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The retail sector in the Nordic countries: A description of the differences, similarities, and uniqueness in the global market ☆

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Abstract

We present an overview of the retail sector in the five Nordic countries: Denmark, Finland, Iceland, Norway, and Sweden. We apply the Herfindahl–Hirschman Index and the Concentration Ratio to estimate the market concentration in the retail sector in each of those countries. The level of concentration in the retail trade in the Nordic countries is relatively high as compared to other European countries, which is reflected in low customer satisfaction. Furthermore, the Nordic countries have a relatively high proportion of their total population living in the capital area, and we consider how that affects their retail trade.

Keywords: Nordic countries; Market concentration; Herfindahl–Hirschman Index

1. Introduction

The purpose of the paper is to describe in a plain way the demographic factors in the Nordic countries which are important for the retail sector and show if, and then how, they are different in the individual countries. We compare the consumption of food in the Nordic countries and describe if, and then to what extent, the price of food is similar to that in other European countries. We consider whether market concentration in food retail can explain the different price levels on the Nordic food retail market as compared to elsewhere. We describe the Customer Satisfaction Index as a measure for the attitude of consumers and how it can be used to analyze the impact of market concentration. Furthermore, we state the concentration of the population in the capital area of the Nordic countries and evaluate if it has an impact on the prices of food and the logistics costs of retailing.

The paper describes the retail sector in the Nordic countries, particularly the grocery market. Table 1 shows an overview of the key figures of the Nordic region in an international context (Nordic Council of Ministers, 2006).

There are 25 million people living in the Nordic countries, 300 million in the United States, as in the Euro-12,[1] and 130 million in Japan. As seen in Table 1, the population density between those regions is quite different, ranging from 16 per km^2 in the Nordic countries to 350 in Japan. On average, the inhabitants in those regions have high living standards; the USA has the highest. The consumption of energy is by far the highest in the USA and so is the emission of greenhouse gases. The government debt also varies considerably, from 44% of Gross Domestic Product (GDP) in the Nordic countries to 172% in Japan. The tax burden is lowest in Japan and in the USA and by far the highest in the Nordic region. Unemployment is highest in the Euro-12, much more so than in the other countries. The people of Japan work appreciably longer than is usual in the other regions. The bottom line is that the five Nordic countries—Denmark, Finland, Iceland, Norway, and Sweden—are together relatively on a par with the most advanced countries in the industrialized world, despite their relatively small populations.

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[1]The Euro-12 are the 12 countries that have the Euro as their currency. These countries are Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, and Spain.

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Table 1
Key figures of the Nordic region in an international context

	Nordic countries	Euro-12	USA	Japan
Inhabitants per km^2	16	121	32	**350**
Youth part of population 0–14 years (%)	18	16	**21**	14
GDP per capita (PPP-Euro)	29,300	24,800	**34,800**	25,400
Consumption of energy per person (kg oil equivalent)	5.543	3.964	**7.843**	4.053
Emission of greenhouse gases (tons CO_2 equivalent per person)	12	11	**23**	11
General government debt (% of GDP)	44	71	64	**172**
Total taxes as part of GDP (%)	**48**	41	25	25
Unemployment rate (%)	6.6	**8.6**	5.1	4.4
Average working week (h)	35–38	32–40	41	**47**

Table 2
Some fundamental information about the Nordic countries

	Denmark	Finland	Iceland	Norway	Sweden
Population on January 1, 2006 (in millions)	5.4	5.3	0.3	4.6	**9.0**
GDP per capita in PPP 2005 (in 1000 USD) (world ranking)	34.4 (7)	31.4 (15)	35.8 (6)	**43.2 (2)**	32.7 (12)
Inhabitants (per km^2)	**126.7**	17.2	3.3	15.0	22.00
Inhabitants in capital area (%)	34	19	**63**	22	21

Table 2 shows some information on the countries (Nordic Council of Ministers, 2006; OECD, 2006) which is of particular relevance for the retail sector. As can be seen there, the population in three of those countries (Denmark, Finland, and Norway) are similar, approximately 5 million, while Sweden has double that number, or 9 million, and Iceland has by far the smallest population, only 300,000 inhabitants. Also, it can be seen that the Nordic countries are among the wealthiest countries in the world. The GDP per capita in Purchasing Power Parities (PPP) for 2005 ranged from USD 31,400 to USD 43,200, ranking the five Nordic countries in 2nd to 15th place in the list of the wealthiest countries of the world.

