Master's degree thesis

LOG950 Logistics

"A case study of the consequences on product variety in the Norwegian market after consolidation from four to three major grocery chains"

Author

Anders Vatle

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It is with great emotions and pride that I can now submit my thesis, and finish a long and fruitful journey at Molde University college. Though this roller-coaster of emotions during this journey, challenges that I wouldn't have imagined when I first started my journey at Molde University College have risen. This has given me great wisdom and experiences that I will know will be useful, after leaving Molde University College.

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You gave me the best present any man could have wanted. 4th of May 2017 you gave birth to our first son. So, I dedicate this paper to you and our son.

Molde University College,
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 Anders Vatle

Summary

This master thesis analyses the consequences on product variety in the Norwegian market after consolidation from four to three major grocery chains. More specifically, it seeks to discuss how product variety have been affected during this transformation, is it the end-customers or is it the suppliers who see any kind of changes in this area. different companies perceive and act differently in this transformation. This is studied trough the research question (1) How has the change from four to three major market players in Norwegian grocery market affected product variety and product availability to end consumer? For investigate this research question, four hypotheses are created for getting an overall overview of the subject. The four genres of hypothesis are (1) product diversity, (2) product availability, (3) e-commerce and (4) product innovation.

To help with this task a set of theoretical concept are discussed: Transaction cost analysis, Microeconomic and product variety. These theories are also combined with alternative literature of private label and with an overview by the three remaining market players in Norwegian grocery market. Moreover, an empirical study is conducted using an embedded single-case study through applying a general interview guide to 6 different companies in 3 different product segment.

The thesis located with the help from the hypothesis, that the reason for suppliers have a tougher everyday surviving in the suppliers marked is not because of consequence from the structure changes after on market player was sold. The product variety are more affected by the customer buying pattern, such as customers wants more product variation in Norway, however 2 /3 of the stores in Norway are low price discount stores with limited place for more products. And low price discount segment is to continue to further growing, while another price segment is decreasing. Customers are acting differently from what day are saying how they are acting. Suppliers have in general one less market player to sell to, however due to there are very little differentiation of products, the effects on this selling of one competitor to another, have caused minor changes since to stores are very like in what brand they are offering. Some limitations in this study, very little responders out of the total number of suppliers for the grocery market, also due to the limitations to only three product segment this study is not representative for the whole market for product variety in Norwegian grocery market.

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List of Abbreviations

EDLP – Everyday low price

FMCG- Fast moving consumer goods

ICA- ICA Norge

NOK- Norwegian kroner

TCA- Transaction cost analysis

TCE- Transaction cost economic

1.0 Introduction

October 6th 2014, Coop Norge Handel AS announced the acquisition of their competitor Ica Gruppen AB, several store owners in Sweden were relieved due to the loss of profits, market shares and customers they had experienced since the beginning of 2008. In 2013 however, it was proclaimed by Ica that if their terms of purchasing in addition to the efficiency of their own distribution was not improved, they would have to withdraw from the Norwegian market.

 The Ica organization was not pleased with the situation experienced in Norway, especially since the Swedish part of the organization experienced a strong market position, being their number one market. What was experienced was that Ica Sweden had to reach into their own profits to cover the losses in the Norwegian market, making many of the retailers dissatisfied

Ica Norway, had 553 stores at the time of withdrawal from the Norwegian market, which were sold to Coop Norway. Giving Coop the control of in total 1150 stores across Norway.

The purpose of this study is, how this acquisition has impacted the Norwegian grocery market. and how the product availability in the eyes of the consumers has been affected in the aftermath of the acquisition.
 The CEO of Coop claimed that the acquisition of Ica, would give them better terms and conditions in their trade with the suppliers. In other words, giving Coop an advantage regarding both customers and suppliers. (Fanebust 2014).

With the sale of 553 stores to Coop Norway, in theory there was a loss of 553 possible market places for suppliers to sell their products. This can be translated into that Coop has achieved an increase of 30 % in market share. The question that then arises is if Coop has increased their assortments with 30% after the acquisition was finalized.

This study will try to get a picture of how the market, has been for products and product variability in the grocery market, in the period from 2014 up until today, going from four to three major market players in the Norwegian grocery market. In addition, the different

segments in the grocery market has been through great changes, as can be seen from the figure below

Figure 1: Market share segment 2005 vs 2016
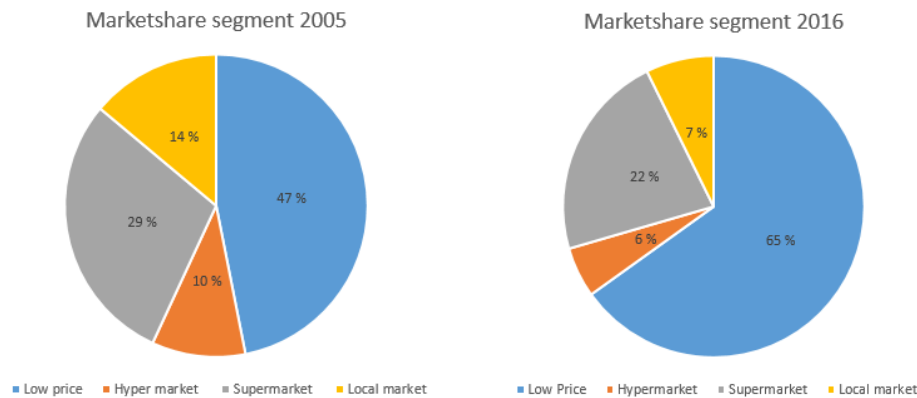
In the period 2005-2016 one segment has experienced a major increase in sales across Norway, the low-price segment has had an 18% increase in contrast to other segments which have experienced decreases in their sales in the same period. This can also have an impact on the product variations in the Norwegian grocery market.

The basic definition of product variety and can be summarized as "t*he number of products or options of a product that a single company or brands offers to customers "*(Randall and Ulrich 2001). While adding variety to a product line increases both production costs and market mediation costs, it can note that different types of variety have different relative influences on production costs and market mediation costs, depending on the product attributes, which underlie that variety. Hence, the association between product variety and supply chain structure depends on the relative impact of variation in each product attribute on production costs and market mediation costs (Randall and Ulrich 2001)

The definition of market mediation cost can be seen as: "*Market mediation costs arise when supply ex-cedes demand and a product should be marked down and sold at a loss or when supply falls short of demand, resulting in lost sales opportunities and dissatisfied customers*"(Fisher Marshall "1997")

Difficulties have arisen for the producers in today's retail landscape, as the brands have a tougher way in to the stores assortments of the remaining three actors in the grocery market.

The three remaining wholesalers control most of the product trade that occurs in the grocery chains. This leaves limited space for new arrivals and innovative products

Today brands are coming up with new products, once a year and, some of the top brands can usually come up with several innovations of products twice or even three times a year.

Meaning that they must either decrease their number of products in store or an innovative product may endure the tough marked of new product that survive.

This means that a certain amount of customer need to purchase the product in a frequent rate, and in addition, suppliers and retailers need to achieve profits on the products.

Another approach is to look at who is controlling what, the three remaining actors, are deciding as good as every product variation suppliers can offer to end-customers throughout grocery chains. (Bogen, Espen 2011).

The reason for this research question is to find out how the Norwegian grocery marked have been affected with the loss of a major market player such as ICA. Has the market place been more difficult to enter as its been narrower to get access for new products entrants? And in the same time, who wins and who are losing on this arrangement today.

end consumers or suppliers?

Considering relevant theory such as microeconomics, transaction cost theory,

this study will go in depth on how relevant theory such as, product variety, private label and e-commerce have impacted the market of products today. The hypothesis will help to narrow the subject, that it is possible to conduct an in-depth research on this field, covering the right angles.

1.1   Research purpose

The main research question for this thesis is as follows.

RQ: How has the change from four to three major market players in Norwegian grocery market affected product variety and product availability to end consumer?

This thesis will examine the relationship between product variety in the grocery market of Norway, considering relevant theory and the relationship existing today between suppliers and retailers\umbrella chain. What impact the sale of Ica to an existing competitor in the grocery market has had on the market, and how this is affecting product availability and product variety for end customer in Norway.

My hypothesis will be in this thesis will be:

H1: The loss of a major market player in the Norwegian grocery market has resulted in reduced product diversity sales for suppliers to grocery chains

H2: The loss of a major market player in the Norwegian grocery market has resulted in less products available for end customers

H3: The loss of a major market player in Norwegian grocery have made it easier for e-commerce actors to getting a higher market share?

H4: The loss of a major market player in Norwegian grocery have decreased the frequency of new product arrivals?

This thesis will only examine the effects product variety has had from a supplier point of view, an examination with qualitative approach interviewing different suppliers in different segments and products.

1.2   Aim for this research

This thesis aims to contribute to addressing the issue of fewer markets players in the grocery market today, with less diversity of products for end-customers in Norway to choose from. The fewer participants that are in the marked, the more power the remaining actors have, and in the end, it will be costlier and hostile for new entrants to this market.
Furthermore, this thesis will hopefully help understand how this has changed, how it has happened, and how this is affecting the rest of the participants, such as suppliers and end-customer.

There has been some research studies of product variety in the past, however none has had the approach of the Norwegian grocery market considering the market participants has been reduced from four to three major players.

Since time is a limitation to this thesis, this study will only examine the effects of product variety has hade from a supplier point of view. Because of this, the author has interviewed producers of brands existing in the market today. This will give this study detailed insights in how this has evolved in the market today.

2.0   Norwegian Grocery Retail Marked

The Norwegian grocery industry traded for NOK 169 billion in 2016.The three major chains account for as much as 96 % of this turnover.

The suppliers side is more fragmented. with approximately, 100 suppliers distributing 95 % of the total products sold.

2.1   Markets Participants

There are 3 large umbrella chains in the Norwegian Grocery Retail market today. Combined these three players, Reitangruppen, NorgesGruppen and Coop Norway they are controlling the market with 96 % market share of the total. In addition to these three there are a fourth umbrella chain, Bunnpris but they have only approximately around 3,9 % of the total market.

Figure 2: Market share grocery sector 2016
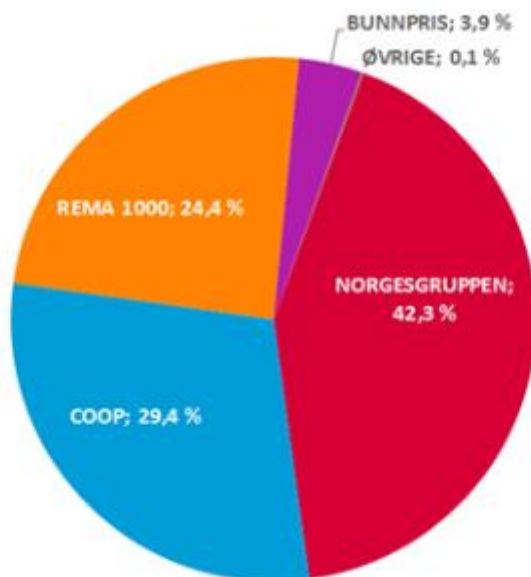
The participants in the Norwegian grocery market are operating in four different segments: discount, local, supermarket and hypermarket. Whereas local store segment is often locally adapting in each region with a wider range of products, than a usually low price discount stores (EDLP) is with its range from 2000- 3000 products. Supermarkets have a bigger range between small or big stores, since it is can be all from 5.000 in a small store to a 20.000 items in a big supermarket. Hypermarkets are the biggest segment with in the biggest stores can carry up to 25.000 products in one store location. However, it's vital to address that in bigger supermarkets and Hypermarkets it's not only grocery products as. these stores sell about everything that can be sold, such as clothing, electronics, toys, building material etc.

In this thesis, the author will only limit his research to grocery products.

Table 1: Market players different store profile

		Market players		
		NorgesGruppen	Coop	Reitangruppen
Store profile	Discount chains	KIWI	Coop Extra Coop Prix	REMA 1000
	Local chains	Joker Nærbutikken	Coop Marked	N\A
	Supermarket chains	Spar\Eurospar Meny	Coop Mega	N\A
	Hypermarket chains	N\A	Coop Obs!	N\A

2.1.1 NorgesGruppen

NorgesGruppen as a company can be traced back to 1866, when it was established as a wholesale company Joh.johannson. The ownership is still in the family name as it is today controlled by the Joh.johannson AS.

Today NorgesGruppen is the biggest grocery market player with 42,3% share of the market. However, it has not always been like that.

In 1993 the structure of the players in the market were completely different. Store owners back then, who were not located under Reitangruppen, Forbrukersamvirket(Coop) and Haakon group (Ica), joined Norgesdetailj (NorgesGruppen) where independent retailers were scattered around the municipalities in Norway.

Former CEO Sverre Leiro (2000-2011) mentioned right after the establishment of NorgesGruppen in 1993 that, the hunt of local stores to gather under the umbrella of NorgesGruppen was intense. Due to the facts, all the others players were also after the same stores. However, as Sverre Leiro mentions that, many chose NorgesGruppen due to the loyalty to the wholesaler and the gravity of the whole organization. Independency was critical for the success, and NorgesGruppen did not take this from the local store owners.

Today NorgesGruppen have a total of 1.800 grocery stores scattered around in Norway, and are represented in 367 of 430 municipalities. This gives NorgesGruppen a municipalities coverage of more than 85 %. NorgesGruppen earns money through membership fee and sales of products in self owned stores. These charges are generated from the umbrella chains.

