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AN INVESTIGATION ON COMPETITION IN THE NORWEGIAN GROCERY MARKET

To What Extent Do Benefits NorgesGruppen Obtains Because of Their Bigger Market Share Prevent Competitors from Increasing Their Market Share in the Norwegian Grocery Retail Industry?

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INTRODUCTION

In recent years, a lot of attention has been drawn to the Norwegian grocery retail industry. Especially its biggest firm in terms of market share[1], NorgesGruppen ASA (NorgesGruppen). NorgesGruppen is almost twice as big as Coop Norge AS, their closest competitor, and some experts point out NorgesGruppen's dominance is damaging to consumers and competition. Articles pinpointing significant barriers to entry in the industry have been published and the Norwegian government recently discussed to constrain NorgesGruppen's market power, deciding not to take immediate action. Spokesmen of NorgesGruppen's competitors' have claimed to have vast disadvantages in competition, consequently, leading to NorgesGruppen outcompeting them. A common factor in these claimed disadvantages is that they are size driven. Nevertheless, NorgesGruppen's competitors have their agenda; maybe they exaggerate so the government intervenes in their favor. To find out, the following research question was developed: **To what extent do benefits obtained from NorgesGruppen's superior market share prevent competitors from increasing their market share in the Norwegian grocery retail industry?**

To answer that question, this essay examines the likelihood of NorgesGruppen's chains having a sustainable competitive advantage. For that reason, economic theory on economies of scale, anti-competitive behavior, theory of the firm, backward integration, and Porter's model of competitive advantage is applied.

Both qualitative and quantitative data is used. Primary research conducted is an interview with Øystein Foros, a university professor, expert on the Norwegian grocery industry. Also,

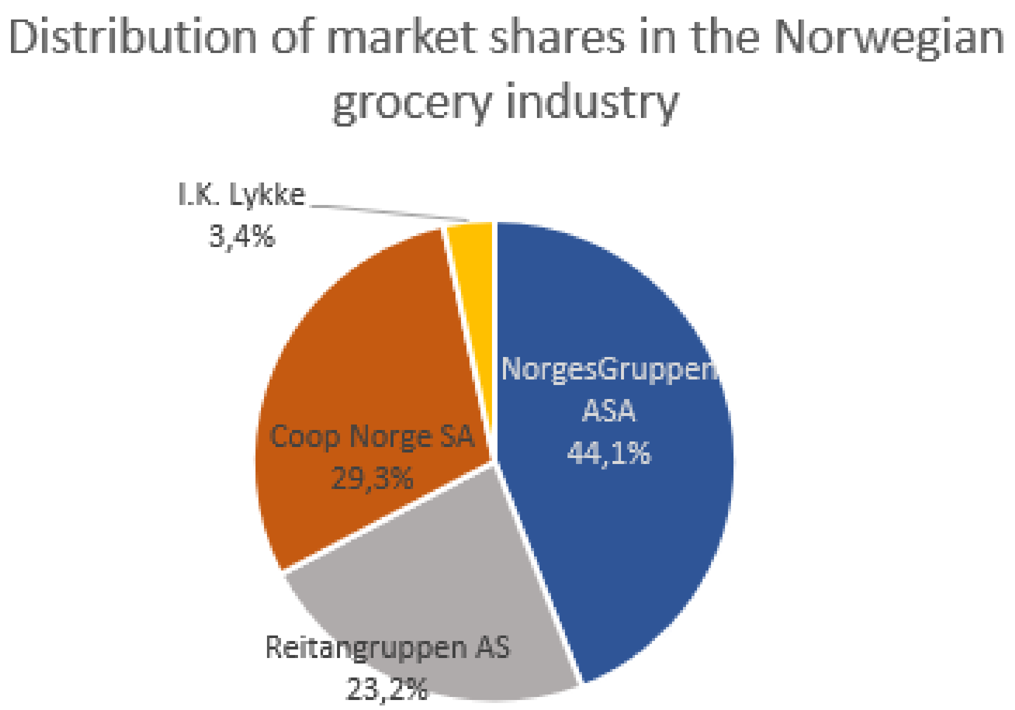
[1] From now on, size is regarded in terms of market share.

some calculations are made, with the methods explained in appendices dedicated to them. Additionally, a wide range of secondary data has been employed.

However, before analyzing NorgesGruppen’s situation, some background information on the Norwegian grocery industry in necessary.

INTRODUCTION TO THE NORWEGIAN GROCERY MARKET

The industry is made up by four companies. NorgesGruppen, Reitangruppen AS (Reitangruppen), Coop Norge SA (Coop) and I.K Lykke AS (Bunnpris). Their market shares for 2020 are shown in the diagram below.

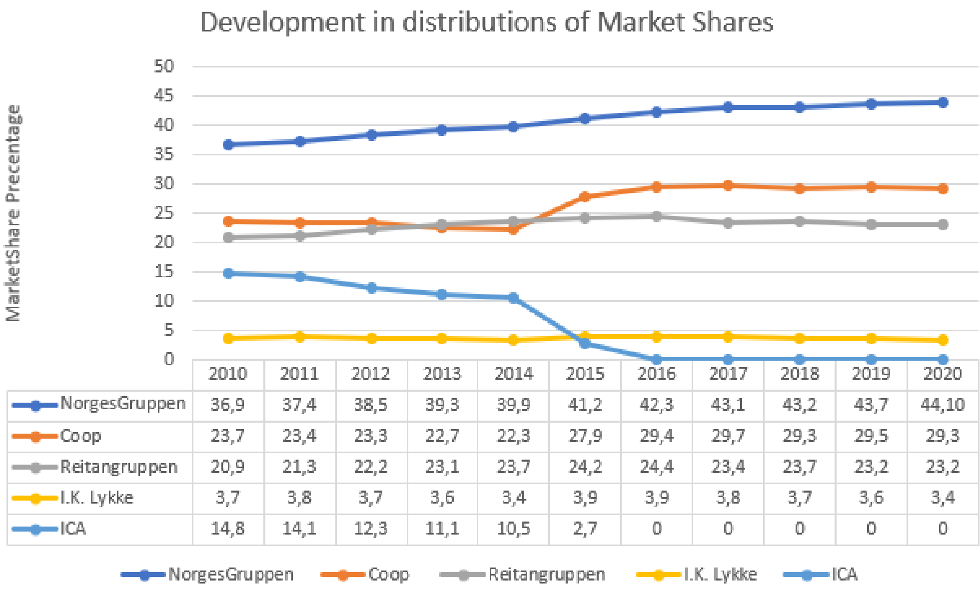


(NiesenIQ, 2021)

Diagram 1: illustration of the division of market shares between the grocery retail companies

NorgesGruppen is, by far, the biggest company. Together, the three largest companies have a market share of 96,6% and thus make 96,6% of the industry's sales. The industry is dominated by a few firms, making it an oligopoly.

Their development in market share is laid out below.

