be one of the critical constraints why it is so difficult to reach profitability: *"This last mile which everybody is talking about is expensive, and I think that consumers from other areas from the market have learnt that the transport should cost nothing. So it is very hard to really put a price on the delivery, and this is an issue. So I do not think any of the e-commerce players are actually earning money today on the food retailing online".*

Another view is presented by J. Moren [personal communication, 2019], who argues that even though profitability is an issue and many of the online grocery retailers are still not making money but what they are making is data. From this statement, it can be implied that online presence is necessary to build the customer base, which might be critical for increasing the market share in the future.

## 5.3 Selection of Business Strategies

The following subchapter presents business strategies of the online grocery retailers in Scandinavia that have the most significant market share in their local markets. The list of the companies for the research was identified from the interviews and specified based on the retailers' size from official statistics (Euromonitor international, 2019). Short description of each company will be followed by the main aspects of the business strategy, value proposition and operational strategies, which were identified in the conceptual framework proposed by Ali et al., 2017.

### 5.3.1 Sweden

#### *5.3.1.1 MatHem.se*

MatHem is an internet's pure player that has 2,1 per cent of the total internet retailing market in Sweden (Euromonitor International, 2019e). The company was one of the first ones to start an online grocery business in the country, and, currently, is the biggest online grocery pure player (MatHem.se).

| **Value proposition** | **Customer value proposition** | |
|---|---|---|
| | Convenience; Time-saving; Unattended delivery directly to consumer's fridge and freezer; Same-day delivery; Durability warranty; Ease-of-use (both app and web) | |
| **Operational strategy** | **Order fulfilment** | **Order delivery** |
| | Order picking in a dark store | Attended and unattended home delivery with company's fleet |

Table 3. *MatHem.se Sweden.*

#### *5.3.1.2 ICA*

ICA has a firm position within the retailing industry in Sweden being the only player with double-digit value share, that is 19,5 per cent of the total retailing market. Moreover, it accounts for 47,2 per cent of the total grocery retail market in Sweden (Euromonitor International, 2019l). It operates an extensive network of modern grocery retail profiles, including convenience stores, supermarkets, and hypermarkets (Euromonitor International, 2019g). In Sweden, there are 1300 ICA stores, which are owned and operated by different owners who have agreements with ICA Sweden in areas such as logistics, coordinated sourcing, store development, and market communication (ICA Gruppen, 2018).

ICA launched grocery e-commerce in 2015, while in 2017, it already reached market leadership (ICA Gruppen, 2018). At the end of 2018, ICA has strengthened its online presence further by connecting more than 280 stores to ICA Gruppen's joint solution for e-commerce. Currently, 20 per cent of the total number of ICA stores offer e-commerce covering 77 per cent of the population. Moreover, 57 per cent of online ICA stores offer home delivery, while 43 per cent offer click-and-collect services (ICA Gruppen, 2018).

| Value proposition | Customer value proposition | |
|---|---|---|
| | Convenience; Time-saving; Unattended delivery directly to consumer's fridge and freezer, or customer's car; Same-day delivery; Ease-of-use (both app and web); Additional services (ICA Spara app (helps to keep track of spending), ICA's voice assistant (shopping lists, dinner tips) , Mitt klimatmål (personal climate impact tracking based on the products bought) | |
| **Operational strategy** | **Order fulfilment** | **Order delivery** |
| | Order picking in a warehouse<br>Order picking in-store | Attended and unattended home delivery<br>Click-and-collect attached to the store<br>Click-and-collect drive-in |

Table 4. *ICA Sweden.*

#### *5.3.1.3 Coop*

Coop is one of the three biggest retailers in Sweden that accounts for 6,7 per cent of the total retailing market and 19 per cent of the grocery retail market in Sweden (Euromonitor International, 2019l). Coop operates retail grocery chains such as Coop Extra, Coop Forum, Coop Nära, Coop Konsum and Coop Bygg. Coop also operates the Daglivs store and the Internet-based Coop.se (coop.se). Coop started selling groceries online as early as 2008 and has been growing since then. Since 2017, Coop has a dark store outside of Stockholm that is dedicated only for picking online order. Moreover, to respond to a growing network of consumers and increase delivery capacity, Coop is building more dark stores at central locations in Sweden.

| Value proposition | Customer value proposition | |
|---|---|---|
| | Convenience; Time-saving; Ease-of-use (both app and web); Additional services (Meal boxes) | |
| **Operational strategy** | **Order fulfilment** | **Order delivery** |
| | Order picking in a dark-store<br>Order picking in-store | Attended home delivery (can be delivered either through company's fleet or third-party)<br>Pick-up in-store from store's personnel<br>Click-and-collect attached to the store<br>Click-and-collect drive-in |

Table 5. *Coop Sweden*

#### *5.3.1.4 Axfood*

Axfood is the third biggest modern grocery retailer in Sweden that accounts for 16,9 per cent of the grocery retail market (Euromonitor International, 2019l). Also, Axfood is the third biggest retailer in Sweden, accounting for 6,3 per cent of the market (Euromonitor International, 2019g). Axfood family includes the following retailer-owned chains: Willys, Hemköp, Tempo, Handlar'n and Direkten. Furthermore, Axfood Snabbgross chain is

responsible for business-to-business operations, while the wholesale business is conducted through Dagab. Axfood also owns Middagsfrid and mat.se, a pure-play online food store that the group has acquired in 2017, and is a part owner of Apohem, Urban Deli, and Eurocash. Axfood offers three concepts for online grocery shopping: mat.se, as well as Willys, and Hemköp chains (Axfood, 2017).

In some of the locations, Axfood's online orders are picked in the chains' physical stores, except for the pure-play online store mat.se that uses dark stores to fulfil e-commerce orders (Axfood, 2017). However, in the Stockholm area, there is already one joint dark store that supports mat.se, Willys and Hemköp business-to-consumer online operations (Axfood, 2019). Moreover, Willy's and Hemköp e-commerce customers have a possibility to collect groceries in-store or have it delivered home. Roughly, half of Willy's online consumers prefer pick-up points in store. The chain has made it easy to pick up orders by providing separate entrances and parking where possible whereas Hemköp's customers choose home delivery almost exclusively, although the chain also offers in-store pick-up (Axfood, 2017). Furthermore, following the steady growth of the online grocery sales one of the top priorities for Axfood is to start the development of a highly automated warehouse that would combine the fulfilment of both store and e-commerce orders in Stockholm (Axfood, 2018).

| **Value proposition** | **Customer value proposition (Mat.se)** | |
|---|---|---|
| | Convenience; Time-saving; Ease-of-use (both app and web); Unattended delivery directly to a car; Ease-of-use (both app and web); Fresh product guarantee | |
| **Operational strategy** | **Order fulfilment** | **Order delivery** |
| | Order picking in a dark-store | Attended home delivery and unattended delivery to a car (only for Volvo) |

Table 6. *Mat.se Sweden.*

| **Value proposition** | **Customer value proposition (Willys and Hemköp)** | |
|---|---|---|
| | **Willys** | **Hemköp** |
| | Convenience; Time-saving Lowest price guarantee; Possibility to pay later or split payment (with Klarna); Durability warranty; Same-day delivery for in-store pick-up; Climate-compensate home deliveries; Ease-of-use (both app and web) | Convenience; Time-saving; Wide range of organic and vegetarian meal; Same price as in store; Possibility to pay later or split payment (with Klarna); Ease-of-use (both app and web); Pre-planned meal subscriptions |
| **Operational strategy** | **Willys and Hemköp** | |
| | **Order fulfilment** | **Order delivery** |
| | Order picking in a dark-store<br>Order picking in-store (for collecting in store) | Attended home delivery with the company's fleet<br>Click-and-collect attached to the store |

Table 7. *Willys and Hemköp Sweden.*

### 5.3.2 Denmark

#### *5.3.2.1 Nemlig*

Nemlig is an internet's pure player that has been on the Danish online grocery market since 2010. Currently, the company is the largest food and drink internet retailer in Denmark that maintains a continuous double-digit value growth. It has 2,7 per cent of the total Internet retailing market in Denmark, which makes it the fourth-biggest internet retailer in Denmark (Euromonitor International, 2019a,b).

| **Value proposition** | **Customer value proposition** | |
|---|---|---|
| | Convenience; Time-saving; Same day home delivery; Competitive pricing; Wide range of products (organic, meal-boxes, specialty stores); Ease-of-use (both app and web) | |
| **Operational strategy** | **Order fulfilment** | **Order delivery** |
| | Manual picking from a warehouse | Attended home delivery |

Table 8. *Nemlig Denmark.*

#### *5.3.2.2 Salling Group*

Salling Group A/S is Denmark's largest retailer with a market share of 14,1 per cent of the total retailing in Denmark (Euromonitor International, 2019). The company runs four different kinds of retail stores in Denmark, namely, Bilka, Føtex, Netto and Salling. From e-commerce side, the company operates with Bilka.dk, Salling.dk, føtex.dk, wupti.com, flowr.dk and Skagenfood A/S platforms. Furthermore, Salling Group has franchises of Starbucks and Carl's Jr (Salling Group Annual report, 2018).

