BI Norwegian Business School - campus Oslo

# GRA 19502

Master Thesis

Component of continuous assessment: Thesis Master of Science
Final master thesis – Counts 80% of total grade

2028 - A field guide to the future of the Norwegian grocery industry

| Navn: | Lasse Onarheim Dahl, Vetle Kinden Fjeldheim |
|---|---|

| Start: | 02.03.2018 09.00 |
|---|---|
| Finish: | 03.09.2018 12.00 |

# 2028 - A field guide to the future of the Norwegian grocery industry

*Thesis Master of Science*

GRA19502

3rd of September 2018

Vetle Fjeldheim

Lasse Onarheim Dahl

# Acknowledgments

This master thesis marks the end of two amazing years at BI Norwegian Business School, and was finalized on September 3rd, 2018.

Writing this thesis has been a challenging, but very exciting process. We both have a great interest in the grocery industry, and having the chance to cultivate this interest by choosing it as a subject for our thesis is something we both have appreciated.

We would like to say thank you to all interviewees for sharing, and last but not least, Fred Selnes, our supervisor, for providing us with guidance and valuable feedback along the way.

Thank you,

Vetle Kinden Fjeldheim
Lasse Onarheim Dahl

# Abstract

In this paper we have sought to identify key drivers that will shape the Norwegian grocery industry the next ten years, with the final result being four scenarios revealing ranges of plausible development in the future. We utilized a well-established framework for performing a scenario analysis, following the work of two prominent scholars within the field, Paul J. H. Schoemaker and Kees van der Heijden.

We performed 7 in-depth interviews with industry experts and executives from the industry. Secondary data from academic articles, industry specific reports and news articles, supplemented insights from the interviewees. After a thorough process of analysis, we identified 18 drivers, that was later clustered and cut down to four key drivers. These key drivers are what we consider to be the most prominent driving forces in shaping the future of the industry. For each key driver we did a literature review of the topic, while also discussing the empirical findings collected through the in-depth interviews. To create the scenarios, we employed a 2x2 scenario matrix with two axes: liberalization of trade policies, and innovativeness and adoption of new technology. The four scenarios that emerged were presented as logically constructed narratives that describe the future situation.

Finally, we draw some managerial conclusions. In short, there are areas in which grocery chains have full autonomy, and there are areas that they don't. Changes in political climate is something that for the most part, is out of their control. However, innovativeness and the willingness to adopt new technology is naturally an area in which the industry representatives have full autonomy. The narratives present the different players in the industry as acting uniformly to all the scenarios in this paper, and so, every scenario represents a threat or opportunity for the industry as a whole.

# Table of contents

**Appendices**

Appendix 1: Summary of key findings and managerial implications (report)

Appendix 2: Interview guide (decision makers)

Appendix 3: Interview guide (industry experts)

Appendix 4: Preliminary thesis report

# Chapter 1 - Introduction

## 1.1 Introduction

The Norwegian grocery industry is an industry with a revenue of 171 billion NOK (Nielsen, 2017a), making it the largest retail segment in Norway. The Norwegian grocery consumer is known for shopping groceries frequently, and rather sporadically, making geographical closeness to where consumers live and work critical to succeed. This explains why the store density in Norway is high compared to other countries, with 3843 stores nationwide. The bottom line is - the average Norwegian enters a grocery store several times a week, and it is something they have a close relationship with.

The grocery industry is evolving on a global basis, and technology seems to be a common denominator in the areas where we are starting witness drastic change. Lines between the physical and digital worlds are said to be gradually blurring, and drastic technological change in the general world of retail is a new reality that customers are getting accustomed with. They are also beginning to expect similar change in the grocery industry. The Norwegian grocery industry is highly concentrated with three players dominating the market. Combined with rigid and protectionistic toll barriers, the industry is by many argued to be unattractive for any new player, foreign or domestic. However, for the first time in 14 years, a new niche player has entered the Norwegian market. Iceland - a British grocery chain specializing in frozen foods opened up their first Norwegian store in 2018. With the accelerating technological change in the retail world, and an increasingly demanding consumer as a backdrop - what could the future of the Norwegian grocery industry look like?

In this study, we explore the future of the Norwegian grocery industry by performing a scenario analysis. More specifically, we will identify decision scenarios that are actionable, and that have managerial value for decision makers in the grocery industry. Scenario planning is as a way of describing a future situation and the course of events that allows one to move from the present to that future situation, or as alternative futures resulting from trends

and policies (Amer et al., 2013). It is primarily used as a strategic tool that decision makers - and organizations as a whole - might use to think strategically about the future.

We have formulated an overarching research question this thesis will seek to answer;

*What are the key drivers that will shape the Norwegian grocery industry the next ten years, and what scenarios can be derived from these drivers that are actionable, thus having managerial value for industry stakeholders today?*

This paper takes an explorative approach and aims to unveil uncertainties in the future that can be significant or of critical strategic importance to the various stakeholders in the industry.

# Chapter 2 - The Norwegian grocery industry

## 2.1 Introduction

In this chapter we will provide the reader with an overlook of some of the key characteristics of the Norwegian grocery industry. The current situation in the industry, recent developments and trends, and entry barriers will be touched upon.

## 2.2 Market structure

Today's market structure consists of three vertically integrated players, Norgesgruppen, Coop and REMA 1000. Norgesgruppen and Coop all have different store concepts, with REMA 1000 being the only one-concept chain. The grocery industry in Norway is, and has been known for, having a concentration of market power with few large players that dominate the market, creating tough entry barriers. The three largest players Norgesgruppen, COOP and REMA together account for 96 % of the market share in Norway (Virke, 2017). This is the result of some rather controversial shifts the past

couple of years. In 2015, we witnessed the consolidation of two major players in the market (COOP and ICA). Therefore, the industry is also under scrutiny, both from the consumer and from governmental bodies.

## 2.3 Barriers to entry

Barriers to entry describes market conditions that makes it difficult or less profitable to enter a market place. In any market, there are structural circumstances that limits the number of players present. Entry barriers often cause or aid the existence of monopolies, or monopolistic market conditions, and it can also heavily dictate companies' market power. Socioeconomic theory suggests that having low barriers to entry is more efficient and contributes to healthy competition (OsloEconomics, 2017). Among the arguing points behind this theory is the fact that companies typically need to work harder to attract consumers through e.g. offering lower prices and a high level of service.

In the Norwegian grocery industry, there are significant barriers to entry, and is often used as an explanation to why there is an oligopolistic market structure. The market structure, and various entry barriers have been scrutinized and investigated from time to time. In an extensive report (NOU, 2011), with the title *Mat, makt og avmakt (Food, power and powerlessness)*, commissioned by various Norwegian ministries, they conclude that the Norwegian market is substantially power concentrated, and how this can lead to tacid price fixing. Moreover, they conclude that because of the chains' increased leverage over the suppliers, and because of the general power they have in the industry, the market is at risk of becoming 'unhealthy'. With this as a backdrop, there has also been recent commissioned investigations focusing on entry barriers specifically. In a report commissioned by the Norwegian Ministry of Food- and Fisheries conducted by Oslo Economics in 2017, the entry barriers in the grocery industry are analyzed and presented. The top three barriers to entry, ranked after how significant they are, are 1) scale advantages in purchasing, 2) access to attractive real estate and 3) vertical integration.

Scale advantages in purchasing has to do with cost of purchased goods, which is by far the largest cost to any grocery retailer, which was confirmed

after Oslo Economics gained access to the financials from various chains (OsloEconomics, 2017). The margins are also relatively slim compared to other industries, meaning that any new player would have to achieve high turnover-rates, and substantial volume to cover all fixed costs. Purchasing conditions are negotiated with the suppliers, and as pointed out in the Oslo Economics report - it is fair to assume that the chains' sales potential greatly influences these negotiations. Therefore, the chains are assumed to have great leverage in these negotiations. Additionally, the volume of purchases also dictate the purchasing conditions achieved by the chains - meaning the higher the volume of purchase - the better conditions are achieved (OsloEconomics, 2017). Therefore, this entry barrier is substantial to any challenger, or potential new player in the Norwegian market. A newly established player will most certainly have a hard time reaching a critical volume where the purchasing conditions are enough to cover fixed costs. This is proposed to be among the many reasons for why it is deemed unprofitable to enter the Norwegian market.

The second substantial entry barrier is the accessibility of attractive real estate, and the main reason why this is an entry barrier has to do with the existing store density in Norway, which is very high compared to other countries (OsloEconomics, 2017). According to (Nielsen, 2018), there are 3843 grocery stores throughout the country. This is also reflected in shopping behavior. Norwegians shop sporadically and frequently, and so, having stores that are located close to the areas where the consumers live and work increases the available consumer base substantially. In the report from Oslo Economics, they point to the scarcity of attractive real estate, especially in the larger cities. Moreover, it is argued that the existing grocery giants have a huge advantage through their close relationships with property owners and developers. The report also claims that 'overinvesting' in real estate could be used as a strategic move to make it less attractive for any new potential competitors (OsloEconomics, 2017).

The third entry barrier, vertical integration, has to do with the fact that all three grocery chains in Norway have their own, fully integrated wholesale operations, and that there are no independent wholesalers in the market (OsloEconomics, 2017). Because of this, any new grocery undertaking in Norway is dependent on establishing their own wholesale operations, or, buy

their products from one of the competing chains' wholesalers. However, a new entrant could potentially take advantage of the competition on volume between the existing chains (OsloEconomics, 2017). There are examples of this in the Norwegian market. Bunnpris have on many occasions switched between buying from REMA 1000 and Norgesgruppen own wholesale operations. This is why one could argue that this entry barrier is less severe than many others, at least when discussing the possibilities for less substantial establishments on store level (OsloEconomics, 2017).

## 2.4 Regulatory environment

In Norway, there is a government agency called the Norwegian Competition Authority (NCC) - responsible for managing the Competition Act of 2004, including regulations imposed through the European Economic Community (EEC) (Konkurransetilsynet, 2018). The overall purpose of the Competition Act of 2004 is to further competition and contribute to an efficient utilization of the Norwegian society's resources. The agency is also harmonized with competition rules imposed by the EEC - prohibiting cartels and abuse of dominance. In cases where concentrations take place (mergers or acquisitions) with a combined annual turnover in Norway exceeding NOK 1 billion - this action needs to be reported to the NCC as a standardized notification. The reason behind this rule - is that the NCC needs to be aware of the concentration - and provide information as to whether the concentration can raise competition concern (Konkurransetilsynet, 2018).

## 2.5 Recent developments and trends

Norway has witnessed the first emergence of online grocery shopping with home delivery. Online grocery shopping accounts for less than 0,1 % of the total market (Nielsen, 2017a). However, it is the fastest growing segment. In 2016, online grocery shopping had a revenue of 2,1 billion NOK, which is an increase of 40 % compared to 2015, according to a report on the Norwegian grocery industry published by Virke (2017). This growth is also reflected in consumer preferences. The share of Norwegian consumers that have adopted online grocery shopping has increased from 4 to 7 % from 2015-2016, and 38

% of those consumers have expressed their willingness to shop even more online. Nielsen estimates that online grocery shopping will reach 7,5 billion NOK by 2019, potentially making them a category that will have more influence in the marketplace (Virke, 2017).

There are several predictions concerning industrial change in the Norwegian grocery industry. One major area where we are starting to see drastic changes is digitalization on all relevant customer touchpoints. This development has gained traction due to the availability of new technological solutions, opening up for personalized pricing and digital relationships with the consumer, and according to Virke (2017), a natural consequence is drastic changes in consumer expectations. In relation to this, Virke (2017) dedicates some time discussing the "digital consumer", and how the consumer increasingly expects to shop what they want, where they want, and whenever they want. This growing demand does not only affect the final touch points (meeting the customer, and time of purchase), but also the physical and digital channels leading up to this. The distinction between online and offline is also gradually being wiped out, and the "on-demand" mindset is gaining traction (Virke, 2017).

In the report by Virke they identified three major drivers of what they call the future of Norwegian grocery shopping. The first one is "hyperconvenience", meaning that we will witness further simplification of the buying process, an increase in home delivery, pick up stations, digital payment solutions, subscriptions and on-the-go solutions. The second major driver is "experience", meaning that we will witness an increase in digital customer engagement and interaction, individualized offerings and personal service. The third driver is localization through having multifunctional stores, and eat-in services (Virke, 2017).