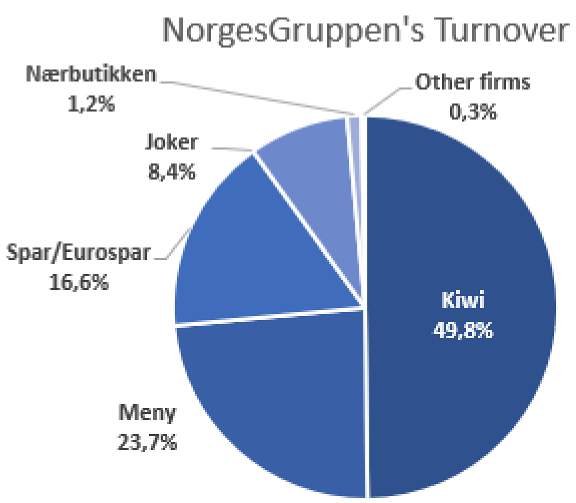


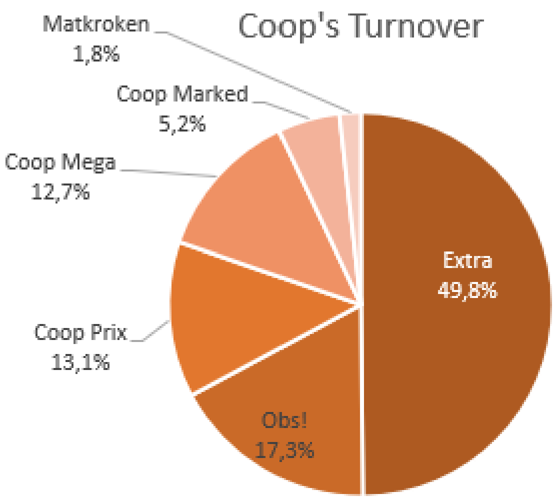
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
NorgesGruppen	36,9	37,4	38,5	39,3	39,9	41,2	42,3	43,1	43,2	43,7	44,10
Coop	23,7	23,4	23,3	22,7	22,3	27,9	29,4	29,7	29,3	29,5	29,3
Reitangruppen	20,9	21,3	22,2	23,1	23,7	24,2	24,4	23,4	23,7	23,2	23,2
I.K. Lykke	3,7	3,8	3,7	3,6	3,4	3,9	3,9	3,8	3,7	3,6	3,4
ICA	14,8	14,1	12,3	11,1	10,5	2,7	0	0	0	0	0

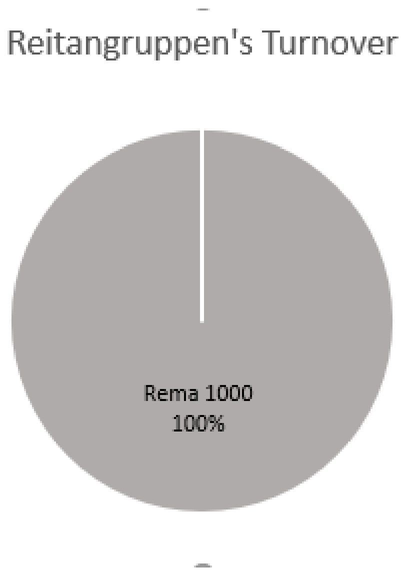
(NiesenIQ, 2021) (Hopland, Rema taper markedsandeler til Norgesgruppen, 2020)

Diagram 2: visualization of the relative development in market shares between the retail companies

Some companies own several chains, but all the companies' biggest business is their everyday low price (EDLP) chain, essentially low-cost chains.







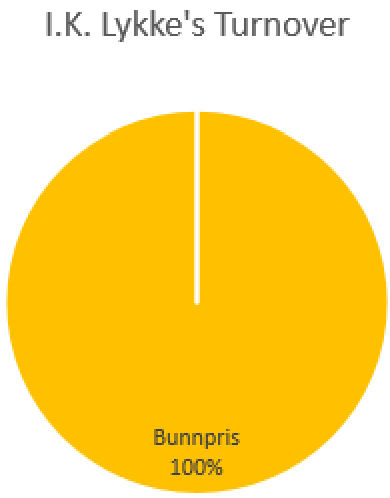


Diagram collection: visualization of the composition of each grocery retail company in the end of 2019

(Nielsen, 2020)

TRADE BARRIERS

Important to know is that foreign goods with Norwegian substitutes are tariffed. This protectionist scheme is known as "*Importvernet".*

"Importvernet" impedes retailers aiming to increase market share from purchasing foreign goods, as the tariffs increase the end consumers' price and lower quantity demanded.

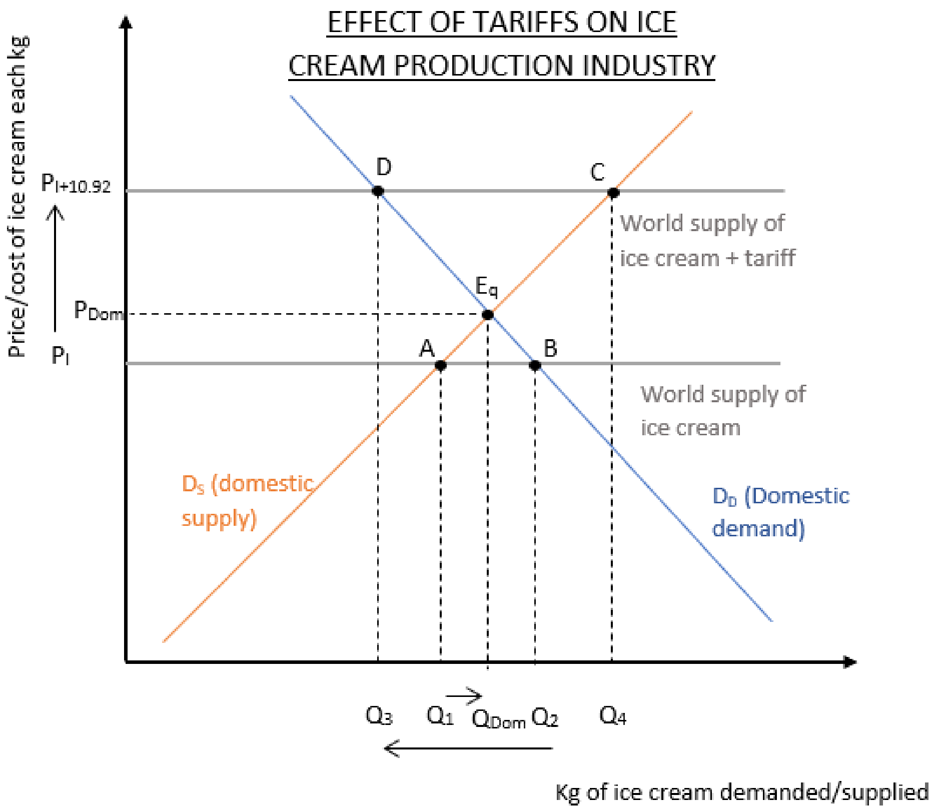


Diagram 4: illustration of the effect of tariffs on the ice cream production industry

As an example, Diagram 4 illustrates the effect of the tariff on ice cream containing fat, which is around 10,92 NOK/kg (Tolletaten). The implementation of the tariff will shift the world supply upwards and the experienced import price by domestic retailers increases by the amount of the tariff from P_W->$P_{W+10,92}$. Since the tariff aims at incentivizing retailers to demand from domestic producers, the tariff will increase the import price to one above the price charged by domestic producers, $P_{Dom}<P_{W+10,92}$. Ergo, the intersection between world supply

and domestic demand changes, B->D, and domestic producers will receive most the domestic demand as retailers prefer the cheapest option. B->D shows imported ice cream falls, Q_2->Q_3, and A->E_q shows domestically produced ice cream increases, Q_1->Q_{Dom}.

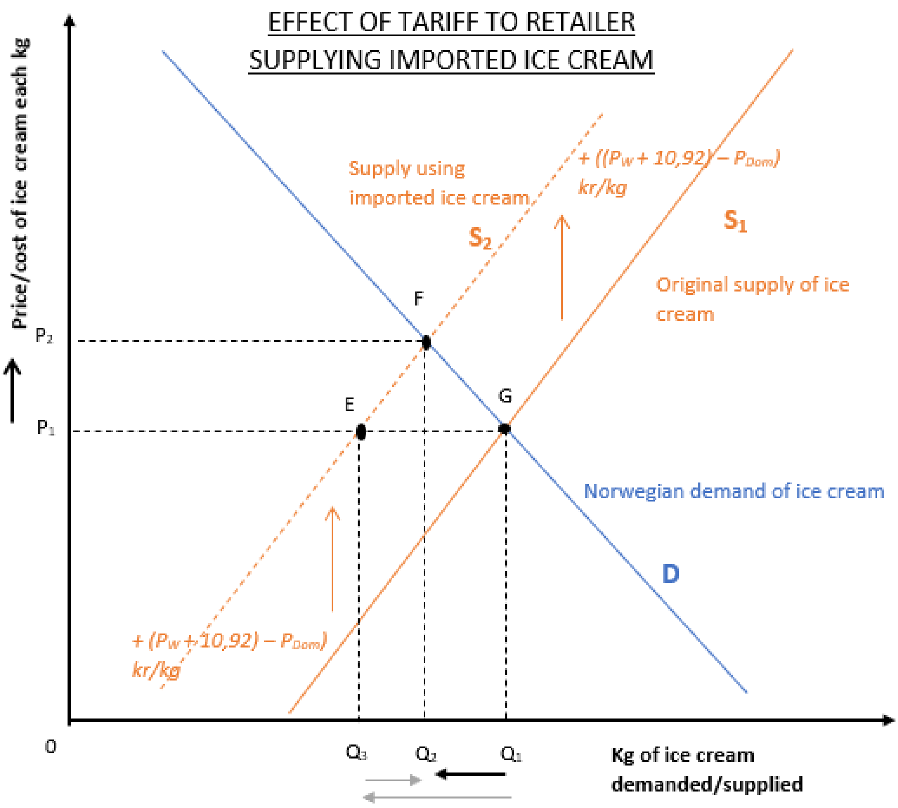


Diagram 5: illustrating the effect of "importvernet" on the ice cream supply and demand in the grocery industry

