

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

Summary of key findings and  
managerial implications

# 2028

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# Scenario Analysis

## The future of the Norwegian grocery industry

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 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. It is primarily used as a strategic tool that decision makers - and organisations as a whole - might use to think strategically about the future.

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 increased 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

The Norwegian grocery industry is an industry with a revenue of 171 billion NOK, making it the largest retail segment in Norway.

Store density in Norway is very high compared to other countries, with 3843 stores nationwide. This is partly due to the fact that 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. The bottom line is - the average Norwegian enters a grocery store several times a week.

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.

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?

Now, some may ask, «Why go through the trouble of summarizing your master thesis in a stunningly beautiful report?» Well, remember what Doc Brown said when he first unveiled his time travelling DeLorean in the blockbuster movie «Back To The Future»:

*«The way I see it, if you're going to build a time machine into a car, why not do it with some style?»*

Enjoy the ride,

*Vetle Fjeldheim  
Lasse Onarheim Dahl*

# Key drivers

Drivers that will shape the Norwegian grocery industry in the future

The consumer demand of convenience

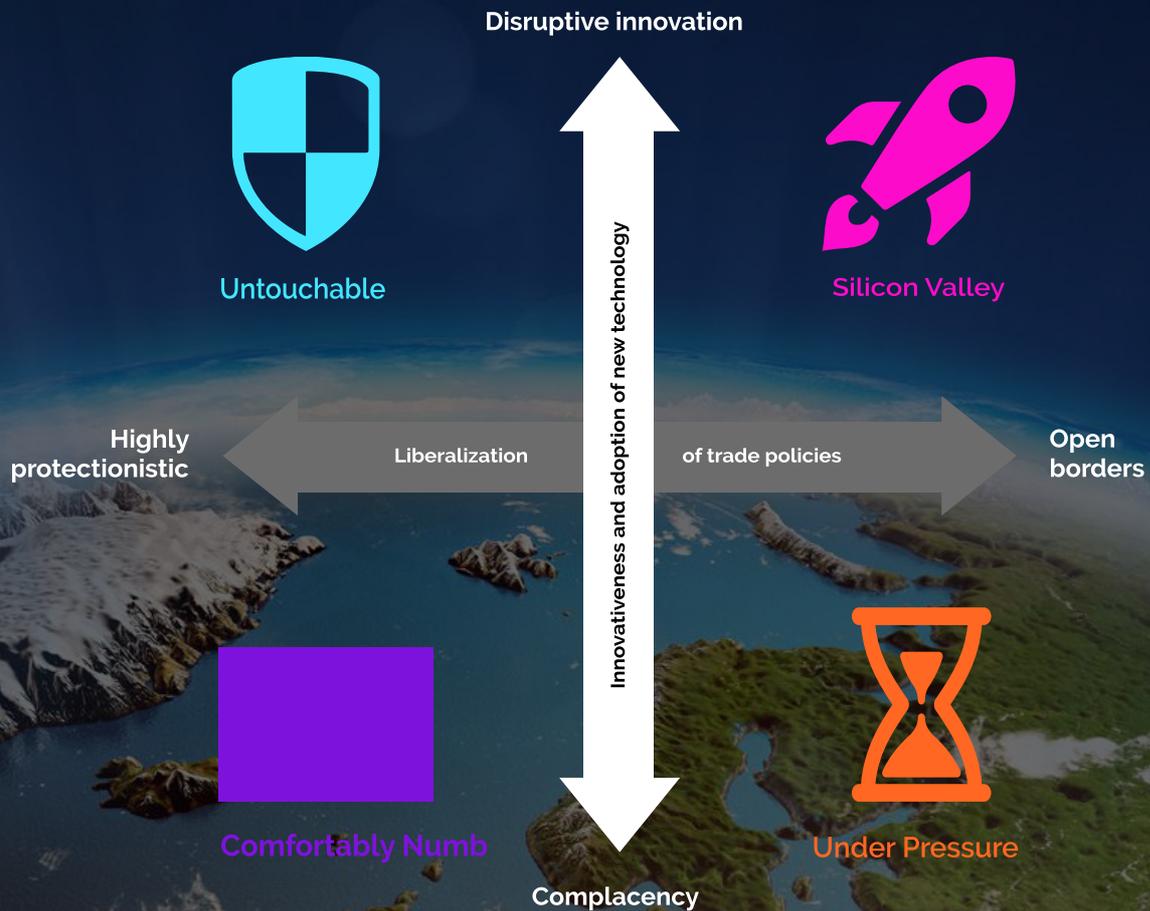
Competition Legislation

External pressure on liberalization of agricultural trade

Technological innovations - automation and usage of big data

# Scenario Matrix

Future scenarios in the Norwegian grocery industry



# Four possible scenarios

## The Norwegian grocery industry in 2028

### Scenario 1: Untouchable

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 did not succeed, mainly due to challenging purchasing conditions, and difficulties obtaining attractive real estate for their stores in order to expand.