# Chapter 3 - Research methodology

## 3.1 Introduction

In this chapter we will elaborate on what scenario analysis is and how it has evolved as a strategic tool. Further, we will touch upon the different schools of thought when it comes to scenario analysis and explain our choice of method. Moreover, we will go through the whole process of our research, before we look at the method for collection and analysis of our data. The aim of this section is therefore to give the reader an overview and explain the step by step process that led up to the creation of the final scenarios.

## 3.2. Scenario analysis

A literature review of scenario analysis and scenario planning reveals that there is a wide range of different definitions, principles and approaches used (Bradfield et al., 2005), sometimes referred to as a methodological chaos (Martelli, 2001). For the sake of this paper, we have chosen to define a scenario as "a description of a future situation and the course of events leading to it.", in accordance with several other papers (Bradfield et. al., 2005).

### 3.2.1 History of scenario analysis

Although the idea of trying to foresee and predict a situation of the future is old, tracing back to the earliest record of human history, the use of scenarios as a strategic planning tool is something that has first appeared in recent years. Historically, strategic planning tools were mostly used by military in the form of war games, and it was not before after the second world war that modern scenario techniques were developed, and subsequently used in the world of business (Bradfield et al., 2005).

In 1967, Royal Dutch Shell conducted the study "Year 2000" set to predict how the business environment would be at year 2000. As a result of this study, Shell later started a project labelled the "Horizon Planning" exercise, where several Shell companies were assigned the task of planning for the future, by looking ahead to the year 1985. Although not an initial success,

it became clear that scenario planning was a useful tool. After senior management in 1972 was presented with scenarios that correctly predicted the scarcity of oil and an increase in oil prices, scenario planning was adopted as a tool used throughout the whole company. Other companies later saw the positive effects and adopted scenario planning, but the widely used scenario planning technique "the intuitive logics", which we will elaborate on in section 3.2.2., is by many researchers still referred to as the "Shell approach" (Bradfield et al., 2005).

## 3.2.2 Different approaches to scenario analysis

As scenario planning became a more common practice in a business context, three prominent schools of techniques emerged (Amer et al., 2013). These were the already mentioned 'intuitive logics school', as well as the 'probabilistic modified trends school' and 'the French school - La prospective' (Bradfield et al., 2005).

Of the three different schools, the intuitive logics school is the one that has received the most attention in the scenario planning literature, and the one that is most often used (Amer et al., 2013). In contrast to the two other approaches, the intuitive logics school uses a qualitative method, and has a wider scope of what can be included in the study. This means that it has a wide range of purposes, while the two other schools of techniques are usually a one time activity used to develop and evaluate a new policy, or strategy within a company. Intuitive logics approach does not use any mathematical models or simulations, but is rather driven by data gathered from written sources, experts and existing knowledge, therefore allowing the analysis to be formed as it progresses, making it the most flexible school of technique (Bradfield et al., 2005).

The goal of intuitive logistics is to present scenarios as separate narratives displaying a logical chain of events leading up to the future situations (Amer et al., 2013), and to look at the future broadly in terms of fundamental trends and uncertainties (Schoemaker, 1995).

### 3.2.3 Our step by step process for developing scenarios

From the distinctions of different approaches to scenario analysis, we chose a qualitative research method in line with the school of intuitive logics. There are several reasons to why we chose this approach, as opposed to a quantitative method based on mathematical models. As reflected in the research question, our approach to the future development of the Norwegian grocery industry is of a rather explorative and holistic manner. The nature of a scenario analysis following the intuitive logics school, enables and encourages jumping back and forth between the steps, when suitable. We will look at a wide range of different drivers and phenomenons potentially having an effect on the future of the industry, allowing findings to influence the proceeding course of the study, as in accordance with what is considered best practice of the school of intuitive logics (Bradfield et al., 2005). Therefore, we will mainly follow two of the most prominent frameworks in the field, of Paul J. H. Schoemaker (1995) and Kees Van der Heijden (2005).

We found it sensible to present the framework of our approach as four steps. The first step of the ten-step framework of Schoemaker (1995), is defining a time frame and the scope of the analysis. For this, Schoemaker (1995) suggests looking at the changes that have occured in the past, as these changes will serve as a baseline for what to expect in the future. This has to be viewed in the specific context and compared to the present day situation, as the rate of change and innovation is not constant nor equal in all industries. As seen in chapter two, the Norwegian grocery industry has in recent times seen several changes due to new technology, new players, new ways of interacting with the customer, as well as changes in consumers' preferences. As mentioned, it is likely that we will witness an acceleration in change and development in the upcoming years. Earlier research that have utilized an intuitive logics approach to scenario analysis have commonly had a timeframe varying from 3 to 20 years (Bradfield et at., 2005). Based on the above, we have chosen a timeframe of 10 years for our scenario analysis. We believe this period of time is large enough to deal with drivers that will shape the industry, as well as being focused enough to enable our research to produce some qualified assumptions about the future. As for the scope, our study focuses on

the Norwegian market of the grocery industry, as reflected in the research question.

The second stage is where we initiate our explorative collection of data. Schoemaker (1995) suggest starting by dividing knowledge into two areas, (1) things we believe we know something about, and (2) elements we consider uncertain or unknowable. This works as a starting point before the process of collecting secondary data through scientific articles, industrial reports and news articles. This stage gives an overview of evolving trends in both the Norwegian grocery industry and comparable industries, as well as providing us with a provisional list of potential drivers, as we will elaborate on in section 4.2. After the initial stage of data collection we will conduct in-depth interviews with individuals that can be considered as experts within the relevant fields of our research, and relevant stakeholders within the companies. The interviews will be semi-structured, designed to extract as much information as possible about the subjects beliefs and knowledge about the recent history of the industry or field of study, the current state of the industry, the drivers potentially having an impact on the industry, and the future situation of the whole or certain areas of the industry.

The third step is the analysis of the primary data. The process will be explained in detail in section 3.4, but in short, it consists of coding the transcribed interviews, identifying key drivers and other significant themes and information. The key drivers will then be further explained, analyzed and elaborated on in chapter 4, working as a base for the last step of the framework, the construction of the scenarios.

The fourth and final step is the creation of the scenarios, as well as presenting the managerial implications of the findings. Schoemaker (1995) states that the number of scenarios should be more than two, while according to Van der Heijden (2011) the number of scenarios in the set should be between 2 and 4, as the scenarios must reflect some uncertainty, but also be organizationally practical. In general, there are three different approaches for drafting scenarios, depending on the number of driving forces. Our approach will be 'the standard approach', applicable when the number of drivers is between 3 and 8, and where the Wilson Matrix is a commonly used tool (Amer et al., 2013). From there, we will utilize what is called a four quadrants matrix,

where the two most prominent drivers are used as axes, creating a 2x2 grid casting the foundation for the final four scenarios. Although the extremes of the two drivers forms the basis of the four scenarios, the effects of all other drivers are touched upon in each scenario. After the creation of the four scenarios, they have to be tested for plausibility and internal consistency. Plausibility and internal consistency in the context of scenario planning essentially means that the events within the scenarios must be related through unflawed cause/effect lines (Van der Heijden, 2011), the key drivers must be compatible with the chosen time frame, and the combination of outcomes and uncertainties must realistically go together (Schoemaker, 1995).

## 3.3 Data collection

Secondary data from academia, industrial reports and news articles, were used throughout the study, and proved to be of great importance to several sections of the paper. In order to fully utilize the framework and have a novel contribution to the field, we were dependent on insights from various individuals, ranging from decision makers within the industry to academics. These individuals are what Schoemaker (1995) describes as 'exceptional individuals', meaning individuals that can be considered as experts within the relevant fields of interest. Moreover, as Schoemaker (1995) points out, a scenario analysis is usually thought of as a tool managers can use for strategic planning. Being independent researchers, we will approach the analysis from an external perspective. This further necessitates the involvement of third parties in our data collection.

The primary data in this report will be based on in-depth interviews. Through the interviews we expected to identify nuances and different perspectives on key issues where secondary data would be insufficient. Therefore, by combining the two data types, a clearer picture of the key drivers that shape the industry should emerge.

### 3.3.1 In-depth interviews

Van der Heijden (2005) points to how scenario planning usually unfolds under time constraints, and that the number of iterations through the

elicitation cycle will be strictly limited. This is why obtaining the optimal starting point is crucial. The most important means to achieving this is series of individual interviews (Van der Heijden, 2011). Van der Heijden (2011) outlines a couple of rules he believes should be followed by the interviewer. One of them, is to structure the interview as open-ended as possible, refraining from having too many specific questions. Instead, the questions should be general, and with an intention of triggering free-flowing conversation where the interviewee can set the agenda.

Due to the complicated nature of employing a qualitative research design, careful planning of the data collection is crucial to provide as thick and rich data as possible. In a widely cited article written by Daniel W. Turner of Nova Southeastern University in Florida, a practical guide in how to develop and conduct in-depth interviews is presented. (Turner, 2010) explores the effective ways of conducting in-depth qualitative interviews by employing a step-by-step process for implementation.

Interviews are considered to provide in-depth information related to participants' experiences and viewpoints on a particular topic (Turner, 2010). Turner (2010) explores three formats for interview design: 1) informal conversational interview, 2) general interview guide approach, and 3) standardized open-ended interview. These vary in terms of structure and standardization. Given the explorative nature of this paper, and Van der Heijden's (2011) recommendation of pursuing an open-ended structure, we refrained from developing interview protocols that were too rigid and structured. Therefore, employing a 'general interview guide approach' were more suitable for the purpose of our data collection. One of the obvious challenges when employing a general interview guide approach is that the wording of the questions is dependent on the researcher conducting the interview. This raises the question of consistency between interviews due to the different posing of questions (Turner, 2010). However, this approach has its strengths. It is more structured than the informal conversational interview, ensuring that the same general areas of information is collected from each interviewee (Turner 2010), but there is still some flexibility in its composition. This ensured that we could explore a more personal approach to the interviews

and do "spur of the moment" follow up questions that could potentially unveil critical information.

## 3.3.2 Selection of interview subjects

As previously mentioned, in order to stay true to the broad scope of our research question, we wanted to interview both individuals with an expertise in different fields related to the grocery industry, as well as individuals that work and have worked in the industry. We chose to first interview Odd Gisholt, Dr.Econ in marketing, who is considered a prominent expert within the topic of the Norwegian grocery industry. This gave us an overview of relevant topics and key drivers that should be further explored, and it gave us direction in seeking potential interview subjects. Based on information collected through both secondary data and interviews, we continued to locate and pursue individuals that we believed would be of value for our paper. Before every interview, we asked about the level of anonymity the subjects wanted for this paper. Moreover, all subjects had the option to look through the parts of the paper where the information they had provided had been used, and approve, make changes or disapprove of the use. Table 1 presents the interview subjects in a chronological order as to when the interview was conducted.

Table 1

*List of interview subjects*

| # | Name or pseudonym | Experience / field of expertise |
|---|---|---|
| 1 | Odd Gisholt | Professor International Marketing Institute of Marketing BI |
| 2 | "Informant X" | Executive experience from business developmen and retail technology in the Norwegian grocery industry. |
| 3 | Tor W. Andreassen | Professor in Service Innovation and leader of Center for Service Innovation at NHH - Norwegian School of Economics. |
| 4 | Ivar Gaasland | Associate Professor at BI Bergen, with an expertise in Agricultural economics, Trade economics. |

| 5 | Lars Kristian Lindberg | Former CEO, REMA 1000 Norge. |
| 6 | Tom Kristiansen | Former CEO, REMA 1000 Norway, Current CEO, REMA Etablering Norway. |
| 7 | Bjørn Næss | CEO Oslo Handelsstands Forening, former CEO Coop, Statoil Convenience and AC Nielsen. |

### 3.3.3 The Seven Questions

One of the most critical parts of preparations before in-depth interviews is constructing effective research questions (Turner, 2010). (Amara & Lipinski, 1983) have developed something they have called the "seven questions" at the Institute of the Future in Palo Alto, California. Van der Heijden (2011) follows their work and presents the core elements of these in his book. We chose to follow the steps proposed by Van der Heijden when creating our interview guide, with a few minor alterations. We created two different versions of the interview guide, framing some of the questions slightly differently depending on whether the subject is working within the industry or is an external expert. The questions we used are elaborated on below, although not in a chronological order, and excluding a few initial questions about the degree of anonymity the subjects requested and the subject's background and field of expertise, as well as some follow-up questions. The complete interview guide is included in the appendix.