Figure 3: Illustration of different umbrella chains of NorgesGruppen
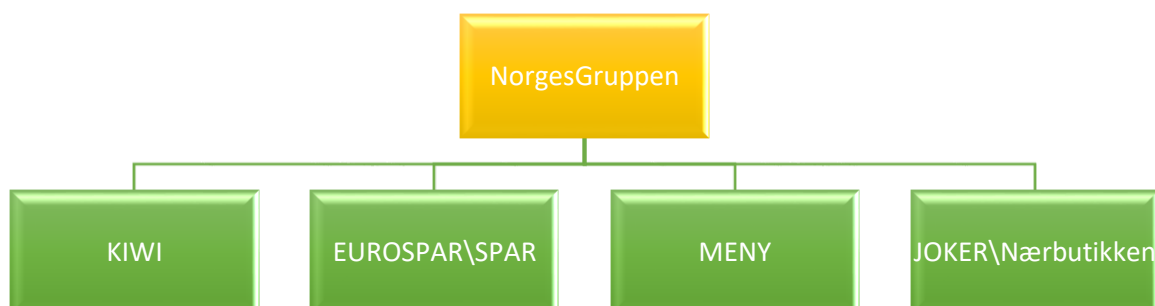
When NorgesGruppen was established in 1993, it was with Evensen & Lorentzen, Spar, Kiwi, Meny, Aka, Nærbutikkene Norge and Vest Kjøpmenn, in addition Centra, Centra however withdrew and joined Haakon gruppen but joined NorgesGruppen again in 2000.

The existing umbrella chains under NorgesGruppen today is as follow: Kiwi, Eurospar\Spar, Meny and Joker.

When it comes to the vertical supply chain involvement, ASKO is a self-owned wholesale company that delivers as much as 80% of all total products to the umbrella chains. NorgesGruppen target is at 100%, meaning they would like in the future to have all the distribution of the products through ASKO and then to be delivered to the umbrella chains stores. Also, NorgesGruppen has ownership in the fruit and vegetables company. Who delivers these products to the stores in NorgesGruppen.

2.1.2 Coop Norge

After Coop Norway bought Ica in 2014, Coop has increased their market share to almost 30% in 2016 from 22,3 in 2014 before acquisition of ICA Norway.

As Coop is a short description for cooperative. Coop Norway is the cooperative consumer company. Coop consists of more than 100 cooperatives that are standing together as Coop Norge AS.

Coop consumer cooperation has approximately 1.150 stores located all across Norway.

Almost 1.5 million Norwegians, are members of the Coop cooperative, all members have paid a small intro fee to sign up as a member.

Coop Norway, is the only player that has grocery chains in all four store profiles. In discount, they have Coop Extra, which is the fastest growing grocery chain in Norway in recent years. They have also won the many price tests in being the cheapest grocery chain. Also in discount Coop Norway has Prix stores. In the Supermarket and hypermarket segment it is Coop Mega and Coop Obs that are the umbrella chain and in local they have Coop Marked.

Figure 4: illustration of different umbrella chain of Coop Norway

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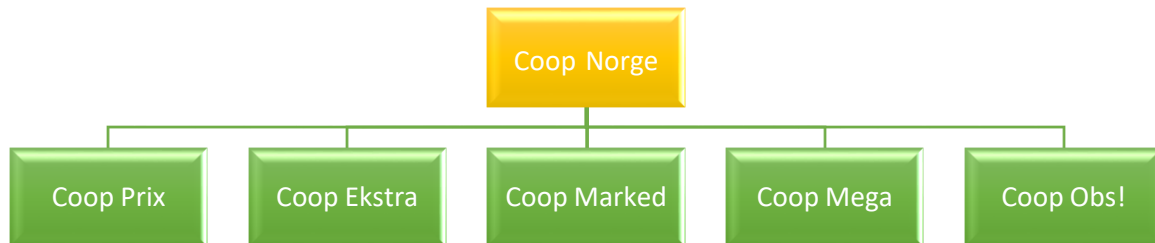
2.1.3 Reitangruppen

Rema 1000 is being the only represent ants of a grocery store chain under Reitangruppen, the group history can be dated back to 1948. Today Reitangruppen is the smallest of the three big market players, however this have not always been like this. After Lidl withdraw from the market back in 2009, and to around 2014, Reitangruppen was the second biggest market player in term of market shares. Since Coop bought the Ica Norway, Coop switched places with Reitangruppen and left them to last place of the big three. This have had a major effect on REMA 1000's position as the "cheapest" low price discount chain in the Norwegian market. Nevertheless, it is crucial to notice that REMA 1000 are alone as an umbrella chain. Coop and NorgesGruppen have multiple umbrella chains, and therefore it is more capable to capture a higher market share than Reitangruppen.

Figure 5: Illustration of different umbrella chain of Reitangruppen

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The first REMA 1000 store open in 1979 and since that year REMA 1000 continued to grow to 578 stores around in Norway leaving REMA 1000 to be the biggest store concept chain in

Norway. Main difference from Coop and NorgesGruppen chains stores is that REMA 1000 have mainly focused on franchise philosophy in its core business concept.

Franchise is used often to develop increased market share in a shorter time compared to a self-owned store philosophy. Reitangruppen's store owner address the daily routine in stores and work after the Rema 1000 ground principles. However, Reitangruppen has full control and is responsible for the products, service and distribution for all stores.

Reitangruppen has had control over the distribution, since 1998 after a merger of previously REMA Gross- firms. Also, Reitangruppen is working the vertical supply chain involvement. As they control their own wholesaler, REMA Distribution in addition a partial ownership with NorgesGruppen when it comes to the fruit and vegetables company BAMA, they have established the BaRe as it heads distribution on fruit and vegetables

Reitangruppen has queried many suppliers over the years to have completely control over their own supply chain. Such brand suppliers as Nordfjord kjøtt and Solvinge are good examples of this acquisition in their history.

When it comes to private labels, this will be addressed in the next chapter.

2.2 Private Label

The success of the private label market started in the beginning of the previous century (Hoch & Banerji 1993) Private label meaning store brands, or in other terms, "all merchandise sold under the retail store private label"

The Norwegian grocery market had in 2004 a total of 8,7 % private label share in the total market, however, ten years after the market share in 2014 is 13,8 percent. Other statistics shows that Reitangruppen and Coop are the most aggressive in term of having a bigger share with almost 20%, NorgesGruppen has a more passive approach to this market, with only 11% market share of private label. (Daglivarehandelen) Experts believe that 30 % marker is an optimistic number to reach in the future.

Table 2: Market share of private label products in Norway.
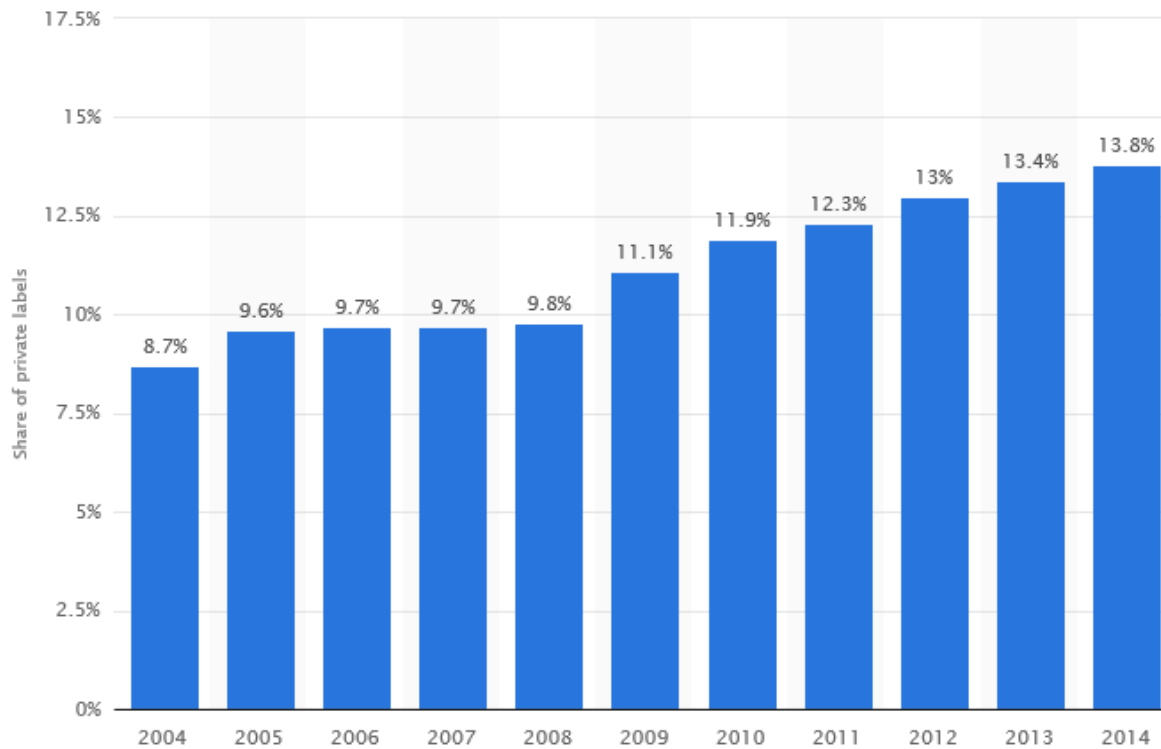
(Kumar & Steenkamp 2007) presented figures that shows that the share of private label in the German grocery market is 35 %. in the period from 1999 – 2005 the private label share increased from 23,4 % to 35,1 % in only 6 years, this in spite German having one of the biggest economies in the world. This gives belief that in the Norwegian private label market can also reach a 30 % market share.

The private Label Manufacturing association in the U.S (2013), defines private labels or store brand products are *"all kind of products and merchandise that are sold under a retail store's brand private label."* Meaning either a brand that are given a fancy name like Jacobs utvalgte that are being sold in Meny at NorgesGruppen and other umbrella chains. Or it can be a product that is given the same name as the retailer that is selling it. Private label has many names, or store brands that some are calling it. However, some also call it private brands, house brands, own labels, white labels, distributor brands or retailer brands (Private label manufacturing association of the United States,2013)

Many stores or umbrella chains uses private label today as a product that gives the customer

options to choses other brands than the large product brands are most common to have in stores today. It represents a low-price alternative for the end-customer that does want to buy brands in that product segment. In the US, private labels made a shift in the whole retailing industry by changing the focus from national brands to private labels within the retailer chain. (Kumar Steenkamp, 2007) This has happened all over the world, when retailers in almost every category in their assortment carry private label products as an alternative to larger brands

Table 3: Market share of private label by category in Norwegian grocery in 2016.
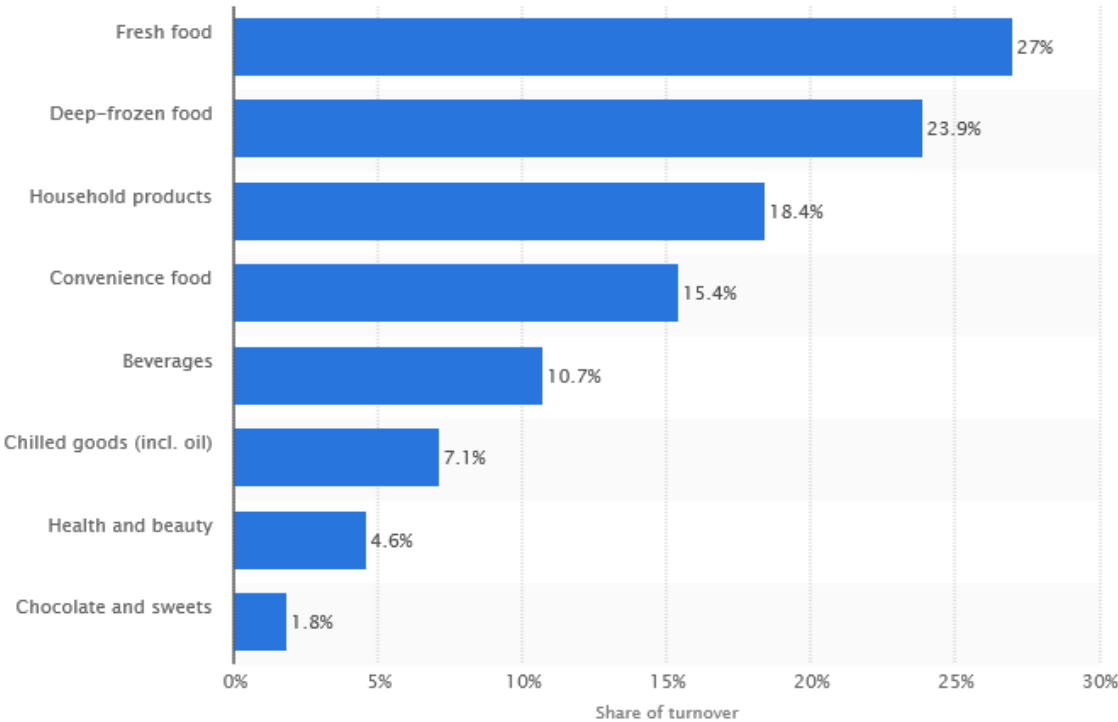
This has given the customer a better assortment and the private label are not being just seen as cheap anymore, the private label todays can be viewed as a better substitute for product brands, giving the retailer a differentiation potential against their competitor instead of only have product brand available for end-customers.

This opinion is supported by the FMCG consulting firm Aperio (2014), they say that private label have evolved from a cheap alternative, that were giving the retailers better profit margin in comparison to the large brand corporations who now depend on customer loyalty to the

retailers as well as to the brands themselves. This means that trough this evolution of private labels, in the market that they are becoming an increased threat to the product brand available that are not private labels.

Table 4: Four types of private label characteristics

Private label type	Characteristics
Generic Private label	Very low margins, cheap private label.
Copycat brands	Replicate of a national brand\product brand that are selling to a cheaper price. This is potential the biggest threats to the national\product brand
Premium private label	This represents high quality for customer with a price range from medium to high. Serve as products that can differentiate from other retailers.
Value-innovator brands	Goes for best performance for money, same level as national\product brands in quality, however, trying to avoid any types of cost and focus on new segments of customers.