The number of inhabitants per km^2, which is highly significant for the retail sector as regards the distribution of merchandise, is similar in three of the countries (Finland, Norway, and Sweden) at 17–22 inhabitants per km^2. Iceland has only 3.3 inhabitants per km^2, while the corresponding density for Denmark is 127 inhabitants per km^2. The proportion of the total population living in the metropolitan capital areas is similar for three countries (Finland, Norway, and Sweden) at 19–22%; while in Denmark 34% of the total population live in the Copenhagen area and in Iceland 63% live in the Reykjavik area. Broadly speaking, Table 2 shows that Finland and Norway have a similar structure in this respect, with Sweden only differing in its greater population, and Denmark in the smallness of its country. Iceland has exceptionally few inhabitants in a relatively large country, where most of the residents are concentrated around the capital.

When it comes to the analysis of the retail market in the Nordic countries, it is important to keep in mind that shopping habits vary greatly between regions of Europe; e.g. there are fewer but larger shops per inhabitant in Northern Europe than in Southern Europe. Also, the largest retail enterprises in Northern Europe have a larger market share in Northern Europe than their counterparts in Southern Europe, and the own brand market share is also larger in Northern Europe (Flavián et al., 2002). In recent times, retailing has primarily been characterized by global retailing, where large retail chains are operating in ever more countries. Of the largest enterprises in this business sector, most are US retailers, followed by Japanese and then UK retailers (Dragun, 2003). In an international context, the Nordic countries are regarded as a small market region and the largest retail chains have not taken great pains to achieve prominence there. For many of the countries, such as Finland and Norway, inhabitants are relatively few, while distances are great (Uusitala and Rökman, 2004); the same could also be said to apply to Iceland. In many countries, the retail companies are among their biggest enterprises. These retailers front many competitive sellers which often gives them huge buyer power, representing the situation of monopsony (Clarke et al., 2002). Table 3 shows the annual population growth, age distribution, contribution of trade to GDP, and the proportion of the workforce engaged in the retail sector and related sectors (Nordic Council of Ministers, 2006; Einarsson, 2005).

The annual population changes over the past 150 years reveal a similar trend for four countries (Denmark, Finland, Iceland, and Norway), i.e. from 0.8% to 1.0%, while in Sweden the annual change over the same period was only 0.6%. A different picture emerges when the last 15 years are examined, from 1990 to 2006, when the yearly

Table 3
Demographic and economic information about the Nordic countries

	Denmark	Finland	Iceland	Norway	Sweden
Yearly population changes, 1850–2006 (%)	0.9	0.8	**1.0**	0.8	0.6
Yearly population changes, 1990–2006 (%)	0.3	0.3	**0.9**	0.6	0.3
Under 15 years, 2005 (%)	19	18	**22**	20	18
15–64 years, 2005 (%)	**66**	**66**	**66**	66	65
65 years and over, 2005 (%)	15	16	12	15	**17**
Employed in wholesale and retail trade, restaurants, and hotels of total workforce, 2005 (%)	**18**	16	**18**	**18**	15
Contribution to total economy gross value added of wholesale and retail trade, restaurants, and hotels 2003 (%)	13.5	11.9	12	15	**17**

increase in Denmark, Finland, and Sweden was 0.3%, as compared to 0.6% in Norway and 0.9% in Iceland.

Population growth, in addition to economy, has a significant impact on the retail trade in any country. Iceland has the youngest population of the Nordic countries, as shown in Table 3. However, the section of the population which is the most active in retail shopping (people in the age bracket of 15–64 years) is virtually identical in all the five countries. A very similar proportion of the workforce is employed in the trade sector, i.e. about 15–18% of the total. The contribution of the trade sector to gross value added is highest in Sweden and lowest in Finland. As the whole of Table 3 shows, the Nordic countries are very similar in their age structure and employment in the retail sector. Economically speaking, Sweden seems to have the most mature retail market, with the fewest employees and the highest productivity.