If a retailer supplies imported ice cream, the cost of production will increase by the difference between the domestic price and the import price, $(P_W+10{,}92)-P_1$, as the retailer must pay more for imported ice cream. This will shift the retailer's supply curve upwards, S_1->S_2, by $(P_W+10{,}92)-P_1$. With the increased cost, price P_1 is sufficient for producing Q_3 kg while avoiding losses, so quantity of ice cream supplied by the retailer falls, Q_1->Q_3. Now, more is being demanded than supplied, creating an excess supply of Q_1-Q3. To eliminate the shortage, the retailer raises the price, P_1->P_2, so more can be produced, and profit maximize. As the law of supply states, an increase in price will usually lead to an increase in production, ceteris paribus (everything else being equal). Eventually, an equilibrium, where demand=supply, is obtained, F. However, as the law of demand states, an increase in price will usually lead to a decrease in quantity demanded, ceteris paribus. This is seen in the diagram by the fall in quantity demanded, Q_1->Q_2. In other words, the sale of tariffed ice cream leads to a loss of sales and therefore a dwindling market share. This was confirmed in my interview with Foros, where he stated ‘They (the retailers) will have a very big disadvantage. That is, on everything produced abroad’ (Foros, Appendix 3, 2021).

COMPETITIVE ADVANTAGE

A competitive advantage gives better operating margins, revenue left after variable costs (costs that change with output in the short run) are deducted. This facilitates better net profit margins, the revenue percentage becoming profits, thus providing numerous advantages to the firm including in terms on growth and value. If the competitive advantage is sustainable, meaning lasting, the firm will outperform its competitors in the long run. If NorgesGruppen's chains have a sustainable competitive advantage, their ability to grow will increase simultaneously decreasing their competitors'.

In this essay Michael Porter's structure-conduct-performance strategy model is used. It argues the structure of the industry influences the companies' conduct, which then drives the performance. Rudimentary explained, he argues the intensity of competition in an industry is determined by the threat of new entry, pressure from substitute products, bargaining power of buyers, bargaining power of suppliers, and the degree of rivalry among existing competitors. Competitive advantages enable firms to shift these forces in their favor to achieve greater profitability (Koller, Goedhart, & Wessels, pp. 59-68).

Competitive advantage refers to firms being able to charge a price premium or produce more efficiently, at lower capital (assets) per unit or lower cost, or both. To achieve price premiums, a firm must differentiate its products. That is challenging in the Norwegian grocery industry; on some goods, retailers are constrained to the same suppliers and an ecologic egg is an ecologic egg. Thus, most products are difficult to differentiate. Price premiums can, however, be achieved through differentiating secondary factors like having better organized and aesthetic premises. Some chains achieve this. However, the EDLP sub-market made up 68,3%

of the market share by the end of 2020 (NiesenIQ, 2021), implying most consumers do not accept price premiums.

However, all of NorgesGruppen's chains achieve a sustainable competitive advantage through greater cost and capital efficiency. The competitive advantage discussed in this essay arises from NorgesGruppen having the most efficient size or scale for the grocery retail industry. For now, this advantage reduces the threat of new entry and pressure from substitute products in NorgesGruppen's chains' favor, impeding competitors' increase in market share.

ECONOMIES OF SCALE

Businesses can achieve a competitive advantage through economies of scale, which will prevent entry and growth of firms and reduce pressure from substitutes. Economies of scale refers to bigger firms achieving relatively lower explicit costs, costs involving a direct payment of money, through their superior size. (Blink & Dorton, 2020, p. 193).

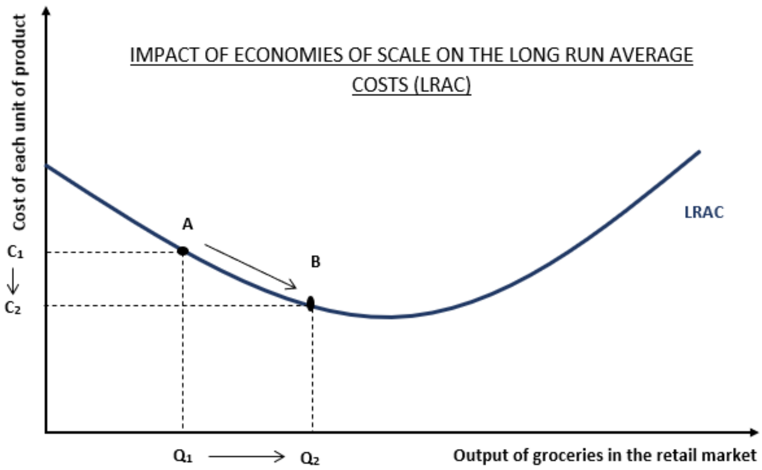


Diagram 6: Illustration of impact of economies of scale on long run average costs

The diagram illustrates how NorgesGruppen's economies of scale impact their chains' long run average costs. The LRAC curve shows the different average costs of production of each unit acquired by the chains with varying output in the long run. As output increases, Q_1->Q_2, economies of scale lower the average cost of production, C_1->C_2. Since profit equals revenue minus economic cost, a bigger profit obtained if cost of production is lowered, ceteris paribus. Increased profits can be used to outcompete competitors and grow NorgesGruppen's chains by for example winning price wars and spending more on advertising. **Hence, if NorgesGruppen is enjoying economies of scale, they can prevent competitors from increasing their market share.**

BULK BUYING

Bulk buying is an economy of scale, meaning this advantage will lower the chains' LRAC value as the retailer grows (Diagram 5). Bigger firms are often able to negotiate discounts with suppliers that smaller firms do not receive (Blink & Dorton, 2020, p. 193), resulting in second degree price discrimination, where different prices are charged for different purchased quantities. Expenditure on consumer goods, the final good consumed by consumers, (e.g., cheese that retailers will sell), is by far the chain's biggest cost (Oslo Economics, 2017, p. 41) and constitutes an estimated 80% of the retailer's variable costs of production (Oslo Economics, 2017, p. 44).

Thus, a reduction in cost price would result in a considerable movement along the LRAC of a retailer's chains, facilitating a profit usable for preventing competitors' growth. This competitive advantage is further elaborated later.

COST PRICE DISCRIMINATION

Each fall, retailers (the company, not the individual chains) negotiate with suppliers the price of the suppliers' consumer goods. Research carried out by Norway's Competition Authority found that suppliers practice price discrimination, but the type is unclear. In the investigation, ten 'strong'[2] suppliers and their subsidiaries (a total of 16) were investigated. Their 2017 prices were used. The table below illustrates their findings showing the average price of each good that retailers paid to suppliers when all discounts, e.g., for shelf placement, were deducted. Eight suppliers charged NorgesGruppen 0-10% less for the goods, three charged 10-15% less, and five charged more than 15% less. None charged NorgesGruppen more.