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, 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 Grab & Go concepts have also become a reality in select stores in the larger cities, essentially abolishing the need for manually operated cash registers and self checkouts.

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. Chains are investing in more vertical integration, and the share of private labels in the market has gone up substantially. This has increased the chains' autonomy, and leverage over the suppliers.

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. 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.





## Scenario 2: Silicon Valley

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.

The way consumers shop groceries has changed a lot during the last ten years. 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.

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 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.

One of the most disruptive retail chains in the world, Amazon, is now established in several European countries including Sweden. So far, the giant has not entered 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.

### Scenario 3: Comfortably Numb

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 operate 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. As a result of still having rigid toll barriers the

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

The government passed legislation to mitigate price discrimination, as a desperate attempt in stimulating future competition in the market. These regulatory actions was 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 non existent. 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.

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.





## Scenario 4: Under pressure

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 liberalisation 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.

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.

The share of private labels has increased, as the Norwegian grocery chains try to deal with the international competition by offering exclusive products that are differentiated and often cheaper than the industry brands. Increasingly, many large producers have 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 have 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 include 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.

# Conclusions and 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 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 to all the strategic decisions 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 competitors 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 liberalisation of trade policies, poses both opportunities as well as threats, with the threat being 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'.

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 that seem likely to have an impactful effect on the future of the retail industry. One of these is the utilization of big data.

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 organisational 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.



# Methodology

We approached the future development of the Norwegian grocery industry in a rather explorative and holistic manner. We looked at a wide range of different drivers and elements potentially having an effect on the future of the industry, allowing findings to influence the proceeding course of the study.

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 insight from various individuals, ranging from decision makers within the industry, to academics within the relevant field of research.

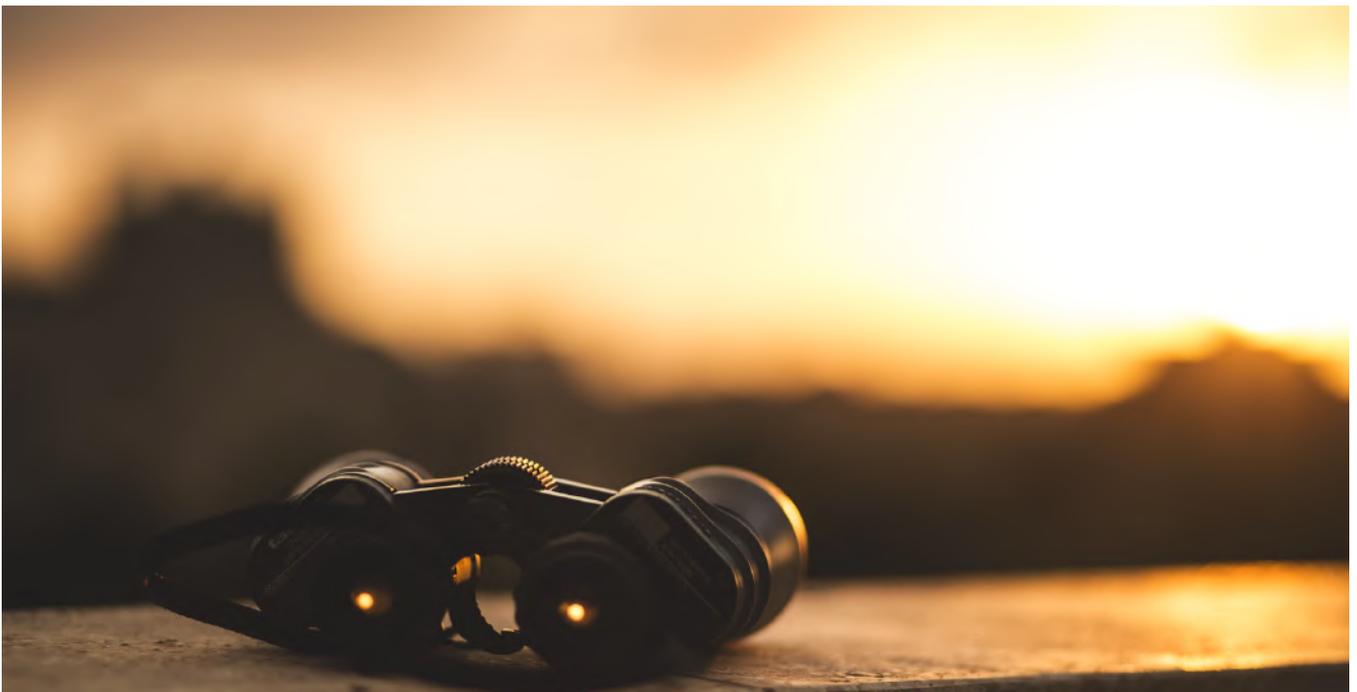
Based on both secondary and primary data, the two key drivers that seemed to represent the most important and uncertain factors were used to create a 2 x 2 matrix. This is a practice common in scenario analysis, especially when there are a few drivers that are expected to have a greater influence on the future than others.