Table 4 shows the GDP per capita in 2005 in PPP, where the index is 100 for EU-15[2] in the second column. The price level is in the third column (overall) and in the fourth column (food only) (Nordic Council of Ministers, 2006). Poland is unusual as being the only former Eastern European country in Table 4, which explains the difference between Poland and the other countries. Prices in the food market in the Nordic countries are higher than in the other countries of Europe. This can be partly explained by the different policies of Value Added Tax (VAT) and the extremely inefficient agricultural sectors in Norway and Iceland. In Iceland and Norway, the food prices are over 40% higher on average than in the European Union before the enlargement (EU-15). The price levels in Finland and Sweden are not far above what can be found in other countries of Western Europe, while Denmark, Norway, and Iceland are much higher. As such, the structure of the retail trade in the Nordic countries varies (Naess, 2003), but in all five of them, large companies control the retail trade and these large companies regard the entire world as their home market.

In a few words, one can describe the retail market of the Nordic countries as operating in an environment with a very high standard of living, where the economies are highly sophisticated despite relatively small populations, where a disproportionately large part of the population resides around the capital area.

Table 4
GDP per capita and price level in an international context, 2005

	GDP per capita, 2005 in PPP	Price level	
		Overall	Food only
Denmark	115	**127**	127
Finland	103	108	114
Iceland	116	119	**147**
Norway	**152**	123	142
Sweden	106	113	114
EU-15	100	100	100
France	101	102	107
Germany	101	104	99
Italy	95	95	110
The Netherlands	114	102	96
UK	106	104	99
Poland	46	46	51
Euro-12	98		
USA	138		
Japan	100		

2. Consumption and retail growth

In Table 5 we show the consumption of several product categories in 2005, particularly foodstuffs, which are an important factor of retail sales; the Table also shows differences in consumption patterns (Nordic Council of Ministers, 2006). When looking at these patterns, it is important to keep in mind that all the Nordic countries share the same cultural heritage.

Table 5 shows that the consumption of alcohol is greatest in Denmark, and that Finland has the highest consumption of milk. The Icelandic consumption of beef

[2]The EU-15 are the 15 countries of the European Union before the enlargement in 2004. The 15 countries are Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and United Kingdom.

Table 5
Consumption in the Nordic countries per capita, 2005

	Denmark	Finland	Iceland	Norway	Sweden
Sales of alcohol (liters per capita 2004)	**11.0**	9.9	6.7	6.2	6.5
Milk (liters per capita)	98	**143**	138	117	107
Beef and veal (kg per capita)	**26**	19	13	20	25
Pork (kg per capita)	**38**	34	18	24	36
Sheep and lamb (kg per capita)	1.3	0.4	**25.7**	5.6	1.0
Poultry (kg per capita)	**23**	16	21	12	15
Sugar (kg per capita)	34	32	**49**	36	40

and veal is low in comparison with all of the other Nordic countries, but its consumption of lamb is by far the highest. Denmark is highest in the consumption of pork and poultry. Consumer satisfaction and customer loyalty are important factors in retailing. According to measurements of the European Customer Satisfaction Index, Finland has a high customer loyalty and Customer Satisfaction Index, scoring higher than Denmark. Interesting in this context is that in Denmark the customer loyalty and customer satisfaction is higher for shops in private ownership than shops in cooperative ownership, which command 38% of the market for convenience goods (Juhl et al., 2002). The significant differences in consumer patterns between these countries indicate that there is still some way to go before we can properly talk about a ‘‘Euro-consumer’’ (Schmidt and Poch, 1994).

For the food manufacturers, the bargaining power of food retailers and the challenge from substitute products, e.g. retailer own labels, are among the most competitive forces. The Five Forces Model of Porter and Porter's Diamond Model can be used successfully in this context to analyze the increasingly large food retail companies (Wrigley and Lowe, 2002; Pitts and Lagnevik, 1998). The retail sector has grown significantly in Iceland in comparison with other sectors. In Iceland, the retail sector grew by approximately 70% in 1990–2002, while over the same period, the increase was around 40–45% in Denmark and Sweden, 30% in Finland, and only 20% in Norway (Nordic Council of Ministers, 2006). There are various reasons for the growth of retailing, and comparison is even harder as consumer attitudes are measured differently in many studies. Thus, some researchers believe that consumers attach the greatest importance to a clean environment and good services, ranking those factors above value or excitement. Others believe that price, convenience, and fun are most important (Geuens et al., 2003). Furthermore, there are gender differences in grocery shopping activities (Chang-Hyeon et al., 2006).