[2] Used by Norwegian Competition Authority

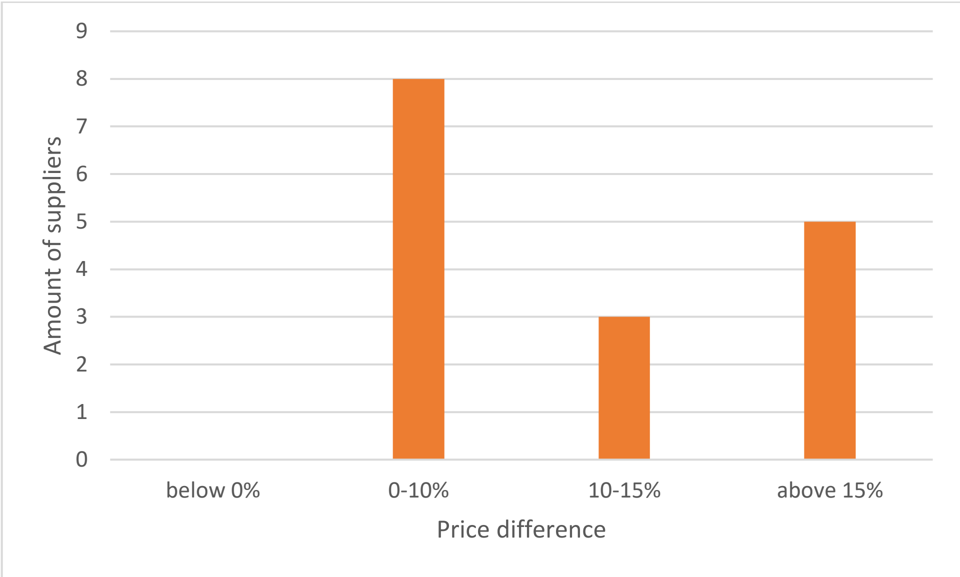


Diagram 7: Quantization of the cost price differences suppliers give to retailers

(Konkurransetilsynet, 2019, p. 8)

BULK BUYING PER SE

Agents in the industry, including NorgesGruppen, have argued the price discrimination originates from bulk buying. The conclusion that NorgesGruppen will have more bargaining power, the ability to influence a negotiation to obtain a concession, due to a larger purchased quantity is easily drawn. Naturally, losing NorgesGruppen would mean a greater reduction in revenue for the supplier than losing a smaller retailer. Nevertheless, NorgesGruppen would lose more revenue than a smaller retailer if they stopped supplying the supplier's product and came up with no immediate replacement, something they cannot because of "*Importvernet"*. These two outcomes "cancel each other out". (Øystein Foros, 2019). If the only reason for the discrimination was size, one would find Norwegian levels of price discrimination in other Scandinavian countries like Sweden, where large size differences exist between different agents. However, there price discrimination as in Norway is non-existent (Foros, Appendix 3, 2021).

Thus, bulk buying per se has no effect on the competition in the industry.

BACKWARDS INTERGARTION

The price discrimination could still be explained by NorgesGruppen's larger market share. NorgesGruppen could be more able to integrate backwards; produce their own consumer goods.

If a firm is to integrate backwards, they will face a variety of costs. In the retailers' case, they might for example have to buy new machines or advertisement. There, NorgesGruppen might have an advantage; they can distribute these costs over a larger number of consumers giving them more present and future revenue to bear the costs, ceteris paribus. This is confirmed by Foros. 'NorgesGruppen might, because of their size, get a real advantage (…) they have a much bigger market share to distribute any investment in private labels' (Foros, Appendix 3, 2021).

Since NorgesGruppen might more easily perform backwards integration due to their bigger market share, they may achieve relatively lower cost prices, helping them outcompete competitors thus preventing their growth.

However, backwards integration already happened; all retailers have private labels. Thus, potential costs lessen as the retailers might, for example, own the necessary machines. Consequently, future backwards integration becomes easier, and the ability to bear costs may not affect cost price. Also, several of the supplier's goods, like Coca Cola, have such strong brand loyalty that their replacement seems unlikely (Oslo Economics, 2019, pp. 29-30). Additionally, not only size facilitates backwards integration, and the threat of backward integration might be useless. If the price negotiated without it already is equal to or below the price it concedes, backwards integration will be fruitless (Kristoffer Midttømme, 2019, p. 46).

THE DIFFICULTY OF DETERMINING THE EXACT REASON FOR THE COST PRICE DIFFERENCE

It is crucial to understand that many different factors, unrelated to size, may have led to the cost price differences. E.g., the negotiating skill of the retailers and cost to suppliers when supplying their goods are possible influencing factors. However, there is not enough information available to determine the cost price differences' exact origin. According to Midttømme's rapport, the U.K. Competition Commission studied the British grocery retail industry and found that bigger agents get better prices. However, they concluded that size is not necessarily the reason behind the difference: 'Whilst the results are useful in assessing which customers have buyer power, the fact that there are a number of other factors, unrelated to size, which affect prices implies that we have to be careful in drawing inferences about the relationship between customer size and price based on this analysis alone' (Kristoffer Midttømme, 2019, p. 47).

CONNECTION BETWEEN COST PRICE DISCRIMINATION AND SIZE

Although, NorgesGruppen's bigger market share is not an explanation per se; size differences probably influence the cost price, and if NorgesGruppen continues growing, price discrimination might increase. A follow up report on the price discrimination found that from 2017 to 2019, the price discrimination increased by 0,5 percentage points (Konkurransetilsynet, 2020, p. 4). An explanation could be that NorgesGruppen was the only firm that grew their market share in that period (Diagram 2).

Nevertheless, multiple agents in the market attribute the cost price differences to NorgesGruppen's bigger market share, and they probably have good insight. Additionally, one might argue that conditions influencing cost price that are not a direct consequence of size differences, are instead indirect consequences. E.g., the negotiating skill of NorgesGruppen's negotiators might be higher because NorgesGruppen is able to pay higher salaries due to their bigger market share and its benefits. The effect of the cost price differences is now evaluated.

CONSEQUENCES OF COST PRICE DISCRIMINATION ON COMPETITIVENESS

To evaluate the consequences of the cost price differences on profit, the following knowledge is needed. Profit on each additional unit produced can be defined as the revenue gained from each additional unit sold, (MR), minus the cost of producing each additional unit, (MC). If MR<MC (right on Diagram 7), profits are negative, and losses are made on each additional unit produced. If MR>MC (left on Diagram 7), profits are positive and made on each additional unit produced. That is, assuming MR slopes downwards. Thus, profit maximization occurs when MC cuts MR from below, shown in diagram (Blink & Dorton, 2020, p. 177).

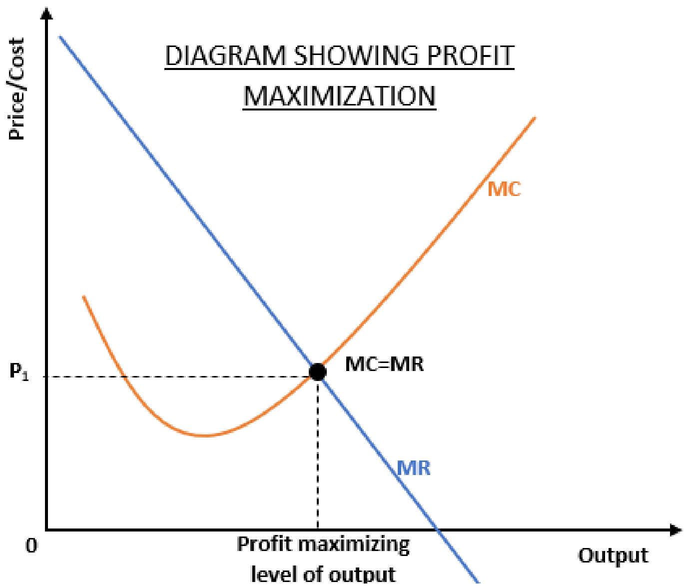


Diagram 8: illustration of the profit maximizing output quantity

To best illustrate the consequences of the cost price discrimination on competition, two EDLP chains are used; Kiwi, NorgesGruppen's chain, and Rema, Reitangruppen's chain. This sub-market is choosing since it is the biggest and fastest growing in the industry.