The first time Salling Group presented its concept for online grocery shopping was in 2017 when it entered the market with BilkaToGo. Recently, in 2019 the company introduced its second concept Netto fillop, which is *"a subscription-based service for basic groceries"* [M. Mørk, personal communication, 2019]. Netto Fillop offers consumers the possibility to have basic goods delivered at their doorstep at a fixed interval, for instance once or twice per month. Customers can choose products from the entire Netto range except for fresh products (meat, fruits, vegetables, etc.) (Salling group, 2019).

Shortly, Føtex should also launch its digital presence with groceries online, and supposedly, it would start with a click-and-collect solution as BilkaToGo. Based on Føtex CEO Thor Jørgensen, although selling groceries online is still not profitable, digital presence is essential to maintain relevance, and it helps to drive loyalty in a long-run (Olesen, 2019).

| Value proposition | Customer value proposition (BilkaToGo and Netto fillop) | |
|---|---|---|
| | **BilkaToGo** | **Netto filop** |
| | Convenience; Time-saving; Same-day delivery; Quality guarantee (if customers are not happy with product freshness, it can be returned); Same price as in a supermarket; Largest online food selection; Ease-of-use (both app and web); User experience (items in online shop could be found using voice function, search engine or by scanning the barcode of the item) | Convenience; Time-saving; Fixed low cost as in a supermarket; Subscription based order delivery; Unattended home delivery (no need to be at home when order is delivered) |
| **Operational strategy** | **BilkaToGo and Netto fillop** | |
| | **Order fulfilment** | **Order delivery** |
| | **BilkaToGo:** Order picking in-store by the staff<br>**Netto fillop:** Order picking in a dark store | **BilkaToGo:** click-and-collect in store or drive-in<br>**Netto fillop:** Unattended home delivery by third party |

Table 9. BilkaToGo and Netto fillop Denmark.

### *5.3.2.3 Coop Denmark*

Coop Denmark is the second largest retailer in Denmark with a market share of 13,9 per cent (Euromonitor International, 2019j). Its brand portfolio consists of the following stores in Denmark: SuperBrugsen, Fakta, Kvickly, Dagli'Brugsen, Irma, Lokal Brugsen, and the e-commerce platform Coop.dk. In 2016, the company launched a platform for online grocery shopping butik.mad.coop.dk.

| Value proposition | Customer value proposition | |
|---|---|---|
| | Convenience; Time-saving; Wide range of products (organic, meal-boxes); User experience (personal shopping lists and 'last order'); Durability warranty | |
| **Operational strategy** | **Order fulfilment** | **Order delivery** |
| | **For home deliveries:** orders are picked in warehouses<br>**For pick-up in store:** orders are picked in store by the staff | Attended and unattended home delivery by the third party;<br>In-store pick up |

Table 10. *Coop Denmark.*

### *5.3.2.4 Rema 1000 Denmark*

Rema 1000 Denmark A/S is the third biggest retailer after Salling Group and Coop Denmark. In Denmark, Rema 1000 operates exclusively on a franchise basis (rema1000.dk). Rema 1000 sells groceries online through its e-commerce platform shop.rema1000.dk med Vigo, which is based on the peer-to-peer sharing economy principles. Vigo is a service developed by Rema 1000 to solve last-mile-delivery through customer communities and mobile

technologies. When consumers place an order, the shopping list is shared with other people on the platform who pick groceries for a customer in a selected shop (vigo.dk).

| **Value proposition** | **Customer value proposition** | |
|---|---|---|
| | Convenience; Time-saving; Shopping community; Utilizing existing resources; Delivery within hours; Ease-of-use (both app and web) | |
| **Operational strategy** | **Order fulfilment** | **Order delivery** |
| | In-store picking by peers | Home delivery by peers |

Table 11. *Rema 1000 Denmark.*

### 5.3.3 Norway

#### *5.3.3.1 Kolonial.no*

Kolonial.no is a pure online grocery retailer and Norway's first online grocery store, which started operating in 2013. It is Norway's largest online grocery store and the fifth-biggest internet retailer in Norway with 3 per cent of the market share. However, the volume growth of online grocery sales for the company is not strong enough to lead to profitability. Therefore, as one of the respondents mentioned it earlier, the company still needs investments. The latest funding Kolonial.no got from Kinnevik in 2018 that helped the company to avoid liquidity problems (Euromonitor International, 2019h). Moreover, Rema 1000, one of the biggest supermarket chains in Norway owned by Reitangruppen AS, has a 10 per cent stake in Kolonial.no.

For online order picking, Kolonial.no has one big warehouse near Oslo and one small warehouse in the middle of Norway [O. Teigen., personal communication, 2019]. Moreover, the company offers home delivery and pick-up from their pick-up points. Currently, Kolonial.no has around 40 self-service pick-up points in residential areas and neighbourhoods (kolonial.no). For this, the company started collaborating with gas stations where it now has most of its pick-up points - self-service storage facilities. However, there are some disadvantages related to this delivery solution. The issue with these collection points is that customers are approached not only to their bags but to others as well, and, therefore, trust becomes the main concern with this delivery method [E. Melsom, personal communication, 2019]. However, to avoid theft, pick-up points are video-monitored. Another is that pick-up locations have a short cooling time. Therefore, it is crucial that the customer would collect the order on time (kolonial.no). In light of this, only about 10 per cent of people collect goods from pick-up locations, whereas the rest is home delivery [O. Teigen, personal communication, 2019].

| Value proposition | Customer value proposition | |
|---|---|---|
| | Convenience; Time-saving; Low-price guarantee; Fresh product guarantee; Same-day delivery; Ease-of-use (both app and web). | |
| **Operational strategy** | **Order fulfilment** | **Order delivery** |
| | Order picking in a warehouse | Attended home delivery with the company's fleet;<br>Click-and-collect in certain locations |

Table 12. *Kolonial.no Norway.*

#### *5.3.3.2 Norgesgruppen*

Norgesgruppen is the biggest retailer in Norway. In 2018 it accounted for 17,5 per cent of the total retail market. Moreover, with a 34,8 per cent market share in 2018, Norgesgruppen is the market leader in the Norwegian grocery industry. It operates the following retail chains: Kiwi, Meny, Spar, Joker, Eurospar, Mix, and Nærbutikken (Euromonitor International, 2019m). Norgesgruppen has an online presence with its store chains Meny, Spar and Joker. However, online shopping is most developed at Meny. As part of their digital services development plan and with the emphasis on the personal service and customer care, in 2018, Meny launched voice recognition to do shopping even faster (Norgesgruppen, 2018).

In Meny, Spar, and Joker online orders are still picked in-store by the store personnel. In this way, the group is still trying to keep the costs down and, despite limited volumes, do business from online shopping (Norgesgruppen, 2018). Furthermore, besides home delivery, Meny offers delivery via various pick-up points that can be either selected Meny stores or Esso/Deli de Luca forecourt retailers, also owned by Norgesgruppen (Euromonitor International, 2019h). Meny expects that around 50 per cent of all online orders would be delivered home by the third-party logistics and the rest picked up in-store manually which means that there is store personnel that gives bags to a consumer directly. Moreover, the chain is currently testing one location with automated lockers [O. Teigen, personal communication, 2019].

| Value proposition | Customer value proposition | | |
|---|---|---|---|
| | **Meny** | **Spar** | **Joker** |
| | Convenience; Time-saving; Same-day delivery; Durability warranty; Ease-of-use (both app and web); Largest grocery selection; Additional services (recipes, voice assistant) | Convenience; Time-saving; Same-day delivery; Durability warranty; Ease-of-use (both app and web) | Convenience; Time-saving; Same-day delivery; Same price as in store; Durability warranty |
| **Operational strategy** | **Meny, Spar and Joker** | | |
| | **Order fulfilment** | **Order delivery** | |
| | Order picking in-store | Attended home delivery by the third party; Manual pick-up points | |

Table 13. Norgesgruppen (Meny, Spar, Joker) Norway.