As regards the final consumption expenditures of households, the Nordic countries exhibit a significant harmony. Food and non-alcoholic beverages account for 12–18% of final expenditure, alcoholic beverages and tobacco account for 4–6%, and clothing and footwear

Table 6
Consumer price index for various items for the Nordic countries, 2005

	Denmark	Finland	Iceland	Norway	Sweden
Food and non-alcoholic beverages	119	112	**126**	119	101
Alcoholic beverages and tobacco	110	102	**156**	154	122
Clothing and footwear	101	99	92	67	**103**
Housing, water, electricity, fuels	134	122	**193**	140	111
Furnishing, household equipment	**119**	109	118	102	106
Health	113	132	156	149	**168**
Transport	132	120	**137**	128	122
Communications	83	78	**97**	77	84
Recreation and culture	106	116	**125**	111	95
Education	155	146	**181**	167	
Restaurants and hotels	130	125	**143**	136	125
Miscellaneous goods and services	137	111	**144**	135	134
Total	124	115	**141**	122	110

account for 5–6%. Table 6 shows the consumer price index for 2005 (Index 1995 = 100) for important items in consumption (Nordic Council of Ministers, 2006; Einarsson, 2005).

As we see in Table 6, the consumer price index differs quite a lot. It is highest in Iceland. Alcoholic beverages are by far the most expensive in Iceland and Norway. On the other hand, clothing and footwear are the least expensive in Norway. The consumer price index for furnishing, transport, communications, and restaurants is similar in the five countries but it depends very much, of course, on the exchange rate in any particular year.

Fresh food has become much more prominent than before, and retail shops have grown significantly in size. A common size for supermarkets is approximately 600 m^2, but the new hypermarkets frequently cover 3500–4000 m^2 of floor space and such shops have achieved a significant market share in many parts of the world (Geuens et al., 2003). Shops show great variety in the Nordic countries. Table 7 shows the distribution of turnover by shop size in 2004 (Nielsen, 2005a; Nordic Council of Ministers, 2005).

The comparison in Table 7 shows perhaps the most significant difference in structure in the retail sector in the Nordic countries. In Finland, hypermarkets account for 27% of grocery sales, while the corresponding figure for Iceland is only 2%. Hypermarkets are also rare in Norway, where medium-sized shops (400–999 m^2) account for the largest proportion of sales. Over the last decade, sales in hypermarkets have grown significantly in Finland and Sweden (Nielsen, 2005a), while sales in the smallest category ($<100\,m^2$) have fallen by a great margin in all countries.

The difference in shopping preferences of the retail consumers are big enough to result in considerable contrasts in the patterns of retailing in Europe (Howe, 2003). This applies to the Nordic countries as well and in Table 8 we show the growth in retail shopping in those countries from 1998 to 2004, where the index for 1998 is 100 (Nielsen, 2005a; Nordic Council of Ministers, 2005).

The growth has been greatest in Iceland over this period of 6 years, at 37.6%, followed by Sweden at 33%, Finland at 25.9%, Norway at 25.6%, and finally Denmark at 19.2%. The annual growth in the individual sections of the retail sector during the same period is shown in Table 9 (Nielsen, 2005a; Nordic Council of Ministers, 2005).

Table 9 shows that Finland has the greatest growth in food trade while Denmark has the lowest. Also, the growth in non-food products is the highest in Sweden and the lowest in Norway, and the growth in retail sales of household equipment is highest in Iceland and lowest in Finland. Furthermore, the annual growth in retail sales of books, newspapers, and other printed material is by far the highest in Denmark and the growth in retails sale via mail order houses is by far the highest in Sweden.

In all the Nordic countries, the public authorities, especially the local authorities, emphasize the retail sector more than before, e.g. in urban planning, building places for big shops, environmental issues, and transport (Nordic Environmental Ministers, 2000). Many of the retail goods in the Nordic countries are imported. Table 10 shows the percentage of total imports from other Nordic countries in the years 1990 and 2005 (Nordic Council of Ministers, 2006; Einarsson, 2005).

It might come as a surprise that, according to Table 10, there have not been very dramatic changes over this span of 15 years, and basically the percentage of imports from the other Nordic countries is similar for any of the five countries.