The table above illustrates that the variations of private label ranges are big, as it is not only the cheap products anymore, and for the retailer this gives a tremendous opportunity to have an assortment that gives a certain competitive advantage.

2.2.1 Co-Branding

Co -branding exists, when there is an alliance between a retailer and a producer, this type of alliance consists of two different players in the same value chain, however they are not in any type of ownership status with each other. Moreover, this type of alliance has not been researched enough to conclude if it is better than other types of alliance or cooperation. However, (Thompson and Strutton 2012) studied the impact of this type of alliance, for instance their findings were, that it is more beneficial, when there is a bigger gap between two brands and the product, they are cooperating with is in a different segment or product family than the originals products are in

For retailers, it is critical to differentiate from competitors, and a co- branding alliance between them and a producer, is a way to distinguish themselves from others actors in the market. This can help retailers to getting a better image from their own customers, since they offer products that are limited to only their own retail stores. However, this can give a better experience for customers if a retailer has a good environment, and in addition to providing the customers with a high value shopping experience.

This can be linked back to private labels, for any of retailer operating with private label products. Product specific attributes can create opportunities for retailers, if the products are good enough, and are adding value to the retailer's image, the retailers can add more product variety to their own brand name.

If a producer us this type of strategy to gain entry in a retailer's shelf space, it can be seen as a great way to get not only entrance for the co-branding product if the retailer is nationwide, this can easily be adapted to a easier acceptance from the retailer for any type of product extensions for this product.

Völckner and Sattler (2006) also mentions that this type of relationship with co-branding between producers and retailers can give the producer more benefits of such a cooperation with a retailer , in giving the producer more shelf pace for its own products if the relationship is fruitful between the actors in the alliance.

In such alliances retailers, would be more open for sharing marketing cost and other cost for giving the product a better way for success.

E-commerce actors such as those actors who sells food boxes, Adams matkasse and Godtlevert, are in a market that is growing, the question is if the growth in 2016 is big enough to steal more customer from the traditional retail market? Combined sales from both actors in 2016, shows that they reached a revenue of 650 million NOK. This is not even close to the overall sales in traditional retail market with combined sales between the actors of 186 billion NOK.

This can be caused by the possibility that the respondents of the study, are not a representative selection for this type of e-commerce, with food boxes, since beverage, dry food and coffee are not the primary products for general dinner boxes, it is more likely that the boxes are filled with fresh vegetables, meat, fish, rice and dairy products.

When it comes to products sold from e-commerce stores such as Kolonial.no, Market.no etc. the respondents in the companies are more positive and willing to act. Here they are more likely to have higher sales volume per product rather, than just a few different products each week. This is the number one reason for the respondents in for choosing to sell their products to the main actors of e-commerce grocery stores.

Kolonial.no sold for 424 million NOK in 2016 a high increase from 2015 when they only sold for 75 million NOK. (trappa 2017) However, there are some issues, that are vital for further analysis. As Kolonial.no is just covering the eastern part of Norway, the part of Norway that is the most populated area. But this excludes the three biggest cities' after Oslo, Bergen, Trondheim and Stavanger are cities with most inhabitant, and Kolonial.no is not covering those cities at this point in time. This shows that there exist possibilities for further increases in sales in years to come. Furthermore, due to Norway's geography it is also likely that some area of Norway is not having a fruitful market potential for e-commerce.

3.0 Research and theoretical frame

3.1 Product Variety

The downside of adding more products and give end customer more options to choose from is, while adding variety to a product line it increases both production costs and market mediation costs. Different types of variety have different relative influences on both production costs and market mediation costs, depending on the product attributes, which underlie that variety. (Randall and Ulrich 2001)

Companies are faced with a so-called dilemma, when dealing with product variety (Kerke and Srinivasan (-1990). On one side product variety increases material cost, unit and direct labor cost. Which leads to higher complexity in the production processes and therefore this will increase the number of activities.
(Wan, Evers and Dresner 2012) would have said that, these events would reduce the performance of a company, and at the same time would not be efficient to fully develop, as a mean to achieve successful economic of scale.

How will product variety impact supplier and market players in Norwegian grocery market after losing one major market player?
(Fisher, Ramdas and Ulrich 1999) stated that there is a general term in a global view about product variety, as the research on this topic is vast and have increased. They say that product variety is common to address in different disciplines in management such as operation and marketing and others. The reason for this global view of this topic is that the markets continues to grow due to the market forces such as technologies are evolving, consumer's behavior is becoming sophisticated, in addition to global competition and evolving trade structures.

Different aspects such as disadvantage and advantages of the use of product variety in the grocery market today, strategies involving using product variety used in gaining competitive

advantage can be discussed further in this study paper, however, it is first vital to define what product variety is.

3.1.1 Definition of product variety

The basic definition of product variety is "number of products or options of a product that a single company or a brand are offering to the customers" ((Randall and Ulrich 2001)

There are researchers that are giving a more in depth explanation on the specification of the variety types.as this can be divided into either static or dynamic varieties (Fisher, Ramdas and Ulrich 1999) state that static variety can be differentiated into external or internal variety. Furthermore (Pil and Holweg (2004)) are also differentiating the internal variety into peripheral, intermediate and fundamental variety.

It is easier to get an overview of the different tiers of variety in a following figure.

Figure 6: illustration of product variety based on Pil and Holweg
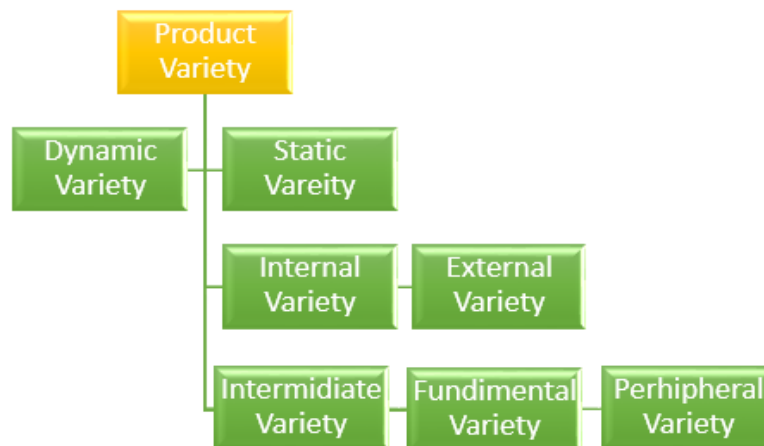
If we take a close look at what is illustrated in the figure above, product variety is first divided into dynamic and static variety. The static variety is defined as it will not change and is constant at any point of time. While the dynamic variety is the opposite, meaning that existing products is being frequently replaces by new and improved products (Fisher, Ramdas and Ulrich 1999)

Furthermore, it is possible to dived static variety into internal and external variety, where internal variety is all the "components" needed in the prosses of creating and producing the prosses for the complexity for manufacturing level. This is necessary for the delivery of the external variety. (Pil and Holweg, 2004) The external variety can be explained as the variety that is being presented to the customer, meaning that. The external variety is the total number of products that are different variants of existing products and that are being purchase by the end customer.

Internal variety can be grouped into three additional tires, Fundamental, Intermediate and Peripheral variety, here MacDuffie, Sethuraman and Fischer (1996) distinguish the impact the internal variety have into these three tires. However, these are more common to use in manufacturing industry such as automotive industry etc. (Pil and Holweg 2004)

3.2   Creating Variety

It is necessary to explain how variety of products can be created.

 Randall and Ulrich (2001) says in their study "*variety within a product line arises by varying the values off attributes form one product to another*", meaning that one product can consist of numerous attributes and dimensions. Hereby the dimensions and attributes can be dependent on a certain type of product, however it not crucial for the products to be similar or the same. (Green and Krieger 1996). Ramdas (2003) applied the approach how a product is consisting of multiple dimension, product architecture, customizations degree and horizon of time as possible themes that need to be taken in into consideration for the creation of product variety.

Figure 7: An illustration of creating product variety based on Ramdas (2003)
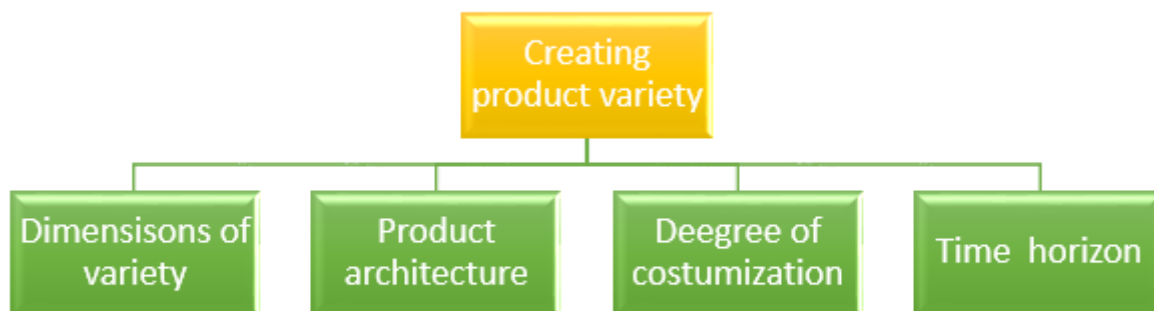
Start with product architecture, this is about mapping which type of relation it is between the functions and how the physical components are being assembled into products. In addition, how functions between themselves are stated into the service industry through process steps. Dimensions of variety, any form of aspects including brand or packaging can be seen on as a new source of variety, meaning variety can be based on the function it has as a product or which type of physical form the product is in. The end-customer can receive value through any types of product variety and however the company can receive competitive advantages for other market players in the same segment (Ramdas 2003).

Degree of customization is when any company is offering a set of different levels of customization. Whereas a company have set a series of ready- make options for a product that the costumer can choses from at any level of customisation. There is a wide range of customisation where a customer can go from low involvement to extreme involvement, whereas extreme involvement is when the product is almost 100% customized and the customer is getting a product that is completely individualized (Ramdas 2003).

Time horizon can be explained as a company is generating a product line over time, in which frequently new products are being modified and adapted to be introduced to the market, this

has impact on the perception of variety in the customers view as this is vital for the ongoing variety creation.(Ramdas 2003)

The creation of variety is crucial for the involvement and influence of those four tires to cope with a business strategy for creating product variety (Ramdas 2003).

3.2.1 Business strategy and product variety management

In research literature, many authors speak about how product variety management is crucial for success in any businesses, due to the fact that management of products and product variety itself can be a vital part for any business to give them competitive advantages in the market against other businesses competing in the same segment. However just adding more variety is not a success story that will last. It is vital to implement a core predefined strategy that with help from successful management it will be possible, to overcome any type of loss that may occur when it comes to lack of strategy and management.

In addition, if a business increases product variety, this will often lead the business into further adding cost and generate more operational cost and efforts, leaving companies to strive to have an efficient management and a strategy that are well defined is more crucial than ever, for business companies to survive in today's market. (Kerke and Srinivasan 1990)

Companies need to decide how high frequency when it coming to introducing new products to the market and how often or when it is time to withdraw old products that are not selling enough. This is essential to the core business management of companies and they need to establish a good line. For the product variety to the market, they need to decide which attributes they need to use for certain type of variation. (Ramdas 2003) states that how the company works with their own product variety mix is crucial for their own long term objectives and long term profit, as the management of product variety is described as balancing revenue and additional costs trad off.

The implementation is needs to be considered when it comes to managing decisions of the variety creation. (Ramdas 2003) has grouped these into three decisions tires that are a part of the management processes. The first is organizational capabilities and process within the

company, the second is location of the variegation points. The third theme is day to day decisions that results in accompany. (Ramdas 2003) says if companies take these decisions into consideration this will give the company an effective way to differentiate its products based on responsiveness, low cost and higher quality.

Mather (1992) researched the field of cost allocation and of products deletions. The results of the study where showed that the deletions and allocation of cost is the main problem when it comes to product variety management. Company management should also be aware that product variety decisions always have both positive and negative aspects included.

3.2.2   Optimal level of product variety

Researches have coped with the study of finding the optimal level of product variety. Studies have shown that there is benefit for those brands that have a high level of product variety. From a customer's standpoint, this is equal to good quality, and is likely to incur brand loyalty, further giving the producers extended variety opportunities. However, in a business view it is not necessary to think that the higher number of product variety is the way to go for success. (Mather 1992) stated that the optimal level of variety lies between no variety and full customization. A too high level of variety can cause confusion for the end-customer, as the level of choices can become too high, not satisfying their needs and wants, and thus have a negative impact on sales and revenues. Products should have a boundaries between the varieties, meaning they should not be too similar to each other, this will generate more confusion and also will have a negative impact on the company profit when the products are stealing gross margin from each other. (Wan, Evers and Dresner 2012)

Also, as (Wan, Evers and Dresner 2012)) state in their study that culture and a nation's wealth if crucial to consider. The characteristics of product variety exceeds when it comes to how satisfying their customers' needs. They stated that if the customer is wealthy they are likely to want a higher product variety than those with lesser incomes. However other factor are needed to address when it comes to finding the optimal level of variety. Social welfare is mentioned, in addition to other factor such general customer preference, scale economics and

distribution. (Lancaster 1990)

As the job of management is to find the suitable level for the company in how many variety's a company should offer, it is important that the whole company is in on the decisions. If marketing and productions is not able to match the outcome from the management the outcome will have a major impact on the economics within the firm. If one department is making all the decisions before the other department are in on it, they may not be able to fulfill the task they have been given.

The same goes with the same involved parties if the amount of variety is not suitable for the market. Negative affect will happen to the company.