According to Van der Heijden (2011) the first three questions should form a set, where the purpose is to elicit a list of main concerns and uncertainties about the business and/or the environment in which it operates. Instead of directly asking the interview subjects about uncertainties and concerns, Van der Heijden (2011) points out that setting some constraints in asking the questions could unveil uncertainties and concerns with even more substance. To achieve this, we had the subject pretend to ask a clairvoyant looking 10 years into the future what would have been most valuable to know the answers to today. This is a technique Schoemaker (1995) also suggest, but the method we used forwarded by Van der Heijden (2005) adds an extra step

14

where the role of the interviewee is flipped, so that he or she has to think as the clairvoyant, answering his or her own questions.

Asking about past events is a way of acknowledging that mental models are representations of patterns we have seen before. These questions can, if utilized successfully, lead into territory that has not yet been explored (Van der Heijden, 2005). Following Van der Heijden (2005) we formulated a set of questions where we asked what pivotal events they could identify in the past, that could say something significant about the industry in the future.

The last type of question has the goal of spotting important decisions the players within the industry are facing looking ahead. It is aimed at unveiling issues or concerns that are currently existing in the interviewee's mind (Van der Heijden, 2005), and to unveil restrictions or limitations to what the organizations want to achieve in the future.

## 3.4 Data analysis

The first step of the data analysis was to transcribe all the interviews from the voice recordings. The interviews were transcribed word by word, and not translated from the original language. This was done in order to stay as true to the subjects statement and opinion as possible, and not overlook important information that may not be visible for the researchers at first, as suggested by Schmidt (2004).

After the transcription of the interviews, the next step was to collate and code the data in order to identify recurring themes and potential drivers. A 'driver' in this context is defined as any phenomenon or force, shaping the development of the industry. All the transcriptions were put in a web-based text editor, with the opportunity to comment and take notes. The transcriptions were then read thoroughly multiple times, and notes were put in the margin of the text where drivers were identified. Since this process involves some subjective interpretations, both researchers coded all interview transcriptions individually, and the results were then compared and discussed. From this we identified drivers that the subjects thought would be of importance for the development of the industry the next ten years, and added these to the drivers

already identified from secondary data. This process will be shown in detail in chapter 4 and 5.

# Chapter 4 - Key Drivers

## 4.1 Introduction

In this section we will list all the drivers derived from the secondary and primary data. Then we will use a Wilson Matrix to remove drivers that are less significant, cluster the remaining drivers, and ultimately identify what we consider to be the key drivers. For each key driver we will first do a literature review of the topic, before sharing the empirical findings collected through the in-depth interviews. We will present some key quotes where applicable, highlighting the findings, before each section ends with a discussion of the findings and its implications.

## 4.2 Identifying key drivers

### 4.2.1 Initial set of drivers

From the secondary data, primarily consisting of a literature review of academic articles and industry specific reports, but also including news articles, we came up with a tentative list of drivers. Following the process explained in our methodology, we added the drivers identified through the in-depth interviews, and ended up with a list of 18 potential drivers. In table 2 below, all the drivers are listed alphabetically.

Table 2

*Drivers in the industry*

| # | Drivers |
|---|---|
| 1 | Economic growth |
| 2 | Consumer demand of organic food |
| 3 | Consumers' focus on ethically sourced products |
| 4 | Consumers' increased demand of convenience |
| 5 | Deregulation of toll barriers |
| 6 | Development and adoption of AI/Big Data driven loyalty programs |

| 7 | Development and adoption of autonomous home delivery technology |
|----|-----------------------------------------------------------------|
| 8 | Development and adoption of check-out technology |
| 9 | Development and adoption of logistics robotics |
| 10 | Increased competition legislation |
| 11 | Increased consumer scrutiny in food quality |
| 12 | Increased interindustrial competition |
| 13 | Increased share of private labels |
| 14 | Increased time constraints |
| 15 | Investment in retail real estate |
| 16 | The need for socialization - shopping as leisure (social aspect) |
| 17 | Urbanization |
| 18 | Vertical integration |

4.2.2 Wilson Matrix and key drivers

To facilitate further analysis, we used a Wilson Matrix, allowing us to evaluate the drivers on the basis of their significance and uncertainty (Schwartz, 1991). The Wilson matrix consists of two axes; (1) the implications they potentially could have on the industry, and (2) the likelihood they would occur or play a role in the changes in the industry. The positioning of drivers on the grid were based on findings in the interviews and secondary data. As with the initial identification of the drivers, both researchers performed this step individually, and the results were then compared and discussed, before settling on a final outcome. This helped us in ranking the drivers, removing drivers that were not of great importance, clustering, and ultimately identifying five key drivers.

| Probability | High | 11 | 1, 17, 13, 18 | 8, 4, 6 |
|---|---|---|---|---|
| | Medium | 12, 16 | 9, 2, 14, 15, 3 | |
| | Low | | | 5, 7, 10 |
| | | **Low** | **Medium** | **High** |
| | | **Potential impact** | | |

From the Wilson matrix, the four drivers in table 3 were identified.

Table 3

*Key drivers*

| # | Key drivers |
|---|---|
| 1 | The consumer demand for convenience |
| 2 | External pressure on liberalisation of agricultural trade |
| 3 | Competition legislation |
| 4 | Technological innovations - automation and utilization of big data |

# 4.3 The consumer demand for convenience

An overarching trend or phenomena, relevant in marketing, and retail as a whole, is convenience. In a comprehensive literature review on convenience and its early birth as a phenomena, written by Brown & McEnally back in 1992, they point to how demographic changes, increased time pressure, role overload, changes in consumption values, and an increased variety of life styles accelerate the demand for convenience (Brown & McEnally, 1992). Their research led to a proposed definition of convenience;

"Convenience is a reduction in the amount of consumer time and/or energy

required to acquire, use, and dispose or a product or service relative to the time and energy required by other offerings in the product/service class".

This describes convenience in the most general sense, and what it serves as a service or a product, namely, reducing time and energy input for the consuming customer. In what follows we will present a more retail-oriented and fresher perspective on convenience.

## 4.3.1 Literature review

In order to better understand what characterizes consumer convenience, several scholars have divided the phenomenon into smaller dimensions, depending on what the value creation for the consumer is, and where he or she is in the purchase process. Seiders et al. (2000) argued that there were four distinct types of consumer convenience in a retail context; access, search, transaction and possession.

Several scholars have, in accordance with Serider et al.'s (2000) initial division, identified access as a dimension for convenience in retail, both for in-store shoppers (Bednarz & Ponder, 2010), and online shoppers (Jiang et al., 2013). For in-store shoppers, the experienced convenience is influenced by aspects as the store's physical location, opening hours and accessibility (Bednarz & Ponder, 2010). For online-shoppers, the visibility and the easiness of finding the website is a factor on perceived convenience, as well as the possibility of ordering from remote locations (Bednarz & Ponder, 2010)

The second dimension, search convenience, is defined as whether the consumer can easily and correctly identify and select the products they want to purchase, a process often easyfied through technology and innovations such as online shopping (Seiders et al., 2000). Thirdly, transaction convenience refers to the speed and ease the consumer experience the transactional phase. The fourth dimension, possession convenience or post-purchase convenience, is the process and efficiency of actually receiving the product. This last step is critical, as this is usually the objective of the consumer's whole purchasing process (Seiders et al., 2000).

In a survey done by Ernst & Young in 2015, consumer need for convenience in the context of grocery shopping, is generally defined as having a store nearby. However, there is a gradual increase in the demand for self-checkout counters, online grocery shopping (both home- delivery and click and collect) and ready meals (EY, 2015). As a result of this development in consumer demand for convenience, key players in the grocery industry are increasingly focusing on facilitating and simplifying consumers' daily lives. Examples of efforts in this area are campaigns aimed at simplifying home cooking, which have been a huge success in Norway, and in other western grocery markets. One example is REMA 1000's "Dinner for under 100 kr", (Middag til under hundrelappen) where the customer is offered recipes, shopping lists, and optimized low price grocery items that go with them (REMA1000, 2018).

A question worth raising is whether the innovations offered in the market, as a way to meet the consumers' increased demand of convenience, actually make shopping more convenient in the consumers' eyes. In a (Nielsen, 2017c) report on the future of online grocery shopping - where they asked over 30 000 individuals in 63 different countries about online grocery shopping - they stress the fact that images simply can't replace the physical look, feel and smell of these products. And they did indeed find that the biggest obstacles to online shopping for consumable categories are the inability to inspect goods and uncertainty about product quality and freshness. They found that more than six in 10 online respondents agreed that they were concerned about the freshness or quality of products purchased online, and that there is a concern about order accuracy and delivery scheduling (Nielsen, 2017c).

A related emerging trend is increased consumer engagement, caused by what could be considered a shift in the relationship between retailers and consumers. Traditionally, the consumer has been viewed as a "passive" receiver of company messages. Now, we see a development where consumers are more actively involved in this relationship (Thakur, 2016). Because of this, the relationship between consumer and retailer has gone from being rather disconnected to being more interactive. For the retailers, customer engagement has been, and will be the basis for building loyalty, by offering personalized discounts and prices and so on, through digital loyalty programs. Customer

engagement as a phenomenon is expected to grow in the future, parallel with emerging digital loyalty programs in different forms.

## 4.3.2 Key quotes and insights

There seemed to be a consensus among the interview subjects that consumer convenience and time saving services is, and will continue to be, an important trend in the grocery industry that the players need to respond to.

"Rema 1000, Coop Extra and Kiwi are very similar in what they offer. The only reason people choose one over the other, has nothing to do with quality, it has to do with convenience."
*Tor. W. Andreassen*

"Look at the segment of consumers that have just finished their education, and that are in the process of buying a house, establishing a family and a career, people with "chaos in their life". For these people the question is: 'what can the grocery industry do to reduce the time I spend on shopping?' It is not something they want to spend time on. 'What can I do to reduce this amount of time spent, so that I can use it on something that feels more productive?'
*Tor W. Andreassen*

"In 10 years, the grocery industry will be way more rational and simplified. You as a consumer will on average spend way less time doing everything associated with the actual shopping of groceries."
*Tom Kristiansen*

One interviewee argued that convenience in the future will not only be a question of location, as it has historically been, but something greater, that could be a valuable form of differentiation.

"I think that many of the players in the industry today will have to increase differentiation of their brand. In the future they cannot rely on location as much as they are doing now. They need to add value and serve consumer

preferences in a way so that the consumer will choose your store, and not only because it's just around the corner."
*Tor W. Andreassen*

A point raised by a couple of the subjects were that the social aspect of shopping might work as a counteract of the demand of convenience for some segments of customers.

"There's a social element to shopping as well. Some customers will in some cases prefer to physically walk to the store to do their grocery shopping. This could for instance be elders who uses this as an opportunity to talk to people, kids on their way home from school and so on."
*Tor W. Andreassen*

"Some people argue that they physical store will disappear. We don't believe that. We believe that there will still be industries where the social aspect remains important, and the grocery store is no exception."
*Tom Kristiansen*

## 4.3.3 Discussion

From both the literature and the interviews, it seems as convenience is, and will continue to be, a telling need for consumers in the Norwegian grocery industry. Looking at the four dimensions scholars often divide convenience into, access, search, possession and transaction, we see that the dimensions are all highly descriptive of the demands the consumers of the Norwegian grocery has as well.

Access, in this context, is the consumers' general perceived accessibility of grocery stores. As apparent from both the literature and the interviews, this has traditionally been a question of the geographical closeness of the physical store. This is the main reason for why real estate has been looked at as both an extremely important way of achieving a competitive advantage for the players, and a way of creating entry barriers. Now, with new

technology facilitating online shopping, the consumer demand has grown to be more than just having a store close by; they want to have access to the retailers no matter where they are, through a few clicks on their computer or mobile phone. This can be the result of what one interviewee called 'chaos in life', where there is a lack of time to do groceries, or an effect of what some interviewees pointed out; Norwegians want to spend their time on traveling and leisure.

As for search, new services, including online shopping, needs to be and intuitive enough that the consumer doesn't perceive it to be less convenient to locate, examine and select the products that they want. The consumer demand for search convenient is therefore more than just being able to find the correct type of product; they want to find the apple that matches their preference of color, size and texture.

The possession dimension of convenience is something that several of the interview subjects talked about as being significant for the future of the industry, often referring to the development of new home delivery services, with the aid of technology such as autonomous vehicles. This is something that will be discussed in detail in section 4.6 of this paper, but from the consumer's perspective, it seems to be clear that to have a convenient customer journey as a whole, the groceries they have purchased need to be in their possession in a low cost, time efficient, safe way.