### 5.3.4 Attractive Business Opportunity

As it was revealed during the interviews, due to relative market immaturity the need for a constant reshaping of key operational strategies become apparent. Online grocery retailers are still testing consumer behaviour and continually experiment with delivery methods to adapt to the customers' needs: *"I think that all the retailers are and will be experimenting to see which will be the final or not final, the best system"* [K. Brynell, personal communication, 2019].

When talking about Swedish market, N. Busk [personal communication, 2019] points out: *"There are a lot of small trends that are being tried right now, for example, some companies have left fridges outside in the car park of the houses to just put products in the fridge standing outside, there are also experiments with digital keys so they can come to your house and fill the fridge right away. I think all of this is because companies are looking at how to make it even easier for the consumer".*

Although home delivery was identified as the most preferred delivery method, subject matter experts recognize that click-and-collect will keep growing in all three countries. As L. Christensen [personal communication, 2019] observes the situation in the Danish market: *"click-and-collect has started to grow, and that is with the Salling Group so that of course will start to take off during the coming years".* K. Brynell [personal communication, 2019] sees similar trends in Sweden: *"Yes it is definitely home delivery, but at the same time, click-and-collect is really growing".* Moreover, according to E. Melsom [personal communication, 2019], the same goes for Norway: *"I think click-and-collect is starting to get more traction, especially because it is pushed now by Norgesgruppen in Meny and Spar".*

There are several underlying reasons, which benefit both consumers and retailers, why click-and-collect is slowly but growing in all of the markets. From the retailers' perspective, the click-and-collect solution is cheaper than home delivery and may be more feasible, especially in the markets with higher standards of living: *"Click-and-collect is a delivery method that is cheaper. Labour wages in Denmark are among the highest in the world, so any kind of last-mile fulfilment is expensive, it is expensive to pick even in stores. That is why the model works with click-and-collect because having own or third party logistics delivering home is expensive"* [M. Mørk, personal communication, 2019]. K. Brynell [personal communication, 2019] also adds to that: *"as it is now, it is very hard to be profitable with the home delivery. So that is, of course, would be better for the stores if you could have these click-and-collects"*. Moreover, from the consumers' perspective, the critical advantage of the click-and-collect solution is that they do not need to pay a premium for home delivery or stay at home and wait for their order but at the same time have the same convenience not having to go to the store.

### 5.3.5 Future Trends and Perspectives

The interviewed subject matter experts expect that online grocery will continue to grow. However, no one could foresee how much of the market it will take: *"I think it is extremely difficult to predict and I think that is the consensus in the industry as well at this point in time. From my perspective, there is no doubt that online grocery sales will grow"* [E. Melsom, personal communication, 2019]. However, one of the respondents argue that no matter what will be the split between online and offline sales, the omni-channel approach will be the most important strategy for future retailing: *"I think in the near to long term future is not about this online or offline, so coming back to this omni-channel approach, for me that will be the future of grocery retail"* [E. Melsom, personal communication, 2019]. Another interviewee adds to that by pointing out: *"the omni-channel setup becomes more and more relevant for consumers"* [M. Mørk, personal communication, 2019].

Moreover, according to one of the respondents, a more significant shift to online channels will come with a generational shift: *"I think we are quite far away from going all in online, but I think we will see a shift in companies ten years from now that more sales will be moving towards the online. And that comes with a generational shift too"* [N. Busk, personal communication, 2019]. O. Teigen [personal communication, 2019] expresses a similar point of view: *"In 20-30 years, everything will be different. I think online retailing will come, also for groceries".*

Even though it is difficult to predict how big online grocery retailing will be in Scandinavia, interviewees expressed what in their opinion would be the trends in the future. The most recognized future trends in online grocery retailing among the answers of the respondents were technology development and automation: *"I think probably one of the biggest things for Denmark would be technology. Given the fact that cost levels are so high,*

*meaning that it is extremely expensive to fulfil customers' orders, especially when you have the last-mile. So you need to see some kind of technology is in the kicking"* [M. Mørk, personal communication, 2019].

Furthermore, experts believe that automation will start from warehouses, where manual picking will be changed to automated. Then, there will come a change in last-mile when drones and driverless vehicles would deliver groceries home: *"first step it will be automated picking and second will be self-driving vehicles"* [M. Mørk, personal communication, 2019].

L. Christensen [personal communication, 2019] recognized the same pattern regarding the warehouse automation: *"Then you have the warehouse automation. Of course, it will be cheaper and cheaper every year, but it is still a huge investment, but I think that is also the way forward that we move from manual to automated picking".*

What is more, O. Teigen [personal communication, 2019] claims that from the currently available delivery methods, automated order pick-up locations have the most significant potential in the future: *"If we list three possible ways to deliver goods today, it is home delivery, it is manual pick up locations where the customer is coming to talk to someone and get the things or have a machine that is doing this. And machines are of course the cheapest to run because they are running 24/7, they have an investment cost, but they will stay there for five, seven, ten years and it will work.<...> So automatized locations is the best thing for the future".*

On the other hand, M. Mørk [personal communication, 2019] believes that home delivery *"is the ultimate fulfilment of the customers' needs which is the convenience"* and in the future, it will remain as important to consumers as it is now: *"so click-and-collect is partly helping but not all the way, whereas home delivery does the full trick"*. A similar opinion was expressed by E. Melsom [personal communication, 2019] who claims that: *"home delivery would be the preferred method still if by drone or by an automatic car, does not matter, but essentially it all goes down to value and economies of scale in terms of distribution".*

Another scenario is seen by N. Ralund [personal communication, 2019] who believes that it will be a mix of click-and-collect and home delivery, which both have to be convenient and work well for the consumer. Moreover, he briefly expresses his view on the currently limited crowd-shipping service platform which empowers peers to cover the last mile for other peers. The latter is pioneered in Denmark by Rema 1000: *"they are working with Vigo concept, where you hire a person to shop for you, and I find that exciting experiments and let us see how it works. It is not a big size for e-commerce, but I know it will be in the future because there will be more in the future".*

That is why, as K. Brynell [personal communication, 2019] points out, retailers will keep experimenting to find a combination of home delivery and click-and-collect locations that would best meet the consumers' needs: *"I think there will be a lot of different experiments to make it more flexible".*

# 6. Discussion

The discussion part reflects on the implications of the findings for the research questions that have driven this research. Since the author aimed to answer three research questions, the discussion of the research findings is provided through several angles. To answer the first research question, namely, how can online grocery landscape in Scandinavia be described, the author outlines patterns among all three countries in Scandinavia and their development level while comparing the insights gained from the collected data with the reviewed academic literature. Furthermore, to answer the second research question of what are the currently adopted business models and operational methods of online grocery retailers in Scandinavia, the author addresses the literature and uses Boyer and Hult (2005) provided research design for operational differences in online grocery order fulfilment and delivery to reflect on currently adopted methods and to depict competitive landscape in each of the countries. Lastly, the author discusses what the future perspectives for online grocery in Scandinavia are.

## 6.1 Current Market Situation

The current grocery market in Scandinavia could be described by still quite strong dominance of bricks-and-mortars that are densely spread out in all three countries. Nonetheless, the highest store density is in Norway, a bit less in Denmark and the least in Sweden. Moreover, by having one of the highest store densities Norwegians are used to go to the grocery store almost every day, and therefore their shopping behaviour is not designed to plan shopping. In contrast, Swedes mostly do big grocery shopping once per week, while Danes 2,5 times per week. This implies that online shopping creates the most convenience for Swedes, who were already accustomed to planning shopping and now can have all their weekly order delivered to home or collect from pick-up points and still save a significant amount of time. Consequently, as recognized earlier in findings, the local markets are not equally developed in terms of online grocery, among interviewees Sweden was identified as the most developed and the most dynamic market then follows Denmark and the least in Norway.