3.2.3   Positive and negative sides with product variety

As Kerke and Srinivasan (1990) stated the dilemma companies will face higher costs, increased usage and higher labour, while adding more product variety. This will lead to more complexity regarding their own production processes within the company. This will not help the company gain a higher level of economies of scale (Wan, Evers and Dresner). As the company, would encounter more difficulties regarding increasing number of activities, leading to more of requirements to supervision and material handling.

Today is it impossible to think that one company can manage to survive in the market without any sort of product variety meaning standard product are not enough to attract end-customer and made them be loyal to the product or brand.

Another negative side regarding cost is mention by (Randall and Ulrich 2001) where they have divide cost into two sub groups. Market meditation cost and production cost. They also introduced the integration aspect, meaning how good companies supply chain is coordinated with the evolvement higher level of product variety, will have impact positive or negative on the company profit.

Kerke and Srinivasan (1990) states that product variety have more positive side effects on market share and profitability rather than, the negative side effects that comes with a higher level of complexity and cost. However, a higher level of product variety will give the management more trouble forecasting the demand and can give the company problem regarding uncertainty in supply and demand. In addition, there is another positive aspect with increased product variety, that is to be able to reach out for more heterogenous customer and

gaining a higher level of market share with satisfying a broader customer base. (Wan, Evers and Dresner 2012)

In recent research, it is claimed that in a long-term perspective, if the product line has clear distinction from the rest of the product, in the product line, it this will have a negative impact on profit and reduced sales. Is therefore important for companies to innovate a product so that it has a clear differentiation between the different variations of products. If there is no such differentiation this might cause the consumer to be confused and leading end customer not buying the product. (Wan, Evers and Dresner 2012)

3.3   Transaction Cost theory

Transaction Cost Analysis (TCA) was introduced by Ronald Coarse in 1937, and was developed further by Williamson (1975). The basic behind this is that TCA gives an explanation on how transaction are organized between Business- to-Business(B2B). Williamson (1975) refer to TCA or transaction cost economics(TCE) to run an economic activity "*within and between hierarchies and markets*". (Joshi and Stump 1999) refers to transaction cost as cost that are incurred in the establishment of an agreement, and monitoring the exchange partner's performance so they can manage to follow the contractual agreement. TCA can be divided into either opportunity cost or direct cost. (Williamson 1985)
For problem solving for performance and adaptation is market governance in TCA the best suitable governance mechanism. As (Williamson 1985) stated in general it is the uncertainty and investment of specific asset that are the main contributor to influence the TCA.

In TCA, there are human factors that are underlying in each person that makes an economic activity. Meaning behavioral assumption, the assumption is: risk neutrality, bounded rationality and opportunism.

Risk neutrality: Are the one of those three, that have not received much attention, however it was included in both of Williamson publications in 1975 and 1985.

Opportunisms: Williamson refers to opportunism as where people are trying to seek their own interest. Opportunistic behavior is divided into two forms, passive and active (Wathne and Heide, 2000) Active opportunism is when a person deliberately or with intention have lied or

given wrong facts. Passive opportunism is when a person withheld relevant information, that can or are crucial for the transaction. Also, evasion of a contract that goes under moral hazard are also undelaying passive opportunism.

Opportunism can occur in any situation however, it is happening often in situation when the transaction is happening with a party where a existing relationship is lacking, when economic risks are present, when a part is vulnerable due to information asymmetry, or there exists a lack of attributes or action (Wathne and Heide,2000) possibly making the party endure the opportunism. (Cronso and Dalhstrom 2010) performed research about opportunism in the fast food industry, where the result of study was that satisfaction was reduced, same was it for (Gassenheimer et al, 1996) in their study about the quality of exchange relationship also were found to have a negative effect on the satisfaction in a relationship when opportunism in a functional conflict.

(Berthon et al 2003) cited (Barney and Ouchi 1988) three other types of opportunism:

Hold up: An investment of a specific asset that are a major important to the exchanger relation, will trigger an opportunism possibility.

Adverse selection: is when there is likelihood of information asymmetry regarding the potential partners' performance in the future, this is related to pre-contractual opportunism.

Moral hazard: is when a party know about the situation of current performance capabilities of their partners and still goes into an exchange relationship with lack of information asymmetry, again it is related to pre-contractual opportunism.

Bounded rationality is the third and last behavioral assumption related to TCA, this refers to that point where human in a decision state are not capable to have all the information to take decision that are reasonable. This is a limitation that gives the decisions makers to not be able to reach their preliminary goals, and this lead them to be less rational although they did not mean to be it. (Simon, 1978)

(Simon 1978) refers to bounded rationality as people that are operating with transaction cost intended to be rational, however, are limited to do so, because there is a lack of information, time shortage and profit seeking organizations. (Williamson 1985) refers to "*human behavior that intended to be rational but only limited*" meaning that the uncertainty and complexity is a problem in business environment where the business are taken place with bounded rationality.

What a company needs to decide is whether, the cost associated with outsourcing or internal structure, how the transaction cost is based upon the market governance structure. (Williamson, 1991) have mentioned three form of *governance, Market, Hybrid and Hierarchies* (Williamson 1981) mention that the TC is depended on three factors: *Frequency of the exchanges, Asset specificity and Uncertainty.*

Frequency of exchanges is a dimension of transaction cost that was consider by Williamson (1975 and 1985) and are relevant for those cases where the amount of trade involved in the transaction or annual order rate. However, this dimension has not been study that intense, with only just a few researches. (Rindfleisch and Heide 1997) sited therefore that it is impossible to confirm this hypothesized effect on this.

Uncertainty goes by Williamson 1975 as ability to predict unforeseen occurrence that will happen in a transaction. Also, he categorized it into two, *Behavior uncertainty and Environmental uncertainty*. Whereas none- strategic uncertainty are referring to opportunism in behavioral uncertainty and strategic uncertainty are in Environmental uncertainty. However environmental uncertainty seen as complex and unpredictable as there are difficult to have a plan for contingency when the situation is happening in an external environment. (Rindfleisch and Heide,1997) also refers it to "*unanticipated changes in circumstances surrounding an exchange*". When behavioral uncertainty involves monitoring the exchange performance of the partners, a post evaluation of the performance included in bounded rationality and opportunism. (Rindfleisch and Heide,1997)

Asset specificity is meaning in what way the transaction need to be dependent or are in need for transaction-specify assets (Douma and Schreuder,2008). (Buvik and Reve, 2002) stated that specific assets, are leading to a safeguarding problem when it creates higher switching cost and the coordination between relations for safeguarding potential assets risk. Williamson (1985 and 1991) categorized six types of asset specificity: Physical asset specificity, site specificity, brand name capital, human assets specificity, temporary specificity investment and dedicated assets.
Temporary specificity investment- time restricted investment, meaning an in front payoff for some particular needs.

Dedicated assets – specifically investment that are meeting a need for a potential customer.

<u>Brand name capital</u>- investment that are specify to development for a particular brand, that gives potential customer confidence in the brand and give them value for money.

Human assets specificity- Investment due to personal training, skills and knowledge.

Physical assets specificity- The investment is only going to a curtain type of product developing.

Site specificity- Transfer cost due to a location switching, means that the investment are immovable and expensive.

3.4   Microeconomic

Microeconomics is the part of the economics that treats the issues and decisions of an individual or within a single enterprise. It may be the market for a single good or service or it may be the theory of individual demand for goods and services.

Microeconomics operates with different market structures. Few examples are Monopoly, Perfect competition and Oligopoly. Where in Monopoly there are only one supplier of one type of commodities. Perfect competition is when there are none of the participant's suppliers has big enough market power to set the price of a homogenous product. In addition, there is Oligopoly, the condition prevailing at a market when the preponderant part of the offer comes from a few large enterprises.

However, it is clear considering today's market analysis that Norwegian grocery market is more Oligopoly rather than, monopoly or perfect competition. (Wonnacott and Wonnacott 1986) where oligopoly is defined *"as a market form for a market where few large players have considerable market share"*, such as there is today in Norwegian grocery market.

In addition to these three big actors, NorgesGruppen, Coop and Reitangruppen, there is room for smaller companies such as Bunnpris.

Still it is room for more actors, but not in the psychical stores. In these times E-commerce is taking more market from the physical stores fully assortments. Today there is Kolonial.no, Marked.no and Retthjem.no, however, there is another grocery market that is based on E-commerce that are also are stealing gross margin from the physical stores and mainly finished food boxes, here is Godtlevert, Kolonihagen and Adams matkasse the major market players. These are the frontier in a new grocery market place in Norway. Nevertheless, there today

many of the actors in the physical store market are owners of the new and upcoming actors, Such as Reitangruppen have partial ownership of colonial.no and Kolonihagen.no.

3.4.1   Types of contracts

The conditions and terms of trade, is negotiated with quantity and price with the possibility for any types of discounts that are related to those factors. Compared with the optimal solution for retailer and supplier together, a linear contract will give less volume and higher end-user prices, since it is not possible for both contract to be equally profit maximizing at the same time also profit sharing. This is called the double marginalization problem and is illustrated in the figure below.

Figure 8: Double marginalization problem
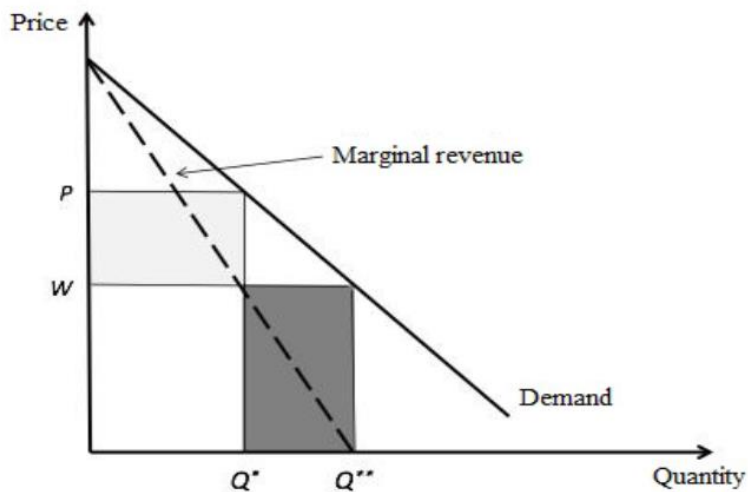
Taken the figure into further consideration, the double marginalization problem is when the supplier has the marginal cost equal zero, and the best outcome for them Is to sell the quantity when revenue is at a marginal level and this is equals zero.

For the supplier, this is shown as the price, as w and where supplier intend to sell for the highest quantity. However, the retailer is more interesting in selling at quantity Q* where the dashed line that is marginal revenue are meeting w that in this case is the marginal cost.

In this case the consequence is that the retailer will buy less quantity rather what the supplier thinks is optimal for them. A retailer does not think about the revenue of the supplier when it comes to setting optimal price (Hjelmeng & Sørgard 2013)

A solution for this is to allow an introduction to vertical restraints, in a collaboration with flexible contracts, this will give a good pharmed for solving the problem, when it comes to the loss of profit for both parts. (Gabrielsen, Steen, Sørgård & Vagstad, 2013)

That means that the contract is not optimal for retailer or supplier in this case.

With vertical restraints both supplier and retailer are obligated to maintain the level of buying and selling between them. If one of the parts have some control over the supply chain it is fair to conclude that there is a part that have barging power over the other part (Gabrielsen, 2010) Grocery market in Norway, it's fair to indicate that barging power is more on the retailer's side than suppliers.

Figure 9: Vertical Separation vs Vertical Integration
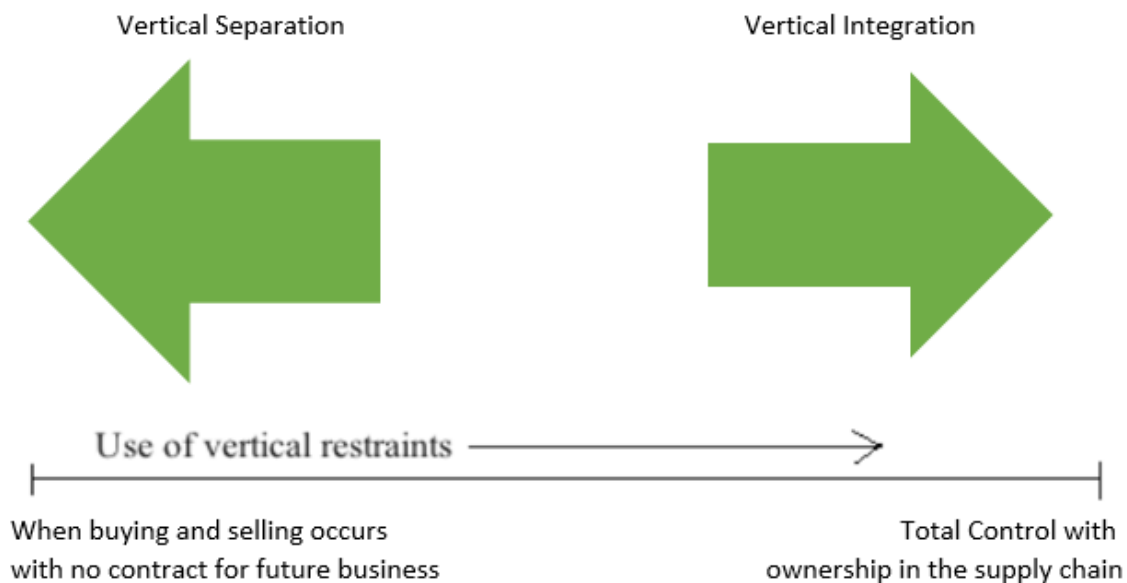
Today's structure in the Norwegian grocery market is very like this type of marked structure. Each enterprise must pay attention to how it expects the competition will react for example about product prices and advertising. If one business is putting down their selling prices, it can be expected that competitors will follow and do the same, for the company that first lowered down their prices cannot increase its market share, however, they can form cartels or

collusion to reduce new competition to enter and higher profit margin. This will lead to higher prices for consumers.