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. Both axes represent opposing extremes, and should produce scenarios that are different, but that are still within range of possibility.

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.

However, the framework utilized 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.

Therefore, it can reveal ranges of plausible development, and thus provide a valuable tool for strategic thinking about the future.













8. Are there any major decisions with long-term implications you believe the three players in the industry are facing at the moment?"

9. Do you see any major constraints for the different players in the industry, that might limit what they can achieve in the future?

- Show appreciation that the interviewee was willing to be interviewed.
- Ask about degree of anonymity
- End.

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# GRA 19502

Master Thesis

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MSc

Preliminary thesis report

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**2028**

**A scenario analysis of future consumer preferences, and technological and industrial change in the Norwegian grocery industry**

*Preliminary thesis report*

15<sup>th</sup> of January 2018

GRA1953 - Preliminary thesis report

Lasse Onarheim Dahl

Vetle Fjeldheim

## 1.0 Introduction to the research topic

In this study, we will perform a scenario analysis of the Norwegian grocery industry. More specifically, we will identify decision scenarios that are actionable, and that have managerial value for decision makers in the grocery industry. We will explore predicted trends within consumer preferences and both technological and industrial aspects pertaining to the grocery industry in Norway. These trend forecasts combined with primary data through in-depth interviews will form the basis of our data collection, and for our scenario analysis. We will look into how consumer preferences develop, and how they are formed and influenced both externally and internally from the consumers' perspective. We expect that changes in consumer preferences will affect the products and services provided, but also vice versa, that changes within the industry will affect consumer preferences.

We will utilize Schoemaker's (1995) framework for scenario analysis. This framework is part of what has been labelled "the intuitive logics school", although this is considered a loose term with a broad set of different methodologies and ways of conducting scenario analyses. The main trademarks of the intuitive logics schools are that scenarios often have multiple purposes, a generic process and set of tools, and a relative small number (2 – 4) of scenarios generated (Bradfield et al., 2005).

Following Schoemaker (1995) we plan to outline a starting point for our research through dividing our knowledge into two areas (1) things we believe we know something about, and (2) elements we consider uncertain or even unknowable. Regarding the first area, we wish to identify shifts that we can allow ourselves to have "safe" assumptions about. As Schoemaker (1995) points out, these shifts can range from demographics, and substitution effects of new technologies. With regards to the second area, we plan to look at trends and scenarios that are most prominent in literature on the future of retailing. With this as our starting point, we will develop plausible scenarios for the future. In order to do this, we will follow the process that Schoemaker (1995) has developed where 1. Is defining the scope and time frame of our analysis, 2. Identifying major stakeholders (customers, suppliers etc.), 3. Identifying basic trends (imminent trends that are likely to affect issues identified in step 1), 4. Identifying key uncertainties (what events whose outcomes are uncertain will affect the issues of concern?), 5. Constructing initial scenario themes (identifying extremes of positives and negatives relative to current strategy), 6. Check for consistency and plausibility, 7. Develop learning scenarios (identifying emerging general themes), 8. Identify research needs, 9. Consider the development of quantitative models, 10. Evolve toward decision scenarios

(converge toward scenarios that eventually will be used to test strategies and generate new ideas).