To construct the following analysis, several assumptions have been made, including that everything except cost price is equal. Later, how these assumptions impact accuracy is discussed. It should be noted that Rema is only an example; any other EDLP-chain could be used in the analysis.

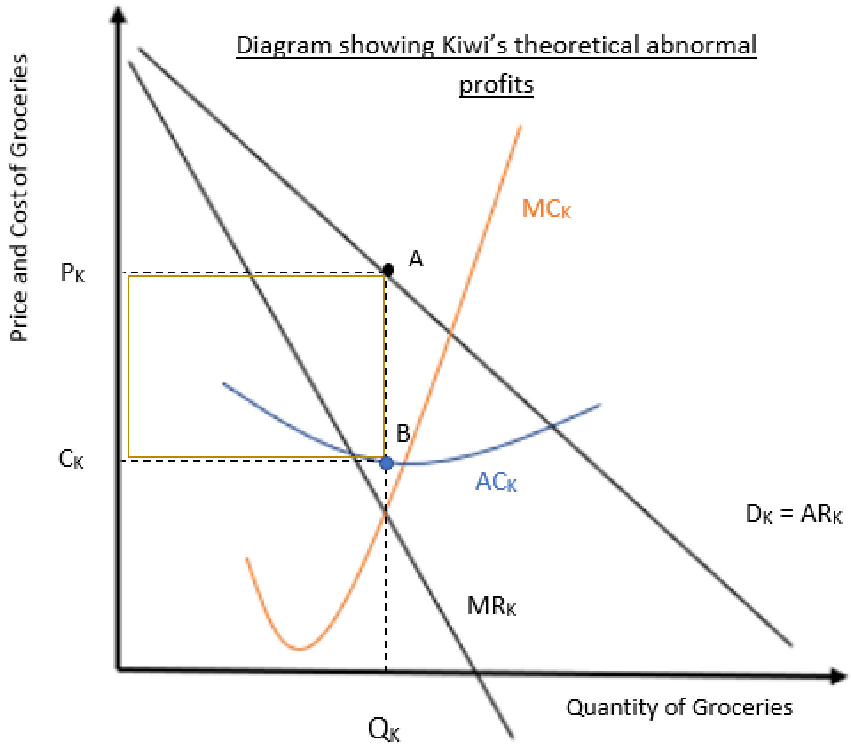


Diagram 9: illustration of Kiwi's profits

One must know three things to find Kiwi's profit: their profit maximizing level of output, which is Q_K (just explained), the price to end consumers, and the average cost of production of each unit (AC). To find the price to end consumers on the diagram above, one must look at the curve D_K=AR_K. It represents the total demand for Kiwi's goods in relation to price. Point A shows what consumers are willing and able to pay a price of P_K when a quantity of Q_K is being supplied. The curve slopes downwards because of the law of demand, explained in trade barriers chapter. Kiwi's AC is represented by the AC_K curve, and it is curved because of its relationship with marginal costs. If AC>MR, AC will decrease and vice versa. MC_K will therefore cut AC_K at its lowest value. Point B shows that when producing Q_K, Kiwi's AC is C_K.

In other words, Kiwi's profits when profit maximizing can be calculated by finding the difference between their price to end consumers (P_K) and the AC when profit maximizing (C_K), then multiplying it by the quantity sold (Q_K). The profit is visualized in Diagram 9 by the square C_KBAP_K.

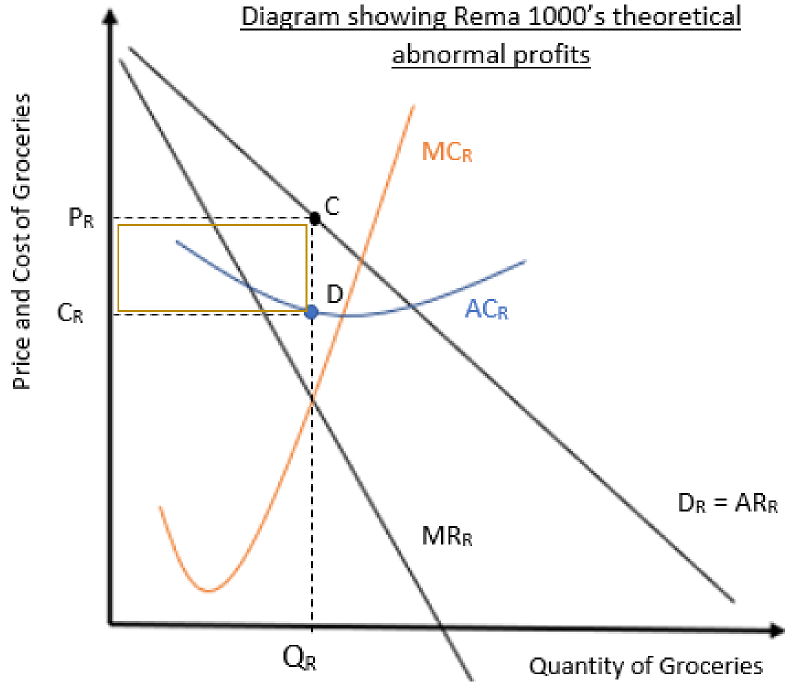


Diagram 10: illustration of Rema's profits relative to Kiwi's

Using the same method, one finds that Rema's profit is C_RDCP_R when profit maximizing. Rema's higher cost price results in the production of each additional unit (MC) being more expensive. Consequently, Rema produces less than Kiwi at every cost level placing their MC, MC_R, relatively to the left. Therefore, $AC_R>AC_K$, because if the cost of producing each additional unit increases, so will the AC. Therefore, Rema's profits when profit maximizing is smaller.

Nevertheless, NorgesGruppen and Rema cannot simultaneously profit maximize. The diagrams shown that if Rema profit maximizes, Rema's prices are higher than Kiwi's, $P_R>P_K$. Thus, consumers will get more satisfaction for each NOK spent in Kiwi than in Rema. Consequently, Rema's demand will fall, as the most price sensible consumers substitute Rema with Kiwi, increasing Kiwi's market share. Consequently, if Rema wishes to maintain or increase their market share, they cannot charge a price premium. Rema must sell their goods at a market price set by Kiwi. In fact, end consumers in the EDLP sub-market essentially get the same prices from every retailer (Appendix 1).

COST PRICE IMPACT ON COMPETITION AND GROWTH IN MARKET SHARE

Confirmed in my interview with Foros, independent of the origin, cost price differences greatly impact competition. They provide NorgesGruppen hundreds of millions NOK of additional revenue each year (Ripegutu, 2019). The cost price differences are the biggest barrier to entry in the market (Oslo Economics, 2017, p. 47). Normally, new firms are small, and since the price differences are most likely somehow related to size, new entrants will get a higher cost price, and hence, an MC further to the left (like for example Rema). NorgesGruppen's competitors may not only make smaller profits; they might even make losses. This will happen if the MC is far enough to the left, as AC, the average cost of production of each good, will be higher than the price of the good (Diagram 11, PABC). Thus, through a lower cost price obtained from NorgesGruppen's superior market share, Kiwi can effectively impede entry and growth of competitors in the EDLP sub-market, essentially removing substitutes for their goods. This, however, is not an EDLP-phenomenon. It applies to competition within the different sub-markets to varying degrees. Bentestuen, then Rema CEO, stated the higher cost price is a central reason for their decreasing market share trend (Hopland, 2020). **This way, because of their bigger market share, NorgesGruppen prevents competitors from increasing their market share.**