4.0   Research methodology

4.1   Methodology

The purpose with this chapter is to give an insight for the readers, how this study was conducting the research process. As the methodology is a procedure for gather and processing any type of relevant information in a search for extracting answers for what kind of research problem that where pre-defined. (USC 2004) describe method as a rational for the application of specific procedures and techniques that are used for selecting, identifying and analyses any type of information that can't be applied for the understanding the main research problem, thereby, giving the readers to critically examine this study's overall reliability and validity.

4.2   Research Design

The research design are defined in some literature and from (BD 2016) as "*a detailed outline of how an investigation will take place*". For research the path way to be able to seek out answers from the previously chapters, this study was conducted in terms of a qualitative case study from different national brand producers of products located around in Norway. Every producer has the Norwegian grocery market as there prime market channel to sell their products.

The purpose of this study is to investigate the relationship between perceived changes of product variety in grocery market and if the number of products have changed after the consolidation from four to three actors in this market. Has this change had any effect on the customers offers of products number in stores to this date, and have this change have any impact on the producers of products to the grocery market. Therefore, the research design was intended to examine, if there has been any effects on customers offers of products in Norwegian market. This are intended to examine from the producers point of view.

4.3 Case study

Case study approach is going to be the main method to explore product variety in the Norwegian grocery market after Ica has been bought by Coop.

Leonard- Barton 1990) cited,

"A case study is a history of a past or current phenomenon, drawn from multiple sources of evidence. It can include data from direct observation and systematic interviewing as well as from public and private archives, in fact, any fact relevant to the stream of events describing the phenomenon is a potential datum in a case study, since context is important"

There are multiple explanations and definitions to describe the meaning of what a case study is, however (Zuckner 2009) elaborate in a smaller view of it:

"a systematic inquiry into an event or a set of related events which aims to describe and explain the phenomenon of interest, However the unit of analysis can differentiate from organization to an individual aspect."

Finally, the utility of a case study is that it encourages educators to consider additional steps in a caring educational curriculum that emphasizes communication and relationships between human beings. Also as Zuckner (2009) mentioned in their study, that case study method, can be a creative alternative to traditional approaches to description (quantitative descriptive and descriptive correlational descriptive designs) emphasizing the participant's perspective as central to the process.

In this case study, the researcher will use emergent design as an evaluation approach that begins with a loose participatory framework, which is utilized to define the roles and interactions of those involved. (Christie, Montrosse, and Klein 2005). As one of the sides of benefits when conducting a case studies, as case study are normally best suited, when it is needed to answering questions regarding how something is happing, instead of finding out why it is happening.

4.4   Qualitative research

As previously mentioned this research will be conducted as a qualitative case study. (Campbell 2014) sited that "*a researcher that select a qualitative research method collects open-ended, emerging data that is then used to developed themes*"

The "word qualitative implies an emphasis on the qualities of entities and on processes and meanings that are not experimentally examined or measured (if measured at all) in terms of quantity, amount, intensity, or frequency. (Cassel and Symon 1994)

This suites case study as this is recommended when conducting a qualitative research. However, when it comes to qualitative research methods, five strategies are identified as qualitative methods. (Campbell 2014) mentions them *as case studies, narrative research, phenomenological research, ethnographies and grounded theory.*

Also, it is possible to locate qualitative studies into four different forms such as:

- ➢ Observations
- ➢ In-depth interviews
- ➢ Focus groups
- ➢ Semi structured interviews

In this research, it was decided to perform multiple semi- structured interviews with multiple numbers of producers in different producers for the Norwegian grocery markets. Some of the interviews was semi-structured, however some came out as an in-depth interview, when the respondent hade much too elaborate of the topic and situation out in the market anno 2017.

4.5   Interviewing process

For this interviewing process, several semi-structured interviews were conducted with all six companies, some of them were also very like an in-depth interview, this is because in two of the interviews with different producers. Here the respondents had much to say of the topic of this study, so they were more enthusiastic about the whole interview. Whereas in the other four interviews, it was more straightforward and just answering the question and did not elaborate more in depth. However, every respondent has been helpful, and if the researcher forgot something or, needed a more detailed answer, they all were open for taking contact again.

The researcher, created an interview guide which contained four main theme, that are relevant for the importance for this study.
Four of the respondents did get an email, one or two days before with the interview guide. This was done because, this made the respondents aware of the four type of theme, the researcher wanted to get answer on. The two respondents that did not get the interview guide before the interview, expressed before that this was not required.

The semi-structured interview gives the respondents ability to add something they think where lack in the researcher questions in each theme. The researcher was open for the respondents to speak freely; this was very good for the dialog in the interviews. Four of the interviews were conducted throughout telephone, one where personal and the last where video conference.

4.6   Secondary data

Secondary data is when the data is collected in other purpose than what it is intended to use.in this study, this can and will influence the presentation of data. (Saunders et al 2012.)
The literature in this study are divided in two separate parts, whereas the first one contains literature of what is product variety, definitions of product variety, negative and positive effects with product variety, business strategy with implementing product variety and optimal level of product variety. The reason for an-in-depth view of product variety is for the researcher to fully

understand the impacts of product variety have for the Norwegian grocery market.

The other part is a theoretical literature regarding micro economics, TCA and what the status is for the market participants in today market. This gave the researcher a view of the whole picture for understanding the impact product variety with theoretical approach have on the offer of products in stores today vs when ICA where still in the game.

As this thesis was ongoing, the researcher used both before, and underway relevant literature that had an impact on the total picture of this study. When it comes to comparing all in the conclusion in the end, this will be based on all types of literature and comparing it with the answers from the respondents of the interviews.

4.7 Reliability

Reliability in term of science is a way for talking about the actual data, that are been collected is in a consistency level of the findings (Saunders et, al 2007)

This means that the same results and the conclusion in this study will happened again if the study are conducted again in the future.

In this research, phone meetings, videoconference and personal interviews was used to collect data and creating trust from the participants, since it is crucial and very important when it comes to asking sensitive questions. This was vital for creations of underlying more in depth question and receiving reliable and trustworthy answers.

However, it is crucial for me as an author to limit the questions, and the questions that were asked are phrased clearly. and therefore, having no problems that can lead to any points off misunderstandings.   Pre- interviews were conducted to eliminate any types of errors that could lead to none- consistency of the study. Furthermore, while conducting interviews, it was vital for the study that, as the researcher, when conducting the interviews, the participants felt that the researcher, was as neutral as possible, to reduce the interview bias and other kinds of bias, that could affect the reliability of this study.

When it comes to the interview, each question that was asked addressed one issue. This was conducted for the reason to avoid any confusion for the respondents with multiple question. Avoiding asking question that is none-leading to reduce the interview\respondents bias.

Furthermore, it was critical not to address respondents with question that hade to many theoretical phrases. This would have reduced the respondents to answer what topic that the actual question where mend for. In this case, it is vital for both parts, both the interviewer and responders' hade the same understanding of each topic. And if the responders' hade another understanding of the question, the interviewee could double check if the respondents did understand the question by   paraphrasing the question again for allowing to correct if there were any certain type of misunderstanding. In this way, it would have demonstrated an active and listening behavior and this will show empathy towards the participants.

To control bias is difficult at all time, since it still is a chance for misunderstanding still can happen. Such as cultural differences. However, in this study cultural bias where limited due to the interviewer and the respondents is Norwegians. This means that in any types of situations the degree of mutual cultural understanding is to be anticipated at a minimum level.

This study is built on qualitative research however some of the findings is in general supported by quantitative data, to be able to draw some conclusion based by the propositions and research question. The quantitative material consists of figures and numbers gained form the responders in the interview.

There is a general concern among researchers about the lack of standardization (Saunders et al 2012) how this have an impact on the reliability of conducting a survey. And In this study, it will be conducted by one author and therefore will be depend on his subjective judgment. The author will try to be as objective as possible while conducting this study.

4.8   Validity

For both qualitative research and quantitative research, it is important to have reassurance that the data that is being collected is of a certain quality. Consistent and reliable results are the key to doing a good research work. (Bryman and Bell 2011)

Therefor validity refers to how good the data collection and analysis are measured on what they are designed and intended for.

Reliability and Validity are judging the credibility and objectivity in a research work. (Peräkylä, Anssi 2011)

Table 5: Four types of validity

Test	Case Study Tactic	Phases of research in which tactic
Construct validity	-Use Multiple sources of evidence -Establish chain of evidence -Have key informants review draft case study report	Data collection Data collection Data collection
Internal validity	-Do pattern-matching -Do explanation-building -Address rival explanation -Use logic models	Data analysis Data analysis Data analysis Data analysis
External validity	-Use theory in single-case studies -Use replication logic in multiple-case studies	Research design Research design
Reliability	-Use case study protocol -Develop case study database	Data collection Data collection

The internal validity is taken into consideration, when it comes the measurement of the interview conducted, and how the questions are executed in the whole research study. The questions in the interviews were designed as short and simple as possible.

According to Yin (2003) establishing a causal relationship, where there is certain kind of condition are shown to lead to another condition, as distinguished from spurious relationships. In other words, the condition, which is decided by the degree to which a study minimizes systematic error or explained as bias.

However, one can argue on the internal validity when it comes to the interview conducted through telephones. While this can be a problem, since this can reduce the internal validity, when it comes to the interview since the interviewer cannot see any reaction in first hand of the respondent. Furthermore, a phone interview would be a "safe environment "for the interviewer, since this might eliminate nervous action that a face- to- face interview can unleash. That can have a more negative impact on the "conversation" rather positive for the outcome of the answer from the respondents. Considering this, it is more likely that a phone interview is giving the most value for the "conversation" for this underlying study then face to face or video conference.

Moreover, Saunders et al (2012), say that in a qualitative approach is there advantages given the flexibility that this approach gives the interviewer when it comes to in depth interaction with the respondent. By asking various refining question the ability to cover a variety of topics. This helps to increase the level of internal validity in this underlying study. Furthermore, this entire study where conducted corresponding with theory and here by the author best knowledge.

5.0 Data and analysis

5.1   Data Collection

First a general overview about the respondents companies in this case study, as the researcher mentioned in the method part of this thesis. The reason for the choice for respondents in the same segment of product as a supplier for grocery stores in Norway, is because then it will be easier to cross check the results. If the researcher of this study had only conducted several random interviews of suppliers, there is a possibility that one-sided results could have occurred, not given the best result for this study

This study has explored three segment that the researcher, have chosen to analyses. This predicts are beverage products, Dry food and coffee. However due to an overall understanding of the last segment, it is not needed to conduct more than one interview of one producer in that segment. due to the fact that this company is the only independent coffee producer operating in Norwegian market, since this market is manly covered by the market participant's own coffee label producer and thereby own by the market player.
In one segment, it has been carried out three interviews with three different producers, hereby this is 3 out of 5 producers that covers almost all sales in that segment. In another segment 2 out 2 producers have been interviewed, meaning full coverage of that segment is covered. And there is the coffee segment, whereas 1 out of 4 is interviewed, however the remaining 3 out 4 producers are owned by the three remaining market players.

The reason for just only exploring the one coffee producer is, that this is the only producer that will have difficult with getting products into the stores. This is due to the fact that the other three producers of coffee products are producing for specific market players. And since they are owned by that market player, it is unlikely that the market player will cut product variations in stores of their own ownership brands. Therefore, is more interesting to explore only the independent coffee producer left in the Norwegian grocery market.

Table 6: The different six producers in this study

Company	Type	Location of producer
Company A	Coffee producer	West
Company B	Beverage	West
Company C	Beverage	West
Company D	Beverage	East
Company E	Dry food	West
Company	Dry food	East

Table 7: Respondents position and time usage of interview

Company	Position of the respondent	Duration of interview
Company A	Head of Cam (Categories account manager)	57 minutes (telephone)
Company B	Regional sales manager West	1 hour and 40 minutes (telephone)
Company C	Sales director	1 hour and 50 minutes Personal interviewer
Company D	Product developer	30 minutes (Telephone)
Company E	Company director for sales to Coop	55 minutes (telephone)
Company F	Category manager	45 minutes (Skype)
TOTAL Interview time		6 hours and 40 minutes

Figure 10: Statistical of data collection phase
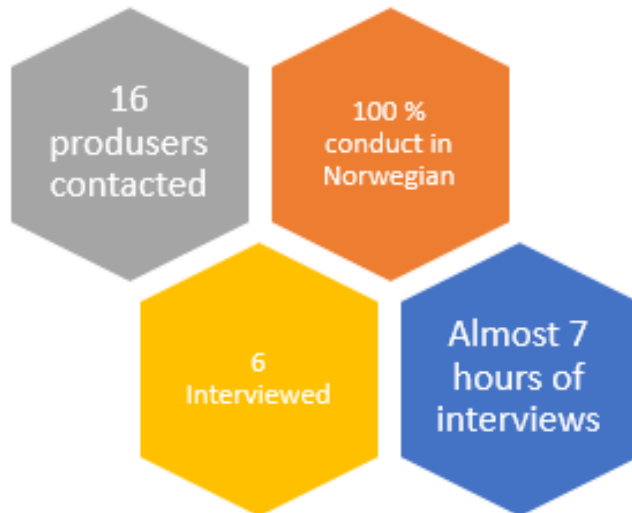
5.2 What the respondents answered

Here are some extracts of what the different respondents answered during the interview. Some question are not included from the interview guide, this is because it not relevant to transcript all the six respondents answer and this would take an unnecessary space in this study, therefore the researcher has limit it down to some of the core question.