The framework will be highlighted in more detail later in this report, while we link all the different steps to our research objective.

### **1.1. Introduction to the grocery industry and trends within the industry**

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, making 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). However, these chains do have different store concepts, ranging from hypermarkets, supermarkets, EDP-stores and smaller stores. Moreover, 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, 2017). 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 (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).

Digitalization on all relevant touchpoints are starting to be more widespread due to the availability of new technological solutions. This opens up for personalized pricing and digital relationships with the consumer, and according to Virke (2017), we are witnessing a drastic change 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).

## 1.2 Trends within consumer behavior and consumer preferences

### 1.2.1 Convenience

An overarching trend or phenomena, relevant in marketing, and retail as a whole, is convenience. In a comprehensive literature review on convenience written by Brown & McEnally (1995) 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. Research on convenience have approached the phenomena in different ways, but one of the most prominent links that has been heavily researched is how *employment status* of the adult members affects the consumption of convenience. More specifically, the gradual erasure of the housewife, and the consequential increase in women entering the workforce, has led to a strain on time available to perform home-related tasks. Therefore, the demand for convenience is argued to increase (Brown & McEnally, 1995). The comprehensive review on the status quo on convenience research undertaken by Brown & McEnally (1995) 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 of a product or service relative to the time and energy required by other offerings in the product/service class.

Although the article written by Brown & McEnally is primarily concerned with convenience as a general phenomenon, while also being rooted in the American consumer market, convenience is also a trend or phenomena that is highly relevant in Norway and the Nordic countries as well. In a survey done by Ernst & Young in 2015, consumer need for convenience is generally defined as having grocery stores nearby. However, there is gradually a higher demand for self-checkout counters, online grocery shopping (both home-delivery and click and collect), etc. (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. As mentioned, relevant examples are online grocery shopping, home delivery, self-checkout and ready meals (EY, 2015). In a study conducted by Morganosky and Cude (2000), 73% of the participants listed “convenience/time” as their main reason for shopping groceries online, while 15% listed “physical constraints” as their primary reason. Moreover, campaigns aimed at facilitating home cooking has been a huge success in Norway, and in other western grocery markets. Relevant examples of these campaigns locally are REMA 1000's “Dinner for under 100 kr”

(Middag til under hundrelappen) where the customer are offered recipes and shopping lists, and optimized products that go with them.

### **1.2.2 Customer engagement**

Another emerging trend is 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.

### **1.2.3 Product quality, healthiness and environmental impact**

Several studies have found trends indicating that consumers today are more concerned about the production method and the quality of the food products they buy (Asioli et al., 2017). They tend to seek out products that has a higher level of perceived quality, and a more transparent production method, than what was common earlier.

Moreover, there is an increased focus on health and wellness, meaning that consumers today has a larger appetite for information about the ingredients used in the products, and tend to choose the healthier options (Asioli et al., 2017). The average consumer has also become more aware of the impact the production and consumption of food has on the environment. This has led to an increase in popularity of organic and green products, perceived to be better for the environment, but as noted by Paul and Rana (2012), the choice of buying organic food is also motivated by wanting to eat healthy. This results in more demanding consumers, and an increased importance for the players in the grocery industry to create trust between them and the consumers (Asioli et al., 2017).

## **1.3 Technological and industrial predictions**

There are several predictions concerning future technological and industrial change in the Norwegian grocery industry. In a report on the Norwegian grocery industry published by Virke in 2017, they have 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).

## **2.0 Scope and time frame**

When choosing a timeframe for the scenario analysis, Schoemaker (1995) suggests looking at the changes that have occurred in the past. An essential aspect of this step is to ask what knowledge that would be of greatest value to the organization in the future (Schoemaker, 1995). Moreover, it is important to look at the past, and reflect on what you wish you had known then, that is now known. Identifying past sources of uncertainty and volatility will also help to clarify important factors to consider. The change that happened in past, will also serve as a baseline for what to expect in the future (Schoemaker, 1995). Previous research that has utilized an intuitive logics approach to scenario analysis have commonly had a timeframe varying from 3 to 20 years (Amer, Daim & Jetter, 2013).