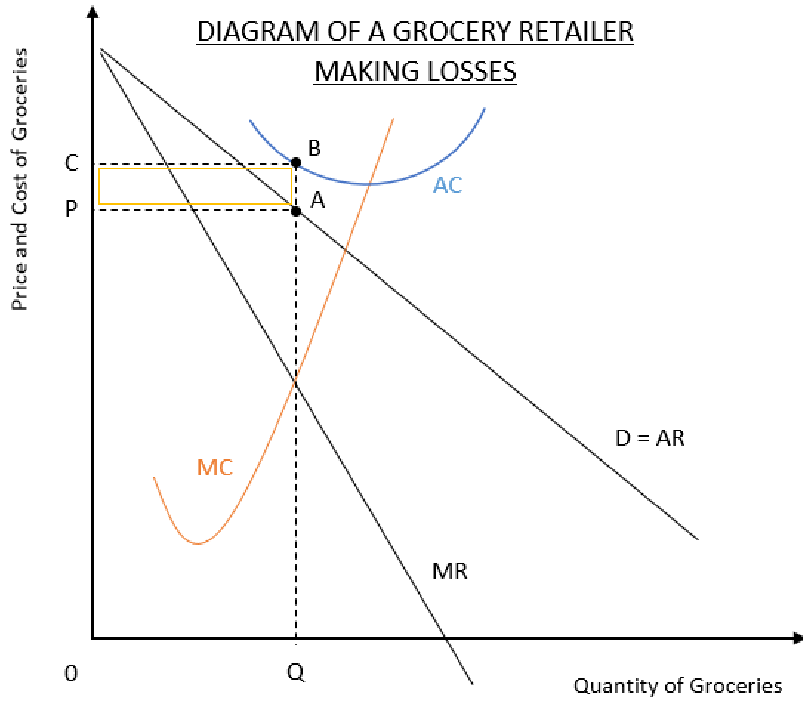


Diagram 11: example of a grocery retailer making losses

TRANSPORT ECONOMIES

Another type of economies of scale is transport economies. It refers to bigger firms being able to negotiate discounts with wholesalers because they make bigger purchases. Also, bigger firms might own their own transport fleet, which cuts costs because they do not have to pay for someone else's profit margin (Blink & Dorton, 2020, p. 194). Transport economies result in a movement along the LRAC (Diagram 6) which leads to a competitive advantage, reducing the threat of new entry and pressure from substitute products.

Reitangruppen, Coop and NorgesGruppen own their wholesalers. Transport economies is a barrier to entry and growth for smaller firms (Oslo Economics, 2017, pp. 43-44). If smaller firms want to increase their market share, they will have to expand across Norway. To do that they will need transportation of their goods, something they probably will have to pay a wholesaler for; smaller firms do not normally own transportation fleets. This will increase the small retailer's cost. MC and AC will increase having the same consequences, but to a lesser extent, as higher cost prices. Bunnpris currently pays for NorgesGruppen's wholesaler (Valvik, 2018).

NorgesGruppen's superior market share enables transport economies and through lower costs, NorgesGruppen can outcompete the smallest competitors preventing their growth in market share.

ANTI-COMPETITIVE BEHAVIOR

Another barrier to entry is anti-competitive behavior, which consists in deliberately limiting the ability of competitors to compete through restrictive practices (Blink & Dorton, 2020, p. 197).

A crucial factor to increase market share is owning good premises. When consumers choose grocery stores, location is generally the most important thing and parking possibilities is the second (Forbrukerrådet, 2013, p. 2). Firms in the industry intentionally restrict each other's ability to compete through purchasing the best shop premises, even if they have no intention of utilizing the premises themselves (Oslo Economics, 2017, p. 42).

Lykke, CEO of Bunnpris states 'NorgesGruppen has done a good job with real estate throughout the years. The most important thing for a grocery store is the location, that determines if one succeeds or not. The fact that NorgesGruppen been good at this, is the reason they are as big as they are today' (Valvik, 2018).

If everything except size is equal, NorgesGruppen will have bigger financial muscles, which will enhance their ability to acquire the best placed premises. Consequently, NorgesGruppen can increasingly monopolize the best stores and will therefore restrict the ability of the other retailers' chains to compete dwindling their future market share.

This means that, in the long run, NorgesGruppen can, because of their size, restrict the ability of competitors to grow in and enter the market. That is because this leads to a lowering in pressure from substitute products, and in the long run, it can lead to customer lock-in, when consumers are unable or unwilling to substitute a good or service.

LIMITATIONS TO THE ESSAY

Before the conclusion, it is important to know there are some limitations to this essay that somewhat constrain the accuracy of it. To answer the research question, this essay has only examined economies of scale and anti-competitive behavior. Nevertheless, there are more size related factors benefiting NorgesGruppen. However, since economies of scale and anti-competitive behavior are the most prominent factors (Oslo Economics, 2017, p. 48), an answer based on their analysis is likely accurate enough to answer the research question adequately.

Also, there are some limitations in the analysis of the effect of cost price differences on competition. Since everything was kept constant except the cost price, its effect on competition might have been somewhat inaccurate. Most likely, different chains will have different variables affecting cost of production. This contributes to differences in costs that can amplify or counterweigh the cost price differences by altering the marginal cost curve (MC). Moreover, the purpose of the analysis was purely to show the consequences of having a less favorable MC. All the curves and relations in the diagram are theoretical and represent no attempt whatsoever on replicating the chains' exact situation. Still, the analysis carries merit, as cost price is the chain's biggest cost by far. In 2019 and 2020, NorgesGruppen's expenditure on consumer goods was on average 76% of their sales revenue (Appendix 2), showing that reducing cost price greatly effects operating margins and impacts competition.

CONCLUSION

Considering the findings; it seems the benefits obtained by NorgesGruppen through their superior market share greatly weaken the ability of competitors to increase their market share in the Norwegian grocery retail industry. Arguably, because of their size, NorgesGruppen's chains get a vast competitive advantage that helps them outcompete their chains' competitors. Moreover, NorgesGruppen's competitive advantage appears sustainable; it looks like it has prevented competitors from increasing their market share throughout years.

It appears that because of size, NorgesGruppen saves hundreds of millions NOK a year compared to competitors through lower cost prices. This arguably gives NorgesGruppen's chains a huge competitive advantage and prevents the growth in market share of their competitors, as the increased profits can be used for growing NorgesGruppen's chains. Moreover, through a superior ability of conducting anti-competitive behavior, arising from size, NorgesGruppen excludes competitors from growth in market share by increasingly monopolizing the best premises. Additionally, through transport economies, NorgesGruppen cuts costs where the smallest firms cannot, again preventing the competitors' growth. NorgesGruppen achieves these advantages, most likely because their bigger market share, and these advantages facilitate growth. This gives NorgesGruppen a self-perpetuating sustainable competitive advantage, where todays advantage unlocks tomorrow's bigger advantage, and exponentially prevents the competitors' growth in market share.

THE FUTURE OF THE NORWEGIAN GROCERY MARKET

The advantages described above arguably explain NorgesGruppen unhalted growth. Although, other agents have had periods of growth, these are all linked to ICA's bankruptcy, a chain who in 2002 had a market share of 25% (Foros & Kind, 2019, p. 43). More than Rema has today (Diagram 1). This implies that if the recent years' trend in market share continues, NorgesGruppen will achieve a monopoly, and the bigger NorgesGruppen gets, the more inevitable it will be.

Therefore, a question worthy of further investigation is: are NorgesGruppen's prospects beneficial for consumers? Evaluating this question in one paragraph is impossible, but some conclusions might be drawn.

Considering Norgesgruppen's relation between size and growth, determining how much of the growth is size-induced inertia and how much is a result of being a better company is difficult. However, there seems to be a consensus that NorgesGruppen has more overhead, costs that do not directly originate from producing a product, than the other retailers making NorgesGruppen inefficient (Ripegutu, 2019). Therefore, if NorgesGruppen becomes a monopolist, prices for end consumers might increase. Also, prices may increase since NorgesGruppen will freely set prices and have no competition. This may lead to a loss in social efficiency.

BIBLIOGRAPHY

Blink, J., & Dorton, I. (2020). 2020 Edition Economics Course Companion. Oxford: Oxford University Press.