Despite the double-digit growth of the food and drink internet retailing in recent years, the market share of online grocery retail is still tiny in all three countries. As recognized by some of the interviewees, although consumers are ready to buy groceries online, and the market is relatively developed for that, offline shopping remains convenient likewise [K. Brynell, 2019; M. Mørk, 2019]. The main reasons identified by the subject matter experts are high store density, long opening hours, and in-store automation, which helps to save time, for instance, self-scanning cashiers or even fully automated stores.

Statistics showing that all markets are growing quite dynamically indicate that consumers seem to accept the market offer. However as mentioned earlier in the findings, paying extra for home delivery could result in a lower interest for shopping groceries online, especially in Norway and Denmark, where consumers are price-sensitive,

and discounters account for the more significant part of the market. The fact that consumers are in general reluctant to pay for the delivery was also recognized in the literature (Hübner et al., 2016). As mentioned earlier in the findings, this could be explained that people have learnt from the other areas of the e-commerce that the transport should cost nothing, and that is the habit challenging to change. Consequently, it could be seen from the data analysis that some of the retailers are confronted with high delivery costs that not always can be passed on to the end consumer.

However, during the last few years, the competitive landscape, especially in Denmark and Sweden, has changed significantly since, in both countries, all the biggest traditional grocery retailers have entered the online grocery market. As seen in other markets, when many retailers start adding online channels to their current operations and with the competition from the purely online retailers, online grocery landscape faces upheaval (Hübner 2016). However, in Norway, there are still only two players. It is a pure-player Kolonial.no that is a market leader, and a click-and-mortar that is slowly building capabilities within online space. However, according to the interviewees, the click-and-mortar still focuses on supermarket banners and utilizes the stores [E. Melsom, 2019; O. Teigen, 2019].

The larger brick-and-mortar retailers have been relatively slow in moving their operations online and entering the e-grocery market in all three countries. However as the literature and findings show the presence of online sales challenged traditional brick-and-mortar operations to adjust to new rules of competition in the market and start building omni-channel capabilities to secure the market share in the future (Bendoly et al., 2005; Hays et al., 2005; Fernie & McKinnon, 2009). However, even though management literature demonstrates that there is a positive effect on companies' sales growth after the organizational transformation to omni-channel retailers (Cao et al., 2016; Wollenburg et al., 2018), from the findings it is clear that the profitability for those retailers is still negative for many years. Accordingly, that is one of the main reasons why bricks-and-mortars were slow in going online and investing more significantly into e-commerce. Moreover, as it was mentioned earlier in the literature review as well as in the findings, cannibalization could be another threat to traditional retailing (Simone & Sabbadin, 2017). However, as later identified by some of the interviewees and scholars, online channel complements the brick-and-mortar rather than cannibalize it (Avery et al., 2012), and the effect could be only felt in a short-term [M. Mørk, 2019].

According to Rabinovich and Bailey (2004), bricks-and-clicks retailers demonstrate better performance than pure online players due to their access to multiple distribution channels that brings economies of scale. As literature highlights, there are plenty of reasons why pure-players might not be able to withstand the competition in the grocery market, such as lack of experience, unrealistic expectations and prior brick-and-mortar business knowledge when trying to create something from nothing (Hackney et al., 2006). However, in all three markets

examined in the study, pure online grocery retailers managed to lead the market and build reliable companies. Moreover, only until recently, all three markets were mainly driven by pure online grocery retailers.

Lastly, as interviews with the subject matter experts show, Sweden is the only country out of the three where the established grocery retailers are starting to exploit their full potential to grow online channels for grocery shopping. In contrast, in Denmark and Norway, bricks-and-mortars still await to see what will the future grocery be before they start investing significantly in that part [M. Mørk, personal communication, 2019].

## 6.2 Selection of Business Strategies

In this subchapter, the discussed findings from the primary and secondary data analysis are presented by incorporating the research design for operational differences in online grocery order fulfilment and delivery adapted from Boyer and Hult (2005), which was mentioned earlier in the literature review chapter.

In the online grocery retailing landscape, major players differentiate themselves mainly by their method of order fulfilment and delivery, which also depend heavily on the business model of an e-grocer (Hays et al., 2005). When entering the online grocery market in Scandinavia, e-grocers choose several different strategies. Those bricks-and-mortars that want to enter omni-channel retailing within no time and with low initial investments often choose to have a pick-up point installed in their stores for online order collection (Simone & Sabbadin, 2017). The latter was the initial solution for one of the grocery chains in Denmark - Bilka, which entered the market by offering only in-store pick-up. Other grocery retailers in Scandinavia, including pure-players, started their online operations by offering consumers home delivery, which was identified as preferred and the most convenient delivery method to a consumer. However, pure players in all cases started with their own fleet, whereas bricks-and-clicks in most cases used third-party logistics companies. This implies that there is no one-size-fits-all approach to fulfilment. Accordingly, retailers in Scandinavia choose solutions that are economically the most viable at the given time.

Given the circumstances of dynamically growing but still quite an immature market when compared to other categories, such as apparel or electronics, investment in new logistical facilities for online order fulfilment might be speculative due to uncertain future demand for grocery shopping online (Fernie & McKinnon, 2009; Hübner et al., 2016). Consequently, to lower the initial investment, clicks-and-mortars in all three countries started from picking online orders in their stores. Hence testing the market by leveraging existing assets and not necessarily spending a great deal of money on new facilities is also described as a common strategy for bricks-and-mortars carefully entering the market (Yrjola, 2003; Fernie & McKinnon, 2009; Hübner et al., 2016; Hays et al., 2005). However, when the customer base has been built, the market has developed, and the adequate density is accomplished, then it is plausible to switch to a distribution centre and for some time to sustain both a warehouse

and a store picking (Hays et al., 2005). Sweden is following a similar scenario, where ICA, Coop, and Axfood for either click-and-collect or home delivery use both order fulfilment methods, respectively, store-based and warehouse. In Denmark, two out of three biggest clicks-and-bricks companies have dedicated warehouses or dark stores for online orders, whereas, in Norway, Norgesgruppen still leverage their store.

Moreover, as identified in the findings as well as in the literature one of the significant challenges for online grocery retailers in creating a successful business model is the complexity, and the high cost of last-mile order fulfilment for groceries bought online (Hübner et al., 2016). Interviews revealed that last-mile delivery, especially to a customer's doorstep, is the most complex and expensive process. Given that for a grocery retailer to be profitable with home delivery is very difficult, click-and-collect solutions are starting to get traction in all three countries. Furthermore, as seen by the interviewees as well as in the literature, due to lower operational expenses for the online grocery retailer, click-and-collect as a delivery option might have real potential (Hays et al., 2005).

The type of the click-and-collect solution a retailer is going to choose depends on the level of market development and how much it is willing to invest. The most common click-and-collect solutions among online grocery retailers in Scandinavia are manual in-store pick-up points where store personnel is giving groceries bags to consumers or 'attached' to the store click-and-collect lockers. In addition, kolonial.no, a pure online grocer in Norway, have pick-up points in residential areas and neighbourhoods. Others additionally have drive-in locations attached to their stores where online order is directly placed into a customer's car. Having 'attached' collection points that enable drive-in opportunities is considered to cost less than building solitary drive-through stations (Hübner et al., 2016). The latter option is already available in two Swedish grocery retailer chains: ICA and Coop, and in one Danish chain - Bilka, while solitary click-and-drive locations that gained significant momentum in France are still non-existent in Scandinavia. The latter solution can serve customers in rural areas more conveniently at the same time, increasing geographical coverage (Hübner et al., 2016). Therefore, given a vast territory in Sweden, the click-and-drive strategy could work well here and help to minimize geographical constraints that limit reaching a larger population.