Globally, there are three key trends in retailing that can be identified. The first one is that health is demanded much more than before, resulting, e.g. in increased sales of non-alcoholic beverages. A second trend is that the consumer is in more need of convenience than before and the third is the growing impact of Private Label (Nielsen, 2004). Private Label has a market share of 17% globally and is growing (Nielsen, 2005b).

In the Nordic countries, people are prominently emphasizing their health as part of their general well-being, where outdoor activities and discussion on health related issues are very common. Due to high income per capita, the consumers in these countries can afford paying for greater convenience, and the growth of hypermarkets in these countries is a stark example. The Nordic countries are characterized by few and large retail chains, often dominated by a Private Label that usually characterize large retail chains. The bottom line is that the Nordic countries are adapting quite well to these three global trends.

3. Concentration in retail and supply of food

The market concentration in grocery sales is significant in the Nordic countries. Table 11 shows the market share

Table 7
The distribution of turnover in retail by type of shops, 2004

	Denmark	Finland	Iceland	Norway	Sweden
Hypermarkets, $>2500\,m^2$ (%)	18	**27**	2	6	21
Shops, 1000–2499 m^2 (%)	28	31	30	20	**39**
Shops, 400–999 m^2 (%)	40	18	41	**49**	27
Shops, 100–400 m^2 (%)	13	22	**26**	24	11
Shops, $<100\,m^2$ (%)	1	**2**	1	1	**2**
Total (%)	100	100	100	100	100

Table 8
Growth in retail trade at constant prices, 1998–2004 (Index 1998 = 100)

	1998	1999	2000	2001	2002	2003	2004
Denmark	100.0	101.1	102.0	102.6	105.8	110.0	119.2
Finland	100.0	103.3	107.9	112.5	115.9	120.3	125.9
Iceland	100.0	107.2	111.2	118.1	122.8	126.8	137.6
Norway	100.0	103.9	107.8	110.8	116.5	121.0	125.6
Sweden	100.0	105.6	112.2	115.3	120.7	126.0	133.0

Table 10
Imports from other Nordic countries as percentage of total imports in 1990 and 2005

	1990 (%)	2005 (%)
Denmark	21	21
Finland	20	16
Iceland	23	24
Norway	26	25
Sweden	22	24

Table 9
Annual growth in some sectors of retail trade, 1998–2004

	Denmark	Finland	Iceland	Norway	Sweden
Retail sales of food, beverages and tobacco (%)	0.9	**4.8**	4.2	3.8	2.0
Retail sales of non-food products (%)	4.4		6.6	3.8	**7.5**
Retail sales of textiles, clothing, footware, and leather goods (%)	3.4		**6.9**	3.5	4.6
Retail sales of household equipment (%)	2.8	2.8	**9.1**	3.7	8.7
Retail sales of books, newspapers, and other printed materials (%)	**11.9**		5.8	3.8	4.4
Retail sales via mail order houses (%)	2.2	2.5	1.8	0.9	**10.7**

Table 11
Market concentration in percentage in retail in the Nordic countries

	1st	2nd	3rd	4th	5th	6th	7th
Denmark	37.6	29.1	24.5	3.8	3.3	1.6	0.1
Finland	35.8	31.1	12.7	7.4	5	4	4
Iceland	45	22	14	9	4	3	3
Norway	34.7	23.7	23.6	17.4	0.6		
Sweden	44.8	23.3	23.1	3	5.8		

Table 12
Herfindahl–Hirschman Index and the Concentration Ratio in retail in the Nordic countries, 2004

	HHI	CR(1) (%)	CR(3) (%)
Denmark	2900	37.6	91.2
Finland	2500	35.8	79.6
Iceland	2800	45	81
Norway	2600	34.7	82
Sweden	3100	44.8	91.2

of the largest retail chains (Nielsen, 2005a; Nordic Competition Authorities, 2005).