Forbrukerrådet. (2013). *Dagligvareundersøkelsen.* Forbrukerrådet. Retrieved June the 27th, 2021 from https://www.forbrukerradet.no/wp-content/uploads/2015/09/Dagligvareunders%C3%B8kelsen.pdf

Short description: The title is 'The Grocery Survey', the author is the Norwegian Customer Council, and the survey is done to map the habits of the consumers in the Norwegian grocery market.

Foros, Ø. (2021, May 31). Intervju with Øystein Foros. (M. S. Kolbrúnarson, Interviewer)

Foros, Ø., & Kind, H. J. (2019, November 15). Størrelsesbasert prisdiskriminering i det norske dagligvaremarkedet: Teori og terreng. *Samfunnsøkonomen*. Retrieved June the 8th, 2021 from https://samfunnsokonomene.no/wp-content/uploads/2020/05/Samfunns%C3%B8konomene-5-2019.pdf

Short description: The title translates to 'Sized-based price discrimination in the Norwegian grocery market: Theory and terrain. The authors are Foros and Kind, the first being an expert on the Norwegian grocery market. The article discusses possible reasons for the cost price discrimination in the Norwegian grocery market. the article was published in a respected Norwegian journal called 'The Socio-Economist'

Hopland, S. (2020, February 26). Rema-sjefen mener innkjøpsforskjellene må ta mye av skylden for svekkelsen. *E24*. Retrieved June the 8th, 2021 from https://e24.no/naeringsliv/i/opQW40/rema-sjefen-mener-innkjoepsforskjellene-maa-ta-mye-av-skylden-for-svekkelsen

Short description: The title of the article is 'Rema-boss believes cost price differences must take a lot of the blame for the weakening'. The author is a Norwegian journalist who's name is Sindre Hopland and has published several articles on the grocery retail industry for different newspapers. The article is written in one of the most read business newspapers in Norway and it presents different views, including NorgeGruppen's, on how the cost price differences affect the development in market shares.

Hopland, S. (2020, 02 13). *Rema taper markedsandeler til Norgesgruppen*. Retrieved June the 13th, 2021 from Verdens Gang (VG): https://e24.no/naeringsliv/i/70wd4w/rema-taper-markedsandeler-til-norgesgruppen

Short description: The title of the article is 'Rema loses market shares to NorgesGruppen'. The name of the author is Sindre Hopland and the article is published in one of the most read newspapers in Norway. I used this article to make my table on development in market shares as the article provides a good table. They themselves say that the table is constructed using Nielsen data. However, I cannot access this information since I must pay, and I believe one must be a company to access it. The article itself talks about the development in market shares both on the company level and chain level, as well as it briefly touches on cost price differences and their effect on competition.

Koller, T., Goedhart, M., & Wessels, D. (2010). Valuation University Edition 5th Edition: Measuring and Managing the Value of Companies. New York: John Wiley & Sons, Inc.

Konkurransetilsynet. (2019). *Kartlegging av innkjøpsbetinglser i norsk dagligvaresektor.* Konkurransetilsynet. Retrieved May the 21th, 2021 from https://konkurransetilsynet.no/wp-content/uploads/2019/11/Rapport-om-innkj%C3%B8psbetingelser_2019.pdf

Short description: The rapport is written by the Norwegian Competition Authority and the title is 'Mapping of Purchasing Conditions in the Norwegian Grocery Sector'. This rapport examines the price discrimination in the industry and does so by measuring the cost price of each unit in different ways.

Konkurransetilsynet. (2020). *Kartlegging av innkjøpsbetingelser i norsk dagligvaresektor: Undersøkelser av betingelser for 2018 og 2019.* Konkurransetilsynet. Retrieved May the 21th, 2021 from https://konkurransetilsynet.no/wp-content/uploads/2020/10/Rapport-innkjopspriser-2020.pdf

Short description: A follow-up rapport on the cost price discrimination written by the Norwegian Competition Authority. The title of the rapport is 'Mapping of Purchasing Conditions in the Norwegian Grocery Sector for 2018 and 2019'. The development in cost price discrimination is measured and is found to have somewhat increased compared to the first rapport. However, the rapport concludes with saying the cost price differences are stable.

Kristoffer Midttømme, A. M. (2019). *Utredning av årsaker til ulike innkjøpspriser.* Menon. Retrieved June the 14th, 2021 from https://www.menon.no/wp-content/uploads/2019-103-%C3%85rsaker-til-ulike-innkj%C3%B8pspriser.pdf

Short description: This is a rapport written by a company named Menon, which analyses economic issues and gives advice to companies. The rapport is written by Kristoffer Midttømme, a socio-economist with a doctorate from the University of Oslo. Its name is 'Investigation of causes for different cost prices'. The rapport was ordered by the Norwegian ministry of trade and fishery. As laid out by the name, the rapport discusses possible reasons for the cost price discrimination and presents a wide range of economic theory.

Nielsen. (2020). Dagligvarefasiten 2020. Nielsen. Retrieved June the 13th, 2021 from https://dagligvarehandelen.no/sites/default/files/dagligvarefasiten_2020.3.pdf

Short description: This is a one-page pdf made by Nielsen on the market shares of the industry. The numbers are based on data from the 31. December 2019. The title of the pdf is '

NiesenIQ. (2021, 02 18). *Dagligvareleverandørenes Forening (DLF).* Retrieved August the 3rd, 2021 from https://www.dlf.no/wp-content/uploads/2021/02/NielsenIQ-pressemelding-Dagligvarerapporten-2021.pdf

Short description: the title of the source is 'NielsenIQ - press release - the grocery report 2021' and is written by NielsenIQ. The press release was found in the "Grocery Suppliers' Association". The press release contains several statistics on concerning the Norwegian grocery market.

Oslo Economics. (2017). *Etableringshindringer i dagligvaresektoren.* Oslo: Oslo Economics. Retrieved May the 16th, 2021 from https://www.regjeringen.no/contentassets/fbe3181e02084aeaa66bd439b1680d69/etableringshindringer-i-dagligvaresektoren_ref2absoluttsisteversjon.pdf

Short description: The title of the rapport is 'Barriers to entry in the grocery sector'. The rapport is written by a company named 'Oslo Economics' which provide analyses and counseling to

authorities, companies and organizations. The rapport was ordered and financed by the Norwegian ministry of trade and fishery. The rapport does not have a specific author, and focuses on outlaying the barriers to entry in the industry.

Oslo Economics. (2019). *Konsekvenser av et forbud mot prisdiskriminering i det norske dagligvaremarkedet.* Oslo: Oslo Economics. Retrieved May the 21st, 2021 from https://osloeconomics.no/wp-content/uploads/2019-36-Konsekvenser-av-et-forbud-mot-prisdiskriminering.pdf

Short description: The title of the rapport is 'Consequences of a ban on price discrimination in the Norwegian grocery market'. The rapport is written by Oslo Economics and has no specific author. The rapport was ordered and financed by NoresGruppen. The focus is on discussing the possible consequences of a potential ban on the cost price discrimination the market. It also outlays economic theory and relates its arguments to other arguments of other agents in the industry.

Ripegutu, H. (2019, December 21st). *Coop med frontalangrep: - Alle som handler hos Kiwi burde kreve 15 prosent rabatt når de handler Freia sjokolade.* Retrieved August the 3rd, 2021 from Nettavisen: https://www.nettavisen.no/okonomi/coop-med-frontalangrep-alle-som-handler-hos-kiwi-burde-kreve-15-prosent-rabatt-nar-de-handler-freia-sjokolade/s/12-95-3423897555

Short description: The title of the article is 'Coop with frontal attack: - Everyone that shops at Kiwi should demand a 15 percent discount on Freia chocolate'. The article is written by Halvor Ripegutu, who is currently the head of the financial editorial in the newspaper. The article focuses on the cost price differences and the implications they have for the different retailers.

Tolletaten. *Tolltariffen*. Retrieved June the 29th, 2021 from TOLLETATEN NORWEGIAN CUSTOMS: https://tolltariffen.toll.no/tolltariff/headings/21.05/21.05.0020?language=no

Short description: The "title" of this link is 'Eating-ice, also with cocoa'. The information is posted by the Norwegian customs and shows an average guideline on how much toll is on different types of ice cream.