The last dimension, transaction, is in this context how easy the payment of the purchase goods is. Few people enjoy the traditional queue at the register, and as pointed out by a few interviewees, there are several different ways the players of the industry can meet this need. The check-out process is also something that is discussed in detail in section 4.6.

## 4.4 External pressure on liberalization of agricultural trade

Although Norway is part of the European Free Trade Association, the collaboration and free movement of goods between the membering countries through the European Single Market does not include agriculture. This has made it possible for Norway to develop a high degree of protectionism through

regulations and high tariffs on the import of agricultural goods that are also produced in Norway, to ensure that the Norwegian agriculture sector remain competitive in an international trading environment (Farsund, 2013).

### 4.4.1 Literature and reports

International influence on Norwegian agricultural policy and regulations has increased in later years (Knutsen, 2017). Norway's trade with the EU is regulated through the EEA's article 19, which is set to be renegotiated every second year. As a result of the agreement in 2017, Norway is set to increase the tariff-free import quota for meat-products by 2 550 ton and cheese with 1 200 ton when both parties have approved the agreement (Knutsen, 2017), proving pressure from the EU does have an effect.

Norway is also involved in the Doha Development Round negotiations, the trade negotiation round of the World Trade Organisation (WTO). The aim of the negotiation round is to reduce agricultural protectionism and domestic agricultural subsidies, but this pressure has had little effect on Norwegian policy, but rather the framing of the policy, according to one study (Blandford et al., 2010). As a result of this, Norwegian agriculture, which in 2016 accounted for less than 1 percent of GDP and 2 percent of domestic employments is among the most heavily protected in the world (Knutsen, 2017). In addition, Norwegian farm subsidies are substantial, where total support amounted to 62 per cent of the value of production in agriculture in 2008 (Gaasland, 2009). Still, if calculations are based on energy, 50 percent of food consumption in Norway is imported (Farsund, 2013).

An extensive report on entry barriers in the Norwegian grocery industry from 2017, show that the import regulations is one of the key barriers of entry for foreign players, and that this lead to a concentration of market power (Oslo Economics, 2017).

### 4.4.2 Key quotes

Several of the interview objects mentioned the Norwegian agricultural policy, and especially the import regulations, as a very significant factor for how the Norwegian grocery industry is structured and functions today. There

seemed to be a wide agreement that a liberalisation of the import regulations and taxes would lead to a disruption in the industry, lowering the prices, forcing innovation and differentiation in both product and store concept categories, as well as substantially mitigating the barriers of entry for potential new players.

"(...) the politics we have had on import restrictions to shield the Norwegian agriculture is very significant when discussing the grocery industry"
*Odd Gisholt*

**"**The import regulations themselves are there in order to increase the prices of Norwegian produced goods, so obviously, it leads to higher prices and a poorer selection. The regulations are also an entry barrier for foreign players, as they have their own network of suppliers, which it takes time and resources to develop. If they want to enter the Norwegian market they need to start negotiating with Norwegian suppliers instead."
*Ivar Gaasland*

"If there were no toll barriers and we were members of the EU, then the grocery prices in Norway would be 30% lower in Norway."
*Tom Kristiansen*

"(...) especially the toll barriers on groceries, or produce, is a practice that makes no sense. If you remove the import restrictions of meat, cheese and milk, it would be a lot easier for foreign players to establish in Norway."
*Tor W. Andreassen*

From a couple of the interviewees that addressed the topic, it seemed to be clear that there is not enough will from either Norwegian politicians or others to a major shift in the trade policy in near future. But it did seem like there were some internal factors that in a combination with the external pressure could easify a potential liberalization.

"I think that liberalization of import tariffs is most unlikely. I don't think anything drastic will happen within the next 10 years"
*Tom Kristiansen*

"Forces that might, and currently are changing the agricultural policies, can be compared to the force of gravity. It is simply put a constant pressure from the international trade environment. And it has now started to show an effect."
*Ivar Gaasland*

"I personally do not believe in a change of the agricultural policies, but it is possible. Today, there are subsidies that the Norwegian people are paying for. Looking at how unprofitable a lot of the farms in the country is, a change might happen."
*"Informant X"*

The question then is whether there is enough external pressure on the Norwegian trade policy to force a significant liberalization. Not many interviewees touched upon this question, but professor in social economics, Ivar Gaasland, was asked directly about this topic. Even though he believed it to be unlikely to witness a major change the next ten years, he argued that external pressure does have a substantial effect.

"The EU put pressure on Norway this summer. In some of these negotiations of export quotas towards Norway, and before WTO put an end to it, there were some actual progress to be seen. From 2020, export subsidies will be against the law, and this is something that WTO has forced on Norway, against Norway's will. It is likely this pressure will continue, although the changes will probably happen at a slow rate. So, there is an external pressure towards liberalization, that might increase in power as time goes by. (...) I think there will be a pressure towards the import restrictions, and that has obviously already started. Norway grants EU a larger import quota each time."
*Ivar Gaasland*

### 4.4.3 Discussion

From the above findings we see that; 1) there is an external pressure towards liberalization of the Norwegian agricultural trade policy, 2) a liberalization is likely to create drastic change in grocery industry by mitigating the effect of entry barriers that are now substantial, and that 3) the external pressure is in itself not substantial enough for any drastic liberalization the next 10 years, although it is possible to see development in that direction.

Conclusively, any liberalization on toll barriers, especially on meat and dairy, will make the Norwegian market more attractive for new entrants. Importing goods would suddenly be a more rational business practice, and what is considered to be a substantial entry barrier, vertical integration, would not be as significant any longer.

## 4.5 Competition legislation

There are many reports and articles on the topic of competition legislation in the Norwegian grocery industry. This is likely due to the fact that the industry is largely concentrated with only three major players controlling around 96 % of the market, as of December 2017 (Virke, 2017). Therefore, the competition legislation has, and will play an important role in the grocery sector of Norway, and can have a huge influence on the future of the industry.

### 4.5.1 Literature review

In recent years, the main focus of media reporting on the Norwegian grocery industry has been the concentration of power that contributes to what is labelled as "unhealthy" competition in the market, and that has creates a rather skewed distribution of purchasing power. Norgesgruppen with a 43,1 % market share (Virke, 2017), purchases goods for a lower price than COOP and REMA because of the volume of their purchases. This has raised public concern - and is a topic that from time to time is brought up in the media, and in the political and governmental climate.

The Norwegian grocery industry is - due to its concentration of power - placed under scrutiny from the NCC. This surfaced when COOP announced that they were going to acquire ICA in November, 2014. The proposed

acquisition was carefully evaluated by the NCC, and it was eventually approved in march, 2015 - with some conditions applied. Some of the ICA-stores had to be sold to Norgesgruppen, REMA and Bunnpris to sustain some of the natural competition in local markets, and to safeguard consumer interests. This acquisition dramatically changed the market structure, and the industry went from being controlled by 4 to 3 players.

We are already starting to witness the gradual emergence of regulations and incentives to increase ethical standards in negotiations between suppliers and chains. As of May 2018, the Standing Committee on Business and Industry has given their full support to investigate the proposal of making price discrimination a forbidden business practice. If this proposal is approved, it will essentially make it forbidden for a supplier to sell merchandise at different price levels to any existing chain in the industry (Valvik, 2018). Naturally, this would have significant implications in the industry.


## 4.5.2 Key quotes

The subject of competitive regulation, and its implications for the grocery industry, is something that most of the informants touched upon during the interviews. The topic of interest was for the most part how the industry is put under scrutiny by the NCC, and from various political institutions, and that the gradual increase in scrutiny is something that the grocery chains need to cautiously maneuver through. Moreover, it is an important factor when looking into the future, because there is always a chance that the market could change drastically because of intervention from the government.

"The greatest challenge a player in the grocery industry is facing at the moment, is how to adapt to the political climate and bureaucracy in Norway. The Norwegian Consumer Council criticizes the industry all the time, and the Norwegian Competitive Authority has on occasions even showed up unannounced raiding for various documents. So, there is no doubt that in all the various headquarters, and in the departments responsible for PR and communications, they are pondering how to maneuver this volatile climate, so

that the grocery chain they represent never ends up in an unfavorable position with regards to these political institutions."
*Odd Gisholt*

"What I would like to know - and that can happen in the future - is if there will be governmental intervention related to regulation of competition to alleviate power concentration. However, I don't consider it likely that we will witness any action that will have a massive impact on the market structure. But it would be very interesting to have the answer to this."
*Lars Kristian Lindberg*

"I was sitting with the CEO of "grocery chain x" a while back when I worked there. At that time, there was no reason to expect an acquisition, and an approved acquisition at that. We never saw it coming. A half a year after I had a discussion with the CEO about this, ICA was for sale, and then they disappeared from the industry. We went from 4 to 3 players in the market, and it happened much sooner than we expected."
*"Informant X"*

Governmental scrutiny, due to high concentration of power and price discrimination was something that were brought up by several informants. They mainly pointed to how price discrimination creates substantial entry barriers for new entrants, and strong competitive challenges for smaller existing players. They also mentioned that it is not unlikely that the NCC can take active measures to mitigate this in the future.

"The ongoing debate about power concentration is highly relevant. And any political intervention can translate into a big change in the industry. There are many that believe that the likelihood of political commandments and regulations on skewed purchasing conditions for example, is higher than ever."
*Lars Kristian Lindberg*

"With the current concentration of power in the market I think it's very likely that we could witness a significant increase in scrutiny from the government in

the future, with more active investigation and inspections on agreements, and possibly regulations that could gradually even out some of the skewed competitive conditions."

*Bjørn Næss*

"Some politicians want to introduce new legislations that regulate the competitive environment. They want to limit the right of price differentiation. So it is very obvious, that the grocery industry is under extreme political pressure at the moment".

*Odd Gisholt*

### 4.5.3 Discussion

Findings suggests that there are certain structural conditions in the industry that may lead to an increase in governmental scrutiny in the future. The concentrated distribution of power on three large players in the market, have given Norgesgruppen (being the largest) an advantage when negotiating price with wholesalers and vendors. In addition to giving them an advantage in the domestic market, it also creates entry barriers to potential new grocery players and services. The NCC has, and will continue to play a role in shaping the industry in years to come, but to what magnitude? We have already started witnessing the contours of increased scrutiny through ethical incentives in negotiations, and efforts towards increasing price transparency. Moreover, there have been media attacks from smaller players like Kolonial, and they are at the forefront of pushing change in this area, to mitigate what they call 'price discrimination' - meaning that they believe it is unfair that the larger players pay way less for a single item due to the volume of purchases.

## 4.6 Technological innovations - automation and utilization of big data

This key driver is what you could consider as an umbrella term for technology that heavily improves efficiency in the logistics processes and the customer touchpoints, using new technologies as machine learning and big

data. The literature review of the chapter is split into four categories depending on the specific topic, while the key quotes and discussion of the four topics are merged together.

## 4.6.1 Literature review

### 4.6.1.1 Seamless checkout

Seamless checkout is a way of shopping, that is yet to be widely adopted, but that is predicted to revolutionize consumers' shopping experience in the future (Grewal et al., 2017). What this concept does, is that it allows the customer to shop without having to stay in line and pay at a cash register. This is a disruptive innovation, and a continued development of known concepts such as scan & go, where the consumer can scan the items while they shop, and then use the retailers' app to pay before they leave the store. Amazon has already taken this to the extreme, and opened a store called 'Amazon GO', where consumers simply scan their smartphone when they enter the store, pick up the groceries that they want, and walk out. The payment happens automatically when they leave the store. Computer vision, sensor fusion, and deep learning technologies automatically sees what items that are picked up or returned from the shelf and keeps track of this throughout the duration of the shopping trip (Grewal et al., 2017). However, the technology behind this innovation is not flawless, and there are other challenges with adopting this technology as well. The camera identification and tracking has apparently experienced some problems, and many customers could potentially see it as a surveillance step that is taken too far. Nonetheless, it can say something about what's to come.

There are digitalization efforts in this area on a larger scale, that take a more moderate approach to seamless checkout. Kroger, the largest supermarket chain in the U.S., have recently invested in a cashier-less checkout service called "Scan, Bag, Go", and they are planning to launch this technology to 400 of their stores this year. With the goal of creating a quicker and more seamless checkout experience, customers can scan and bag products as they shop, by using an installed app on their smartphone. After bagging and scanning the products, you pay on your smartphone and walk out of the store (Zaidi, 2018).