### 6.2.1 Sweden

The most vibrant diversity of players is in Sweden, which is the most rapidly growing and developing the online grocery market in Scandinavia. Combining the different delivery and pick-up options across channels is a current trend in online grocery retailing (Wollenburg et al., 2018), and that is also seen in Sweden. All three clicks-and-mortars, ICA, Coop and Axfood, have in-store pick-up for click-and-collect delivery as well as all three recently started utilizing dark stores or warehouses for home deliveries. After the extensive analysis of the operational strategies of each online grocery retailer in Sweden, the competitive landscape is depicted in the figure below

(see Figure 4) based on the research design for operational differences in online grocery order fulfilment and delivery adapted from Boyer and Hult (2005). Although each of the players has different capabilities to compete within the market, all are already doing more or less the same. Based on this, it can be assumed that companies compete in terms of operational effectiveness, which results in the adoption of more effective and efficient methods for order fulfilment. Consequently, ICA and Axfood are already planning on building fully automated warehouses, which will have integrated store delivery and online customer order picking. Although this model can be more operationally effective and cost-efficient compared to other models, including the fact that a single pick in a warehouse is cheaper than in a store (Hübner et al., 2016), it requires significant investments and scalability to ensure profitability (Hays et al., 2005).

Intense rivalry and fulfilment methods among the most significant players that are common for more developed markets clearly shows that Sweden has the most mature market in terms of grocery e-commerce penetration. As a result, the Swedish online grocery market should become even more prominent in the upcoming years.

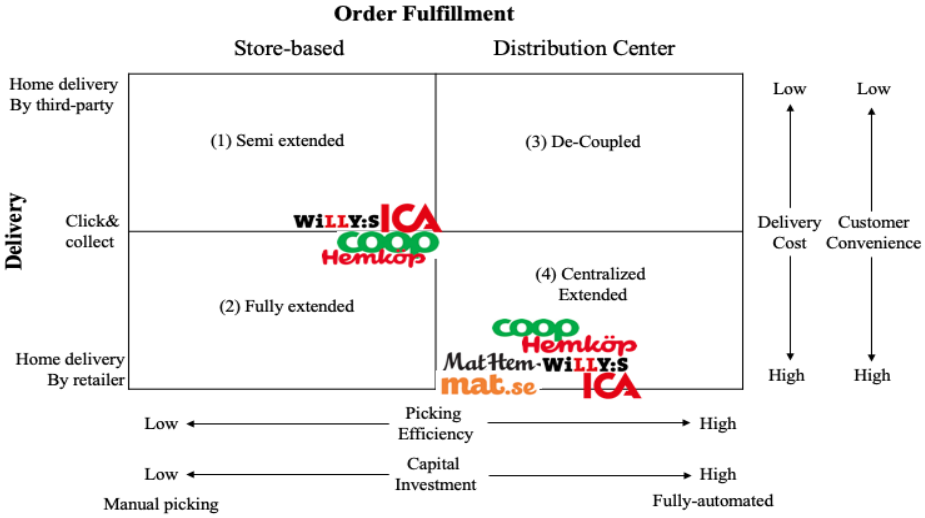


*Figure 4.* Operational models and positioning of online grocery retailers in Sweden. Source: Author's creation, adapted from Boyer and Hult, 2005.

### 6.2.2 Denmark

Compared to Sweden, click-and-mortars in Denmark still choose less capital investment requiring order fulfilment and delivery methods. Only pure online grocer Nemlig.com delivers groceries home by their fleet, providing the desired convenience to the consumers. Moreover, delivery models play an essential part in regards to customer relationship management (Hübner et al., 2016). Therefore, for a pure-player that has no retail storefronts, it is imperative to have in-house delivery, since their drivers became the face of a company [L.

Christensen, 2019]. The figure below represents how online grocers in Denmark are positioned in terms of their current operational models (see Figure 5).

Moreover, by choosing less initial investment requiring methods for last-mile order fulfilment, e-grocers are trying out innovative solutions and niche strategies that result in delivering unique value to consumers. For instance, Salling Group with Netto fillop concentrates on a more focused solution than anything currently available. The e-grocer offers a subscription plan so that customers can get filled up regularly with daily household goods except for perishables, for example, toilet paper, toothpaste, rice, or oatmeal. This type of service enables less complicated and not as costly delivery for a retailer since different temperature zones are not needed for transportation. Moreover, the company uses unattended home delivery, which allows the e-retailer to deliver online made orders when a customer is not necessarily at home. As a result, unattended home delivery ensures the most optimal scheduling and routing of delivery transport, and it is claimed to be the most cost-effective home delivery model for online grocery retailers (Punakivi, 2003)

Furthermore, Rema 1000 presented to the market crowd shipping delivery solution that empowers consumers to cover the last mile for other customers (Hübner et al., 2016). In this way, the e-grocer is able to deliver groceries the same day by creating value for the customer as well as for the peer provider without any significant investments. Recognized by both, reviewed literature sources and the subject matter experts, crowdsourced shipping has significant innovative potential, and thus it should not be underestimated (Estellés-Arolas & González-Ladrón-de-Guevara, 2012) [N. Ralund, 2019].

Given the instance of Sweden, where all three biggest clicks-and-mortars have already moved to the centralized extended strategy type, click-and-mortars in Denmark are still behind. For instance, Salling Group with BilkaToGo offers consumers only click-and-collect possibilities and no home delivery, although, for Scandinavians, it was assumed as the preferred delivery method [N. Ralund; E. Melsom; J. Moren; M. Mørk]. Moreover, as Boyer and Hult (2005) explain, delivering online order directly to the customer instead of consumers coming to the store to pick provides a greater reach of services. Therefore, it can be assumed that with the dynamic growth of the market that it is seen in Denmark, clicks-and-bricks will have to rearrange their current online grocery business models to remain successful and overcome difficulties (Hackney et al., 2006). The shift will have to happen in terms of both order fulfilment and last-mile delivery and technological advancement as well as automation will have a significant effect on that since it will help to cut the cost and improve operational efficiency [M. Mørk]. Moreover, as advised by Hübner et al. (2016), brick-and-click retailers with less dense store network can increase their market penetration with click-and-drive stations. The latter could help Salling Group to increase its geographical coverage with BilkaToGo.

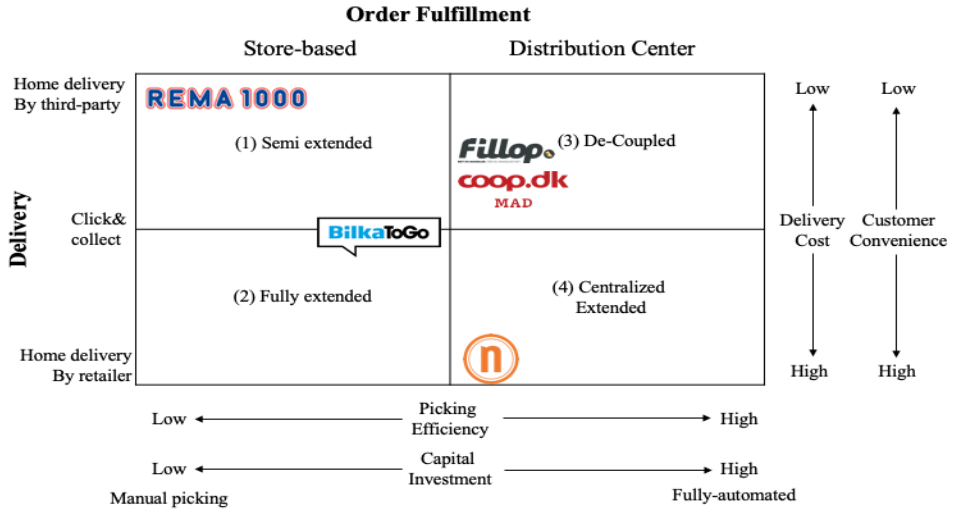


*Figure 5.* Operational models and positioning of online grocery retailers in Denmark. Source: Author's creation, adapted from Boyer and Hult, 2005.

### 6.2.3 Norway

In Norway, the store-based order fulfilment model is still the dominant strategy for the only click-and-mortar grocery retailer Norgesgruppen. As mentioned earlier in the findings as well as found in the literature, most of the bricks-and-mortars in all three countries have chosen this model as an entry strategy (Fernie & McKinnon, 2009). Although in-store picking is usually less efficient compared to a warehouse with aisles and shelves strategically arranged for the fastest picking and packing time (Hays et al., 2005), store-based operating model obtains break-even earlier and experiences lower losses before break-even. Therefore, based on the interviewees' answers, it can be concluded that store-based method, requiring lower investments, makes sense in more immature markets that struggle attracting new consumers and have lower sales volumes. The same is seen in the Norwegian market [O. Teigen, 2019].