Valvik, M. E. (2018, August 24). Bunnpris byttet ut varene fra Norgesgruppen. Da mistet de flere butikker. *Aftenposten*. Retrieved May the 20th, 2021 from https://www.aftenposten.no/okonomi/i/Qlk6WV/bunnpris-byttet-ut-varene-fra-norgesgruppen-da-mistet-de-flere-butikk

Short description: The title of the article is 'Bunnpris replaced the goods from NorgesGruppen. Then they lost various stores.'. The article is written by Marita E. Valvik, a journalist from Aftenposten. Aftenposten is the most read newspaper in Norway

Øystein Foros, H. J. (2019, December 4). STØRSTE KUNDE FÅR IKKE NØDVENDIGVIS BEDRE PRIS. *NHH BULLETIN*. Retrieved May the 20th, 2021 from https://www.nhh.no/nhh-bulletin/artikkelarkiv/2019/desember/storste-kunde-far-ikke-nodvendigvis-bedre-pris/

Short description: The title of the article is 'BIGGEST CUSTOMER DOES NOT NECESSARILY GET BETTER PRICE'. The article was written by Øystein Foros and Han Jarle Kind, and explains that the cost price discrimination is not due to size differences and why.

APPENDICES

APPENDIX 1: PRICE DIFFERENCES BETWEEN EDLP CHAINS

To find the relative prices of the goods in the industry a website named “VGs matbørs” was used. In this website, VG, a newspaper, publishes the results of investigations on which chains have the cheapest goods. The numbers are collected from investigations between 2016 and 2021. Only low-cost chains have been accounted and to “quantify cheapness” I compered the two cheapest firms in each investigation and calculated by how much they differ. This is seen in the “Cheapest margin” column.

	Date of investigation	**Rema 1000**	**Kiwi**	**Coop Extra**
	23/3/2021	2031,75	2034,06	2055,61
Cheapest margin		-0,11357%		
	23/9/2020	3520,36	3519,72	3534,44
Cheapest margin			-0,01818%	
	21/4/2020	1436,24	1444,94	1460,57
Cheapest margin		-0,60210%		
	30/9/2019	3592,61	3564,41	3619,78
Cheapest margin			-0,78494%	
	20/7/2019	2905,97	2905,57	2899,3
Cheapest margin			-0,01376%	
	12/3/2019	3429,12	3428,63	3431,71
Cheapest margin			-0,014289%	
	9/10/2018	3326,76	3315,45	3259,3
Cheapest margin				-1,69359%

	Date of investigation	**Rema 1000**	**Kiwi**	**Coop Extra**
	28/5/2018	3765,24	3760,95	3792,41
Cheapest margin			-0,11394%	
	19/2/2018	3372,59	3392,8	3486,12
Cheapest margin		-0,59567%		
	11/9/2017	3094,87	3071,51	3114,69
Cheapest margin			-0,75480%	
	8/5/2017	2430,54	2440,85	2447,87
Cheapest margin		-0,42239%		
	27/9/2016	1739,4	1748,17	1738,86
Cheapest margin				-0,03105%
	24/5/2016	1731,54	1746,63	1771,14
Cheapest margin		-0,86395%		
	26/1/2016	1681,08	1673,99	1690,83
Cheapest margin			-0,42175%	

	Amount of times cheapest	Average
Rema	5	-0,51954%
Kiwi	7	-0,303095%
Coop Extra	2	-0,86232%
	Average difference in price	-0,46028%

The table shows a simplified version of the other tables. On average, the price difference between the cheapest firms is -0.46% and Kiwi has only been the cheapest in 7 out of 14 investigations.

SOURCE:

Verdens Gang (VG). *VG MATBØRS*. Retrieved August the 5th, 2021 from https://www.vg.no/spesial/matborsen/

Short description: The researcher is a Norwegian newspaper called Verdens Gang and the title of the investigation is 'VG FOOD EXCHANGE'.

APPENDIX 2: NORGESGRUPPEN'S EXPENDITURE ON CONSUMER GOODS EXPRESSED AS A PERCENTAGE OF THEIR TOTAL SALES REVENUE

To find how much the cost of the consumer goods were of the total sales revenue, NorgesGruppen's annual report from 2020 was used. I looked at the income statement and divided the expenditure on goods by the revenue from sales. The calculation is given below.

Calculation for 2020:

$$\frac{75\ 009\ 685}{98\ 549\ 985} = 76{,}11\%$$

Calculation for 2019:

$$\frac{66\ 706\ 578}{87\ 499\ 055} = 76{,}24\%$$

Then I made calculated the average of the two values and rounded it up to two whole numbers, getting an answer of 76%.

<u>SOURCE:</u>

NorgesGruppen. (2021). *NORGESGRUPPEN ÅRS- OG BÆREKRAFTSRAPPORT 2020.* Retrieved August the 22nd, 2021 from NorgesGruppen: https://www.norgesgruppen.no/globalassets/finansiell-informasjon/rapporter/2020/ars-og-barekraftsrapport-2020.pdf

Short description: This is NorgesGruppen's financial statement and is written by NorgesGruppen. The title is 'NORGESGRUPPEN YEAR AND SUSTAINABILITY REPORT'.

APPENDIX 3: INTERVIEW WITH EXPERT ON THE NORWEGIAN GROCERY RETAIL INDUSTRY

Below, there is a translated version of the interview conducted with Øystein Foros the 31 May 2021. The interview was done by phone.

Foros is a professor at the Norwegian School of Economics (NHH) since 2007. He received a PhD in 2003 and has, amongst other things, extensively studied the Norwegian grocery industry. In addition, he has published more than 30 international refereed articles for example in The Economic Journal, European Economic Review, and International Journal of Industrial Organization.

SOURCE:

NHH. Retrieved September the 22nd, 2021 from Norges Handelshøyskole: https://www.nhh.no/en/employees/faculty/oystein-foros/

Short description: The source is in English

INTERVIEW:

Question (Q): Do Norwegian retailers have a real chance of replacing Norwegian suppliers? Especially considering "importvernet".

Answer (A): How big a portion is affected by "importvernet" greatly varies. But of course, on the products that "importvernet" really affects, there the effect is so big that it seems unlikely that they (the retailers) sell the products affected by it. There they will have a very big disadvantage. That is, on everything produced abroad.

Q: Does NorgesGruppen have a more real chance to integrate backwards because of their bigger market share?

A: In threatening to go to an alternative source and use own brand, there NorgesGruppen might, because of their size, get a real advantage. With a market share of 40-45% they have a much bigger market share to distribute any investment in private labels or building a brand. It can be a possible explanatory factor, but it is difficult to determine.

Q: So, there might be an advantage, but it is difficult to say for sure?

A: Yes, and the possibility of replacing a brand will vary from product to product. Some products may have some international substitutes, but the branding might not be strong in Norway. Then one would have to do a lot of marketing to build up the goods in Norway.

The alternative is to start one's own production, which they do with several alternatives. So called private labels. There, it can absolutely be like that. But again: it is not easy to say for sure.

Q: Is there much that suggests the price differences have nothing to do with size differences?

A: That is a good question because there can be many explanations to these cost price differences. However, the agents in the market themselves have during a long time said this is tied to size, even though it has not exactly been a 100% on what the explanation is.

Size per se is not a good explanation. If it were, we would have seen this was a much more widespread problem. Then if you went to Sweden, you would have also seen it there. They have big differences in the grocery industry. In several other countries as well. So, size per se is not the explanation.

It could be that they have not achieved any say with difference in size. But the chains themselves say this is tied to size.

Q: Would you say the price differences that were uncovered by the Norwegian competition authority bear a lot of weight on the competition in the industry?

I would believe they very much influence competition between the chains. At least where the greatest differences were uncovered. There where it was well above 15%. The cost price makes up a very big portion of both the total costs of running a grocery chain, and the price out of the store. That is, what is reflected out to you. Of that, the cost price makes up 70% or something like that. That is so high that it is reasonable to think that this has big consequences.