4.6.1.2 Autonomous vehicles

One form of technology that has been mentioned on many occasions throughout our interview process is autonomous vehicles, and how this could mean a critical breakthrough for home delivery and online grocery shopping. SAE has developed a standard for classifying the level of driving automation called the J3016, which has become widely adopted by the car industry. The standard consists of five levels of autonomy, where level 5 is defined as full automation (SAE, 2014). Vehicles with level 5 driving automation is posed to be a more practical solution to automated delivery in the grocery industry, compared to other solutions as drones (Nielsen, 2017b).

Autonomous vehicles, and the technology that could make this a reality, has seen major breakthroughs the past couple of years. But technical challenges related to flexibility of the systems, as how to deal with various weather conditions and unexpected system failures, is outstanding (Clark et al., 2016). In addition, there is a big difference between technology readiness and widespread adoption. Many argue that there is still a long way to go before fully autonomous vehicles are safe enough to be legalized and adopted on a larger scale. A study surveying 3,500 transport professionals in London found that as many as 30% said they though level five automation would never be common, and 54% even saying that less advanced level 3 automation would not be common until year 2030 or 2040. The article later concludes that level 5 automation, needed for full autonomous taxi cabs in London, might never see the day (Begg, 2014).

In an article titled "The Never-Ending Self-Driving Car Project" written by Aarian Marshall for The Wire (Marshall, 2018), the many factors for why this development might take a long time is elaborated upon. Many experts are backpedaling the high expectations for autonomous vehicles, and as Marshall straightforwardly puts - it's really complicated. Consider factors like weather, terrain, and car cultures that varies from country to country and you quickly realize why they have testing grounds with very clear-cut specifications (Marshall, 2018). What is also important to bear in mind is that although the technology is drastically improved year by year, the requirements of safety-validation is always there. The more safety-critical the systems get,

the slower the cycle will be. There is a lot of safety-validation that needs to be done before a product can be released, or even be legalized (Marshall, 2018). Jeremy Carlson, an autonomy and mobility analyst with industry research firm IHS Markit was interviewed in an article titled "How Long, Really, Until Self-Driving Cars Hit the Streets?" written by Eric Adams for The Drive, and he expects private vehicles to see the tech closer to 2025, and the possibility of Level 5 technology within a few years after that. He elaborates: "Even then, both segments will remain at relatively low volumes, with significant growth expected about five years after the initial deployment in the segment—meaning increased growth in the latter half of next decade and through the 2030s (Adams, 2017). Litman (2017) elaborates on when he expects significant market penetration. Similarly, he expects that fully autonomous vehicles will be available in the 2020s, but that they will have a large price premium and reliability issues. Significant market penetration is hypothesized to take place in the 2040s (up to 40% market share).

As mentioned, there is a difference between technology readiness and widespread adoption, and for the latter, governmental regulation and legislation plays an important role (Clark et al., 2016). However, this should not pose a significant barrier to the development and adoption of this technology in Norway. The Norwegian government has passed a law that took effect on 1st of January 2018, opening for testing of autonomous vehicles (Lov om utprøving av selvkjørende kjøretøy, 2017). In the proposition to the law, the Standing Committee on Transport and Communications says they believe self-driving vehicles might lead to better traffic safety and efficiency, that it might compete with freight transport in the future, and that it will be necessary to facilitate for the technological advancement and adoption (Stortinget, 2018). So the regulatory environment in which this technology can be adopted in Norway, is positive.

4.6.1.3 Development of logistics robotics

Logistics robotics is proposed to be a significant driver in the grocery industry. Mainly because it is improving and will most definitely continue to improve logistical efficiency. Most relevant for the grocery industry, is automation at the earlier stages of the supply chain which is less visible for the

customer. In addition to greatly improving efficiency related to the general handling of goods, one can argue that click & collect solutions would benefit massively from significant development in automation of packing grocery items due to the labor costs associated with it. At the moment, click & collect solutions are heavily dependent on human labor. With current technology, robots are very good at performing repetitive tasks with precision. However, when introduced to variability, it gets more difficult. The automation of picking groceries, that also include fresh foods that need delicate handling, is not an exception. However, there are advancements in this area as well. Ocado, the world's largest online supermarket, has been experimenting with a robot which is stated to be remarkably simple given the complexity of the problem it solves. In an article published on ZDNet, the functionality is explained by an Ocado spokesperson: "The arm is equipped with a pipe running to an air compressor, which is capable of lifting items regardless of their deformability and shape, as long as they are within the weight restriction and the suction cup can create an airtight seal with the item's surface (i.e it has a big enough surface available and is not porous)" (Nichols, 2017). Although being a pilot project from Ocado, it can signalize something about what can be expected in the future.

4.6.1.4 Big data collection and usage

Retailers have always been interested in data to learn more about customer behavior, and how to serve the customers better and more effectively (Grewal et al., 2017). In recent years, many retailers have taken advantage of options to collect and organize the data in a better way. Norwegian grocery chains are no exception. Coop and Norgesgruppen have been doing so for a long time through their loyalty programs, Coop Medlem (Coop Member) and Trumf, and more recently Rema 1000's digital loyalty program "Æ". A common denominator for all of these loyalty programs is that they generate vast amounts of data about your shopping patterns. If utilized in an effective way, this data can allow retailers to manage a range of issues, and unveil opportunity. Kumar et al. (2017) stresses the importance of supplementing managerial decisions and strategies with analytics, which according to them is also strongly linked to retail profitability.

Store-level strategies refer to "practices unique to the store of a certain retailer, and which vary from store to store based on location and customer demographics" (Kumar et al., 2017). These strategies are particularly important for profitability when location of the stores is one of the primary bases of competition with rivals. This is highly relevant in the Norwegian market, where store location is said to be critical factors to succeed in the industry. Local demography can be used as a powerful differentiator through tactics like local store formats and store-level pricing strategies suitable to area demographics (Kumar et al., 2017).

Effective utilization of big data can also assist decision making on product assortment, which is a high priority for retailers because they work with a limited budget, store size, and shelf space (Kumar et al., 2017). Research shows that the removal of so called 'low preference items', up to 54 percent while keeping constant category space, does not significantly affect a consumers' perception of assortment and choice (Broniarczyk et al., 1998). If these decisions are coupled with effective utilization of big data, a retailer can greatly improve decision accuracy, and you can act faster, and ultimately increase profitability through optimizing assortment.

Pricing and promotion are obviously very important metrics to effectively manage. When discussing the future of managing these, RFID tags and eye tracking technology are mentioned as future tools to improve decision making in this area (Grewal et al., 2017). In a world where transparency is going to increase, with price certainly not being an exception, retailers are recommended to provide customized pricing offers to customers via loyalty programs (Kumar et al., 2017). With effective utilization of big data, this practice of promotional pricing can be personalized with such precision, so that retailers can identify and make profits from variety seeking and habit persistent behavior of customers. In the Norwegian grocery industry, we have already started to see the contours of this through Coop Member. Coop Member offers coupons relevant for you as a customer, based on your shopping habits (COOP, 2018). Norgesgruppen's loyalty program Trumf and Rema 1000's Æ are also collecting similar data, and they all have the opportunity to utilize it to make more qualified and swifter decisions to increase profitability and customer convenience in the future.

## 4.6.2 Key quotes and insights

Virtually all of the interview subjects touched upon innovation in technology like automation and big data. Automation was mainly brought up as technology that could make online grocery shopping more rational from an operational standpoint, both for home delivery and click & collect solutions. Among the disruptive technologies that could create a breakthrough is level 5 autonomous vehicles, and advancements in logistics robotics. Development in this area seemed to raise a lot of interest, especially when discussing online shopping, but also for the upstream efficiency. Although there was a consensus that the potential impact is huge, the expectations as to when the technology will be ready and widely adopted varied, as was also reflected in the literature.

"If there is something I believe to be one of the key drivers of online grocery shopping - both in terms of home delivery and click & collect - it's facilitating technology and how this improves cost efficiency. An extremity of course - but if you have zero drivers, and have autonomous delivery trucks operating 24/7, this is extremely cost efficient. It might take many years for this to happen, but I believe that this development is what drives the home delivery aspect of online grocery shopping."
*Lars Kristian Lindberg*

"The development of autonomous vehicles and general automation could strongly reduce logistical costs, and potentially make online grocery shopping even cheaper to operate than physical stores."
"Informant X"

There were also many opinions on the challenges that online grocery shopping needs to overcome. The importance of touch and feel in the industry, and how this necessitates an increase in trust was brought up.

"The grocery industry is the sector in retail where online shopping, and adoption of it, will have the slowest conversion. (...) I firmly believe that most people still prefer going to a physical grocery store in 10 years. Especially

when compared to other retail sectors. The more generic the products - the more optimized they are for online shopping".
*Lars Kristian Lindberg*

"There is something in the consumer psychology that makes people want to reduce the risk of purchase, by physically going to the store, touch and feel fruit and other fresh produce before buying it. What is needed is trust between the consumer and the store. When I engage a store to pick my groceries for me, I need to know that they pick the best tomatoes, that I would have chosen as well."
*Tor W. Andreassen*

"One of the biggest challenges the online grocery industry has, is skepticism from the consumer in cases where someone else picks your groceries. Especially when it comes to fresh foods, fruit and vegetables."
*Bjørn Næss*

The majority of the subjects pointed out the difficulty of not only developing, but also implementing technology designed to be more cost effective or to ease the check-out process, but several came with positive predictions towards a change.

"An interesting question is - to what extent will technology change how the consumer feel about going to a physical store. I firmly believe that a majority of customers will still prefer to go shopping in a physical store. And then there's the question of how to make that efficient. One likely option in the near future is that you can go shopping without having to pay at a cashier, and simply walk out of the store."
*Lars Kristian Lindberg*

Those who touched upon the topic of robots had little faith in them working at the customer touchpoints, but believed that they could play a role behind the curtains.

"Robots picking fresh produce is nowhere near being sophisticated enough. But robots picking and stacking larger containers and boxes, is reasonable and rational."
*Odd Gisholt*

Big data, machine learning and other forms of advance algorithms was something that the interviewees thought could be used as a way of meeting the consumer's increased demand of convenience, or make the consumer more engaged with the retailer.

"I imagine a subscription service where with the help of smart algorithms, the correct amount of toothpaste, toilet paper etc. is optimized to your need.
*Tor W. Andreassen*

"I believe we will witness the emergence of technology driven subscription-based delivery models in the future. The consumer always need toilet paper and detergents. And in the future I believe home delivery in this category will be a service that consumers' appreciate."
Bjørn Næss

"You are already starting to see the contours of how one can communicate more directly, and personally with the consumer to serve more specific customer needs. This form of communication will increase in the future."
*Tom Kristiansen*

One of the subjects pointed out that the collection of customer data has increased substantially in the last couple of years. However, successful utilization of it will dictate who succeeds in the future.

"We are now at point in time where collecting and organizing "big data" have become increasingly easier and cheaper compared to only a couple of years back. The problem is not collecting variations of data, but how to utilize them in such a way so that managerial decisions are made faster, and with more precision. The data is currently being used in personalized pricing, marketing

efforts, assortment structuring, and to increase efficiency in the value chain. But in my opinion, we have only scratched the surface of its potential. What I foresee, is that the those who manage to utilize this data to increase competence, streamline and rationalize organizational structures, throughout the entire value chain, all the way to the end consumer - will be at the forefront and achieve the best results in the years to come."

*Lars Kristian Lindberg*

### 4.6.3 Discussion

The findings suggest that technological innovation, automation and the utilization of big data are areas that will be among the defining forces in the grocery industry. As a common denominator, it enables retailers to increase convenience for the consumer, and it increases logistical efficiency, and can drive managerial decisions to increase retailer profitability.

Technology facilitating seamless check-out comes in variations, with the mentioned 'Amazon GO' being an example of how one can take it to an extreme. As pointed out by the interviewees it is highly likely that we will witness some version of this in the near future, whether it be the "Amazon GO" example, or the example from the American grocery giant, Kroger, it is something that will increase convenience by radically reducing the time spent shopping.