As mentioned, 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. These trends are expected to continue to influence the industry in the future, as well as it is likely that new trends will emerge.

Based on this, we have chosen a timeframe of 10 years for our scenario analysis, as we think this time frame will be large enough to see significant changes in the consumer’s preferences and the industry, but still short enough to enable qualified assumption and constructions of scenarios for the future.

## **2.1 Research question(s) and objectives of the thesis**

We have formulated what we consider as an overarching research question for the thesis;

*“What decision scenarios rooted in the change of consumer preferences and technological and industrial factors in the grocery industry are likely to be actionable, and thus have managerial value for organizations planning 10 years ahead?”*

To bring further focus to our research questions we have formulated some sub questions that ties into the overarching research question, and that needs to be addressed throughout the process of performing our scenario analysis;

- 1) *What is likely to be the most predominant consumer preferences in the grocery industry 10 years from now?*
- 2) *What technological solutions relevant in the grocery industry are likely to be utilized in 10 years?*
- 3) *What will the industry look like in 10 years with regards to number of players and market power distribution?*

As is the case with qualitative and exploratory research, we are expecting that some aspects of the research questions might change as we gain a deeper understanding of the area of interest.

## **2.2 Implications of findings**

Scenarios are considered a valuable tool for business in order to make them more innovative, form better strategies and thus be better prepared for the future (Hiltunen, 2009), and they should act as support for strategic decision makers. Moreover, scenarios are deemed to be especially effective in dealing with uncertainties (Postma & Liebl, 2005). Through our research, we will identify actionable scenarios in which the relevant players in the industry can test and validate their strategies for the future. Because of this, we firmly believe that the paper will have managerial value and implications within the grocery industry.

## **3.0 Plan for data collection and thesis progression**

Our data collection will consist of both primary and secondary data. The sources for primary data will be in-depth interviews with relevant stakeholders within the companies, but also with individuals that can be considered as experts within the relevant fields of our research, and that can provide an external perspective. These sources are critical in order to provide some local perspective to our paper. Using experts is also in accordance with recommendations from Schoemaker (1995), and is in the literature often referred to as “exceptional individuals”.

Moreover, we will utilize secondary data to identify international factors (general consumer behavior, trends, business models, solutions, etc.) that are likely to affect the behavior and preferences of the Norwegian consumer. The sources will be a mixture of academic literature, market trend reports, and other statistical reports on topics relevant to predicting the development of consumer preferences in Norway.

### **3.1 In-depth interviews**

As mentioned, we will conduct in-depth interviews that will serve as an important part of our data collection. We believe that interviewing key individuals in the respective companies is important for two main reasons. 1) The method of performing scenario analysis is primarily designed to be used by companies, and consequently we consider primary data coming directly from the actual companies as critical in order to fully utilize the framework. With regards to this, relevant elements from the scenario analysis framework are identifying past sources of uncertainty and volatility, identifying major stakeholders, identifying current and future strategies. 2) Consumer preferences are not formed purely on intrinsically rooted factors. External influence through the actual availability of various products and solutions will dictate the formation of consumer preferences, making the actual providers, and the influential power that they have, important to analyze.

More specifically, we will aim at interviewing decision makers within the relevant companies, but also individuals that work with research and development related tasks. We believe that this balance between interviewees will ensure that we acquire as much information as we can in order to fully utilize the framework for scenario analysis.

### **3.2 Analytical framework - Scenario Analysis**

As we will structure our analysis utilizing Schoemaker's (1995) framework, we already have a vague idea on what the process of writing our thesis will look like. As mentioned, the framework proposes a ten-step model, that will ultimately produce archetypal scenarios that are actionable for the relevant players in the industry (Schoemaker, 1995). In what follows, we will elaborate on the different steps, relate them to our research questions, and explain how we will approach them in writing our thesis. As each step naturally is affected by the step before, it is impossible to accurately predict the process and the methods. Also, although we will follow Schoemaker's framework, it is likely that alternations will be made, to better fit our research questions, our process, and our study.

### 1. Defining the scope

Before collecting primary data and starting to identify scenarios, a set of decisions on the scope needs to be made. As already explained and argued for, we chose the scope of a 10-year time frame, in the Norwegian grocery chain market, looking at potential changes in consumer preferences of the purchase decision as a result of changes in internal and external factors. Although small adjustments might occur as a result of data collection and a better understanding of the field, these boundaries will be used as an initial scope, and works as the foundation for the rest of our research. The scope is also reflected in the research question proposed.