As Table 11 shows, the largest chain, Coop, has a market share of 37.6% in Denmark. In Iceland, the largest chain, Hagar (Baugur), has the market share with a staggering figure of 45%. The Herfindahl–Hirschman Index (HHI) is often used to describe market concentration; the index is calculated using the following formula (1):

$$\mathrm{HHI} = \sum_{i=1}^{I} S_i^2. \tag{1}$$

In formula (1), S_i represents the market share of company i, measured in percentages, and there are I companies in the market. Raising the market share to the second power increases the weight of the largest companies still more. If there is only one company in the market, the HHI will equal 10,000. If the market is divided equally between virtually countless little companies, the HHI will be close to 0. HHI will therefore vary between 0 and 10,000.[3]

Table 12 shows the HHI for the five countries in 2004, and also the Concentration Ratio (CR) for one undertaking and three undertakings. CR(1) indicates the market share of the largest undertaking and CR(3) indicates the market share of the three largest undertakings in the market (see Table 11).

In Denmark and Sweden, only three chains command 91% of the grocery market. It should also be kept in mind that, in some cases, there are ownership links between the chains, so that the concentration is effectively higher.[4] It is clear that the concentration in the grocery market in the Nordic countries is significant, more so than in most other countries. In the Nordic countries, the five biggest retailers account for almost the entire retail sales, whereas in South Korea and Japan, the biggest retailers account for only 12% of total sales (Nielsen, 2005b).

The US regulatory authorities, like other competition authorities, use HHI in their assessment of mergers (Reynold and Cuthbertson, 2004). In the United States, an HHI in the range of 1000–1800 does not indicate significant concentration. However, if the figure is higher than 1800, there is a risk of significant concentration and any potential merger under such circumstances is subjected to careful scrutiny under US law. As we can see in Table 12, the concentration in the grocery market is up to 3100 in the Nordic countries, while other countries have a much lower value, e.g. about 1600 in France and Germany, about 1800 in the UK, and as low as 300–500 in Spain (Reynold and Cuthbertson, 2004; Nordic Council of Ministers, 2005). This shows that the grocery market in the Nordic countries is extremely concentrated in comparison with other countries.

It is interesting, in the context of market concentration, to look at the variety of retail shops in the Nordic countries and other countries. Table 13 shows a comparison of four product categories in the five Nordic countries and France in 2004; France, in this context, is close to the average for the European Union (Nordic Council of Ministers, 2005).

Table 13 shows that France has a significantly broader selection in supply of food than the Nordic countries, except maybe for Finland. The supply of dairy products in Norway is extremely small in comparison with other countries, and the same applies to meat products. The variety in France is more than double that of Norway, and almost double that of Iceland and Denmark. The greatest variety in shops of the Nordic countries is in Finland and Sweden. One reason for this is the greater competition in Finland, which is reflected in the lower degree of concentration. However, shopping habits are also a relevant factor, just as the overall attitude of the consumers.

An important method to evaluate the consumers' attitudes in individual countries is to consider their satisfaction. Customer satisfaction is a vital factor of market analysis and has an impact on intangible assets of companies (Auh et al., 2003; Kristensen and Westlund, 2004). The National Customer Satisfaction Index (NCSI) is a measurement of the attitude of the consumers concerning key factors of companies, institutions, industries, or sectors of a nation, and is calculated via periodical analysis by a neutral institution (ECSI Technical Committee, 1998). The NCSI for 11 countries in 2006 (Czech Republic, Denmark, Estonia, Finland, Greece, Iceland, Latvia, Lithuania, Norway, Portugal, and Sweden) shows that the five Nordic

[3]If five companies divide the market among themselves so that two companies have a market share of 25% each, two have a market share of 20%, and one company has a market share of 10%, then $\mathrm{HHI} = 2150 = (25^2 + 25^2 + 20^2 + 20^2 + 10^2)$.

[4]The biggest Icelandic retail group, Hagar (Baugur), has, e.g. bought the big department stores Magasin du Nord and Illum in downtown Copenhagen.