When looking at autonomous vehicles and its implications on the world as we know it, the first thing that it will change is naturally the car industry. As is stated in a report from (Nielsen, 2017c): "Saying that driverless cars will have a huge impact on the automotive industry in the next decade is a truism. Saying that driverless cars could also have an equal impact on retail however, is not." Of course, this does not mean that this innovation won't have a significant impact. As stated in many of the interviews we have conducted - many believe that the widespread adoption of driverless autonomous vehicles potentially could create a breakthrough for online grocery shopping. This argument is mostly rooted in cost-efficiency and logistical aspects. And when considering how low the population density is in Norway - it makes sense that

autonomous vehicles could make online grocery shopping with home delivery a viable business model - where the prices can be kept at a reasonable level. When it comes to the development of logistics robotics, this could potentially lead to a breakthrough in click & collect solutions. In areas where online grocery shopping has succeeded to some extent, a great majority of those transactions are facilitated through click & collect solutions. This could mitigate adoption problems like inability to inspect goods. This solution is naturally a much more cost-efficient model of serving the customer online and has been mentioned in the interviews as being just that. However, as mentioned in the literature review, it is still very much dependent on manual labor. And any advancements in automation of such processes could pose a breakthrough. Click & collect is also proposed to be one of the most preferred channels in the future. More than half of the global respondents in Nielsen's report on the future of grocery, are willing to use click & collect in the future (57 % in store, 55 % drive-thru, and 52 % for curbside pickup) (Nielsen, 2017c). This way of "going the last mile", and deliver groceries to the consumer online, is also gaining popularity due to the logistical challenges of home delivery. When looking at general retail in the UK, the click & collect model is expected to grow 72 % by 2020, reaching 8,2 billion pounds. The backdrop for this is consumer based. The Customer Pulse Report of 2016 reveals that UK adults are experiencing problems with online orders. Of those who experience issues, late deliveries account for 42 %, and missed deliveries account for 36 %. This may be a possible threshold for online grocery customers as well, and it can paint a more nuanced picture of what true convenience is when facilitating an e-commerce transaction in retail with today's' technology.

When discussing big data, the collection of it has been going on for a long time. Digitization efforts in the industry have also made collecting data easier, and much cheaper. As apparent from our interviews, we are now entering a new era where efficient utilization of these vast amounts of data could be a key factor to succeed.

# Chapter 5 - Scenarios

## 5.1 Introduction

In this section the method of reducing the key drivers identified in the previous chapter to create the basis of developing scenarios will be explained. Each scenario will be presented starting with a summary, then the narrative describing the future situation and the events leading up to it, followed by a section with early indicators, before we summarize managerial implications for each scenario.

## 5.2 Scenario matrix

Based on both the secondary and primary data, the two key drivers that seemed to represent the most important and uncertain factors were used to create a 2x2 matrix. This is a practice common in scenario analysis, especially when there are a few drivers that are expected to have a greater influence on the future than others (Amer et al., 2013). This does not mean that the other drivers will be left out of the scenarios. All drivers will be taken to account and applied to each scenario, where the effect of the drivers will vary depending on the context they are set in. When creating scenarios, they are not necessarily equally plausible. This is however not the intention. The intention is to challenge tunnel vision by taking the myriad factors that can shape the future, also to create scenarios that seem bleak and uncomfortable (Schoemaker, 1995). Both axes represent opposing extremes, and should produce scenarios that are different, but that are still within range of possibility.

The vertical axis of the matrix is labelled "innovativeness and adoption of new technology". This represents the industry's willingness and capability to implement new technology to improve the logistic processes, the consumer touchpoints and customer journey. The upper part of the matrix, "disruptive innovation", symbolizes the extreme state in which innovation capability and adoption of technology has led to drastic change in the market, rationalizing the value chain to the greatest extent, and successful serving of the demanding consumer. On the lower part of the matrix, "complacency", the industry have

not been able or willing to innovate their services by utilizing new technology, and their business models and services are 'stuck in the past'.

The horizontal axis in the matrix is "liberalization of the trade policies", reflecting the degree of protectionism in the trade policies on agriculture. To the left side of the matrix, the country remains "highly protectionistic", meaning that there has been no changes to the tariffs and the toll-free quota, where on the right side, there has been a significant liberalization of trade policies, 'opening the borders'.

From these two axes, the four scenarios "Untouchable", "Silicon Valley", "Comfortably Numb" and "Under Pressure" are formed, as shown in figure 1, and elaborated on in the next few sections.

Figure 1

*Scenario Matrix*
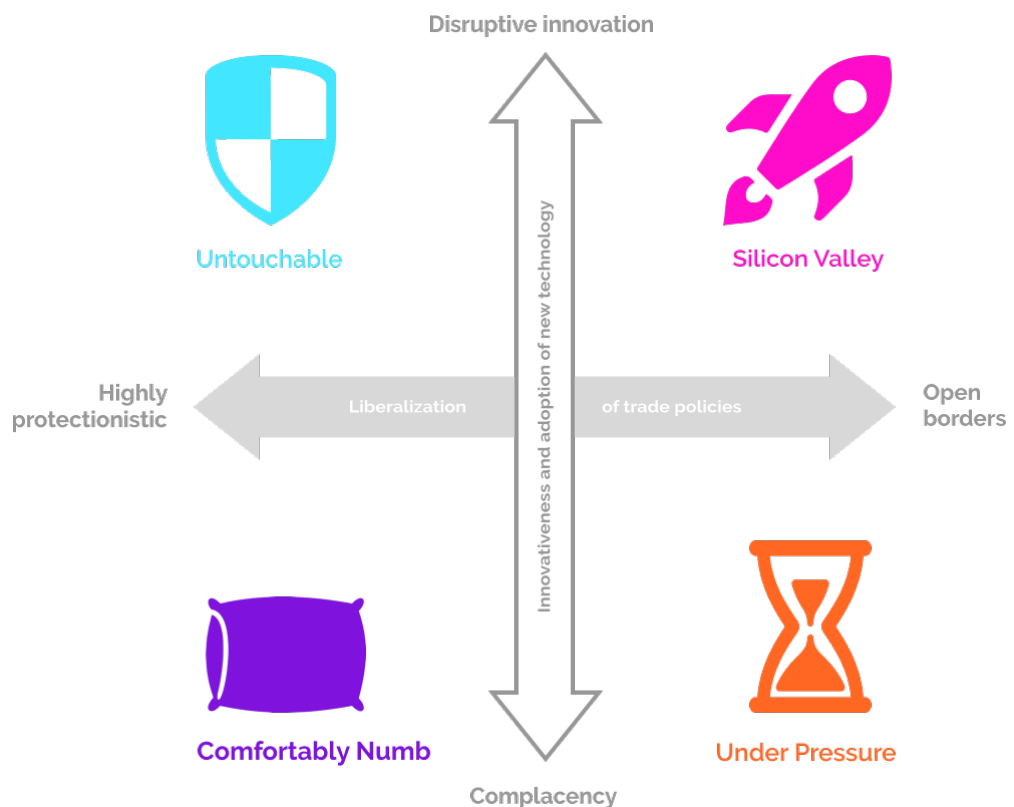
## 5.3 Scenario 1 - Untouchable

### 5.3.1 The scenario summarized

The industry is still characterized by having oligopolistic market conditions with three major players dominating the market. Norway is still, politically speaking, a protectionist country with rigid toll barriers, despite increased external pressure from the EU, and WTO. The country continues to be wealthy and self-sufficient and have managed to foster high levels of innovation and widespread adoption of new technology. This development is gradually starting to leave a mark on the industry, and how the consumer shop groceries. The chains' increasing power, and investment in vertical integrations have made it harder for independent smaller suppliers to keep up.

### 5.3.2 The narrative

Norway is still a country where protectionist trade policies have deep roots, and the political challenge and stigma associated with pushing change in this area is still substantial. The industry is still characterized by high concentrations of power, both on the supplier and chain side, meaning that there are still significant entry barriers. There are no new entrants in the marketplace, and the few attempts from international players failed, mainly due to challenging purchasing conditions, and difficulties obtaining attractive real estate for their stores in order to expand. The relative price level on Norwegian groceries is still high compared to neighboring countries, but the share of wallet spent on groceries is continuing to decline and continues to be among the lowest in the world. The Norwegian grocery industry has not changed much. Or so it would seem.

High levels of innovation and adoption of new technology in retail is gradually starting to show in the grocery industry as well. Recent advancements in logistic robotics can only be described as a giant leap in tackling cost- and logistical challenges. It has drastically increased the efficiency of upstream processes, such as the handling and packaging of goods. This has proven to be a crucial aspect of click & collect solutions as well, which is far less dependent on manual labor compared to before. As a result,

the three major grocery players that we've all known for decades, Norgesgruppen, COOP and REMA,  have now gone multichannel operating with hybrid solutions - physical stores, and online grocery shopping with click & collect in select stores. Technology that facilitates seamless checkout, meaning you can pick groceries off the shelf and leave while automatically paying, have also become a reality in select stores in the larger cities, essentially abolishing the need for manually operated cash registers and self checkouts. A more widely adopted checkout solution enables the customer to scan items with their smartphone, bag them while they shop, and pay before leaving the store. A cheap, and convenient solution - especially in areas where people shop frequently, and usually leave the store with only a bag or two. The emergence of seamless checkout has greatly improved operational efficiency in all stores, and store employees now dedicate more time serving customers while they are shopping, instead of facilitating the final transaction.

Home delivery remains a logistical challenge and is still deemed expensive considering that it is very much dependent on manual labor, meaning you need drivers. However, there has been technological advancements in this area. True autonomous vehicles (level 5) have started to see the light of day and signalizes a future where home delivery might become cost efficient enough to become a more rational solution for the industry, and for the consumer. The Norwegian political environment welcomes these advancements in technology, but it is likely to be strictly regulated. Autonomous vehicles are being carefully invested in by the chains and suppliers. Therefore, home delivery with autonomous vehicles is in a planning phase, where the goal is to gradually pilot test this solution in larger cities in the very near future.

Despite recent developments, online grocery shopping has not reached the market penetration that many anticipated, due to how recently the critical technology became available, and how logistically challenging it has been to scale online grocery shopping in Norway without it. Moreover, there are still significant adoption barriers related to the inability to inspect goods, and the consequential uncertainty about the freshness and quality of products purchased online. This can also explain why click & collect has become the norm of facilitating online grocery shopping, because the customer is able to

inspect the goods before they bring it home. Nonetheless, the grocery chains are investing heavily in quality control processes and logistics, and they are offering freshness guarantees, and refund systems to mitigate this problem and gradually build consumer trust. The shopping culture of Norwegians is still characterized by shopping more frequently, rather than planning in advance and stocking up. The bottom line is that conversion from traditional grocery shopping to online is slow, which explains why traditional in-store shopping still the norm is.

The customer-related adoption barriers to online shopping also explains why the major share of items sold online is typically "stock-up"-items with the non-food segment being the largest. Now that the customer is getting more and more used to purchasing groceries online, the market for direct selling from suppliers has also seen a rise and is gradually starting to become a sales model that manages to challenge certain product categories for the grocery chains.

Due to the never-ending search for differentiation and serving the demanding consumer, there has been a massive increase in chain-specific campaigns, and product concepts. Price wars between the grocery chains focusing on everyday low price have also increased in magnitude. As a result the chains are investing in more vertical integration. The share of private labels in the market has gone up substantially, increasing the chains' autonomy, and leverage over the suppliers. Most suppliers are keeping up, by investing heavily in product development and innovation. For suppliers and producers that haven't been able to innovate and differentiate themselves enough to cater to the chains demands have been struggling, and we have witnessed consolidations among some of the smaller suppliers in the industry.

A new competitive arena has emerged, through the use of big data. Effective utilization of big data have made decision making faster, and more precise. The organizational structure in the various chains also reflect that, where analytical teams work closer with top management to support decision making with actionable insight from big data. Optimization of assortment down to store-level, streamlining of the value chain, and personalized promotion and pricing strategies are now done with precision, and is increasing profitability.

### 5.3.3 Signposts and early indicators of the scenario

"Technology facilitating seamless check out, or grab & go, exists today, but it is very expensive to implement. But in a couple of years, I'm confident that you will witness similar solutions in Norway."

*Tom Kristiansen*

"I believe that the three players in the market now have so much power, and I also think that their ability to adapt is very strong. So if there are segments or categories in which they would feel threatened in the future I strongly believe they will find ways of dealing with that."

*Bjørn Næss*

"You will continue to witness larger, and better chain-specific campaigns, concepts, products, brands etc. Mainly because you have to fight harder and harder to attract the consumer, and you need to differentiate."

*Lars Kristian Lindberg*

## 5.4 Scenario 2 - Silicon Valley

### 5.4.1 The scenario summarized

As a result of the right winged political climate in Norway, and the increased pressure from EU and WTO, there has been a steady and noticeable liberalization of toll barriers. Although in a transitional phase, Norway is gradually becoming more and more similar to our neighbouring country Sweden. Import tariffs have been significantly reduced on dairy and meat products, and the tariff-free import quotas have increased. Goods that previously were heavily protected through import barriers, are now more exposed to international competition. Purchasing cross-border produce is now cheaper than ever. Because of this, significant entry barriers are now in the process of being mitigated. This has incentivized the industry to substantially increase their focus on innovation and the adoption of new technology to ensure that their strong position is maintained. For now, they have managed to adapt, and foreign grocery giants or any other significant grocery venture, are

yet to enter the Norwegian market. We are starting to witness a drastic change in the way consumers' shop groceries.