5.2.1 Theme A

Table 8: Where the respondents place their firm today in segment

Where the respondents place their firm today in segment		
Market leader	**Upcoming leader**	**None of the mention**
2 companies	1 company	2 companies
D and E	A	B, C and F

Table 9: Who have power, who are losing power?

Who have power, Who are losing power?		
Producers	**Market participants (umbrella chains)**	**End customer**
All five companies state that they have limited power, they need to serve the market participants with what they desire, if this is not followed, it's likely that the producer's products will be not sold in that specify umbrella chain.	All five producers have the same impression on the market dynamic, in today's market the umbrella chains have all the power.	Some of the companies mention the end customers' as the loser of this game, due to the less differentiation from producers in terms of product variety, the less the end customers can choice from in the grocery stores. Since the umbrella chain have the last saying in which products they would sell.

Table 10: Tougher or easier after Ica left?

Tougher or easier after Ica left?		
Tougher	**No changes**	**Easier**
Companies B, C	**Companies A, F, E.**	
One key findings here, that is the case is similar for both companies. Both are not market or potential market leader. Also, they are miles behind market leader and potential market leader, due to financial international power behind the two in top. Companies B and C are "Norwegian" and some will call them operating in local or regional segment, however, you may find their products in whole Norway if you take your time to locate the stores that sell their products. Company B, also mention that Ica was there main national distributor of products, meaning losing Ica as a customer, gave them, the researcher quote" a punch in the stomach" When Ica where sold to Coop.	Company A, dues to cooperation with an umbrella chain, there is no changes for them because they gained the loss that Ica left with in this cooperation, if this alliance haven't gone anywhere, the answer would be tougher. Companies E and F say the same, due to Ica was not their biggest customer and since it was other market participant actors that bought Ica stores. Therefore, is it no changes for them since they already a national provider of products to the new "stores"	

Table 11: EDLP grocery chains

EDLP grocery chains have gained a lot of market, have this affected your company?	
Affected	**Unaffected**
Company B says that this is affecting a lot, due to in EDLP, is roughly 65% of the total grocery market. Meaning it is here the volume of sale are happening. However, for a company that produce more product variety, this will affect them negative in one way since in most cases EDLP actors don't have enough space for all of one producers' products. (Sometimes producers have all products in EDLP, this can have said for smaller producers with not the deepest products portfolio.)	Company A, says that they are unaffected from EDLP gaining more and more market share during, in EDLP they sell all almost their entire product portfolio any way. In other terms this mean they have built up their product portfolio for EDLP stores meaning they sell the same products to another store layout, such as Hypermarket and supermarket segment.

Table 12: Which type of store profile are your best customers?

Is there one particularly type of store profile who is the best customer for your products.	
EDLP	**Supermarket, Hypermarket, Local stores**
All five companies tell the same, since roughly 65 % of the total market comes from EDLP stores, this is definite the best store segment that sells the most for them.	One company mentioned, that since EDLP is so big in Norway, and if this evolution continues supermarket, hypermarket will be a niche shop in future.

5.2.2 Theme B

Table 13: Quantifying today's situation vs 2013-2014

Quantifying today's situation vs 2013-2014 (before Ica sold)					
Company A	**Company B**	**Company C**	**Company D**	**Company E**	**Company F**
No changes in total sales in % for the company	Loss of Ica have a major effect on total sales of products for this company, they would **not give any figures,** however there was a massive declining in sales that have resulting the company needed to fire people.	Loss of Ica and other umbrella chains have a major effect on total sales of products for this company, they would **not give any figures,** however there was a massive declining in sales that have resulting the company needed to fire people.	N\A	No changes in total sales in % for the company, however for the product segment there is a declining trend.	They preferred not to tell.

Table 14: Private label production

Do your company produce private label on license					
Company A	**Company B**	**Company C**	**Company D**	**Company E**	**Company F**
Yes	No	No	No	No	No

Table 15: Do your company considering producing private label in the future?

Do your company considering producing private label in the future?					
Company A	**Company B**	**Company C**	**Company D**	**Company E**	**Company F**
Yes, since they already are producing private label this is a potential strategy for future planning.	It's not unlikely idea, they have done it before, for one of the main competitors, so that may be happening again.	Yes, since Ica left this company is on the lookout on producing private label, because they have a lot of free production capacity.	No	No	No

5.2.3 **Theme C**

Table 16: Introduction of new products the next 5 years

How many new arrivals does your company plan to introduce in the next 5 years?					
Company A	Company B	Company C	Company D	Company E	Company F
About 5-7	About 35	About 10	About 50,	About 30	N\A

Table 17: How many products survive the first 5 years?

How many of those product survive this 5 years period?					
Company A	Company B	Company C	Company D	Company E	Company F
All, in the last 15 years they have only withdraw one product from the market due to poor sales.	25% and less will survive the first 5 year. 50 % the first 1 year	They don't disappear, the products only go down on production, and wait for a better time to introduce it again.	25 %	50 % survive the first year and 33 % survive in a 5 year period.	They don't disappear, the products only go down on production, and wait for a better time to introduce it again.

Table 18: The rate of new product arrivals

Have the rate of new product arrivals in the general marked, gone down since Ica left back in 2014?	
Yes	**No**
Some of the companies mention this have two sides. Since, Ica have left the overall economic skepticism in the market have increased after the major drop in oil price, this may influence the overall purchasing power of customers, and this is affecting the producers to not invest to much in new product arrivals in this economic time Norway is in now. The second way is since Ica left, this have decreased the possibilities for market places for the producers to sell their new products to. Meaning after Ica left the producer are, more skeptical too invest in to many new arrivals product, and it is tougher to get market places for the new products arrivals.	Other companies mention they have been unaffected in terms of their own rate in new product arrivals have gone down. Here some add that their size as a company, are a reason for the unaffected considering keeping a high rate of new product arrivals.

5.2.4 Theme D

Table 19: Outcome of e-commerce

E- commerce is on the uprisings in these years, what you think is going to be the outcome of this.		
Better product variety	**No Changes**	**Less product variety**
Companies A, E and F are all open for more business from e- commerce. However, there is none of the six companies that tells me, that they have an ongoing market plan for establishing any type of e-commerce type of sales within their own company. All six are saying they are watching and surveillance all that are happening in this market channel. Companies A, D, E and F available in online grocery stores such as Kolonial.no and Marked.no	Companies B, C and D Thinks that there will be no changes in this for **them**, this is because all three are producing beverage products. These products are very heavy, so shipment will be an issue here. Also, it can be mention that selling alcoholic item online can give some safety issue concerning who is ordering. However, in a more general point of view, all there are open for e-commerce as a market channel. Company D, are available with a few products through online grocery stores such as Kolonial.no and Marked.no	No company thinks this will lead to less product variety, but some mention that selling products though e-commerce will not lead to automatically more product variety for end-customers. The reason for this that it is still survival mode for the market participants in e-commerce to. Meaning they will not offer more products variety if the products do not sell to customers. No sales-cut it.

Table 20:Outcome of homedeliveries and those this impact product variety

Home delivery; are this the way to go? What happens with the product variety in this case deliveries?		
Better	**Poorer**	**No changes**
It is time consuming for end-customers to always go to the store to get grocery, however there is an increasing in end-customers that are getting grocery delivered on door after ordering online, same goes for pick up stations. That are in different location surrounding the biggest cities in Norway.

Home delivery cases have in recent years gone up, however, as companies B- C mention this is now on a decline, due to issues such as the size of the case, it is not enough for a whole week as the marketing it with, you always need to go for supplements in the grocery store. | No company thinks this will lead to less product variety, but some mention that selling products though e-commerce will not lead to automatically more product variety for end-customers. The reason for this that it is still survival mode for the market participants in e-commerce to. Meaning they will not offer more products variety if the products do not sell to customers. No sales-cut it. | Companies B, C and D have no intentions to jump on the home case deliveries, Company C explicit they have thought of this, however, the case delivery company where not so positive to an arrangement with a beverage company. The case company where far more interesting in beverage as a sponsorship deal more than a business deal. |

5.3   Discussion

This section discusses the results of the interviews in relation to the research questions. six interviews were conducted to get closer view of the consequence for product variety in grocery stores, have any impact regards the sale of Ica. Since this is the main research question in this study:

RQ: How has the change from four to three major market players in Norwegian grocery market affected product variety and product availability to end consumer?

Just recently Orkla, one of the biggest producer of different grocery brands to the Norwegian grocery market stated, that they within 2017 they are terminating the production of the brand products of Denja. The reason for this they stated that it is tougher competition in today's market. However, with termination of this brand they would invest more in another brand they are controlling, such as Grandiosa. The biggest frozen pizza brand in the market, for this brand to still be competitive in today's market they need to cut in some other brands. (E24 2017)

H1: The loss of a major market player in the Norwegian grocery market has resulted in reduced product diversity sales for suppliers to grocery chains

This example of an event that is occurring in the Norwegian grocery market today is like what, Kerke and Srinivasan (1990) mention in their work. Here they made their statement about the dilemma companies will face with higher cost, increased material and higher cost with more labour, while adding more product variety. This will lead to more complexity regarding their own production processes within the company. This would not help the company gain a higher level off economic of scale (Wan, Evers and Dresner 2012). Since the company would encounter more difficulties regarding increasing number of activities, and will lead to more requirements to supervision and material handling.

The reason for this first H1, is that as a researcher would investigate how the suppliers market have been affected after Ica were sold, and how if this affected the individual supplier in a positive or in a negative way. The way to do this is to compare the situation before and after the acquisition took and thereby to be able to emphasize if there, is a direct match for less product diversity for suppliers or there are other factors that are more likely to be the reason for this. It will be relevant for this study and for the researcher to know the fundamental

behind the scene to get the best possible view of how the grocery market have affected product variety.

Power has shifted in this market, every respondent mention this in their answer, that in today's market it is the market participants, Reitangruppen, NorgesGruppen and Coop that have the power over suppliers. This is like (Gabrielsen, 2010) mention in his work regarding that the retailer has the power of supplier in this case. Meaning it are these three actors, that are controlling what end customers can buy of product variety in their stores. (Wonnacott and Wonnacott 1986) refers to the situation of the market players are like the definition of an oligopoly marked. Also, this is linked to the power situation, since oligopoly means that there are few big market players that are competing for the same market shares. The basic behind this is that, TCA gives an explanation on how transaction are organized between Business to Business (B2B).

Customer power, with the help from social media is very high. , as we have seen on several occasions during recent years. However, customer power with help from social media, is only in effective in a short period of time, when there is a high media coverage of the topic, nonetheless this effect is decreasing rapidly due to the fact that customers have a tendency to say one thing and do another thing.

How will then the market players add product diversity for the end customer? Vertical integration vs vertical separation, means either the producer is an independent actor, that is free to produce and sell to everyone, or when the producers are owned by one of the market participants and are producing pre-defined volume to that market player. Here it can be mentioned the double marginalization problem when the supplier has marginal cost equal to zero, one method to is to introduce vertical restraints. Example of this is the supplier have a contracted with the retailer to produce X quantity for them.

Another aspect is the vertical integration of market participants.

Each enterprise must pay attention to how it expects the competition to react to example product prices and advertising; this has also, a major effect on suppliers, as a supplier that stands alone, is not only competing for place in the shelf of the umbrella chains with similar segmented brands, but also private brands of the market participants that are clamming places in the shelfs. Every market participants has their own line of private brands. Nonetheless as

Rema 1000 is a good example of is to acquire their own suppliers in order to increase supply chain control. Rema 1000 has X, numbers own suppliers that are only producing products for Rema 1000. The negative side with this approach is that it is increasingly difficult for the remaining suppliers in the market to gain access to Rema 1000 as a customer as the level of acquisitions increase.

Nowadays also with the introduction of their best friend's strategy (Bestevenn strategy) with different suppliers that almost gets monopoly in their segment in the shelf of Rema 1000. This however had a negative sales effect on Rema 1000, after they started on this strategy, a high degree of negative reviews in the news and social media. The biggest impacts were on the local suppliers, when they got kicked out for a bigger international brand with financial muscle. The local customers did not like this so they gave Rema 1000 a major hit in social media and national media also addressed the issue. Giving them a massive negative mentioning for doing this, Rema 1000 are still losing customers due to this strategy.

Nevertheless, rumors have it that Rema 1000 sold these best friends spots, too the biggest financial suppliers for between 100-500 million for per suppliers, this however, is not confirmed from Reitangruppen or the suppliers.

Another reason is as companies mentioned, since EDLP is so big in Norway, and if this evolution continues to go towards supermarket, hypermarket will be a niche shop in future. **Giving the stated there are in no grows further**. EDPL have between 65-68 % of the grocery market meaning that in 65-68 % of the market it only has a selection of products between 2000-5000 products, this also affects the product variety in the Norwegian grocery market.

H2: The loss of a major market player in the Norwegian grocery market has resulted in less products available for end customers

The reason for this H2, is that as a researcher would investigate how the product market has been affected after Ica was sold, and how if this affected the individual customers through a potential loss of products variety, giving customers a longer way to go for getting that one product they wanted. It has been interesting to see if this has changed after Ica acquired , and

if the changes are positive or negative regarding the outcome.

This H2 will be relevant for this study and for the researcher to know the fundamental behind the scene to get the best possible view of how the grocery market have affected product variety.

Giving that EDLP are still growing as price profile, and with they are affecting supermarkets and hypermarket in the way that they declining a little in marked shares. It is more likely that the end customer would get a smaller product variety to choose from. This are also mentioned by the respondents, as EDLP are the best customers for most off the, in term of volume sales, and it is more difficult to get access in shelf with products.