Table 13
Consumption of food in the Nordic countries and France, 2004

	Denmark	Finland	Iceland	Norway	Sweden	France
Number of dairy products	153	279	155	105	198	254
Number of meat products	44	44	49	21	59	86
Number of beverage products	140	195	122	94	146	250
Number of cold cuts	83	151	64	70	105	123
Total	**420**	**669**	**390**	**290**	**508**	**713**
Index, France = 100	59	94	55	41	71	100

Table 14
Logistics costs in some studies in Europe

Research, year, and country	Management costs	Inventory costs	Transportation costs	Total costs as percentage of turnover
Iceland 2002, food, non-alcoholic beverages, manufacturing, trade (%)	0.5	4.4	3.0	8.0
Norway 1997, manufacturing industry (%)	1.0	2.8	7.9	11.7
Norway 2001, manufacturing industry (%)	0.9	2.6	5.6	9.1
Norway 1997, wholesale sector (%)				14.3
Norway 1999, wholesale sector (%)	1.0	4.1	4.1	9.2
Finland 1990, manufacturing, trade, construction (m/t/c) (%)	0.7	5.5	4.8	11.0
Finland 1995, m/t/c (%)	0.8	4.9	4.7	10.3
Finland 1999, m/t/c (%)	0.6	5.0	4.6	10.2
Europe 1987, Kearney (%)				14.3
Europe 1993, Kearney (%)				10.1
Europe 1998, Kearney, 200 companies (%)	1.2	3.4	3.1	7.7

countries are scoring very poorly (EPSI Rating Editorial Board, 2007). While Denmark is in the third place, Finland, Sweden, Norway, and Iceland have the lowest NCSI score for that year.

One explanation for the overall low rating of the Nordic countries can be contributed to the very little satisfaction with the supermarket sector that might be due to the high market concentration, high prices, and relatively little variety in items in the retail food market.

4. Logistics costs and trade areas

Distribution costs are a significant cost factor in retailing, and the volume of shipping and distances are important considerations. Table 14 shows logistics costs as a percentage of turnovers in some European studies (Einarsson, 2005).

Table 14 shows the three parts of logistics costs, i.e. management costs, inventory costs, and transportation costs. The first row in Table 14 shows Icelandic data. The next two show data from Norway in the manufacturing industry, indicating great improvements in reducing logistics costs over 4 years. The same trend appears in the next two rows, which are based on data concerning the wholesale sector in Norway. The next three rows show research data from Finland, which indicate relatively high logistics costs. There are not many significant differences between the three studies presented in Table 14. The last three studies were carried out by the company A.T. Kearney for the European Logistics Association (ELA) and show great improvements over a period of 11 years. The ELA surveys are extended to the 2000 members of the ELA and about 200 companies responded to the last survey (Einarsson, 2005). One has to be careful in interpreting and comparing these results. The studies have different backgrounds and the data are not always comparable.

It is interesting in this context to observe how similar the logistics costs are in Norway and Finland; as revealed earlier in this paper, conditions in Norway and Finland are, in many ways, similar—virtually the same population sizes, great distances, similar proportions of people living in the capital area, similar consumption patterns, and similar growth in individual sections of the retail sector. It is, therefore, not unreasonable to expect similar logistics costs. It is maintained in this paper that population density and the proportion of the population residing in the capital area are significant factors for the retail sector, and in fact for other social aspects of the countries in question.

Fig. 1 shows the population distribution in 181 countries in the world in 2006. The combined population of these countries, which includes most of the countries in the world, i.e. all over 100,000 inhabitants, is 6.5 billion (Infoplease, 2007a, b).

The most densely populated country in the world is Singapore, followed by Malta, the Maldives, Bahrain,

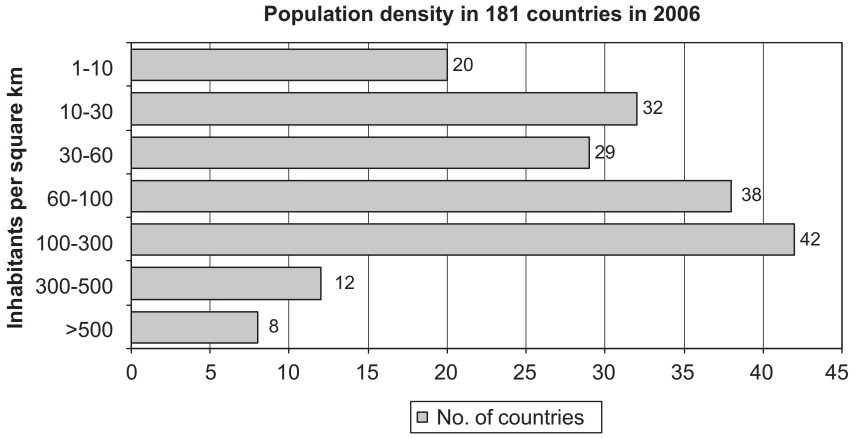

Fig. 1. Population density in 181 countries in 2006.