## 5.4.2 The narrative

The way consumers shop groceries has changed a lot during the last ten years. We have been, and are still, witnessing a strong and steady liberalization in trade policies, and the manifestation of this political shift is starting to show in the grocery industry. This is, for now, mainly noticeable in the industry's ability to innovate and through the adoption of new technology. Technology aiding the development of concepts such as online grocery shopping and grab & go shopping, has over the past ten years improved substantially. Logistics robotics are alleviating the cost associated with picking and stacking groceries. Smart sensors and cameras are ensuring successful implementation of seamless checkout, and level 5 autonomous vehicles are gradually making home delivery more viable and cost efficient. Grab & Go is now commonplace throughout the country, while autonomous vehicles for home delivery are now being used in the larger cities but is however considered to be in a trial phase. When it comes to online grocery shopping, click & collect is for now the main facilitator of such transactions. The agricultural sector has to some extent managed to adapt to the changes in trade policies. Given that the country is in a transitional phase, there are subsidies on compound feed, to ensure that the farmer can compete on more even terms and adapt to this new reality.

Accompanied by their ability to adopt new technology and innovate, the three major players, Coop, Norgesgruppen and Rema, still dominate the market, but the advancement in technology and the liberalization in trade policies have also opened up for smaller niche concepts. These niche concepts have taken advantage of the shift towards more fragmented customer preferences, selling imported or domestic niche products to a lower price.

One of the most disruptive retail chains in the world, and one that the Norwegian industry has feared the most, Amazon, has for many years been at the forefront of adopting new technology, and is now established in several European countries including Sweden. So far, the giant is yet to enter the Norwegian grocery market, but retailers fear that it's only a matter of time

before they make their move. Continuous efforts in innovation and heavy investments in new technology have kept Amazon at bay for now.

There are several reasons as to why no large international player has entered the Norwegian market, although it is certainly lingering threat. Norwegians are still very loyal to brands they are used to, and the emergence of third generation loyalty programs that are intelligent and convenient have improved the ability to communicate more directly with the consumer and facilitates a more personalized relationship. Big data and AI are not buzzwords any more. It is now being utilized in a far more advanced and efficient way. Now, customers can receive personalized offers and suggestions based on their shopping patterns, spending and preference. Transparency has become the norm, and functionality such as spending overview, household budgeting, product reviews, price comparison across chains and detailed information about nutritional value, ethical standards is conveniently available on your smartphone. The implementation of such loyalty programs has also been a revelation for the chains when promoting private labels. The marketing aimed at getting the consumer to reconsider, and switch to a private label is now communicated in a more personalized and convincing way: "Switch to this product, and **you'll** save 1199 kroners per year".

The increased utilization of big data and AI have also brought life to services that offers customised and AI-generated monthly subscription plans for home delivery of non-food grocery items. One of the many new ways of addressing the consumers' increased demand for convenience. Simply put: you'll never run out of toothpaste again.

With the intensified competition and increase in imported goods over the last couple of years, the consumer can enjoy a more diversified selection of both store concepts and products. The more traditional stores have a wider selection compared to just a few years ago, with a larger share of private labels, offering differentiated and lower priced items than the industry labels. If this still doesn't meet a consumer's need, there are stores in the big cities that sell imported and specialized products, and these offerings are usually also available online. The consumer's increased focus on green products, GMO and animal welfare, has made the offering socially responsible products a priority for many store concepts. The prices are also relatively low compared to a

decade ago, where consumers in average spend less than half as much of their income now. This is both as a consequence of Norwegian's increase in wealth, and cheaper commodities as a direct result of the liberalized agricultural trade.

### 5.4.3 Signposts and early indicators of the scenario

"There is definitely an external pressure towards the liberalization of the country's protectionism, that will continue, and that will increase in strength."
*Ivar Gaasland*

"If the Norwegian market was made more accessible for internationals, I would think that Norwegian farmers would really roll up their sleeves. And Norwegians, love the Norwegian, so I'm not saying that the Norwegian farmers would have a rough time, I'm just saying that when they don't have the proper incentives to compete - innovation and development stops."
*Odd Gisholt*

## 5.5 Scenario 3 - Comfortably numb

### 5.5.1 The scenario summarized

Protectionism is still very descriptive of Norway's policies on international trade, and the grocery industry is by many labeled as being stuck in the past compared to industries in other countries. Despite an increased customer demand of convenience, new retail technology to facilitate this need is hardly being adopted at all, and the monopolistic and protectionist environment in which the industry operates have made them rather apathetic and unreceptive to new ideas and innovation. Consequently, there has been a massive increase in scrutiny from governmental bodies and interventions in market structure. Because of still having rigid toll barriers the Norwegian

grocery industry still remains nearly impenetrable for new entrants - both domestic or international.

## 5.5.2 The narrative

The Norwegian grocery industry is no longer consisting of three giants, but four. The high concentration of power in the market, combined with low degree of innovation, intensified scrutiny from governmental bodies led to a recent intervention in the market structure. This highly concentrated power structure in the industry, combined with low levels of innovation, have put the industry under extreme scrutiny from the public and governmental bodies for the past couple of years. The Norwegian Competitive Authority kept a close eye on the three giants, and the topic of discussion in the media and in published reports, has been focusing on how unhealthy the industry has become with respects to the consumer. This accelerated increase in scrutiny, eventually led to an intervention in market structure, breaking up the largest player. In addition, the government passed legislation to mitigate price discrimination, as a desperate attempt in stimulating future competition in the market. These regulatory actions were put in place in order to stimulate innovation, competition, and to reduce entry barriers for possible new entrants in the future.

Online grocery shopping is nonexistent. Attempts from the 'new kids on the block' in the late 2010's failed due to high purchasing- and logistical costs. Even with available technology to mitigate the high logistical costs, their inability to adopt this technology, lack of process innovation, and the challenge of still competing with skewed purchasing conditions in the industry made their chance of survival close to zero. With many of the investors pulling out of the online grocery business, they had no chance of continuing their operations. None of the three grocery giants acquired them and has yet to seek an online undertaking on their own.

The Norwegian grocery consumers are still shopping the way they've always been. Picking up groceries and paying at the cash register. Standardization and upstream efficiency are the sole focus areas for the grocery chains, leading to stable prices and a profitable bottom line. However,

customers are experiencing a poor selection on grocery items, while there is little motivation for differentiation of concepts and products.

## 5.5.3 Signposts and early indicators of the scenario

"I believe the players in the industry are too comfortable today, they are stuck in their old ways. One of the major players has even publicly stated that they are going to be extremely cautious about an online undertaking. (...) If you freeze today's situation, and jump ten years into the future, there will be no changes. The reason is there are no incentives for the three players."
*Tor W. Andreassen*

"Norway's rigid toll barriers removes, or at least reduces competition on the supply side of the industry in a very powerful way. You would expect this to have a significant negative effect on selection, efficiency and the price level."
*Ivar Gaasland*

"You know, when you are part of an oligopoly or monopoly, you can in effect just act 'lazy'. You don't have to be as innovative, because you don't have the competition as an incentive."
*Odd Gisholt*

## 5.6 Scenario 4 - Under pressure

### 5.6.1 The scenario summarized

The grocery industry has changed a lot during the past ten years. Right winged political forces and increased external pressure from the EU and WTO led to a liberalization of trade policies. Now, reduced import tariffs and larger import quotas on dairy and meat produce is starting to leave its mark on the industry. Although the Norwegian grocery chains truly believed they were prepared for this shift, they have fallen short in maintaining their untouchable position in the market. We have witnessed the entrant of foreign grocery players in the Norwegian market, and they are slowly but steadily stealing market shares from the Norwegian chains. One of the most robust entry barriers - scale advantages in purchasing - is now starting to be mitigated due to the increased affordability and accessibility to cross-border produce. International grocery giants can to a greater extent leverage their existing international distribution systems in Norway.

### 5.6.2 The narrative

The shift in the political climate on trade policies has changed the rules in the industry, and the Norwegian grocery chains are struggling to keep up. An opportunity to truly serve the consumers' need of convenience and time-saving services, were not taken advantage of. Had they done so, they might have succeeded in creating new politically independent entry barriers and made the outlook of securing their position far more realistic. The rate of investments in innovation and the motivation to adopt available technology have been far too passive.

The failed attempts in finding a rational way of operating online grocery shopping, and home delivery made it a low priority for Coop, Norgesgruppen and REMA, and smaller domestic players solely focusing on online shopping has come and gone in the previous years without much success.

The liberalization of trade policies have made produce cheaper and accessible. As a consequence, international players have been able to establish

themselves in Norway. Although the three largest Norwegian chains are still dominating, their market share are in an accelerating decline.

The Norwegian consumers are gradually being accustomed with the new international labels, and in general, we are gradually witnessing a fragmentation of consumer preferences, opening up for new products, services and brands. There are a couple of large multinational grocery chains in the largest cities that experience a fast growth in market share, even though they don't expect positive net earnings the first few years. They have, in contrast to their domestic competitors, chosen to offer and push online grocery shopping in Norway, rolling out services proven successful in other European countries they are present.

In addition, there are smaller international chains in the big cities focusing on niche concepts such as import of premium goods and concepts taking advantage of the increased fragmentation of customer preferences, in combination with the liberalized import barriers.

The share of private labels has increased, as the Norwegian grocery chains tries to deal with the international competition by offering exclusive products that are differentiated and often cheaper than the industry brands. Increasingly many large producers has started offering direct sales to the consumer, further increasing the importance of lucrative private labels.

Interindustrial competition has also played its toll on the grocery industry. International gas stations and convenience stores has taken a large share of the sunday shopping, mainly due to the decrease in petrol demand, and thus the need for a renewed business model and a new target market. The restaurant industry has had an upswing in later years, and more and more consumers choose to either eat out or order takeaway home, rather than cooking themselves. Reasons for this development includes more international concepts seeing the light with the lower import tariffs, Norwegians getting relatively wealthier, home delivery services improving and expanding to more and more urban areas, and an increasing focus on the social aspect of eating.

The average Norwegian consumer has seen a steady increase in wealth the last decade, and spend less than half as much of the income on grocery, compared to ten years ago. This is also as a result of prices being lowered by a double digit percentage as a direct effect of the deregulation of the toll barriers.

### 5.6.3 Signposts and early indicators of the scenario

"Circle K - the world's largest convenience concept - has now entered Norway, and they will experience a decline in revenue on petrol and gas because of the strong growth of electrical cars. Consequently, they will look to other sources of growth, and they are likely to go after the smaller players in the industry - typically stores that are open on sundays".
*"Informant X"*


"If you were to remove import restrictions on meat, dairy and cheese, it would be significantly more attractive for any new player to enter the Norwegian market."
*Tor W. Andreassen*

# Chapter 6 - Discussion

## 6.1 Summary and discussion of findings

In this paper we have sought to identify key drivers that will shape the Norwegian grocery industry the next ten years, and what scenarios that can be derived from the drivers. The paper utilizes a well proven method of scenario analysis, the intuitive logistics school, mainly following the framework proposed by two prominent scholars within the field, Paul J. H. Schoemaker and Kees van der Heijden. Scenario analysis and planning is something that has been, and are still, used actively by corporations to be better prepared for the uncertainties that the future holds. During the process of our thesis, we have constantly focused on creating a paper that not only represents novelty and academic concern, but that is of true assistance and interest to managers and decision makers in the Norwegian grocery industry. This is also why we have created and included a shortened version of this paper in the form of a managerial report, highlighting the main takeaways of our findings and the key strategic decisions ahead.

The market structure of the Norwegian grocery industry is remarkable, as it consists of three vertically integrated players accounting for 96% of the market share. This has led to what some label an unhealthy industry, where there is virtually impossible for new players, domestic as international, to enter. The high degree of protectionism through regulations and high tariffs on the import of agricultural goods in Norway, further restricts international players to establish business in Norway. Beyond the entry barriers that it generates, some argue the concentrated power affects the variation of store concepts and diversity of products available, as well as the rate of innovation.