Moreover, Fernie & McKinnon (2009) argues that since the store-based model does not require significant investments, retailers can expand geographically much faster. However, it might work in other markets but not Norway. As it was earlier mentioned in the findings, currently there is no feasibility for a retailer to expand to other geographical areas than the capital region and few bigger cities in Norway [O. Teigen, 2019].

When it comes to delivery, both the pure player Kolonial.no and click-and-mortar Norgesgruppen with its all three banners offer online ordering with home delivery and pick-up possibilities. Norgesgruppen delivers via the third party, whereas Kolonial.no has its fleet. However, as mentioned earlier in the findings, Kolonial.no pick-up solution has some limitations. In addition, Norgesgruppen does not have automated pick-up points fully in place,

therefore stronger innovation is necessary to meet both consumers' needs and e-grocers' restraints. The competitive landscape in Norway based on the operational strategies is reflected in the figure below (see Figure 6).

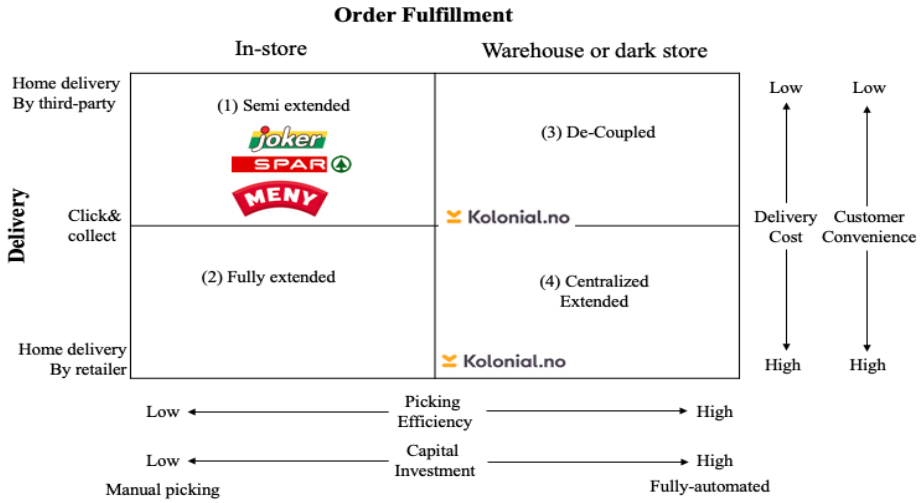


*Figure 6.* Operational models and positioning of online grocery retailers in Norway. Source: Author's creation, adapted from Boyer and Hult, 2005.

To conclude, clicks-and-bricks grocery retailers in Scandinavia use a more contemporary approach, which is called "the future is present today" (Hackney et al., 2006). It means that for the retailers to remain successful and overcome difficulties, it is vital to rearrange their online grocery business models based on the current situation in the market. As a result, constant reshaping of key operational strategies become apparent [K. Brynell, 2019].

In all three markets, both pure-players and clicks-and-mortars, experiment with different order delivery strategies to adapt to the customers' needs. As findings from the interviews demonstrate, e-grocers are testing click-and-collect stations in various locations such as gas stations (Kolonial.no), also unattended delivery with digital keys, click-and-collect via drive-in locations or even crowd shipping delivery. Moreover, in Sweden, which currently has the highest potential for online grocery shopping out of the three countries, clicks-and-bricks started to rearrange their order fulfilment and switch from store-based to warehouse-based models. As highlighted in the literature, warehouse-based order picking method makes more sense when sales volumes are higher (Hackney et al., 2006). The reasoning is simple, although high fixed cost investments are necessary for warehouses; variable costs are lower since they are operationally more efficient.

### 6.3 Future Trends and Perspectives

Profitability may remain the main challenge for grocery retailers in Scandinavia over the next decade. Therefore, the ultimate goal for all online grocery retailers will be to develop innovative logistical and operational solutions that would make delivery operations profitable (Hübner et al., 2016). As the literature review and interviewees with the subject matter experts show, the most obvious next step is the automation of the warehouses and last-mile delivery, primarily due to high labour costs in all Scandinavian countries [M. Mørk, 2019]. As discussed earlier, clicks-and-mortars in Sweden are already starting to invest in warehouse automation. Both traditional grocery retailers, ICA and Axfood, are planning to build highly automated centralized warehouses in Sweden that would master customer-order and store-order picking. Online grocery retailers that have been already running their online channel for a while usually choose this model (Hübner et al., 2016). However, both companies entered the online grocery market quite recently, ICA in 2015 while Axfood in 2016. Besides, an automated distribution centre has several advantages that could be leveraged by the brick-and-mortar with the substantial market size. This model is usually more scalable for large volumes, more efficient and has lower labour costs. Moreover, inventory centralization leads to lower inventory costs and higher turnover (Hays et al., 2005). However, these automated warehouses are costly to build, whereas most online grocery retailers still do not attract enough customers to ensure profitability with this model (Hays et al., 2005).

The second wave of automation should happen within order delivery [M. Mørk, 2019]. Efficiency improvement of the last-mile delivery, which for now has proved to be a critical barrier to making online groceries a feasible business model, will remain of the utmost importance (Boyer & Hult, 2005; Mangiaracina et al., 2019). Advancement in technology is crucial for retailers to have delivery that is more efficient in an even shorter time [M. Mørk, 2019]. Autonomous delivery, including driverless vehicles and drones, automated fulfilment, such as click-and-collect services, are the most likely solutions to increase last-mile efficiency, and which are already largely discussed by scholars as well as interviewed subject matter experts (Mangiaracina et al., 2019). The latter should decrease the cost of last-mile delivery since as expressed by one of the interviewed subject matter experts the machines are running 24/7 and its operational costs are lower [O. Teigen, 2019]. Click-and-collect services make sense for both consumers who want to save on order delivery and retailers since it is a cheaper option to operate. Therefore, the market for click-and-collect in Scandinavia should grow even faster.

Moreover, to respond to the changing consumer behaviour in the era of digitalization, grocery retailers have to find a way to integrate all touchpoints to provide a consistent and seamless shopping experience, as it is increasingly demanded by the consumers (Verhoef et al., 2015; Hübner et al., 2016). Another critical aspect remains how to win the consumer online. According to Shi et al. (2019), consumers have associated costs that affects their decision to shop either online or offline. As seen from the findings, consumers in Scandinavian

countries still leverage physical stores for grocery shopping more than online, which implies that the benefit/cost ratio is for most of the consumers is still higher shopping offline than online. Moreover, as mentioned earlier in the literature, when a customer visits online retailer, there is a distance-related cost that accounts for the distribution cost or waiting-costs related to the delivery and other disutility costs (Shi et al., 2019). Therefore, to win those customers for an online retailer, one of the ways would be to decrease the waiting time or decrease the distribution cost. The former in the future will be possible with autonomous last-mile delivery. In contrast, less investment requiring option, and thus more suitable for a smaller market such as Scandinavia, would be urban fulfilment centres. It could be some click-and-collect lockers placed in urban areas where people are living [O. Teigen, 2019].

Finally yet importantly, another future perspective for online grocery in Scandinavia is what will happen with physical stores. Interviewed subject matter experts believe that people will still prefer physical stores but also require seamless and frictionless experience, which leads to the omni-channel approach. As provided in the literature, nowadays, the importance of in-store innovations is still rising fast, and retailers are liable for investing in information technology to improve their sales channels (Simone and Sabbadin, 2017). The same situation is seen in Scandinavia, where retailers invest in in-store automation, self-checkouts, fully automated stores [O. Teigen, 2019; J. Moren, 2019]. Therefore, it can be assumed that the format of stores will change. There might be more cashier-less convenience stores, which will be more convenient in remote areas where retailers could not afford to have an open store. However, physical locations will still be the central part of a business.

## 6.4. Research Implications

### 6.4.1 Theoretical Implications

The purpose of the master's thesis was to satisfy some of the academic and practical needs within the field of grocery e-commerce from a Scandinavian market perspective. The primary focus of the literature review was to examine how online grocery evolved from a broader perspective to see if online grocery in Scandinavia is developing and growing based on similar patterns. Accordingly, in the previous chapter, the researcher compared and contrasted findings to existing literature to answer the research questions.