Also, biggest surprise here, is that some respondents of the interview mention for this study, that there are no boundaries, for some loyal customers. Hereby one example is from beverage segment. One customers have driven 5 hours, for just getting a product that he\she needed. In some cases, there are no limit for how far a costumer is willing to go for getting available product. Hereby brand loyalty can be mentioned. Brand name capital equals, investment that are specific to development for a brand, that gives potential customer confidence in the brand and give them value for money.

Brand name capital are one from six under groups of asset specify (Williamson (1985 and 1991) thereby asset specificity are asymmetric with transaction cost.

While looking at it with a different view, there is a possibility for another perspective on product availability. In 2009 there where total of 4007 numbers of grocery stores in the market, in 2012 there were 3917 stores and in 2016, there were 3814. The numbers of stores have had a small decrease, however that is not the case with total number of turnover, from 2013, the total number of turnover were 145 billion NOK vs in 2016 it was 169 billons NOK, and in the same time the numbers of stores were declining. Meaning the average grocery store are selling more products than before.

H3: The loss of a major market player in Norwegian grocery have made it easier for e-commerce actors to getting a higher market share?

The reason for this H3, is that as a researcher would investigate how a new market place for product variety has affected the traditional groceries market after Ica was sold, and what impacts this has had on the way end customers are shopping groceries today. Does this lead to more product variety in groceries or would it contribute to smaller product diversity. Is this changes the new area of grocery shopping or is this just a "fling". And what are the positive or negative regarding the outcome of this. This H3 will be relevant for this study and for the researcher to know the fundamental behind the scene to get the best possible view of how the grocery market has affected product variety.

The respondents of the conducted interview mention that selling products though e-commerce, will not lead to automatically more product variety for end-customers. (Randall and Ulrich 2001) mention this in their research as the more product variety more the costs will also increase. (Kerke and Srinivasan 1990) also, mention that if product variety goes up this will lead to an inefficiency and might be costlier in the long run.
It is still survival mode for the market participants in e-commerce to. Meaning they will not offer more products variety if the products do not sell to customers.
However, the suppliers are already monitoring this market and analyzing every step that are being taken. For many of the companies' e-commerce are too little of volume or is viewed as not so relevant for their own product to be to attracted to e-commerce, however they sell their product to anyone that need or ordering their product regardless if it is traditional stores or e-commerce. And this would not help the company gain a higher level off economic of scale (Wan, Evers and Dresner 2012)

E-commerce as a traditional is still in a very young market place, just alone Kolonial.no sold for 424 million NOK in 2016 and this is a high increase from 2015 when they only sold for 75 million NOK. (trappa 2017) E-commerce actors such as food boxes, Adams matkasse and Godlevert, they are in a market that are growing Combined in sales in 2016, they nearly reach 650 million kr. So, roughly 1 billion NOK, combined turnover for the is for the three biggest actors combined ecommerce turnover in 2016, it will be very interesting to see if the growth continues in 2017, and how this will define the traditional grocery market that still is a big brother in term of turnover with 169 billion NOK. This where mentioned by every respondent in their interview answer, yes this is in a growing stage, they are watching this, however none

of the companies are thinking about in near future to establish any kind of cooperation or intensifying their own products towards this type of market.

H4: The loss of a major market player in Norwegian grocery have decreased the frequency of new product arrivals?

The reason for this H4, is that as a researcher would investigate how the innovation of new products have been affected after Ica was sold, and how if this innovation rate has been affected for the suppliers regarding one fewer market participants to sell new innovated product products or line to. Does this have e negative or positive side, and in what way if any has it affected end-customers. The way to his is by comparison the before and after events of this sell, and thereby can emphasize if there, is a direct match for less product innovation for suppliers or there are other factors that are more likely to be the reason for the negative trend of new arrivals of product. This will be relevant for this study and for the researcher to know the fundamental behind the scene to get the best possible view of how the grocery market have affected product variety.

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 Randall and Ulrich (2001) explained who product variety could be created, however, (Kerke and Srinivasan 1990) also, mention that if product variety goes up this will lead inefficiency and can be costly in the long run
Since, Ica has left the overall economic skepticism in the market have increased after the major drop in oil price, this may influence the overall purchasing power of customers, and this is affecting the producers to not invest to much in new product arrivals in this economic time Norway is in now. The second way is since Ica left, this have decreased the possibilities for market places for the producers to sell their new products to.

(Green and Krieger 1996). Ramdas (2003) applied the approach of how a product is consisting of multiple dimension, product architecture, customizations degree and horizon of time as possible themes that need to be taken in into consideration for the creation of product variety.

Since it is very time and costly to get new arrivals to the market. The application process is about 16 week to notify that there is coming a new product to the authorities. The opening windows for new arrivals, February, May and September, however there is a fourth window, but this is special just for Christmas product that are rolling out in October. Still the producers are unaware of how their new product will be received by the end-customers, and more important if umbrella chains wish to sell that specific product in their stores.

With these mentioned potential challenges the rate of new arrivals have not declined so much that there is a trouble for the innovation spirit of the suppliers, however it is more vital to have a successful launch of new arrivals. That does not give the producers failures in regarding withdrawal of product before a maturity phase. The end-customer can receive value through any types of product variety and however the company can receive competitive advantages for other market players in the same segment (Ramdas 2003). All respondents of the interviews where clear in the same, you need money to keep a new product arrivals interesting for umbrella chains and end-customers. Marketing is vital for survivals and the umbrella chain often wish that the suppliers take a big cut of the marketing cost for launching the new products. Therefore, the suppliers that are not that strong financially will over-think introducing to much new products and can wait a little bit longer for that special product that they think a worth introducing for the grocery market.

6.0 Conclusion and further research

In a way to find an answer to the main research question: **RQ: How has the change from four to three major market players in Norwegian grocery market affected product variety and product availability to end consumer?** The researcher has decided to create additional research questions. It was then decided to perform interviews with six respondents of different product companies working to fulfill the demands of products in the grocery stores, and together with relevant literature.

Let's start with **H1: The loss of a major market player in the Norwegian grocery market has resulted in reduced product diversity sales for suppliers to grocery chains.**

The respondents of the interview were clear in their answers, the impact of the selling of Ica have had little impact on product diversity, there was one company that say they were directly affected when Ica left, however this situation was unchanged in the other companies, due to the fact that after Ica was sold this did not mean that the total numbers of stores were cut. It only meant for the producers that there is a new owner to negotiate with. Therefore, many of the products sold in Ica stores now are selling today in Coops stores, so the result of the fact that Ica was sold shows to this day, little effect on the total product diversity sales from supplier to grocery chains.   H1= not supported

Furthermore, continues too**, H2: The loss of a major market player in the Norwegian grocery market has resulted in less products available for end customers.**
Total number of stores have gone down, however total turnover has increased to a level that tells that they are selling more products now than before, regardless of the reduction of stores. The one thing that can have an impact on this matter, is the growth and total marked share of EDLP in Norwegian grocery marked. This is so high that foreign actors are in shock when they are told that in Norway EDLP have almost 70% market share. ELDP have smaller assortments to offer end-customers, the suppliers that the researcher have interviewed are dived in view of numbers of products that supermarkets are offering are the same as back in the days, however it is the share size of the stores in meters that can be differentiate some add. Furthermore, this does not mean that the size of assortments does increase. The space that one product is using today is much bigger than it was maybe before. And so is the EDLP stores, when they were introduced to the market they were named Rema 100 and Rimi 100, because they started with only 100 products. Therefor it reasoning to conclude with that there is no changes in product availability for end customers in today's market. H2= not supported

Furthermore, in **H3: The loss of a major market player in Norwegian grocery have made it easier for e-commerce actors to getting a higher market share?**
It is likely that the reason for the popularity of e-commerce is the time age today's society is in. Families are fighting to have enough time to going through all activities they are signed up for in a week, same goes with the people that are more into time for them self instead of going shopping. Technology also has a major role in the popularity of e-commerce. Today's internet does not take 5 minute to dial up to be able to go online, it takes to sec to put your finger on a mobile device and order something right to your door. Therefor e-commerce has gained

increased market shares, however it below 1% of the total market of grocery, thereby there is no comparison with the fact that Ica left and e-commerce are growing.

H3= not supported

Fourth and final **H4: The loss of a major market player in Norwegian grocery have decreased the frequency of new product arrivals?**

The total numbers of new arrivals may have declined in the last couple of years in Norwegian marked, however, the fact that still producers are not giving up to innovate the next big product, have little to say for the withdrawal from Ica. As Ica had a different store profile, and there is likely for the producer to getting their product in shelf of a supermarket or hypermarket. So, considering the producers, the loss of Ica has something to do with the decreased frequency of new arrivals. However, as the respondents also told, the biggest brand is still producing a high level of new products, but for the smaller producers it can be tough enough to come up with a new product and even tougher to managed to giving it a place at one of the shelves at the umbrella chains. The umbrella chains often tell the producers, if you're coming with a new product you need to withdraw another product of yours from our store. H4= not supported.

RQ: How has the change from four to three major market players in Norwegian grocery market affected product variety and product availability to end consumer?

The data analysis and with theory background in this study have gone in depth for finding results that match the hypothesis. However, with the findings from the respondents also says it is not possible to the changes from four to three major market players, have impacted product variety in a big scale. There are some small parts that support this, however there are other circumstances regarding shift in stores price profiles and producers' environment that leads to more changes from these rather that the market has lost a market player. The EDLP price format have more impact on the product variety evolution of Norwegian grocery market than the selling of Ica. This is confirmed by the responders of the interview since they have seen small changes after Ica were sold from before the selling, the responders all said the same, there are no differences in product variety offers,today and before Ica withdrew from the market.

 Therefore, it is not possible to support the RQ in this study.

6.1   Limitations

This study research is the first of this kind for the researcher to study like this.

When it came to the interview process, this could have been more efficient. (Roulstan, Lewis and DeMarrais 2003) mention in their study five challenges one is upon when processes the first interview. However, in this study case the follow up question was not always the next on the interview guide, many times the researcher were to anguish, and therefore giving a following up question outside the scoop. The researcher felt it was more right at that time, to getting an impression of a good conversations with the respondents rather than, ruined the flow of the interview.

Also, some time the researcher was asking a question that was not a leading question in the interview guide, however when it came to the interview sometimes the researcher was telling the question in another angle when conducting the interview with respondents.

When it comes to the summary of interviews, the researcher has not completed any types of transcript. The interview is taped record of all sessions with a tape recorder. The researcher used the tapes of the recorder to help getting answers from respondents' direct down on an individual answers sheet in word for all respondents. This may have led to some type of missed out words and answers, however the researcher feels that the most important answer are correct sited.

6.2   Further research

If there is going to be a different study of this topic it can be more representative study if more respondents are included, and to cross check it with the market players can be an interested view of it. Also, it can be efficient to make a survey for the end- customer of this topic.

Next could have addressed the issues of stores sides in to more detailed view, in this research this was no room for such detailed study, however it can have a major effect on product and products numbers in stores.

References

2016. *Virke.No*. http://www.virke.no/bransjer/Documents/Dagligvarehandelen_2015.pdf.

2017. https://www.statista.com/statistics/572913/share-of-private-labels-on-the-total-turnover-of-retail-chains-in-norway/.

2016. 2017. "Norway: Share Of Private Label Products On The Total Turnover Of Retail Trade 2016 | Statistic". *Statista*. https://www.statista.com/statistics/573011/share-of-private-label-products-on-the-total-turnover-of-retail-trade-in-norway/.

Aperio. 2014. *Private Label Brands Are The Biggest Threat To FMCG Companies*. http://aperio.co.za/index.php/home/blog/25-blog/93-private-label-brands-are-the-biggest-threat-to-fmcg-companies.

"Beliggenhet Styrer Butikkvalg". 2016. *Norgesgruppen.No*. http://www.norgesgruppen.no/presse/artiklar/forbruker-i-fokus/beliggenhet-styrer-butikkvalg/.

Berthon, Pierre, Leyland F. Pitt, Michael T. Ewing, and Gunnar Bakkeland. 2003. "Norms And Power In Marketing Relationships". *Journal Of Business Research* 56 (9): 699-709. doi:10.1016/s0148-2963(01)00255-7.

Bogen, Espen. 2011. "Barriers To Entry In The Grocery Trade". Graduate, Universitet i Ås.

BOYER, K, and G HULT. 2005. "Extending The Supply Chain: Integrating Operations And Marketing In The Online Grocery Industry". *Journal Of Operations Management* 23 (6): 642-661. doi:10.1016/j.jom.2005.01.003.

Bryman, Alan, and Emma Bell. 2011. *Business Research Methods*. 1st ed. Oxford: Oxford Univ. Press.

Buvik, Arnt, and Torger Reve. 2002. "Inter-Firm Governance And Structural Power In Industrial Relationships: The Moderating Effect Of Bargaining Power On The

Contractual Safeguarding Of Specific Assets". *Scandinavian Journal Of Management* 18 (3): 261-284. doi:10.1016/s0956-5221(01)00018-5.

Campbell, Suzanne. 2014. ""What Is Qualitative Research?".". *Clinical Laboratory Science No. 27 (1):3*.

Cassel, and Symon. 1994. "Qualitative Research In Work Contexts.". *Qualitative Methods In Organizational Research, A Practical Guide* London sage.

Christie, Christina A., Bianca E. Montrosse, and Brock M. Klein. 2005. "Emergent Design Evaluation: A Case Study". *Evaluation And Program Planning* 28 (3): 271-277. doi:10.1016/j.evalprogplan.2005.04.002.

Creswell, John,W. 2014. *Research Design*.

Cronso, J.L, and R Dahlstrom. 2010. "Examining The Nomlogical Network Of Oppertuism: A Meta- Analysis" Journal Of Marketing Channels" 17: 177-190.

Douma, S, and H Scheruder. 2008. *Economic Approashes To Organizations*. 4th ed. Essex UK: Pearson Education Ltd.