### 2. Identify the major stakeholders

In this step we need to identify those that have an interest in the identified issues in the previous step. Among obvious stakeholders are customers, suppliers, competitors, employees, shareholders, government and so on (Schoemaker, 1995). Primarily using secondary data, we will identify all the relevant stakeholders, and those affected by, and having the chance to affect, a change in consumer preferences. We believe that information collected through the in-depth interviews will be valuable for this step, especially for better understanding what the exact roles of the stakeholders are, and how they affect the consumer and vice versa.

### 3. Identify basic trends

In order to identify trends within the industry, and trends concerning consumer preferences and purchase decisions, we will look at relevant literature and statistics, but also conduct in-depth interviews with experts. We have already outlined a couple of trends pertaining to both consumer behavior/preferences, and industrial changes, but this will naturally be comprehensively reviewed in the actual thesis. According to Schoemaker (1995) the factors to be explored in this step are related to PESTEL, and industrial factors that are sure to affect issues identified in step one. Moreover, we will systematically categorize the identified trends through a chart, or a so-called “influence diagram” to identify its impact on present strategy as positive, negative or uncertain (Schoemaker, 1995).

### 4. Identify key uncertainties

Also based on past literature and the in-depth interviews, we will list uncertainties of the future that might affect the consumer’s preferences, including, but not limited to, changes

in technology, changes in the political sphere, changes in legislation etc. In this step it is also relevant to identify relationship between uncertainties, since not all combinations may occur (Schoemaker, 1995).

#### 5. Construct initial scenario themes

After this point, the “main ingredients” for scenario construction should be in place (Schoemaker, 1995). One approach is to identify what Schoemaker (1995) calls “extreme worlds” meaning that you put all positive elements in one, and all negatives in another. To what extent they are positive or negative is defined relative to current strategy. After having identified trends and uncertainties affecting consumer preferences, we should be able to create some provisional scenarios.

#### 6. Check for consistency and plausibility

After formulating these “worlds”, Schoemaker (1995) underlines that they are not yet full-fledged scenarios due to probable inconsistencies. Because of this, the sixth step is aimed at testing internal consistency, and there are three tests, formulated as questions, outlined by Schoemaker (1995); 1) are the trends compatible within the chosen time frame? 2) do the scenarios combine outcomes of uncertainties that indeed go together? 3) are the major stakeholders placed in positions they do not like and can change? These tests for internal consistency will act as a filter for continued scenario development.

#### 7. Develop learning scenarios

In this step, we should start witnessing some emerging general themes. The goal here will be to identify themes that are relevant from a strategic standpoint, and then organize possible outcomes and trends around them (Schoemaker, 1995).

#### 8. Identify research needs

After developing strategically relevant learning scenarios, you may need to do further research to increase our understanding of uncertainties and trends (Schoemaker, 1995). When going through these learning scenarios, it is likely that it will make you more aware of areas that are uncertain, and that needs more research. As a relevant example; can we be certain that commercial home-delivery with drones will be viable from a technological standpoint, or will it even be legal 10 years from now?

#### 9. Develop quantitative models

When we have come up with learning scenarios, and have polished our findings, we will use this to quantify as many of the variables as we find appropriate. Further, if deemed fit, we will create one or more models, enabling us to run simulations by altering one or more of the quantified variables.

#### 10. Evolve toward decision scenarios

Finally, the goal will be to produce actionable decision scenarios in which relevant players can test their strategies and generate new ideas. At this point, retracing steps to see if the learning scenarios actually address the real issues of the companies in question can help to further focus the decision scenarios (Schoemaker, 1995). In relation to that, there are some criteria that need to be addressed in this step, to ensure that our decision scenarios are actionable. The first one is relevance, meaning that they have to connect directly with the concerns of the company or the user of the scenarios (Schoemaker, 1995). Second, they have to be consistent, and be perceived as such in order to be effective decision scenarios (Schoemaker, 1995). Third, one should strive to create decision scenarios of archetypal nature, meaning that they should describe generically different futures rather than variations within one theme (Schoemaker, 1995). Fourth, the scenarios should also describe an equilibrium, or a state where the relevant systems associated with the scenario might exist for an extended period of time as opposed to being ephemeral.

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