As a result of conducting a study, the researcher addressed some of the previously indicated gaps in the literature. Since the majority of the research on business models for online grocery focus on the players in the leading markets such as the UK or the US, the author decided to investigate the online grocery landscape in Scandinavia. Consequently, the author was able to describe the grocery landscape in Scandinavia and assess its future perspective as well as examine the current business models and operational methods. All this led to the striking

observation that even though countries have some similarities, the level of an online grocery market development in all three countries differs. Therefore, the growth perspectives in the near future are different.

Digital transformation has already changed significantly the landscape of retail in other categories, most notably in apparel, media and home electronics. However, the author chose to analyse industry that was one of the latest to move online. Grocery retailers are challenged with substantial barriers that are not met by retailers in other product categories, from which the most significant one is a complex and expensive last-mile distribution. Nevertheless, some implications from the research can be drawn for other retail categories. First and foremost, it is the omni-channel retailing that is of utmost importance for all retailers. Bricks-and-mortar and e-commerce merging into omni-channel retailing with complete channel integration provide consumers convenience and flexibility to buy when, where and what they want (Hübner et al., 2016; Hays et al., 2005). Therefore, as recognised by the interviewed subject matter experts omni-channel retailing that is now called the new retailing paradigm (Simone & Sabaddin, 2017) is becoming more and more relevant for the consumers [M. Mørk, 2019].

Moreover, researchers argue that the omni-channel retailing leads to higher loyalty to an organisation and has a positive effect on companies' sales growth (Cao, So, & Yin, 2016; Wollenburg et al., 2018). However, as for grocery industry as well as for other industries it comes with a threat of cannibalisation which in other industries can be felt more strongly than in grocery retail as recognised by the interviewed subject matter experts [K. Brynell, 2019].

### 6.4.2 Practical Implications

A thorough examination of business models and operations strategies among major online grocery retailers can help existing online grocers to benchmark their businesses by identifying how they are positioned in terms of their operational model and use this to initiate managerial implications. Moreover, this research paper can shed light on the online grocery landscape for practitioners that want to enter the Scandinavian market. The threat of new entrants was frequently mentioned among the interviewed subject matter experts when discussing factors that can affect online grocery in Scandinavia in the future. However, given the different development levels of the online grocery market in all three countries, it can be assumed that new players would choose different entry strategies based on market conditions.

Starting from Sweden, since all bricks-and-clicks are already combining the different delivery and pick-up options across channels, brick-and-mortar that enters the Swedish online grocery market would have to do the same. As one of the interviewees pointed out: *"you need to copy the winner, to be the second"* [O. Teigen, 2019]. A similar idea was earlier expressed by Porter (2001, p. 64), who claimed, "gaining a competitive advantage does not require a radically new approach to business. It requires building on the proven principles of an effective

strategy". Therefore, depending on the overall business strategy of a brick-and-mortar entering the Swedish market, it would have to choose centralized-extended strategy type to compete with the market leaders.

Furthermore, if a new entrant would be a pure-player, it would have to be also in the fourth quadrant together with the established players. Moreover, by adding click-and-collect solutions in neighbourhoods, hospitals, offices in addition to home delivery, new entrant could provide higher value to a particular segment of consumers since currently leading pure player MatHem.se offers only home delivery. Furthermore, the established bricks-and-mortars, in general, are better positioned to leverage the online business channel due to their access to multiple distribution channels that brings economies of scale (Matz et al., 2004; Rabinovich & Bailey, 2004). Therefore, pure online players without a well-developed infrastructure that would decide to enter the only grocery market would need to focus on providing unique products and services in order not to pale into significance.

Moreover, since the online grocery market in Denmark is yet less developed than in Sweden, competition is less intensive, although increasing. Therefore, if a brick-and-mortar decides to enter the market, it would most likely still enter with a solution requiring less capital investment until the market becomes more mature, for instance, click-and-collect and in-store picking. However, if a new entrant would decide to compete in terms of strategic positioning rather than operational effectiveness, the centralized-extended strategy could bring competitive superiority for such a player. Furthermore, in case a new entrant is pure player warehouse-based picking and home delivery is the obvious choice. However, for a pure-play online grocer, that would need to attract new customers, marketing and advertising costs can be prohibitively expensive. Therefore, a partnership with an already established brick-and-mortar could be another entry to market possibility. Financial backing and brand name recognition from a brick-and-mortar would enable a pure-player to reduce expenses as well as provide the ability to try different channels to reach more consumers (Hays et al., 2005).

Lastly, when talking about Norway, the country has the least mature online grocery market in Scandinavia. Moreover, only one brick-and-mortar is directly present with the platform for online grocery shopping. However, based on one of the interviewed respondents, brick-and-mortar most likely would have to enter with a home delivery solution to compete in the same way as other players in the market because people are used to this way [O. Teigen, 2019]. Nevertheless, since the existing players are struggling to attract customers beyond bigger cities, innovation in last-mile is indispensable to reach a wider population.

Moreover, during the interviews, respondents identified high store density as one of the main barriers for online grocery shopping in Norway. The latter issue could be addressed by entering the market with a more focused solution by offering daily household goods subscription similarly to Netto fillop while perishable goods people

could still pick themselves in physical stores. This niche strategy could be leveraged by both bricks-and-mortars as well as pure players.

# 7. Limitations and Future Research

This section provides limitations of the research paper and based on the findings identify directions for future research. The author of this thesis has taken the challenge to investigate the dynamic landscape of grocery e-commerce in Scandinavia. Consequently, the latter resulted in several limitations concerning both the methodology and the scope of the study. Since such limitations might affect the conclusions of the research paper, it is of value to recognize them and build awareness of what effect they could have.

## 7.1 Limitations

In order to answer the research questions, the author has selected to apply a qualitative data collection strategy and have conducted nine semi-structured interviews. However, due to the time limits and geographical constraints, four of the interviews were conducted via the phone or online channels, which due to connectivity or other related issues were not as efficient as face-to-face interviews conducted with four other respondents. Moreover, one more interview was received by email, which limited the possibility to ask support questions. In most of the cases, the length of the phone interviews was shorter than personal interviews and resulted in lower quality of audio recordings. Therefore, the author believes that the quality of data derived from face-to-face interviews is superior to that of the comparable telephone interview.

Furthermore, for primary data collection, the author chose to interview experts from several different organizations operating within grocery retail, FMCG, and retail technology industries to ensure a holistic approach to online grocery from different perspectives. Although the selected subject matter experts had extensive knowledge of the market, they operate in or work with, having more interviews with field experts and representatives from online grocery retailers could have posed as a more reliable and validating source of information. However, since the author has noticed that at some point, no new information was discovered, it can be assumed that data saturation was reached. Consequently, the author can be reasonably assured that further data collection would result in similar findings and suffice to confirm emerging themes and conclusions. Additionally, the author collected a substantial amount of secondary data to establish sufficient background information and verify the answers of the interviewees, which afterwards facilitated the researcher to answer the research questions.

Moreover, the selected research scope included all three countries in Scandinavia. Therefore, due to the restricted time frame, the study presents a relatively broad market overview but less in-depth analysis of each of the country. In addition, the author chose to reflect only on the most prominent players in the industry, although there are a few smaller players in Sweden as well as in Denmark. However, since interviewed subject

matter experts have not identified any other smaller online grocers, their significance for the conclusions was denied.

Lastly, due to the limited scope and time frame, the selected research topic was only investigated from the business perspective, meaning that this research does not take into consideration the individual consumer perspective — consequently, the possible effects of online grocery adoption on consumers being the end-users of the discussed phenomenon. As recognized by the author, the consumer perspective might have added more value for the research implications and future research, however, the choice of a limited scope helped to narrow the focus and investigate the selected topic in more depth.

## 7.2 Directions for Future Research

The master's thesis provides the reader with an extensive overview of the online grocery market in Scandinavia from the industry players and the subject matter experts' perspective. One could consider it as a pilot study for further research relating to the grocery e-commerce market in Scandinavia or each country separately. Moreover, it is of great interest to evaluate online grocery potential in each of the countries from a consumer perspective by conducting quantitative research. The latter could add significant value to the academic and practical knowledge by giving a holistic approach to the phenomenon. Furthermore, since some of the development patterns are recognized from the more mature markets, it would be relevant to compare Scandinavia with countries such as the UK or France, to investigate if similar development and growth opportunities can be foreseen.