We gathered secondary data from academic articles, industry specific reports and news articles, and primary data from in-depth interviews with experts within different fields related to the grocery industry, as well as individuals that work or have worked in the industry. From this we identified 18 drivers, that was later clustered and cut down to four key drivers. These key drivers are what we consider to be the most prominent driving forces in

shaping the future of the industry, as well as having a high degree of uncertainty.

A significant liberalization of the agricultural trade policies is something that seems unlikely within a ten year perspective, but the implications of such a liberalization have such a magnitude that it made up one of the two axes in the scenario matrix. The other axis, innovativeness and adoption of new technology, represents the current players in the industry's capability and willingness to implement new technology to improve their processes and services. From these two axes four divergent, but plausible scenarios were developed.

## 6.2 Managerial implications

For the management and the strategic decision makers in the grocery industry, the scenarios depicted can be viewed as a roadmap, and a way of being proactive to changes within the industry. Looking at the two axes, changes in trade policies is something that for the most part, is out of their control. However, innovativeness and the willingness to adopt new new technology is to a large extent, an area in which the respective chains have full autonomy. As all the players in the industry are presented as acting uniformly in this paper, every scenario represents a threat or opportunity for each individual grocery chain.

If there are no significant changes to the agricultural policies, utilization of new technology and services can be an opportunity to respond to the increased consumer demand of convenience, becoming the first mover delivering a new concept or form of service. The first mover would then be the pioneer in a scenario similar to scenario one, "Untouchable". On the other hand, being unable to foresee a trend or a competitor move could lead to a company struggling, potentially losing market shares.

As in the circumstance where there are no changes to the agricultural trade policies, a future where there is a liberalization of trade policies, poses both opportunities as well as threats. In such a situation, the competitive climate in the industry would resemble the right side of the scenario matrix, with an increased risk of international competition. The ability to utilize available technology and innovate the business model and the customer offering would then be crucial to not end up in a situation similar to what is described in scenario four, 'Under Pressure'.

In all cases there are certain key events that need to occur, and that the decision makers need to be prepared for, in order for the described opportunities to be obtainable. It requires that new, pivotal technology has improved enough to make the business model cost-efficient, as well as enabling the delivery of a service that the consumer perceives as more convenient as a total of all the four dimensions of convenience; access, search, transaction and possession. The potential new services include, but are not

limited to, online grocery shopping, seamless check-out and third generation loyalty programs.

Although it is a near impossible feat to accurately predict what will be the most critical differentiators to succeed in the future, there are certain innovations and events that seem likely to have an impactful effect on the future of the retail industry. One of these is the utilization of big data. As mentioned in the paper, the collection of big data is cheaper and more accessible than ever. Now, the future winners are those who manages take full advantage of the opportunity it represents. The first player to exploit this opportunity, successfully utilizing big data to streamline and rationalize the value chain, make faster and more precise decisions, optimize organizational structures, and communicate to the end consumer in such a way that it creates ties that are difficult to break will most definitely gain a substantial competitive advantage.

## 6.3 Limitations

As with any methodological tool, there are certain limitations that should be emphasized. On a general note, scenarios can in many ways be affected by biases. When individuals make predictions, we tend to search for confirming evidence, and to a certain degree - exempt disconfirming evidence. This bias can certainly affect the development of scenarios (Schoemaker, 1995). In many ways, scenarios suffer under our own cognitive limitations in thinking about the unknown and the uncertain. We are predisposed to "follow and extend well-beaten paths" (Kosow & Gaßner, 2008) - meaning that whenever we are unable to process information, we prefer to turn to areas we know about, making us prone to miss critical information.

Moreover, scenarios rarely deliver on all of the possible functions it can serve at one and the same time. Rather, the method of scenario planning are applied specifically and at times with clearly different points of emphasis in order to reach a range of different goals (Kosow & Gaßner, 2008). As mentioned earlier, scenario planning attempts to chart a middle ground between under-and overprediction - expanding the range of possibilities that we can see, while stopping us from drifting into unrealistic science fiction.

Although it is possible for scenarios to be based on prognostic knowledge, they should never be viewed as "hard and fast" predictions. Rather, scenarios are projections that combine and answers "What would happen if" questions (Kosow & Gaßner, 2008). Therefore, it can reveal ranges of plausible development, and thus provide a valuable tool for strategic thinking about the future. Because scenario analysis focuses on the future, the method do not use the criterion of the falsifiability of scientific theories, meaning, it does not aspire to produce insights in the sense of natural sciences. However, it always remains subject to criteria of good scientific work stressing elements such as logical consistency, a clear description of scope, an explanation of premises, and transparency (Kosow & Gaßner, 2008).

# References

Adams, E. (2017). How Long, Really, Until Self-Driving Cars Hit the Streets. *The Drive*. Retrieved from www.thedrive.com

Amara, R., & Lipinski, A. J. (1983). *Business planning for an uncertain future: scenarios & strategies*: Pergamon Press.

Amer, M., Daim, T. U., & Jetter, A. (2013). A review of scenario planning. *Futures, 46*, 23-40.

Bednarz, M., & Ponder, N. (2010). Perceptions of retail convenience for in-store and online shoppers. *Marketing Management Journal, 20*(1), 49-65.

Begg, D. (2014). A 2050 Vision for London: What are the implications of driverless transport?

Blandford, D., Gaasland, I., Garcia, R., & Vårdal, E. (2010). How effective are WTO disciplines on domestic support and market access for agriculture? *The World Economy, 33*(11), 1470-1485.

Bradfield, R., Wright, G., Burt, G., Cairns, G., & Van Der Heijden, K. (2005). The origins and evolution of scenario techniques in long range business planning. *Futures, 37*(8), 795-812.

Broniarczyk, S. M., Hoyer, W. D., & McAlister, L. (1998). Consumers' perceptions of the assortment offered in a grocery category: The impact of item reduction. *Journal of marketing research*, 166-176.

Brown, L. G., & McEnally, M. R. (1992). Convenience: Definition, structure, and application. *Journal of Marketing Management (10711988), 2*(2).

Clark, B., Parkhurst, G., & Ricci, M. (2016). Understanding the socioeconomic adoption scenarios for autonomous vehicles: A literature review.

COOP. (2018). Retrieved from https://coop.no/medlem/medlemsfordeler/verdikuponger

EY. (2015). *Nordic Food Survey 2015: Consumer trends*. Retrieved from http://www.ey.com/Publication/vwLUAssets/EY_food_Survey_2015/$FILE/EY-food-Survey-2015.pdf.

Farsund, A. A. (2013). Norway: agricultural exceptionalism and the quest for free trade *International Trade Negotiations and Domestic Politics* (pp. 168-193): Routledge.

Gaasland, I. (2009). Agriculture versus fish–Norway in WTO. *Food Policy, 34*(4), 393-397.

Grewal, D., Roggeveen, A. L., & Nordfält, J. (2017). The future of retailing. *Journal of Retailing, 93*(1), 1-6.

Jiang, L., Yang, Z., & Jun, M. (2013). Measuring consumer perceptions of online shopping convenience. *Journal of Service Management, 24*(2), 191-214.

kjøretøy, L. o. u. a. s. (2017). *Lov om utprøving av selvkjørende kjøretøy LOV-2017-12-15-112*. Retrieved from https://lovdata.no/dokument/NL/lov/2017-12-15-112.

Knutsen, H. (2017). *Utsyn over norsk landbruk. Tilstand og utviklingstrekk 2017*: NIBIO.

Konkurransetilsynet. (2018). *The Competition Act*. Retrieved from http://www.konkurransetilsynet.no/globalassets/filer/english/fact-sheet/konkurranseloven_english.pdf.

Kosow, H., & Gaßner, R. (2008). *Methods of future and scenario analysis: overview, assessment, and selection criteria* (Vol. 39): Deutschland.

Kumar, V., Anand, A., & Song, H. (2017). Future of retailer profitability: An organizing framework. *Journal of Retailing, 93*(1), 96-119.

Litman, T. (2017). *Autonomous vehicle implementation predictions*: Victoria Transport Policy Institute Victoria, Canada.

Marshall, A. (2018). The Never Ending Self-Driving Car Project. *WIRED*. Retrieved from [www.wired.com/](www.wired.com/)

Martelli, A. (2001). Scenario building and scenario planning: state of the art and prospects of evolution. *Futures Research Quarterly, 17*(2), 57-74.

Nichols, G. (2017). Ocado's grocery robot can pickup more than 50,000 items. *Zdnet*. Retrieved from [https://www.zdnet.com/article/watch-ocados-grocery-robot-can-pick-up-more-than-50000-items/](https://www.zdnet.com/article/watch-ocados-grocery-robot-can-pick-up-more-than-50000-items/)

Nielsen. (2017a). *Dagligvarerapporten - 2017*. Retrieved from [http://www.nielsen.com/no/no/insights/reports/2017/grocery-report-2017-the-gold-standard-is-ready.html](http://www.nielsen.com/no/no/insights/reports/2017/grocery-report-2017-the-gold-standard-is-ready.html).

Nielsen. (2017b). *Perspective on retail technology*. Retrieved from [http://www.nielsen.com/eg/en/insights/reports/2017/perspectives-on-retail-technology-fall-2017.html](http://www.nielsen.com/eg/en/insights/reports/2017/perspectives-on-retail-technology-fall-2017.html).

Nielsen. (2017c). *What's in-store for online grocery shopping*. Retrieved from [http://www.nielsen.com/id/en/insights/reports/2017/whats-in-store-for-online-grocery-shopping.html](http://www.nielsen.com/id/en/insights/reports/2017/whats-in-store-for-online-grocery-shopping.html).

Nielsen. (2018). *Dagligvarefasiten 2018*. Retrieved from [https://dagligvarehandelen.no/sites/handelsbladet.no/files/dagligvarefasiten_2018.pdf](https://dagligvarehandelen.no/sites/handelsbladet.no/files/dagligvarefasiten_2018.pdf).

NOU. (2011). *Mat, makt og avmakt - om styrkeforholdene i verdikjeden for mat*. Retrieved from [https://www.regjeringen.no/contentassets/a46b6fc6d9e44882a47be0621ed899a4/no/pdfs/nou201120110004000dddpdfs.pdf](https://www.regjeringen.no/contentassets/a46b6fc6d9e44882a47be0621ed899a4/no/pdfs/nou201120110004000dddpdfs.pdf).

OsloEconomics. (2017). *Etableringshindringer i dagligvaresektoren*. Retrieved from [http://osloeconomics.no/publication/etableringshindringer-i-dagligvaresektoren/](http://osloeconomics.no/publication/etableringshindringer-i-dagligvaresektoren/).

REMA1000. (2018). Retrieved from [https://www.rema.no/temaer/middag-til-under-hundrelappen/](https://www.rema.no/temaer/middag-til-under-hundrelappen/)

SAE. (2014). *Levels of driving automation are defined in new SAE international standard J3016*.

Schmidt, C. (2004). The analysis of semi-structured interviews. *A companion to qualitative research*, 253-258.

Schoemaker, P. J. (1995). Scenario planning: a tool for strategic thinking. *Sloan management review, 36*(2), 25-50.

Schwartz, P. (1991). The art of the long view: scenario planning-protecting your company against an uncertain world. *London, UK: Century Business*.

Seiders, K., Berry, L. L., & Gresham, L. G. (2000). Attention, retailers! How convenient is your convenience strategy? *MIT Sloan Management Review, 41*(3), 79.

Stortinget. (2018). *Innstilling fra transport- og kommunikasjonskomiteen om Lov om utprøving av selvkjørende kjøretøy* Retrieved from [https://www.stortinget.no/](https://www.stortinget.no/).

Thakur, R. (2016). Understanding customer engagement and loyalty: a case of mobile devices for shopping. *Journal of Retailing and Consumer Services, 32*, 151-163.

Turner, D. W. (2010). Qualitative interview design: A practical guide for novice investigators. *The qualitative report, 15*(3), 754-760.

Valvik, M. (2018). Klarsignal for å utrede forbud mot prisdiskriminering. *Aftenposten*. Retrieved from [https://www.aftenposten.no/](https://www.aftenposten.no/)

Van der Heijden, K. (2011). *Scenarios: the art of strategic conversation*: John Wiley & Sons.

Virke. (2017). *Dagligvarehandelen*.  Retrieved from https://www.virke.no/tjenester/rapporter-analyse/rapporter/dagligvarehandelen-2017/.

Zaidi, D. (2018). Can the Retail Industry go Fully-AI after 'Amazon Go'. *Hackernoon*. Retrieved from https://hackernoon.com/can-the-retail-industry-go-fully-ai-after-amazon-go-a61f0a3acec4