Eisenhardt, Kathleen M., Jay B. Barney, and William G. Ouchi. 1988. "Organizational Economics.". *Administrative Science Quarterly* 33 (3): 481. doi:10.2307/2392729.

Ellram, LIsa. 1996. "Use Of The Case Study Method In Logistics Research.". *Journal Of Business Logistics*, 93-138.

Ellram, Lisa, and Corey Billington. 2001. "Purchasing Leverage Considerations In The Outsourcing Decision". *European Journal Of Purchasing & Supply Management* 7 (1): 15-27. doi:10.1016/s0969-7012(00)00004-6.

Fanebust, Press conference Accessed through. 2014. http://e24.no/naeringsliv/direkte-se-pressekomferansen-om-coops-ica-kjoep/23310158.

Fink, Arlene. 2003. *The Survey Handbook 2Nd Edition", 2003, Page 108*. 2nd ed.

Fisher, Marshall. 1997. "What Is The Right Supply Chain For Your Product".

Fisher, Marshall, Kamalini Ramdas, and Karl Ulrich. 1999. "Component Sharing In The
    Management Of Product Variety: A Study Of Automotive Braking Systems".
    Management Science 45 (3). doi:10.1287/mnsc.45.3.297.

Gabrielsen, T.S. 2011. "Betydningen Av Ulike Vertikale Relasjoner På Konkurranseforhold I
    Verdikjeden For Mat". *Regjeringen*.

Gabrielsen, T.S, F Steen, L sørgård, and S Vagstad. 2013. "Kjøpermakt I Daglivaresektoren".
    Report From Ministry Of Goverment Administration.

Gassenheimer, Jule B., Roger J. Calantone, and Joseph I. Scully. 1995. "Supplier Involvement
    And Dealer Satisfaction: Implications For Enhancing Channel Relationships". *Journal Of
    Business & Industrial Marketing* 10 (2): 7-19. doi:10.1108/08858629510147033.

Green, Paul E., and Abba M. Krieger. 1996. "Individualized Hybrid Models For Conjoint
    Analysis". *Management Science* 42 (6): 850-867. doi:10.1287/mnsc.42.6.850.

Hjelmeng, Erling, and Lars Sørgard. 2013. *Konkurransepolitikk, Rettslig Og Økonomisk
    Analyse*. 1st ed.

Hoch, S.J, and S Banerji, S. 1993. "When Do Private Label Succeed?". *(M.I,Technology, Ed.)
    Sloan Management Review'*, no. 34.

Joshi, Ashwin W., and Rodney L. Stump. 1999. "Determinants Of Commitment And
    Opportunism: Integrating And Extending Insights From Transaction Cost Analysis And
    Relational Exchange Theory". *Canadian Journal Of Administrative Sciences / Revue
    Canadienne Des Sciences De L'administration* 0 (4). doi:10.1111/j.1936-
    4490.1999.tb00693.x.

Kekre, Sunder, and Kannan Srinivasan. 1990. "Broader Product Line: A Necessity To
    Achieve Success?". *Management Science* 36 (10): 1216-1232.
    doi:10.1287/mnsc.36.10.1216.

Kumar, Nirmalya, and Jan-Benedict E. M Steenkamp. 2009. *Private Label Strategy*. Boston, Mass.: Harvard Business School Pr.

Lancaster, Kelvin. 1990. "The Economics Of Product Variety: A Survey". *Marketing Science* 9 (3): 189-206. doi:10.1287/mksc.9.3.189.

Legger ned Denja, lager mer Grandis. 2017. "E24 DENJA". *E24*. http://e24.no/boers-og-finans/orkla/legger-ned-denja-lager-mer-grandis-konkurransen-blir-toeffere/23993456).

"Legger Ned Denja, Lager Mer Grandis: – Konkurransen Blir Tøffere". 2017. *E24*. http://e24.no/boers-og-finans/orkla/legger-ned-denja-lager-mer-grandis-konkurransen-blir-toeffere/23993456).

Leonard-Barton, Dorothy. 1990. "A Dual Methodology For Case Studies: Synergistic Use Of A Longitudinal Single Site With Replicated Multiple Sites". *Organization Science* 1 (3): 248-266. doi:10.1287/orsc.1.3.248.

"Library: Research Methods In The Social Sciences: Introduction". 2016. *Lynn-Library.Libguides.Com*. http://lynn-library.libguides.com/researchmethods.

MacDuffie, John Paul, Kannan Sethuraman, and Marshall L. Fisher. 1996. "Product Variety And Manufacturing Performance: Evidence From The International Automotive Assembly Plant Study". *Management Science* 42 (3). doi:10.1287/mnsc.42.3.350.

Mather, Hal. 1992. ""Optimize Your Product Variety"". *Production And Inventory Managment Journal* No 33: 38-42.

Peräkylä, Anssi. 2011. "Validity In Research On Naturally Occurring Social Interaction".

Pil, Frits K., and Matthias Holweg. 2004. "Linking Product Variety To Order-Fulfillment Strategies". *Interfaces* 34 (5). doi:10.1287/inte.1040.0092.

Pindyck, R.S, and Daniel L Rubinfield. 2012. 2nd ed. Upper Saddle River, NJ: Pearson Prentice Hall.

"Purchasing Power". 2016. *Thefreedictionary.Com*. http://financial-
  dictionary.thefreedictionary.com/purchasing+power.

"Purchasing Power". 2016. *Investopedia*.
  http://www.investopedia.com/terms/p/purchasingpower.asp.

Ramdas, Kamalini. "Managing Product Variety: An Integrative Review And Research
  Directions". *SSRN Electronic Journal*. doi:10.2139/ssrn.290774.

Ramdas, Kamalini, Marshall Fisher, and Karl Ulrich. 2003. "Managing Variety For
  Assembled Products: Modeling Component Systems Sharing". *Manufacturing & Service
  Operations Management* 5 (2). doi:10.1287/msom.5.2.142.16073.

Randall, Taylor, and Karl Ulrich. 2001. "Product Variety, Supply Chain Structure, And Firm
  Performance: Analysis Of The U.S. Bicycle Industry". *Management Science* 47 (12):
  1588-1604. doi:10.1287/mnsc.47.12.1588.10237.

"Research Guides: Organizing Your Social Sciences Research Paper: 6.   The Methodology".
  2017. *Libguides.Usc.Edu*. http://libguides.usc.edu/writingguide/methodology.

Rindfleisch, Aric, and Jan B. Heide. 1997. "Transaction Cost Analysis: Past, Present, And
  Future Applications". *Journal Of Marketing* 61 (4): 30. doi:10.2307/1252085.

Roulston, Kathryn, Kathleen deMarrais, and Jamie B. Lewis. 2003. "Learning To Interview In
  The Social Sciences". *Qualitative Inquiry* 9 (4): 643-668.
  doi:10.1177/1077800403252736.

Saunders, Mark, Philip Lewis, and Adrian Thornhill. 2007. *Research Methods For Business
  Students*. 1st ed. Pearson education.

Saunders, Mark, Phillip Lewis, and A Thornhill. 2012. "Research Methods For Business
  Students20002by Mark Saunders, Philip Lewis And Adrian Thornhill 2Nd Edition.
  Research Methods For Business Students. Harlow, Essex: Pearson Education 2012".
  Qualitative Market Research: An International Journal 3 (4): 215-218.
  doi:10.1108/qmr.2000.3.4.215.2.

Simon, Herbert. 1978. "Rationality As Process And As Product Of Thought"". *American Economic Review*, no. 68: 1-16.

"Sterk Emv-Vekst". 2017. *Dagligvarehandelen*. http://www.dagligvarehandelen.no/2015/sterk-emv-vekst.

trappa, Nå. 2017. "Digital Matbutikk Med Analog Løsning: Nå Skal De Levere Til Egne «Postkasser»". *E24*. http://e24.no/naeringsliv/digitalisering/digital-matbutikk-med-analog-loesning-naa-skal-de-levere-til-egne-postkasser/23997622.

Wan, Xiang, Philip T. Evers, and Martin E. Dresner. 2012. "Too Much Of A Good Thing: The Impact Of Product Variety On Operations And Sales Performance". *Journal Of Operations Management* 30 (4): 316-324. doi:10.1016/j.jom.2011.12.002.

Wathne, Kenneth H, and Jan B. Heide. 2000. "Opportunism In Interfirm Relationships: Forms, Outcomes, And Solutions". *Journal Of Marketing* 64 (4): 36-51. doi:10.1509/jmkg.64.4.36.18070.

"What Comes After Those Ellipses?". 2017. *Businessdictionary.Com*. http://www.businessdictionary.com/definition/research-design.html.

"When Product Variety Backfires". 2005. *HBS Working Knowledge*. http://hbswk.hbs.edu/item/when-product-variety-backfires.

Williamson, O. E. 1975. "Markets And Hierarchies: Analysis And Antitrust Implications.". *The Economic Journal* 86 (343): 619. doi:10.2307/2230812.

Williamson, O.E. 1985. "The Economic Institution Of Capitalism". *New York, The Free Press*.

Williamson, Oliver E. 1991. "Comparative Economic Organization: The Analysis Of Discrete Structural Alternatives". *Administrative Science Quarterly* 36 (2): 269. doi:10.2307/2393356.

Williamson, Oliver E. 1981. "The Economics Of Organization: The Transaction Cost Approach". *American Journal Of Sociology* 87 (3): 548-577. doi:10.1086/227496.

Wonnacott, Paul, Ronald J Wonnacott, and Paul Wonnacott. 1986. *An Introduction To Microeconomics*. 1st ed. New York: McGraw-Hill.

Yin, Robert K. 2003. *Case Study Research*. 3rd ed. Thousand Oaks: Sage Publications.

Zuckner. 2009. *Scholarworks.Umass.Edu*. http://scholarworks.umass.edu/cgi/viewcontent.cgi?article=1001&context=nursing_faculty_pubs.

Appendix

Appendix 1: Questionnaire of a semi-structured interview (can have been modified to be adapted to each firm)

Stage 1, 5 min

Informal chat

Before we start with the interview, I would like to know a bit about your background.

- How long have you been working at this company

- What are your current position within the company

- What are your responsibilities in term of product variety (Strategy, Controlling, operations)

Stage 2, 5-10 min

Presents my master thesis subject, and me

- Firstly, a short introduction of author and an explanation of the interview, as describe earlier in methodology phase. As providing to the respondents before we start the interview.

it is okay that I conduct the interview in Norwegian?

 Is it also okay that I kind record this interview?

Do you wish confidentiality?

Stage 3, 10-15 min

Transfer question

What are your experience with product variety?

can you use 2 minutes to hallmark, what fits the term product variety?

Stage 4, up to one hour

Key question

Theme A

Analysis of the firm and market today.

- Where do you place your company today in your segment? Market leader, potential upcoming leader, none of the previously mentioned subjects.

- What is your impression on the situation in the grocery chain today, vs 2014-2013?
 (Who have power?) (Who are losing power?) (Suppliers, retailers, chains, or end customers?) (How do your company see the future, and how are you seeing it)

- what do your company do to make products survive longer in stores? Is it fee to pay the chains? On the other hand, is it more of a marketing issues that decides the outcome here

-after Ica Norge was sold, have your company had more troubling getting, your products out to the market?
 On the other hand, have it been easier?
Following up question, -if easier,
What is the reason for this`?

EDLP grocery chains have been adding products to their profile stores or is it because your company have been, adding products to your product portfolio?

  - Have your company as a supplier to the grocery sector, hade growth in your product portfolio considering end customer are more aware of products variety and wants more of the product variation in stores?

Or the other hand, is it a combination as grocery stores have more products to offer customer to day then 20 years ago?

-is there one particularly type of store profile who is the best customer for your products. If there are one that are better than the others are?

- There are quite many grocery stores around in Norway, what do you think is the reason a

customer chose a specific store to shop in that day? Is it the range of products, price, distance, opening hours, location?

Theme B

Situation today

Quantifying today's situation vs 2013-2014 (before Ica sold)

Some statistically figures of today situation vs 2013-2014 (before Ica sold)

- How many products have your company presented(sales) in different stores? Today vs 2013-2014 (Before Ica sold). (Percentage, Numbers)

- How many sub versions of products are in sales today vs 2013-2014 (Before Ica sold)

- 3806 (31.12-15) is the total number of stores in grocery sector in Norway, are your company represented in having products in all of the stores? National or regional?

- Is it harder or easier to sell products that are in the same product family or is it better to sell one by one to a grocery chain, rather than direct to the store if allowed?

-Statistics shows that product prices have gone up, what do you think is the main reason for this?

Theme C

The future

-How many new arrivals do you think your company would have on the market each year in the next 5-year period?

Of those new arrivals of products how many do you think survive the first year? In five years?

-when do you as a company decide to withdraw a product from the marked?

- Or is it the other way around, end customer sales that decides? Alternatively, grocery chains?

Since Ica were sold, has the product variety from supplies increased or decreased?

-In Norway we have a high number of stores per inhabitants, a higher rate than our neighbor country, is this affecting the product variety in the Norwegian grocery marked?

- Size is a very good indication of a store have more products then the competitor, is this affecting product variety. Alternatively, do you think stores have fewer, higher or the same amount of product when it comes to bigger or smaller sizes of the stores?

Question D

E-Commerce

E- commerce is on the uprisings in these years, what you think is going to be the outcome of this.

Better or poorer product variety?

What does your company think about the future in this case? Home delivery; are this the way to go? What happens with the product variety in this case deliveries?

When It comes to driving, in a customer view, what do you think is the barrier for how far a customer are willing to go for getting the products he wants?

- If the customer wants to save money?

- If the customer wants bigger assortments?

Stage 5, Round off

5-15 min

Something that we have missed?

Summary

Thank you for your time