# 8. Conclusion

The purpose of the master's thesis was to answer the research questions of how can online grocery landscape in Scandinavia be described, what are the existing business models and operational methods of online grocery retailers in Scandinavia, and what are the future trends and perspectives for online grocery in Scandinavia. The investigation of this topic emerged from the author's interest, working in an FMCG company that is directly impacted by the digital transformation of the retail industry. Moreover, recent changes in the competitive set-up and increasing number of players in all three countries prompted to investigate the online grocery landscape in Scandinavia and assess the future market potential.

All parts of the master's thesis had significant importance when answering the earlier stated research questions. The extensive literature review covered important areas within online grocery development, which usually are the most challenging for a retailer when starting operations in an online marketplace. Moreover, investigated literature helped to indicate the research gap of a shortage of studies that would focus on the local regions for Scandinavian countries. Furthermore, the conceptual framework presented later in the study helped to organize findings better and structure the whole process of answering the research questions.

The research philosophy of this study is pragmatism, while the most appropriate methodological choice identified as a qualitative research strategy, which is supported by the abductive reasoning and exploratory purpose of this thesis. The author used multiple sources of qualitative data to derive a well-designed study. Primary data was gathered through semi-structured interviews with nine subject matter experts from several types of companies all closely related to the researched field. In addition, to support research findings, secondary data was collected from companies' websites, annual reports as well as online articles and experts' proceedings. Furthermore, the author conducted a thematic analysis of the collected data with the help of the NVivo software. The latter process enabled the author of this study to identify common themes and identify emerging patterns from a data set later used for the analysis. The empirical findings were organized based on the conceptual framework that helped to build the structure for the discussion part where the research questions were answered.

The first research question was answered by evaluating the current market situation, which was based on such criteria as consumer readiness to buy groceries online, available resources and degree of competition in the market. Analysis of market conditions led to a conclusion that all markets are developed and consumers, in general, are ready to buy groceries online. However, the level of development and degree of competition differs quite significantly in all three countries. Accordingly, grocery e-commerce is developed the most in Sweden, then follows Denmark, while the market with the least development is in Norway. The main reasons

identified in the research of why Norway has the least developed market for online grocery shopping are the cultural and geographical barriers that shaped certain consumer habits. As a result, Norwegians shopping behaviour is not designed to plan shopping, since due to one of the highest densities of grocery stores per capita, they shop on average 3-4 times per week. Contrarily, Swedes seem to have purchasing behaviour that is the most accustomed to planning shopping, since on average, they visit grocery store slightly more than once per week.

Findings also led a discussion around business models and operational methods of online grocery retailers, how it changes when the market develops and which is the more feasible business model taking into consideration the current market development. The main discovery from this part of the discussion, directly related to the research question, is that competitive landscape in all three countries is different in terms of what are the current operational strategies chosen among online grocery retailers. Looking at each country individually, in Sweden, all three biggest clicks-and-bricks have already started to combine different picking and delivery options. Consequently, they are gradually switching from manual picking in-store to more efficient picking in a warehouse or a dark store. In addition to that, they all provide home delivery and click-and-collect solutions to their customers.

Meanwhile, in Denmark and Norway, clicks-and-bricks are still choosing less capital investment requiring operational methods, such as store-based picking and home delivery with a third-party logistics company or offer click-and-collect services. Furthermore, pure players in all three countries pick groceries in dedicated warehouses and deliver orders with their fleets to customers' home or pick-up locations as in Kolonial.no case. The given situation in Scandinavia implies that there is no one-size-fits-all approach and retailers in Scandinavia choose solutions that are economically the most viable at the given time.

What is more, according to the findings of the research, online grocery in Scandinavia is expected to continue growing. However, in each country, the pace will be different. The most significant growth is predicted for Sweden, where shopping patterns are the most similar to the more mature markets such as France. Online grocery in Denmark should grow moderately until clicks-and-mortars start investing heavily in their online operations, creating a more convenient experience for their customers to shop online. In contrast, grocery e-commerce is expected to grow the least in Norway.

Furthermore, one of the most notable trends in the future in online grocery will be technological advancement that will start from warehouse automation and continue to autonomous delivery. Last-mile delivery is a considerable barrier in Scandinavia for making online grocery feasible business model due to high labour costs, complicated logistics, and low population density, especially in Norway and Sweden. Therefore, less

labour-intensive solutions could bring retailers economies of scale and help to accelerate the growth of grocery e-commerce in Scandinavia. However, automated order pick-up locations will remain economically more viable for the retailer and thus will grow even more in the future. By installing pick-up points in convenient locations close to the customers, such as offices, petrol stations, hospitals, retailers will be able to satisfy consumers willing to save on delivery costs as well as ensure desired convenience and flexibility. Lastly, consumers will increasingly demand seamless and frictionless experience among all sales channels. Therefore, the omni-channel approach, which is another significant trend in the retail industry, will have to be eventually integrated into business strategies by all retailers to respond to the changing shopping behaviour and consumers' needs.

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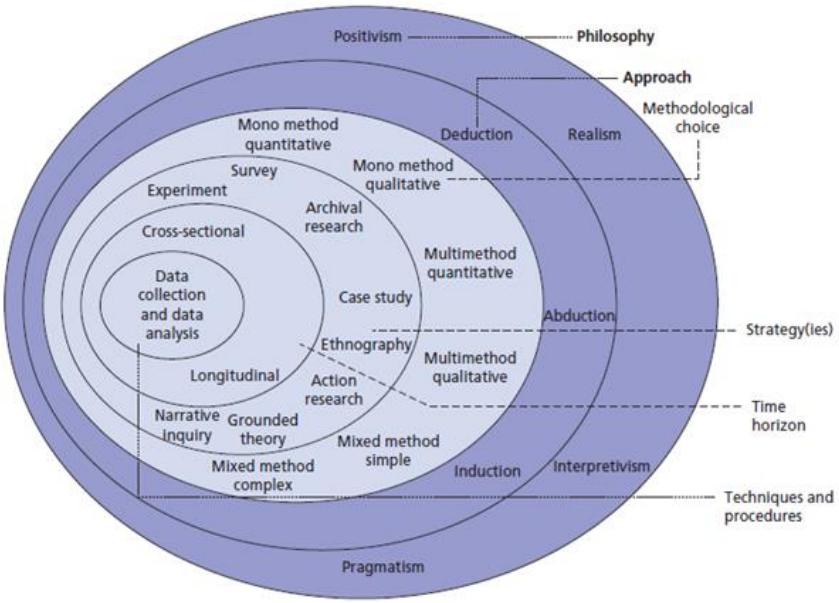
## 10. Appendices

Appendix A

The Onion Model (Saunder, Lewis & Thornhill, 2012)




Appendix B

**Interview Questions**

1. How would you characterize country's X e-commerce market? (developments over the past years, trends, opportunities, threats)
2. How would you evaluate consumer readiness to buy from online grocers in country X?
3. What are the drivers for shopping in online grocery shops and what are the potential reasons why most of the consumers are still buying groceries in physical stores?
    a. Why do you think bricks-and-mortars are being slow in entering the online grocery market?
4. What are the cultural and geographical determinants in country X and how would you characterize shopping behaviour in country X compared to neighbouring countries?
5. Which logistic methods have your represented company chosen for online orders fulfilment (product picking from warehouses, fulfilment centres, stores or combined) and last-mile distribution models (home delivery, C&C) and why?

6. What are the challenges with your mentioned back-end fulfilment and last-mile distribution models?

7. Which is currently the most preferred groceries delivery method for consumers in country X? Are consumers ready to pay for home delivery?

8. Which delivery model do you believe will have the most influence on country's X market in the future and why?

9. What are the major benefits of e-commerce within grocery retail for the retailer?

10. How will online grocery affect country's X grocery sector in the long-term perspective?

11. What are the potential threats of e-commerce within grocery retail?

12. What external factors could affect country's X grocery industry in the future and how?

13. How will technological advancement affect country's X online grocery market in the future?

14. What would you say is currently driving country's X online grocery market and what will be the drivers in the future?

15. How do you expect the country's X online grocery market to develop in the future?

## Appendix C

Transcripts and audio recordings

## Appendix D

An excerpt of NVivo coding and text segments