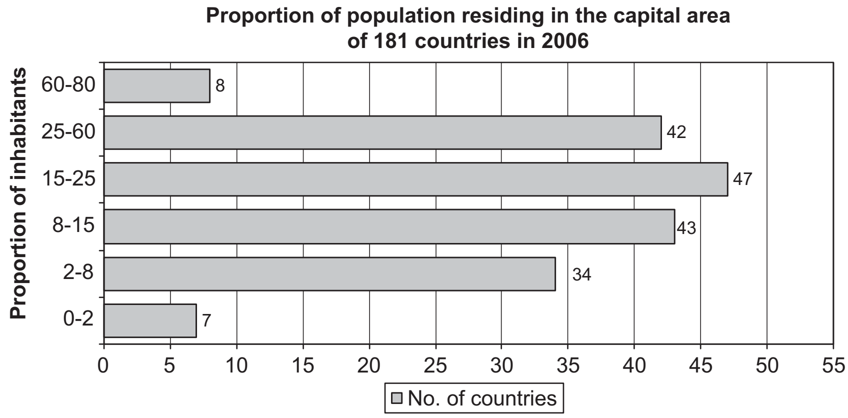

Fig. 2. Proportion of populations residing in the capital areas of 181 countries in 2006.

Bangladesh, Barbados, Taiwan, and Mauritius. The 10 most sparsely populated countries in the world are Western Sahara, Mongolia, Namibia, Australia, Suriname, Botswana, Iceland, Mauritania, Canada, and Libya. Denmark pertains to the category 100–300 inhabitants per km^2 and Finland, Norway, and Sweden are in the category 10–30 inhabitants per km^2. Iceland is in the category of 1–10 inhabitants per km^2.

Looking at urbanization in capitals around the world, Fig. 2 shows the proportion of the populations of 181 countries living in the capital area of their respective countries in 2006 (Infoplease, 2007a, b).

The eight countries where most of the population lives in the capital area are Djiboute, Singapore, Bahrain, Bahamas, Western Sahara, Kuwait, Qatar, and Iceland. The other Nordic countries—Denmark, Finland, Norway, and Sweden—are in the category of 15–25% inhabitants in the capital area. Although retail is generally difficult in very sparsely populated countries, such as Iceland, this is offset by the fact that the large proportion of the population living in the capital reduces distribution costs.

5. Conclusion

A main conclusion of this paper is that a substantial part of the retail market is similar in the Nordic countries, although the consumption can be different from one to another. The Nordic countries, except for Denmark, are more sparsely populated than other countries in Europe, USA, and Japan. Finland and Norway have many similarities in retail, e.g. in population, the distribution of the people in the country and the proportion of the nation living in the capital area.

The retail prices, especially the food prices, in the Nordic countries are extremely high compared with other European countries. This is notable in Norway and Iceland but these countries are not member states of the European Union, and suffer additionally by carrying out a very inefficient agricultural policy. Hypermarkets have a strong foothold in Denmark, Finland, and Sweden, and all the Nordic countries have in common that the very smallest shops are vanishing. The growth in retail for the past decade has been high in the five countries, except Denmark. There has always been an active foreign trade between the Nordic countries and the volume has not changed much for the past 15 years.

There is a huge market concentration in grocery sales in the Nordic countries, much more than is the case for other European countries. In all the Nordic countries, one company controls 35–45% of the grocery sales and the three biggest retail chains control almost all the market. A market concentration of that kind is much more prevalent than in other European countries and the lack of competition is one of the main explanations for the high prices in the Nordic countries and why the variety in the food market is much smaller than elsewhere in Europe. This is also one of the reasons why consumers in the Nordic countries are not satisfied with their supermarkets compared with other countries.

The Nordic countries are relatively sparsely populated compared with other countries and therefore the logistics costs in the retail sector are high, but they are offset by the high concentration of the population living in the capital area.

It would be interesting to analyze further the impact of the market concentration on the opinion of the consumers, and study the effect of the agricultural policy as it is enforced in the Nordic countries, as well as the expected changes in that policy, how those changes will effect the retail sector, and whether the effect will be similar in the Nordic countries individually.

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